SELF ASSESSMENT REPORT (SAR)

For

Accreditation

of

Bachelor of Technology (B.Tech.) in

Civil Engineering

By

National Board of Accreditation

NBCC Place, 4th Floor East Tower, Bhisham Pitamah

Marg, Pragati Vihar New Delhi 110003

P: +91(11)24360620-22, 24360654

Fax: +91(11) 24360682

CIVIL ENGINEERING DEPARTMENT

NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR

Hazratbal, Srinagar – 190 006, J&K (India)

SAR Contents

PART A: INSTITUTIONAL INFORMATION

1. **NAME AND ADDRESS OF THE INSTITUTION:** National Institute of Technology Srinagar (NIT Srinagar)

Address	**City: Srinagar**
State:- Jammu & Kashmir	Pin Code:- 190006
Website:- www.nitsri.ac.in	E-mail:- admin_csc@nitsri.ac.in
STD Code:- 0194	Phone No:- 2422032
Fax STD Code:- 0194	Fax:- 2420475

Table A.1

2. **NAME AND ADDRESS OF THE AFFILIATING UNIVERSITY: None**

3. **YEAR OF ESTABLISHMENT OF THE INSTITUTION: 1960**

4. **TYPE OF THE INSTITUTION: Institute of National Importance**

5. **OWNERSHIP STATUS: Central Government**
   (Provide Details: Appendix 1 of part A)

6. **OTHER ACADEMIC INSTITUTIONS OF THE TRUST/SOCIETY/COMPANY ETC., IF ANY:** None

Name of the Institution(s)	Year of Establishment	Programs of Study	Location

Table A.6

7. **DETAILS OF ALL THE PROGRAMS BEING OFFERED BY THE INSTITUTION UNDER CONSIDERATION:**

S. No.	**Programme Name (Current Intake)**	**Name of Depart-ment**	**Year of Start**	**Intake**	**Increa-se in Intake**	**Year of Increase**	**AICTE Appro-val**	**Accredi-tation Status**
1	B.Tech, Chemical Engineering	Chemical Enginee-ring	1963	27	50	2009	Senate	Accredited by NBA F. NO NBA/

	(103)							ACCR/106/2002 May 19 2009
2	M.Tech, Chemical Engineering (19)		2015	19				
3	Ph.D., Chemical Engineering		2008	05	11	2019		
4	B.Tech, Civil Engineering (183)	Civil Engineering	1960	50	73	2009		Accredited by NBA F. NO NBA/ ACCR/106/2002 May 19 2009
5	M.Tech, Transportation (16)		2014	16				
6	M.Tech, Structure (25)		2004	25				
7	M.Tech, Geotechnical (15)		2014	15				
8	M.Tech, Water resource Engineering (13)		1986	13				
9	Ph.D., Civil Engineering		2006	02	22	2019		
10	B.Tech, Computer science Engineering (84)	Computer science Engineering	2007	62				
11	Ph.D., Computer science Engineering		2010	01	05	2019		
12	B.Tech, Electrical Engineering (113)	Electrical Engineering	1960	50	27	2009		Accredited by NBA F. NO NBA/ ACCR/106/2002 May 19 2009
13	M.Tech, Electrical power and energy system (26)		2013	26				
14	M.Tech, Power Electronics & electrical drives (26)		2020	26				
15	Ph.D., Electrical		2004	01	18	2019		

	Engineering							
16	B.Tech, Electronics and Communication Engineering (106)	Electronics and Communication Engineering	1984	50	27	2009		Accredited by NBA F. NO NBA/ ACCR/106/2002 May 19 2009
17	M.Tech, Communication and information Technology (25)		2004	25				
18	M.Tech, Microelectronics (14)		2015	14				
19	Ph.D., Electronics and Communication Engineering		2005	01	15	2019		
20	B.Tech, Mechanical Engineering (117)	Mechanical Engineering	1960	50	27	2009		Accredited by NBA F. NO NBA/ ACCR/106/2002 May 19 2009
21	M.Tech, Mechanical system design (25)		2004	25				
22	M.Tech, Industrial tribology and maintenance (26)		2013	26				
23	Ph.D., Mechanical Engineering		2008	10	32	2019		
24	B.Tech, Metallurgical and Materials Engineering (106)	Metallurgical and Materials Engineering	1960	15	62	2009		Accredited by NBA F. NO NBA/ ACCR/106/2002 May 19 2009
25	Ph.D., Metallurgical and Materials Engineering		2008	05	05	2019		
26	B.Tech, Information Technology (87)	Information Technology	2007	62				
27	Ph.D., Information Technology		2018	05	03	2019		

28	M.Sc., Physics (31)	Physics	2015	31				
29	Ph.D., Physics		2004	02	11	2019		
30	M.Sc., Chemistry (30)	Chemis-try	2020	30				
31	Ph.D., Chemistry		2005	01	09	2019		
32	Ph.D., Humanities & Social Science	Humanit-ies & Social Science	2004	02	03	2019		
33	Ph.D., Mathematics	Mathe-matics	2006	02	07	2019		

Table A.7

8. PROGRAMS TO BE CONSIDERED FOR ACCREDITATION VIDE THIS APPLICATION

S. No.	Program Name
1	B. Tech. Chemical Engineering
2	B. Tech. Civil Engineering
3	B. Tech. Electrical Engineering
4	B. Tech. Electronics and Communication Engineering,
5	B. Tech. Mechanical Engineering

Table A.8

9. TOTAL NUMBER OF EMPLOYEES:

A. Regular Employees (Faculty and Staff):

Items		2020-21		2019-20		2018-19	
		Min	Max	Min	Max	Min	Max
Faculty in Engineering	**M**	105	106	79	79	78	80
	F	17	17	16	16	16	16
Faculty in Maths, Science & Humanities teaching in engineering Programs	**M**	25	26	21	21	20	21
	F	7	7	6	6	6	6
Non-teaching staff	**M**	174	194	194	206	206	223
	F	17	19	19	20	20	22

Table A.9a

B. Contractual Staff Employees (Faculty and Staff): (Not covered in Table A):

Items		2020-21		2019-20		2018-19	
		Min	**Max**	**Min**	**Min**	**Max**	**Min**
Faculty in Engineering	**M**	19	19	20	20	37	37
	F	24	24	21	21	26	26
Faculty in Maths, Science & Humanities teaching in engineering Programs	**M**	3	3	2	2	5	5
	F	5	5	5	5	3	3
Non-teaching staff	**M**	338	338	190	190	169	169
	F	35	35	15	15	13	13

Table A.9.b

10. Total number of Engineering Students

Item	2020-21	2019-20	2018-19
Total no. of boys	2707	2370	2245
Total no. of girls	578	436	386
Total no. of students	3285	2806	2631

Table A.10

11. VISION OF THE INSTITUTION:

To establish a unique identity of a pioneer technical Institute by developing a high-quality technical manpower and technological resources that aim at economic and social development of the nation as a whole and the region, in particular, keeping in view the global challenges.

12. MISSION OF THE INSTITUTION:

M1. To create a strong and transformative technical educational environment in which fresh ideas, moral principles, research and excellence nurture with international standards.

M2. To prepare technically educated and broadly talented engineers, future innovators and entrepreneurs, graduates with understanding of the needs and problems of the industry, the society, the state and the nation.

M3. To inculcate the highest degree of confidence, professionalism, academic excellence and engineering ethics in budding engineers.

13. CONTACT INFORMATION OF THE HEAD OF THE INSTITUTION AND NBA COORDINATOR, IF DESIGNATED:

Head of the Institution

Name:- Dr. Rakesh Sehgal Designation:- Director

Status of Appointment:- By MoE (formerly MHRD)

Contact details of Head of the Institution

STD Code:- 0194 Telephone No:- 2422032

Mobile:- 09419433770, 9418058442 E-mail:- director@nitsri.net

Fax STD Code:- 0194 Fax No:- 2420475

NBA Coordinator

Name:- Dr. Aijaz Hussain Mir Designation:- Professor

STD Code:- 0194 Telephone No:- 0782705

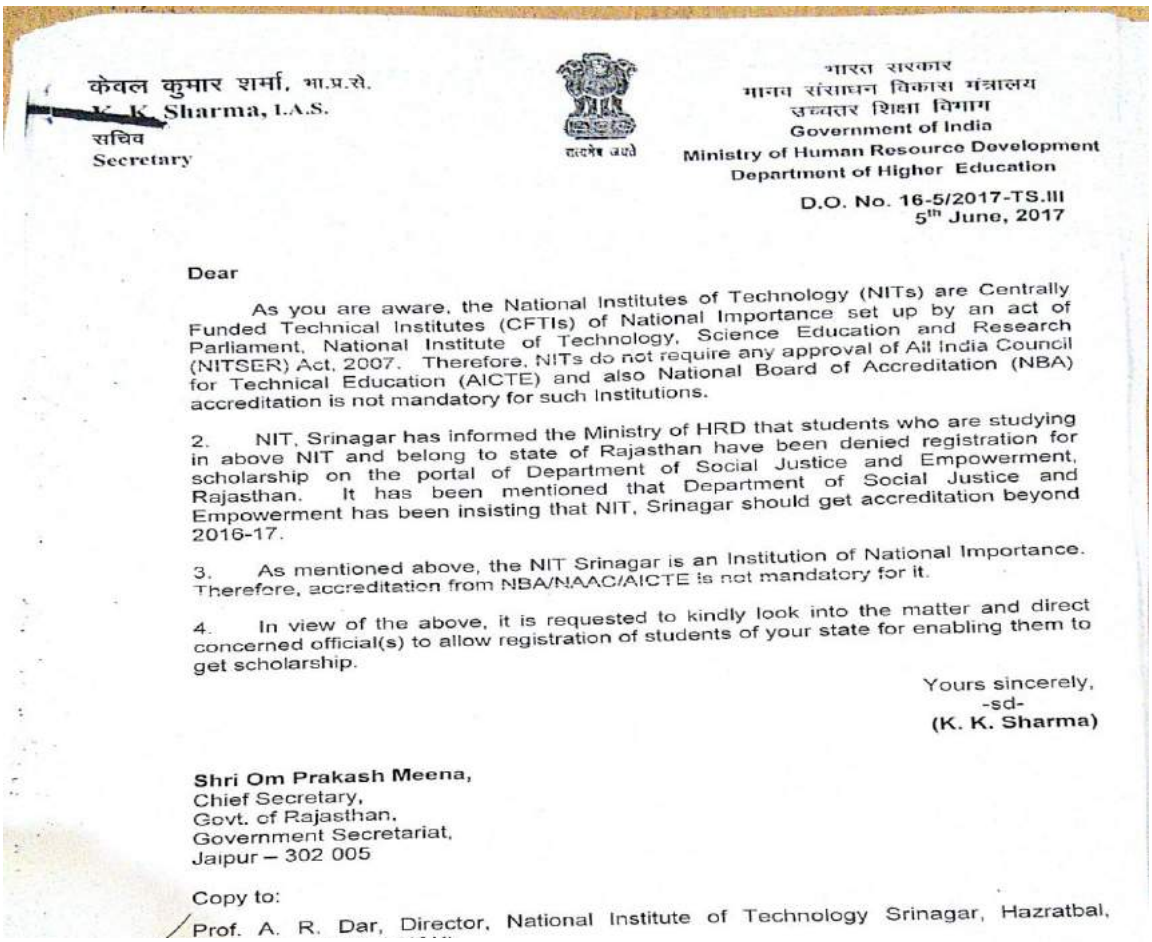
Mobile:- +91-7006836408 E-mail:- ahmir@nitsri.net

NBA Co-coordinator

Name:- Dr. Harveer Singh Pali Designation:- Assistant Professor

Mobile:- +91-8076729852 E-mail:- hspali@nitsri.net

Appendix 1 of part A



केवल कुमार शर्मा, भा.प्र.से.
K. K. Sharma, I.A.S.
सचिव
Secretary

सत्यमेव जयते

भारत सरकार
मानव संसाधन विकास मंत्रालय
उच्चतर शिक्षा विभाग
Government of India
Ministry of Human Resource Development
Department of Higher Education

D.O. No. 16-5/2017-TS.III
5th June, 2017

Dear

As you are aware, the National Institutes of Technology (NITs) are Centrally Funded Technical Institutes (CFTIs) of National Importance set up by an act of Parliament, National Institute of Technology, Science Education and Research (NITSER) Act, 2007. Therefore, NITs do not require any approval of All India Council for Technical Education (AICTE) and also National Board of Accreditation (NBA) accreditation is not mandatory for such Institutions.

2. NIT, Srinagar has informed the Ministry of HRD that students who are studying in above NIT and belong to state of Rajasthan have been denied registration for scholarship on the portal of Department of Social Justice and Empowerment, Rajasthan. It has been mentioned that Department of Social Justice and Empowerment has been insisting that NIT, Srinagar should get accreditation beyond 2016-17.

3. As mentioned above, the NIT Srinagar is an Institution of National Importance. Therefore, accreditation from NBA/NAAC/AICTE is not mandatory for it.

4. In view of the above, it is requested to kindly look into the matter and direct concerned official(s) to allow registration of students of your state for enabling them to get scholarship.

Yours sincerely,
-sd-
(K. K. Sharma)

Shri Om Prakash Meena,
Chief Secretary,
Govt. of Rajasthan,
Government Secretariat,
Jaipur – 302 005

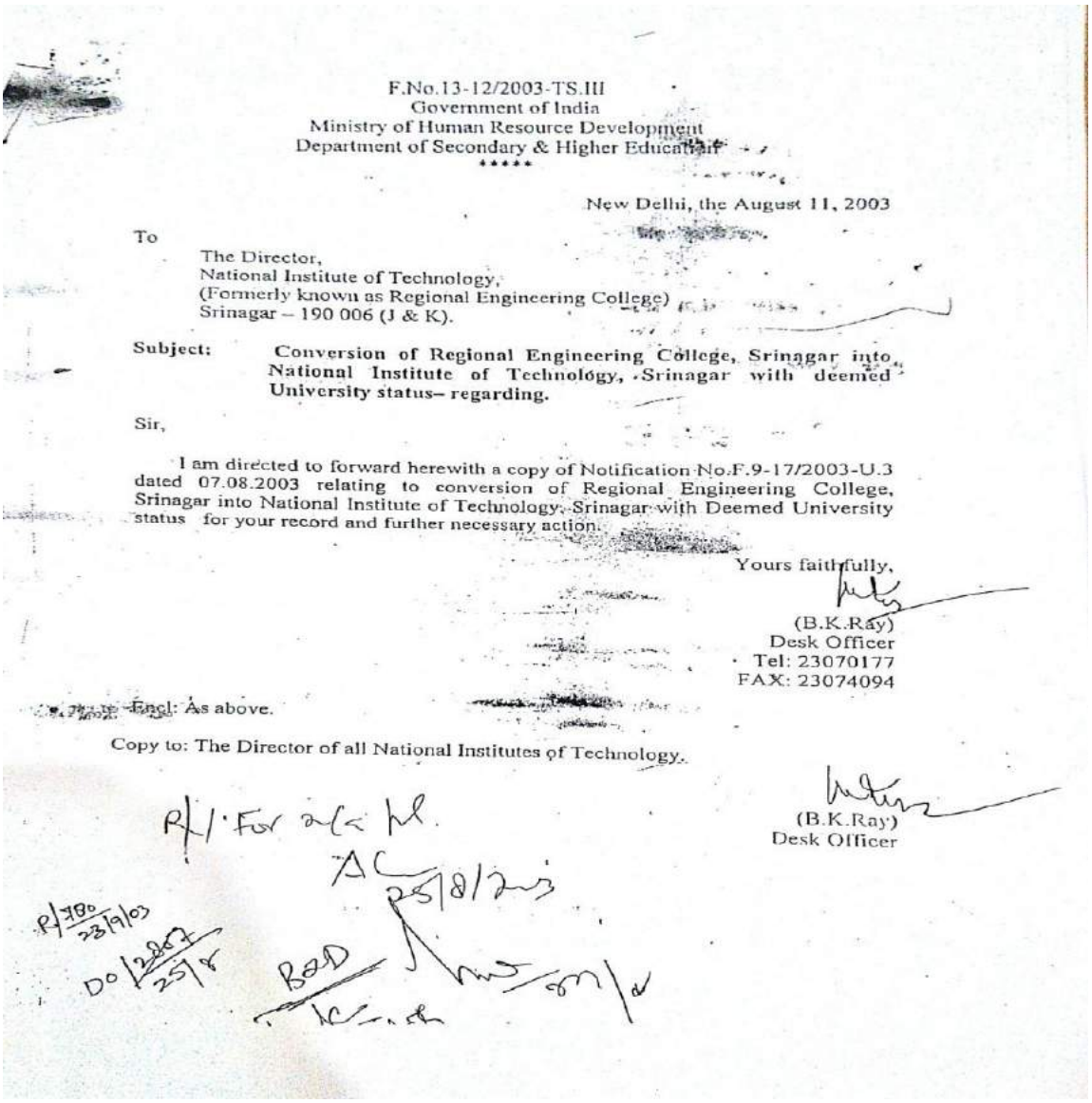
Copy to:

Prof. A. R. Dar, Director, National Institute of Technology Srinagar, Hazratbal,

Figure A.1a

(K. K. Sharma)

128-C, SHASTRI BHAVAN, NEW DELHI - 110 015
TEL : 23386451, 23382698, FAX : 23385807, E-mail : secy.dhe@nic.in



F.No.13-12/2003-TS.III
Government of India
Ministry of Human Resource Development
Department of Secondary & Higher Education
*****

New Delhi, the August 11, 2003

To

The Director,
National Institute of Technology,
(Formerly known as Regional Engineering College)
Srinagar – 190 006 (J & K).

Subject: **Conversion of Regional Engineering College, Srinagar into National Institute of Technology, Srinagar with deemed University status– regarding.**

Sir,

I am directed to forward herewith a copy of Notification No.F.9-17/2003-U.3 dated 07.08.2003 relating to conversion of Regional Engineering College, Srinagar into National Institute of Technology, Srinagar with Deemed University status for your record and further necessary action.

Yours faithfully,

(B.K.Ray)
Desk Officer
Tel: 23070177
FAX: 23074094

Encl: As above.

Copy to: The Director of all National Institutes of Technology.

(B.K.Ray)
Desk Officer

PART B: Criteria Summary

Name of the program: B.Tech in Civil Engineering

Criteria No.	Criteria	Marks/Weightage	
		Max.	**Claimed**
	Program Level Criteria		
1	Vision, Mission and Program Educational Objectives	50	50
2	Program Curriculum and Teaching – Learning Processes	100	92
3	Course Outcomes and Program Outcomes	175	175
4	Students' Performance	100	80.59
5	Faculty Information and Contributions	200	171.5
6	Facilities and Technical Support	80	75
7	Continuous Improvement	75	68
	Institute Level Criteria		
8	First Year Academics	50	43.46
9	Student Support Systems	50	50
10	Governance, Institutional Support and Financial Resources	120	120
	Total	**1000**	**925.55**

CRITERION 1	VISION, MISSION AND PROGRAM EDUCATIONAL OBJECTIVES	Max. Marks: 50 Claimed: 50

1.1 STATE THE VISION AND MISSION OF THE DEPARTMENT AND INSTITUTE (5)

About NIT Srinagar

National Institute of Technology, Srinagar is one of the premier Educational Institutes in the Northern Regions of the country. It was established in 1960 and has been one of the eighteen Regional Engineering Colleges sponsored by the Govt. of India during the 2nd Plan. The Institute acquired the status of National Institute of Technology with deemed to be University status during August 2003 and attained full autonomy in its Academics.

The Institute is situated at the banks of world-famous Dal Lake, with the far-famed Hazratbal Shrine on another side of the campus. NIT Srinagar is a residential Institute with accommodation facility in Hostels and Staff-Quarters. There are four Boys and one Girls hostel which swallops about 1500 boys and 200 girls. Besides running the B. Tech. Programme, the Institute also offers M. Tech programme in many streams. In addition to that, a large number of students are registered for M. Phil and Ph.D. Programmes.

The Institute has one of the best technical library in J&K State. It has a collection of over 60,000 books on Engineering Science and humanities and about 6,000 bound volumes/Journals, both foreign and Indian. The library remains open from 9.00 am to 10 pm. It has online repository of A.S.C.E, A.S.M.E.A.E.L, J.C.C.C etc in addition to journals through I.N.S.E.S, COMSORTIEM. It also has a collection of I.S.I codes, in the C.D-Rom format.

VISION OF THE INSTITUTE
To establish a unique identity of a pioneer technical Institute by developing a high quality technical manpower and technological resources that aim at economic and social development of the nation as a whole and the region in particular keeping in view the global challenges.

MISSION STATEMENT OF THE INSTITUTE	
M1.	To create a strong and transformative technical educational environment in which fresh ideas, moral principles, research and excellence nurture with international standards.
M2.	To prepare technically educated and broadly talented engineers, future innovators and entrepreneurs, graduates with understanding of the needs and problems of the industry, the society, the state and the nation.
M3.	To inculcate the highest degree of confidence, professionalism, academic excellence and engineering ethics in budding engineers.

DEPARTMENT

Abstract

The department of Civil Engineering is the largest and one of the pioneering departments of National Institute of Technology, Srinagar. It was established at the inception of the Institute (then REC Srinagar) in 1960. Over the years, since then, the Department has progressed with a considerable development in its infrastructure, both in terms of its faculty and the other learning facilities. The Department has produced several eminent professionals who have made excellent contribution in the field of Civil Engineering, both at National and the International levels.

The Department offers a four-year course leading to the Bachelors Degree in Civil Engineering and two-year courses leading to Master's degree in four major specialisations of civil engineering (viz., Water Resources Engineering, Structural Engineering Geotechnical Engineering, and Transportation Engineering & Planning). The Department, in addition to Under-graduate and Post-Graduate programs is offering Doctoral Programs in all the specialisations of Civil Engineering.

The Department is known for its reputed and well qualified faculty having experience in diverse fields. The faculty is supported by experienced technical staff and well-equipped laboratories. The faculty strives its level best in imparting the latest technical knowledge to the students and conducting the high quality of research. The faculty also offers technical advice on the live and challenging civil engineering problems to various Government, semi-government and the Private organizations.

The Vision, Mission and the Program Educational Objectives (PEOs) of the Department being presented below have been finalised in view of the ever-growing technical requirement and need in the field of Civil Engineering after considering the feedback from various Stakeholders, which include Students, Alumni, Parents of the Students, Faculty and Staff Members, Industries and Research Organisations

Vision of department

To create a unique identity of the Department by achieving the excellent standards of quality technical education keeping a pace with the rapidly changing technologies and to produce Civil Engineers of global standards with the capability of accepting new challenges.

Mission of department

M1. To promote academic growth in the field of Civil Engineering by offering state-of-the art undergraduate and postgraduate programmes.

M2. To provide knowledge base and consultancy services in all areas of Civil Engineering for industry and societal needs.

M3. To inculcate higher moral and ethical values among the students to become competent Civil Engineers with overall leadership qualities.

M4. To flourish as the Centre of Excellence in the emerging areas of research related to Civil Engineering and its allied fields.

1.2 STATE THE PROGRAM EDUCATIONAL OBJECTIVES (PEOS) (5)

Program Educational Objectives

PEO1. To produce professionally competent Civil Engineers, capable of applying the knowledge of contemporary Science and Technology, to meet the challenges in the field of Civil Engineering and to serve the Society.

PEO2. To prepare the Civil Engineering graduates to work in industry, government or other organizations in different capacities involving individual and team work.

PEO3. To inculcate among the students the sense of ethics, morality, creativity, leadership, professionalism, self-confidence and independent thinking.

PEO4. To impart the training in problem visualization, surveying, analysis and planning for its solution.

PEO5. To impart training for development of laboratory and design skills, communication skills and skills for software and other modern tool usage among the students.

PEO6. To inculcate in the students the ability to take up the innovative research projects and to conduct investigations of complex Civil Engineering problems using research based methods, thus urging them for higher studies.

1.3 INDICATE WHERE THE VISION, MISSION AND PEOS ARE PUBLISHED AND DISSEMINATED AMONG STAKEHOLDERS (15)

Locations where the Vision, Mission, PEOs and PSOs are published:

Sr. No.	Location	Institute		Department			
		Vision	**Mission**	**Vision**	**Mission**	**PEO**	**PSO**
1.	Institute Website/ Departmental Webpage	✓	✓	✓	✓	✓	✓
2.	Department News Letter & Notice Board	✓	✓	✓	✓	✓	✓
3.	Course file	✓	✓	✓	✓	✓	✓
4.	Lab Manual	✓	✓	✓	✓	✓	✓
5.	Conference workshop/ Brochures	✓	✓	✓	✓		

Locations where the Vision, Mission, PEOs and PSOs are disseminated:

Sr. No.	Location	Institute		Department			
		Vision	**Mission**	**Vision**	**Mission**	**PEO**	**PSO**
1.	Department Office	✓	✓	✓	✓	✓	✓
2.	HOD Room	✓	✓	✓	✓	✓	✓
3.	Class Rooms	✓	✓	✓	✓	✓	✓
4.	Laboratories	✓	✓	✓	✓	✓	✓
5.	Department Notice Board	✓	✓	✓			

6.	Seminar/ Conference Hall	✓	✓	✓	✓	✓	✓
7.	Corridor	✓	✓	✓	✓	✓	✓

Apart from this Vision, Mission, PEOs and PSOs are disseminated to all the stakeholders of the programs through faculty meetings, student awareness workshops, student induction programs and placement and training activities at regular intervals.

List of stake holders of the program

1. Students.
2. Alumni.
3. Parents of the Students
4. Faculty and Staff Members.
5. Industries and Research Organisations.

1.4 STATE THE PROCESS FOR DEFINING THE VISION AND MISSION OF THE DEPARTMENT, AND PEOS OF THE PROGRAM (15)

Process for defining Vision and Mission of Department

The Vision and Mission of the department were established through a consultative process involving the various stakeholders. The societal requirements, the Vision and Mission of the institute were also borne in mind for defining the Vision and Mission of the department (Fig. 1.1). The steps followed were as under:

Step 1:	*A departmental committee under the chairmanship of Head of the Department was set up. The Vision and Mission statements of the Department were then proposed by the committee keeping in mind the Vision and Mission statement of Institute.*
Step 2:	*Proposed Vision and Mission statements were circulated among the stake holders.*
Step 3:	*As per the feedback received from the various stakeholders, the Vision and Mission statements were updated.*
Step 4:	*The updated Vision and Mission of the Department sent to the Departmental Faculty Board (DFB) for subsequent approval.*
Step 5:	*Under the chairmanship of Head of the department, the Vision and Mission statements were approved by the DFB.*

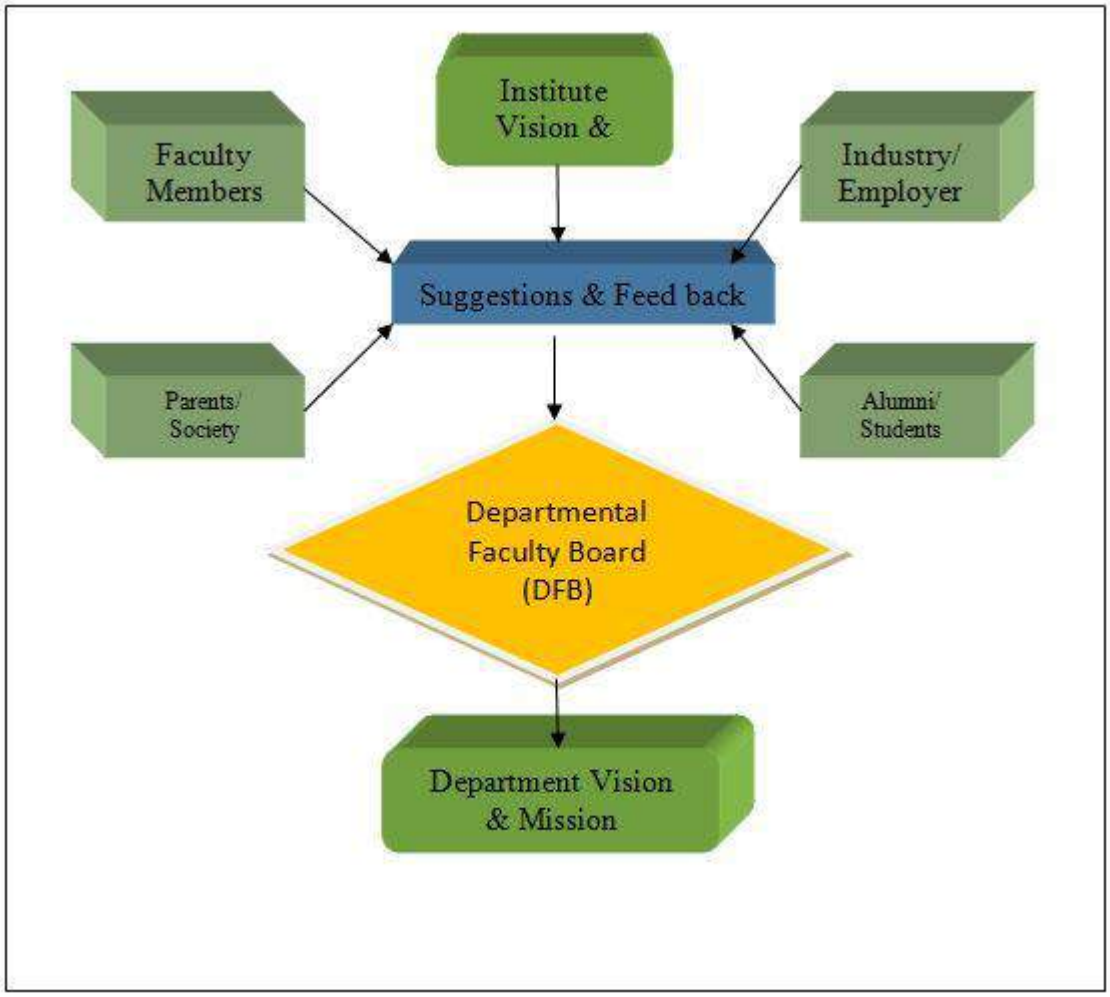


Figure 1.1: Process of Establishing Vision and Mission of the Department

Process for establishing PEOs

The Program Educational Objectives (PEO's) of the Department were also established through a consultative process involving various stakeholders (Figure 1.2). The following steps were followed for the establishment of the same:

Step 1:	*Keeping in view the Departmental Vision and Mission, Institute Vision and Mission and Program Outcomes, The Program Educational Objectives (PEOs) of the department were deliberated upon by the committee setup by the Head of the Department.*
Step 2:	*Proposed Program Educational Objectives (PEOs) were circulated among the various stakeholders.*
Step 3:	*As per the feedback received from the various stakeholders, the Program Educational Objectives (PEOs) were updated.*
Step 4:	*The updated Program Educational Objectives (PEOs) were sent to the Departmental Faculty Board (DFB) for subsequent approval.*
Step 5:	*Under the chairmanship of Head of the Department, the Departmental Faculty Board (DFB) approved the PEOs.*

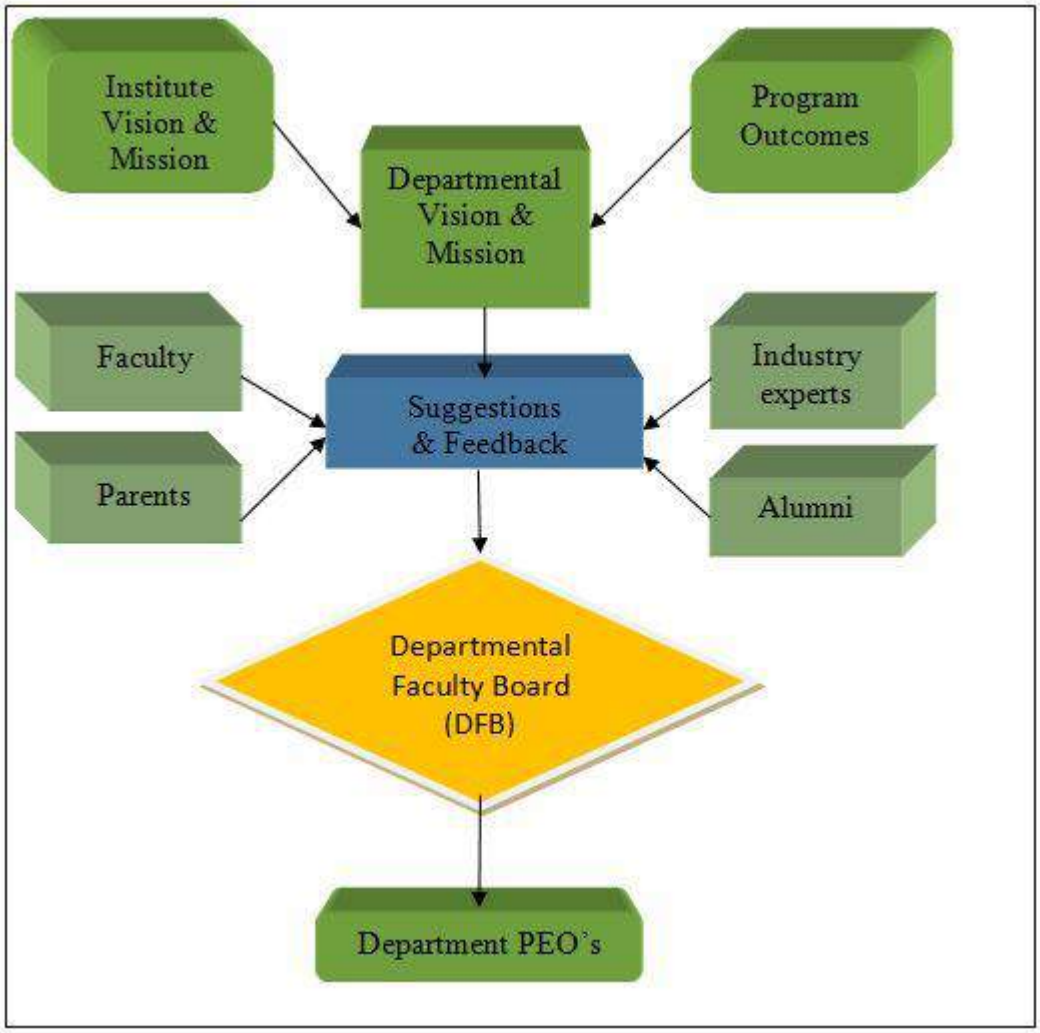


Figure 1.2: Process for defining the PEOs of the Department

ESTABLISH CONSISTENCY OF POs WITH PEOs OF THE DEPARTMENT MAPPING

Program Outcomes (POs)	Program Educational Objective (PEO)					
	Professional Competence (PEO1)	**Preparing graduates for Industry (PEO2)**	**Leadership, Moral and Ethical Qualities (PEO3**	**Problem visualization, surveying & analysis (PEO4)**	**Training for development of laboratory, communication and software skills (PEO5)**	**Innovative research for higher education (PEO6)**
PO1	3	2		2	3	2
PO2	3	3		3	2	3
PO3	2	3		3	2	3
PO4	3	3		3	3	3
PO5	2	2		2	3	3
PO6		3	2	2		2
PO7	3	2	2	2		2
PO8	3	2	3			
PO9		3	3			
PO10		2	2			
PO11	2	3				2
PO12	3	3		2	2	2
PSO1	3	2	3	2	3	3
PSO2	2	3	2	2	2	
PSO3	3	2		2	3	2

1: Slightly related
2: Moderately related
3: Substantially related

JUSTIFICATION:

PEO1: To gain professional competency, it's important to have engineering knowledge (PO1), problem solving skills (PO2), along with a systematic approach to investigate civil engineering problems (PO4), in order to examine societal, health, safety etc. issues and identify the responsibilities with respect to the issues (PO6). This will ensure sustainable development (PO7) and will also ensure lifelong learning of a individual (PO12) in the field of civil engineering. Professional competency also includes the ability to demonstrate professional engineering approach utilizing technical resources (PSO1) and ability to conduct field and laboratory investigations (PSO3). Leadership qualities (PO3), utilizing modern it tools (PO5), management of time and finical resources (PO11) and the ability to analyze designs and construct structural l systems (PSO2) all sum up to enhance the professional competency of an individual.

PEO2: To prepare the graduates to work in different organizations, the graduates should be able to identify and analyse complex engineering problems (PO2), obtain their solutions (PO3) and develop reasonable conclusions using research-based knowledge (PO4). The graduates should utilize the contextual information to identify social and health responsibilities (PO6) and perform efficiently as an individual or member of a team (PO9) to implement knowledge and engineering skills for efficient time and resource management (PO11). The individual should be able to analyse and construct structural systems (PSO2) along with constant up graduation of knowledge regarding recent developments (PO12). Application of basic scientific knowledge (PO1), usage of modern software (PO5), sustainable development by means of engineering science (PO7), adherence to professional ethics (PO8), efficient comprehension and communication of ideas (PO10), along with the ability to apply engineering principles (PSO1) and conduct lab and field investigations (PSO3) will all prepare civil engineering graduates to work in different industrial or other organizations.

PEO3: The graduates should inculcate the sense of ethics, morality (PO8) and leadership (PO9) while practicing engineering profession. This will ensure a professional engineering approach (PSO1) which requires working in diverse environments. The social legal and cultural responsibilities relevant to engineering practice (PO6) and a sustainable development in context to the impact on environment and society (PO7) and effective communication of ideas in verbal or printed form (PO10), will help the individuals to furnish effective knowledge required for designing of systems (PSO2).

PEO4: Problem visualization requires identifying complex engineering problems (PO2) obtaining their solution (PO3), and inferring reasonable conclusions (PO4). Problem visualization also requires basic knowledge of science and technology (PO1), usage of engineering tools and soft wears (PO5), identification of consequent responsibilities relevant to the engineering practices (PO6), sustainable development with respect to the society and the environment (PO7) and constant up graduation of knowledge regarding recent developments in the field (PO12). A professional engineering approach (PSO1) and ability to design systems (PSO2) also impart the training in problem visualization surveying and analysis.

PEO5: the development of laboratory and communication skills requires the basic knowledge of engineering fundamentals (PO1), analysis and interpretation of data to investigate/design any experiments (PO4) and efficient and appropriate use of soft wears (PO5), (PSO1). The

identification of engineering problems (PO2) and their solution (PO3), (PSO2) require laboratory and design skills along with constantly updating the knowledge through self-education, participation in professional societies and lifelong learning (PO12).

PEO6: To inculcate in the students the ability to take up innovative research projects, it is important to identify or formulate a complex engineering problem (PO2), obtain their solution keeping in view the appropriate considerations for public health and safety, society, environment etc. (PO3) and apply a systematic approach to infer reasonable conclusions (PO4), or develop appropriate soft wears and tools for modeling of complex engineering problems (PO5), (PSO1). The knowledge of civil engineering fundamentals (PO1), is as important as the professional knowledge in order to examine societal, legal, health, environmental issues (PO6), to ensure the sustainable development in context to society and the environment (PO7). An efficient management of time and resources (PO11) and a constant inclination to lifelong learning (PO12), along with the ability to conduct field and laboratory investigations to utilize modern tolls and techniques (PSO3), help the students to take up innovative research projects.

1.5 ESTABLISH CONSISTENCY OF PEOs WITH MISSION OF THE DEPARTMENT (10)

MAPPING

Program Educational Objective	Mission			
	Academic Growth M1	**Consultancy Services M2**	**Moral & Ethical values M3**	**Flourish as a centre of excellence M4**
1. Professional Competence (PEO1)	3	3	2	3
2. Preparing graduates for Industry (PEO2)	3	3	2	3
3. Leadership, Moral and Ethical Qualities (PEO3)	1	2	3	2
4. Problem visualization, surveying & analysis (PEO4)	3	3	1	2
5. Training for development of laboratory, communication and software skills (PEO5)	3	3	2	3
6. Innovative research for higher education (PEO6)	3	3	2	3

1: Slightly related
2: Moderately related
3: Substantially related

JUSTIFICATION:

J1:

1. PEO1 – M1: Faculties with high degree of academic professionalism combined with excellent infrastructural facilities and teaching learning methodologies shall enable graduates to perform the analysis, design and construct complex systems accept the new technological challenges.
2. PEO1 – M2: New facilities are introduced in connection with extension program of research and development cell.
3. PEO1 – M3: The commitment to professional ethics and responsibilities in applying their knowledge in the best interest of society.
4. PEO1 – M4: For professional competence of civil engineers, development of centre of excellence is a must.

J2:

1. PEO2 – M1: Providing industrial training and other inputs to the teaching-learning processes so as to develop awareness about the job functions in the industry among students.
2. PEO2 – M2: Suitable incentive to be granted to those who take the consultancy projects so that they get exposure to the real field problems and challenges.
3. PEO2 – M3: Seminars and workshops on professional practices/duties conducted for the students trained them about their duties and responsibilities.
4. PEO2 – M4: For graduates to be prepared for industry, provision of state of the art facilities through establishment of centre of excellence is necessary.

J3:

1. PEO3 – M1: There is not enough correlation between academic growth and personality development courses in the curriculum, which is to be taken care of.
2. PEO3 – M2: Students with ethical values better cater to consultancy work.
3. PEO3 – M3: Apply ethical principles and commit to professional ethics, responsibilities and norms of the engineering practice.
4. PEO3 – M4:

J4:

1. PEO4 – M1: The quality education imparted through academically proficient teachers trained in institutes of repute would prepare graduates to evolve into professionally and ethically sound engineers to meet the current technical challenges.
2. PEO4 – M2: The knowledge, practical skills and research aptitude sharpen at the institution would enable the graduates to have an urge for lifelong learning.
3. PEO4 – M3: Ethics of work practice to be stressed in surveying and related practices.
4. PEO4 – M4: The two are invariably correlated.

J5:

1. PEO5-M1: Curriculum design incorporating student seminar, assignments and tutorials would enable the students to develop individual capabilities and communication skills. Graduates will be able to comprehend and write effective reports and make presentations on complex engineering problems.

2. PEO5-M2: Exposing students to emerging trends and innovations in sustainable engineering practices, through some of the relevant software packages applicable in various domains of civil engineering would enable graduates to execute and control civil engineering projects.

3. PEO5-M3: Quality training on the use of relevant software packages for planning, designing, execution and quality control of civil engineering projects would nurture graduates into ethically strong and responsible engineers capable of addressing global challenges in the arena of civil engineering.

4. PEO5-M4: To impart training for development of laboratory and software skills, flourishing of the department as a center of excellence is very important.

J6:

1. PEO6-M1: To involve students in the discussions and deliberations on the specific contemporary technical challenges and issues, thereby inducing in them the practice of manly research based solutions to the problems and urge for the higher education.

2. PEO6-M2: Student participation for consultancy activities and real-time projects is encouraged.

3. PEO6-M3: Instructions were given to the students regarding the professional ethics to be followed in engineering practice.

4. PEO6-M4: Innovative research follows development of a center of excellence.

CRITERION 2	PROGRAM CURRICULUM AND TEACHING- LEARNING PROCESSES	Max. Marks: 100 Claimed:92

2.1 PROGRAM CURRICULUM (28)

2.1.1 State the process for designing the program curriculum (9)

The program curriculum is designed keeping in view the broad guidelines of the Institute, inputs from other premier institutes, like Indian Institutes of Technology (IITs)/National Institutes of Technologies (NITs), guidelines of Ministry of Education (MoE), formerly the Ministry of Human Resource Development (MHRD) / All India Council for Technical Education (AICTE), industry demands, and to meet the requirements of Program Outcomes (POs) and Program Educational Objectives (PEOs) of the Department of Civil Engineering.

Inputs and suggestions from students, academia, Industry persons/ employers, alumni and parents are used while designing academic curriculum for the four (04)-year Bachelor of Technology (B. Tech.) program. Technological developments constitute important criterion for designing the B.Tech. program curriculum. The faculty members prepare the course content to meet the requirements of Course Objectives (COs). The individual courses are discussed specifically for their outcomes in the Departmental Faculty Board (DFB) meetings. After incorporating the suggestions made in these forums, the curriculum is placed in the Department Undergraduate Committee (DUGC). The Department Undergraduate Committee (DUGC) discusses the contents of the curriculum and evaluates the curriculum in terms of POs, PEOs and various inputs. The committee is a statutory body and comprises of:

Head of Department,	Chairperson
One Professor	Convenor
Two Professors & One Associate Professor of Department by rotation	Members One
external expert from another department	Member
Three student members based on highest CGPA	Student Members

Once the curriculum is recommended by the DUGC, it is placed in the Senate of the Institute, which is the highest academic body of the institute. The Senate of the NIT Srinagar is chaired by the Director and comprises of all Professors/ Deans/ HODs of the Institute as members and as per the NIT's Statutes.

In addition to the Institute members, it has at least three subject expert members from academia of outside institutes of repute, one member each from Industry and from alumni. The presence of outsiders and alumni ensures that the curriculum is designed to meet the present-day requirements and challenges of the Civil Engineering profession / industry. The process for designing the program curriculum is illustrated in Figure 2.1. The suggestions / inputs from the stake-

holders are obtained through feedback collections in predesigned formats and during formal /informal meetings organized by the Department. For the Academic Year 2019-2020, the feedbacks of different kinds were obtained using online platforms (such as google forms) in view COVID-19 and other lockdowns in the Union Territory of Jammu and Kashmir.

2.1.1.1 Stakeholders of the Programme:

The department has identified the following stake holders for the B.Tech. programme in Civil Engineering:

- Students
- Faculty
- Industry / Employers
- Alumni
- Parents

Students:

- Students have a most important role in the B. Tech. programme as they are the end products.
- Students' feedback is/will be considered to introduce innovative teaching and learning methodologies.
- The inputs from students will help the programme to introduce the electives courses required to meet the current trend.

Faculty:

- Faculty has a vital role in the working / running of programme.
- Faculty is involved in various committees to check the consistency of the programme.
- Faculty provides valuable inputs for the design of the programme, establishments of PEOs and POs, Course Outcomes (COs) and their assessment.

Industry / Employer:

- Represent the end user of our graduates.
- Provides valuable inputs to shape the curriculum and hence enhance the employability of the graduates.

Alumni:

- Alumni constitute the focus group as they are the measure of success of the programme.
- Valuable feedback is obtained from the alumni regarding recent trends in engineering which helps in curriculum design.

Parents:

- Inputs are received through contacts by phone/email and sometimes in-person meetings.

Professional bodies:

- The inputs of the members of various professional bodies provide a platform to disseminate the information regarding the recent trends in the field and are relevant to update and upgrade the programme.

Process of designing the programme curriculum:

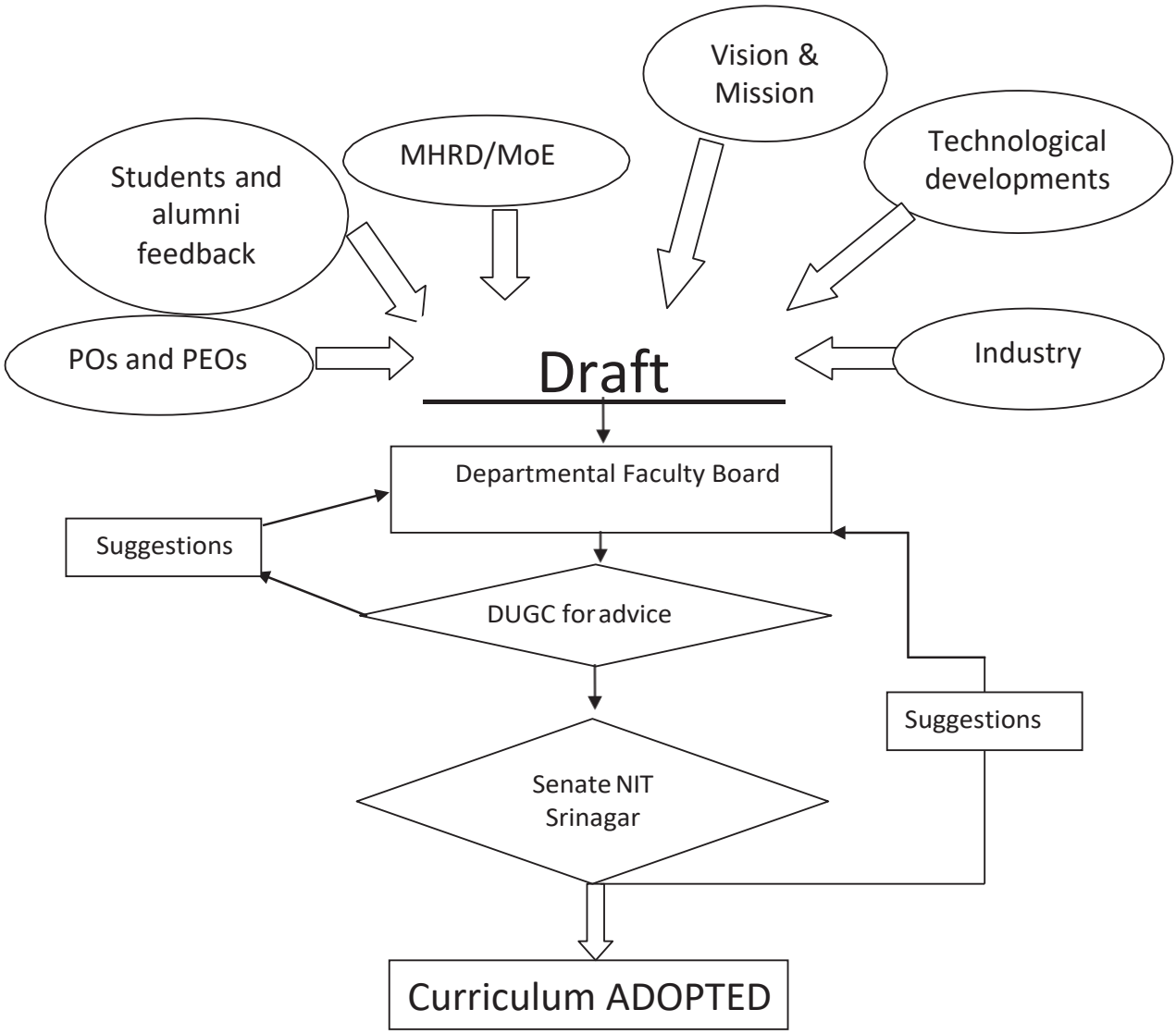


Figure B.2.1.1.1a; DUGC-Departmental Undergraduate Committee

Flow chart showing identification of curriculum gaps:

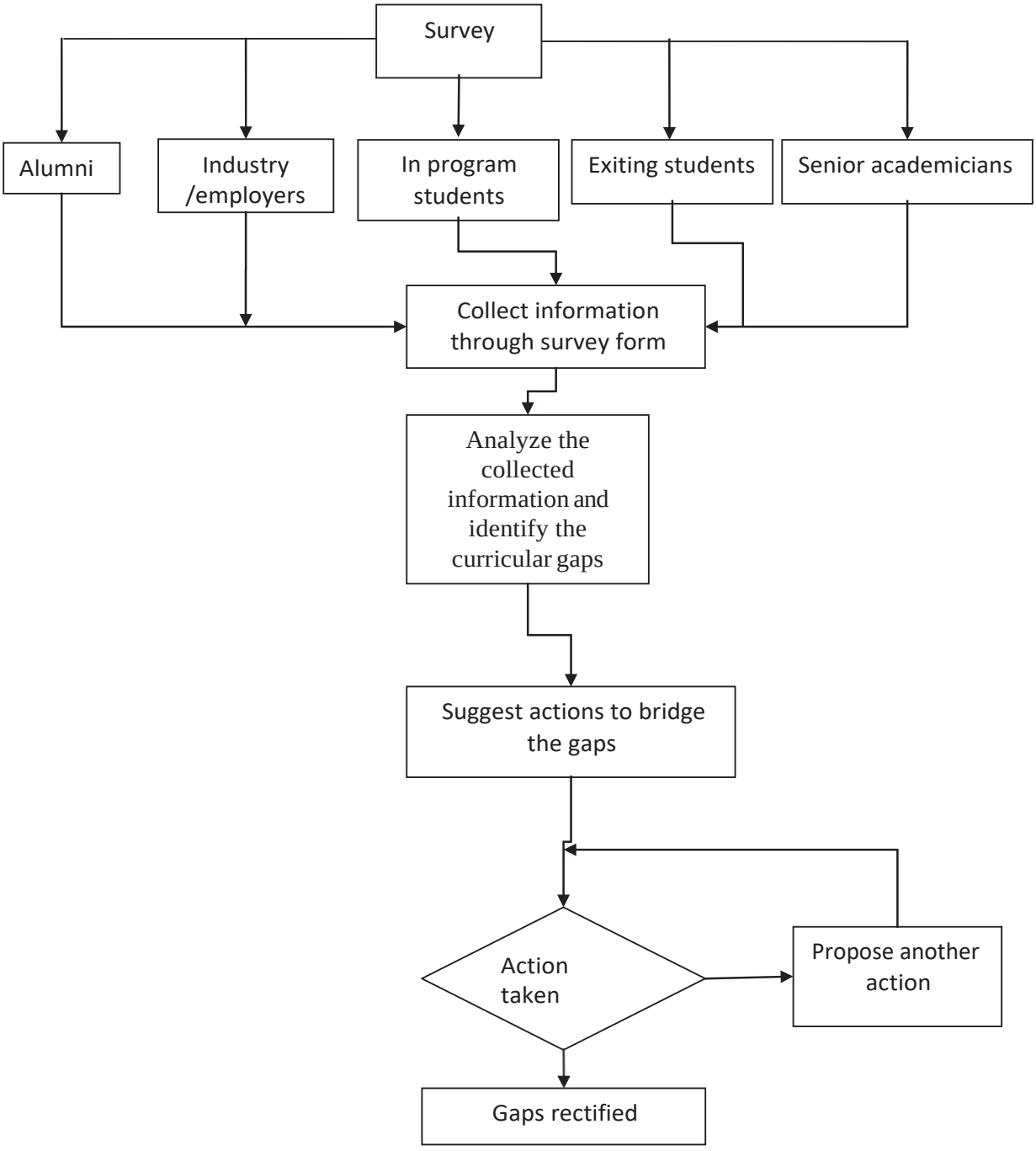


Figure B.2.1.1.1b

2.1.2 Structure of the Curriculum (4)

The curriculum finalized by the department after following the due process mentioned in the preceding paragraphs and is detailed in the Tables B.2.1.3 and B.2.1.4, respectively, for years 2016 and 2019 onwards:

Course Curriculum Scheme - 2016

Course Code	Course title	Total number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
CIV-102	Engineering Drawing	2	0	4	6	4
CIV-210	Strength of Materials	3	1	0	4	4
CIV-301	Structural Analysis –I	3	2	0	5	4
CIV-301 (P)	Structural Engineering Lab –I	0	0	2	2	1
CIV-302	Fluid Mechanics	3	1	0	4	3
CIV-302 (P)	Fluid Mechanics Lab- I	0	0	2	2	1
CIV-303	Surveying –I	3	1	0	4	3
CIV-303 (P)	Surveying Lab –I	0	0	4	4	2
MTH-303	Mathematics – I	3	1	0	4	3
ELE-304	Basic Electrical Engineering	3	1	0	4	3
ELE-304 (P)	Basic Electrical Engineering Lab	0	0	2	2	1
HSS-301	Humanities and Social Science - I	3	1	0	4	3
CIV-300	Professional Development Activities	0	0	2	2	1
CIV-304	Geology and Mineralogy	3	2	0	5	4
CIV-304 (P)	Geology and Mineralogy Lab	0	0	2	2	1
CIV-401	Structural Analysis – II	3	1	0	4	3
CIV-402	Fluid Flow in Pipes and Channels	3	1	0	4	3
CIV-402 (P)	Fluid Mechanics lab –II	0	0	2	2	1
CIV-403	Surveying –II	3	1	0	4	3
CIV-403 (P)	Surveying Lab –II	0	0	2	2	1
CIV-403 (SC)	Surveying Camp	0	0	4	4	2
CIV-404	Engineering Geology and Materials	3	1	0	4	3
CIV-404 (P)	Geology Lab	0	0	2	2	1
CIV-405	Building Drawing and Constructions	3	2	0	5	4
MTH-406	Mathematics – II	3	1	0	4	3
CIV- 400	Professional Development Activities	0	0	2	2	1
CIV-501	Deign of Structures – I	3	2	0	5	4
CIV-501 (P)	Concrete Laboratory	0	0	2	2	1
CIV-502	Highway Engineering and PMS	3	1	0	4	3
CIV-502 (P)	Highway Laboratory	0	0	2	2	1
CIV-503	Geotechnical Engineering – I	3	2	0	5	4
CIV-503 (P)	Geotechnical Laboratory – I	0	0	2	2	1
CIV-504	Water Resource Engineering	3	2	0	5	4

CIV-505	Structural Analysis –III	3	1	0	4	3
CIV-500	Professional Development Activities	0	0	2	2	1
CIV- 506: EI	Architecture and Town Planning Concrete Technology Engineering Seismology	3	1	0	4	3
CIV-507	Hydraulics and Hydraulic Machines	3	2	0	5	4
CIV-601	Deign of Structures – II	3	2	0	5	4
CIV-601 (P)	Structural Engineering Lab -II	0	0	2	2	1
CIV-602	Traffic Engineering and Road Facilities	3	2	0	5	4
CIV-602 (P)	Traffic Engineering Laboratory	0	0	2	2	1
CIV-603	Geotechnical Engineering – II	3	2	0	5	4
CIV-603 (P)	Geotechnical Laboratory – II	0	0	2	2	1
CIV-604	Irrigation and Hydraulic Structures	3	1	0	4	3
CIV-600	Professional Development Activities	0	0	2	2	1
CIV-611: EI	Water Shed Management	3	1	0	4	3
MTH- 611: EI	Operations and Research					
PHY- ELE: EI	Solar Architecture					
CIV- 612: E2	Computer Aided Design Disaster Management Applied Hydrology Advanced Structural Analysis	3	1	0	4	3
CIV-701	Environmental Engineering-I	3	1	0	4	3
CIV-701(P)	Water Quality Lab	0	0	2	2	1
CIV-702	Structural Dynamics	3	1	0	4	3
CIV-703	Construction Technology And Management	3	1	0	4	3
CIV-704	Design of Structures -III	3	2	0	5	4
CIV-705	Quantity Surveying and Cost Evaluation	3	1	0	4	3
CIV-706	Seminar	0	2	0	2	2
CIV-707	Project Pre-work	0	0	4	4	2
CIV-700	Professional Development Activities	0	0	2	2	1
CIV-711:E1	Railway and Airport Engineering Fluvial Hydraulics Advance Geotechnical Engineering	3	1	0	4	3
CIV-801	Hydropower Engineering	3	2	0	5	4
CIV-802	Bridge Engineering	3	1	0	4	3
CIV-803	Project	0	5	10	15	10

CIV-804	Practical Training & Viva-Voce	0	0	0	0	2
CIV- 811:E1	Rock Mechanics & Tunneling Technology Transportation Planning & Economics	3	1	0	4	3
MTH-811	Numerical Methods in Civil Engineering	3	1	0	4	3
CIV-812:E2	Ground Improvement Techniques Earthquake Resistant Design Environment Engineering II	3	1	0	4	3

Table B.2.1.3

Course Curriculum Scheme - 2019

Course Code	Course title	Total number of contact hours				Credits
		Lecture (L)	Tutorial (T)	Practical (P)	Total Hours	
CIP100	Engineering Drawing	1	0	6	7	4
CIL100	Engineering Mechanics	3	1	0	4	4
MEL100	Elements of Mechanical Engg.	2	1	0	3	3
PHL100	Engineering Physics	3	1	0	4	4
HUL100	Basic English and Communication Skills	2	1	0	3	3
CYL101	Environmental Studies	2	1	0	3	3
MAL100	Mathematics I	3	1	0	4	4
HUP100	Language Laboratory	0	0	2	2	1
PHP100	Physics Laboratory	0	0	2	2	1
WSP100	Workshop Practice	0	0	5	5	2
HUL101	Advanced English Comm. Skills & Organizational Behavior.	2	1	0	3	3
EEL100	Basic Electrical Engineering	3	1	0	4	4
ITL100	Computer Programming	2	1	0	3	3
CYL100	Engineering Chemistry	3	1	0	4	4
MAL101	Mathematics II	3	1	0	4	4
ELP100	Basic Electrical Engineering Laboratory	0	0	2	2	1
CYP100	Chemistry Laboratory	0	0	2	2	1
ITP100	Computer Programming Laboratory	0	0	2	2	1
CVT201	Structural Analysis –I	2	2	0	4	4
CVL201	Structural Analysis Lab –I	0	0	2	2	1
CVT202	Fluid Mechanics	2	1	0	3	3
CVL202	Fluid Mechanics Lab- I	0	0	2	2	1
CVT203	Surveying –I	2	1	0	4	3
CVL203	Surveying Lab –I	0	0	4	4	2
MAT201	Mathematics – I	3	1	0	4	4
CVT204	Building Materials and Construction	3	1	0	4	4

HUL201	Humanities and Social Science - I	2	1	0	3	3
CIV-304	Geology and Mineralogy	2	2	0	4	4
CIV-304 (P)	Geology and Mineralogy Lab	0	0	2	2	1
CVT250	Structural Analysis – II	2	1	0	3	3
CVT251	Fluid Flow in Pipes and Channels	2	1	0	3	3
CVL251	Fluid Mechanics lab –II	0	0	2	2	1
CVT252	Surveying –II	2	1	0	3	3
CVL252	Surveying Lab –II	0	0	2	2	1
CVT255	Surveying Camp	0	0	4	4	2
CVT253	Engineering Geology	2	1	0	3	3
CVL253	Geology Lab	0	0	2	2	1
CVT254	Civil Engineering Drawing	3	1	0	4	4
MAT256	Mathematics – II	3	1	0	4	4
CVT301	Deign of Structures – I	2	2	0	4	4
CVL301	Concrete Laboratory	0	0	2	2	1
CVT302	Highway Engineering and PMS	3	1	0	4	4
CVL302	Highway Laboratory	0	0	2	2	1
CVT303	Geotechnical Engineering – I	2	2	0	4	4
CVL303	Geotechnical Laboratory – I	0	0	2	2	1
CVT304	Water Resource Engineering	2	2	0	4	4
CVT305	Structural Analysis –III	2	1	0	3	3
CVT307	Architecture and Town Planning Concrete Technology Engineering Seismology	2	1	0	3	3
CVT350	Deign of Structures – II	2	2	0	4	4
CVL350	Structural Engineering Lab -II	0	0	2	2	1
CVT351	Traffic Engineering and Road Facilities	2	2	0	4	4
CVL351	Traffic Engineering Laboratory	0	0	2	2	1
CVT352	Geotechnical Engineering – II	2	2	0	4	4
CVL352	Geotechnical Laboratory – II	0	0	2	2	1
CVT353	Irrigation and Hydraulic Structures	2	1	0	3	3
CVT453	Industrial Training &Presentation	0	0	0	0	1
CVT/MAT	Water Shed Management Operations and Research Numerical Methods in Civil Engineering	2	1	0	3	3
CVT354	Computer Aided Design Disaster Management Applied Hydrology Advanced Structural Analysis	2	1	0	3	3
CVT401	Environmental Engineering-I	2	1	0	3	3
CVL401	Water Quality Lab	0	0	2	2	1
CVT402	Structural Dynamics	3	1	0	4	4

CVT403	Construction Technology &Management	2	1	0	3	3
CVT404	Design of Structures -III	2	2	0	4	4
CVT405	Quantity Surveying and Cost Evaluation	2	1	0	3	3
CVS405	Seminar	0	2	0	2	2
CVP406	Project Pre-work	0	0	4	4	2
CVT406	Railway and Airport Engineering Fluvial Hydraulics Advance Geotechnical Engineering	2	1	0	3	3
CVT450	Hydropower Engineering	2	2	0	4	4
CVT451	Bridge Engineering	3	1	0	4	4
CVP452	Project	0	5	10	15	10
CVT454	Rock Mechanics & Tunneling Technology Transportation Planning & Economics Non-Conventional Energy	2	1	0	3	3
CVT455	Ground Improvement Techniques Earthquake Resistant Design Environment Engineering II	3	1	0	4	4

Table B.2.1.4

2.1.3 State the components of the curriculum (5)

Course Curriculum Scheme - 2016

Course component	**Curriculum content (% of total number of credits of the program)**	**Total number of contact hours/week**	**Total number of credits**	**POs**	**PEOs**
Basic sciences and Mathematics	12%	28	24	PO1, PO2, PO3,	PEO1, PEO2, PEO3, PEO4, PEO5, PEO6
Engineering sciences	6%	14	12	PO1, PO2, PO6, PO7	PEO1, PEO2, PEO3, PEO4, PEO5, PEO6
Humanities and social sciences	4.5%	12	9	PO8, PO9, PO10	PEO2, PEO3, PEO6
Program core	61.5	145	12	PO1,	PEO1,

	%		3	PO2, PO3, PO4, PO5, PO, PO7, PO12	PEO2, PEO3, PEO4, PEO5, PEO6
Program electives	6%	14	12	PO3, PO5, PO11, PO12	PEO1, PEO2, PEO3, PEO4, PEO6
Project(s)	6%	14	12	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PEO1, PEO2, PEO3, PEO4, PEO5, PEO6
Internships/ seminars	4%	10	8	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11, PO12	PEO1, PEO2, PEO3, PEO4, PEO5, PEO6
Total number of credits			**200**		

Table B.2.1.5

Pie diagram representation of the Curriculum - 2016:

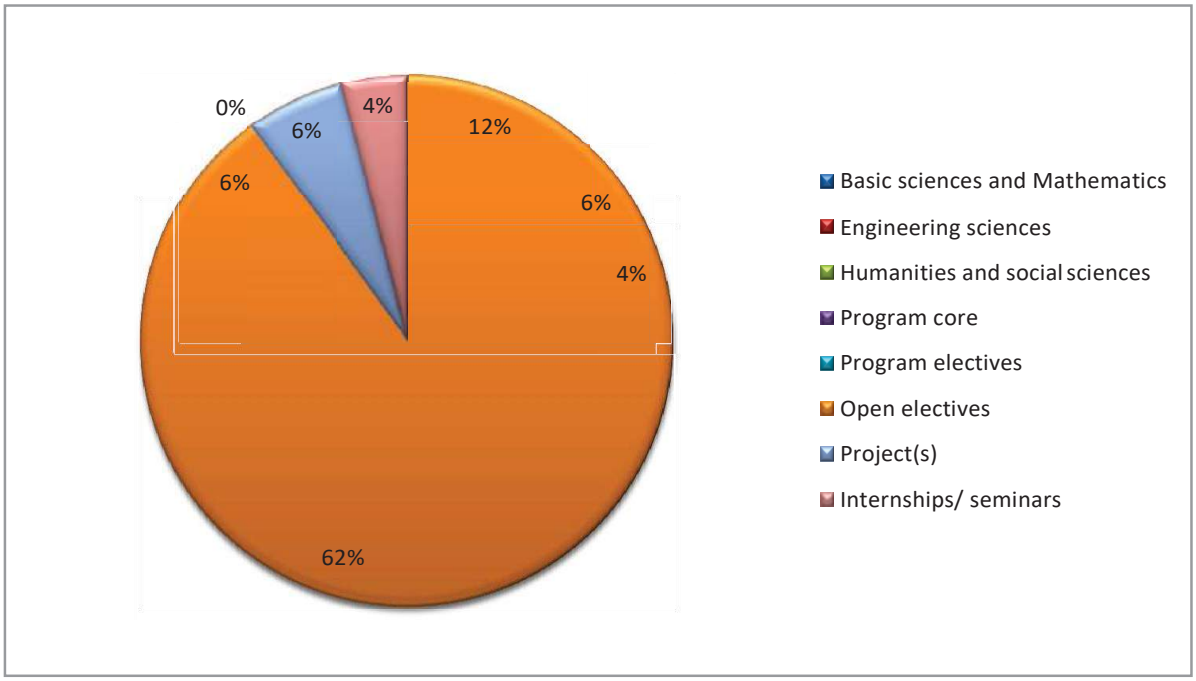


Figure B.2.1.1.1b

Course Curriculum Scheme - 2019

Course component	Curriculum content (% of total number of credits of the program)	Total number of contact hours/week	Total number of credits	POs	PEOs
Basic sciences and Mathematics	11%	24	22	PO1, PO2, PO3,	PEO1,PEO2, PEO3,PEO4, PEO5, PEO6
Engineering sciences	14%	37	29	PO1, PO2, PO6,PO7	PEO1,PEO2, PEO3,PEO4, PEO5, PEO6
Humanities and social sciences	5%	11	10	PO8, PO9,PO10	PEO2, PEO3, PEO6
Program core	54%	128	110	PO1, PO2, PO3, PO4, PO5, PO, PO7, PO12	PEO1,PEO2, PEO3,PEO4, PEO5,PEO6
Program electives	9%	19	19	PO3, PO5, PO11, PO12	PEO1,PEO2, PEO3,PEO4,PEO6
Project(s)	6%	19	12	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10,	PEO1,PEO2, PEO3,PEO4, PEO5,PEO6

				PO11,PO12	
Internships/ seminars	1%	2	3	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO8, PO9, PO10, PO11,PO12	PEO1,PEO2, PEO3,PEO4, PEO5,PEO6
Total number of credits			**205**		

Table B.2.1.6

Pie diagram representation of the Curriculum - 2019:

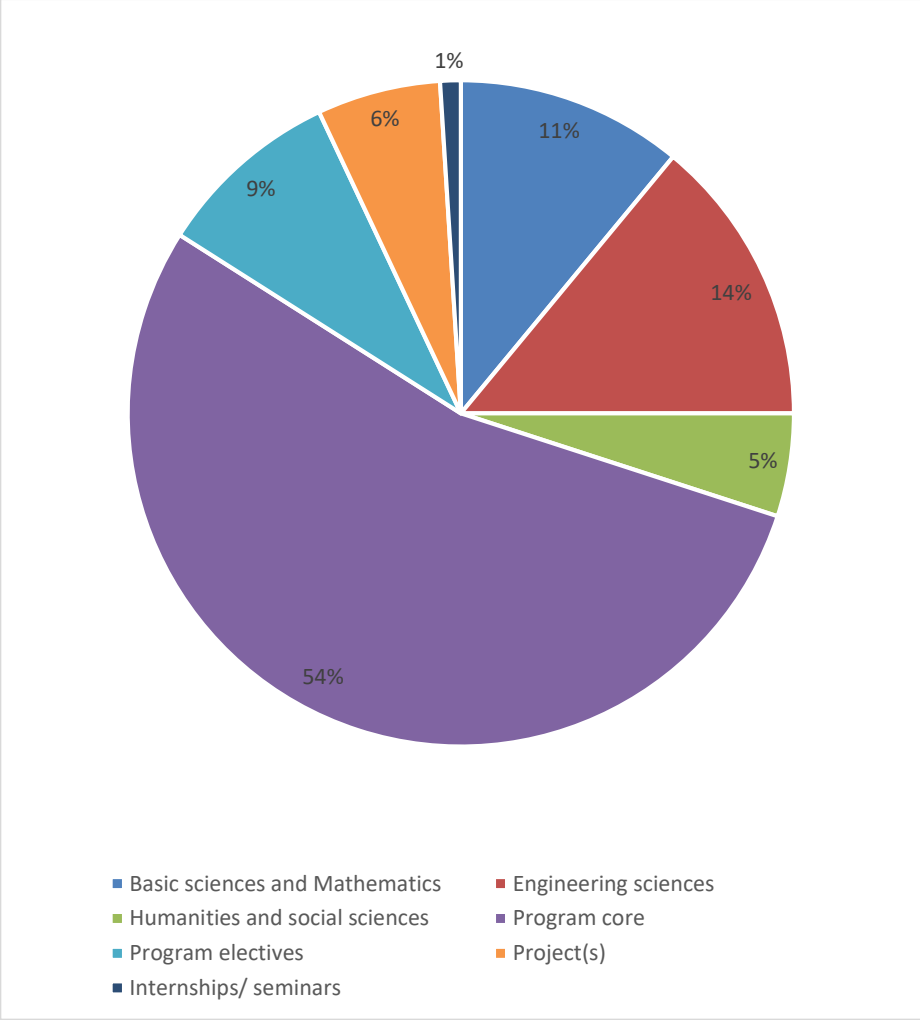


Figure B.2.1.1.1c

2.1.4 State the process used to identify extent of compliance of the curriculum for attaining the program outcomes and program specific outcomes (10)

- The process that periodically documents and demonstrates how the program curriculum is compiled considering the POs and PSOs.
  - Institute curriculum structure
  - Allocation of hours
  - A planned class engagement schedule
  - A well-defined administrative set-up in the department for monitoring of the implementation of the curriculum

- Identification process of the curricular gaps
  - Feedback From:
    - Students
    - Faculty survey
    - Industry survey
    - Alumni
    - Parents

Note: In view of COVID-19 pandemic and other administrative lockdowns in Union Territory of Jammu and Kashmir, the mode of generating feedback from students was changed from offline to online for Autumn 2019 semester onwards. The platform of google forms was utilized by sending the links of each specific form to all students, industry, alumni and other stalk holders to collect the different types of feedback data.

Feedback Forms:

1. **Alumni Survey**

Civil Engineering Department National Institute of Technology Srinagar Alumni Survey Form		
Thank you for taking the time to fill out this questionnaire. All the information will be kept confidential and will be used only for statistical purposes. As an alumnus, your opinions are valued and are utilized to help us make periodic changes and updates for continuous improvement of our undergraduate program		
Name(optional)		
Year of Graduation		
Mailing address		
Placement	**Before/after graduation**	**Core/Software**
Name of the Company		
Please rate each of the following skills, abilities or attributes in terms of their importance to state how well your education at **Civil Engineering Department, National Institute of Technology, Srinagar** prepared you for these. **Write the appropriate number by Using Scale (1 to 3).** **1= Satisfactory; 2=Good; 3=Excellent**		
Skills, Abilities and Attributes		**Rating**
Apply Knowledge of mathematics, Basic sciences and Engineering		
Problem Identification and Analysis		
Design a system and develop solution to the problem		
Investigate and Handle complex problems		
Ability to use techniques and tools in engineering practice		
Understand and appreciate the impact of engineering in the societal and global contexts		
Awareness of existing issues (e.g. Economics of engineering, Environmental issues)		
Understand professional and ethical responsibilities as an engineer (e.g., safety, professional ethics, code of conduct)		
Function effectively in teams		
Proficient in English language in both communicative and technical forms		
Awareness of the need for life-long learning (Seeking further education, self-learning, Membership in professional societies)		
Project Management and Finance		
Signature	**Suggestion if any:**	

2. Employer Survey

Civil Engineering Department **National Institute of Technology, Srinagar** **EMPLOYER SURVEY FORM**				
The purpose of this feedback is to obtain Employer's inputs on the quality of education of our undergraduate program. Your sincere cooperation would enable us to improve the quality of our graduates as per your requirements.				
Name of Company/ Organization				
Mailing address				
Sector Private/Public/Academia				
Please rate our Graduates working in your organization using the following criterion. **Put tick mark Knowledge, Skills, Abilities, Attitude and other Attributes expected out of NIT Srinagar graduates.**				
No.	**Overall, are you satisfied with**	**Excellent (3)**	**Good (2)**	**Satisfactory (1)**
1	Capacity for design and analysis of engineering problems and formulation of appropriate solutions, retaining professional and ethical responsibilities.			
2	Aptitude for self-education and a clear appreciation for the value of life-long learning to update professional knowledge.			
3	Understanding professional engineering solutions for sustainable development and their application in global, national and societal contexts.			
4	Desire and capacity for acquiring new skills and applying them in research and development.			
5	Fundamental knowledge in mathematics and science and professional fluency in English both communicative and writing			
6	Exhibition of management and leadership skills that enable successful function of multi-disciplinary teams.			
	Suggestions:			

Signature: **Name and Designation:**

3. Student Feedback:

Civil Engineering Department National Institute of Technology, Srinagar Student Feedback Form		
Name(optional):	**Year Passed out/studying:**	
Email(optional):	**Phone(optional):**	
Assessment of Knowledge, Skills, Abilities and Attributes acquired by Students at NIT Srinagar		
Please rate each of the following in terms how well NIT Srinagar inculcated them in you so far, by writing the appropriate number against each by **Using Scale (1 to 3).** **1= Satisfactory; 2=Good; 3=Excellent**		
S.No.	**Attribute**	**Rating**
1	Ability to acquire and apply knowledge of basic mathematics, science and engineering fundamentals.	
2	Ability to apply analytical skills to engineering problems.	
3	Ability to conduct experiments, analyze data, and present results.	
4	Ability to conduct independent research for information required in engineering problem Solving.	
5	Ability to use modern technologies and tools necessary for practice.	
6	Ability to understand global issues related to engineering.	
7	Understand the importance of ethical and professional responsibility.	
8	An ability to function on multi-disciplinary teams.	
9	An ability to communicate effectively.	
10	Recognition of the need for, and an ability to engage in life-long learning.	
	Suggestions for improvement:	

Signature:

(a) Administrative system of the Department for development and attainment of the Curriculum: The following administrative setup is in place to ensure development and adherence to curriculum and attainment of POs and PSOs:

1. Programme coordinator and Module coordinators

The function of Programme Coordinator and Module Coordinators is to consult various stakeholders for collecting their views about CO's, PEOs and Poss.

2. Departmental Faculty Committee (DFC, DUGC)

A committee constituted in the following manner looks after the monitoring/moderating of the academic affairs of the department:

- Head of the Department
- Programme coordinator
- Module coordinators

The functions of the committees is to review the attainment and suggest modifications if needed.

3. Departmental Project Review Committee UG (DPRC)

The committee is a statutory body and comprises of:

- Head of Department, Chairperson
- One Professor Convenor
- Two Professors
- One Associate Professor of Department by rotation
- Members One external expert from another department
- Member Three student members based on highest CGPA Student Members

Once the curriculum is recommended by the DUGC, it is placed in the Senate of the Institute, which is the highest academic body of the institute. The Senate of the NIT Srinagar is chaired by the Director and comprises of all Professors/ Deans/ HODs of the Institute as members and as per the NIT's Statutes.

4. Department UnderGraduate Committee (DUGC)

The DUGC of the Civil Engineering Department consists of

- Head of the Department
- External Subject experts from Academia and Industry
- Members from faculty

The committee meets as and when required to review the curriculum and suggest new courses /modification in course/ bridging of gaps in courses/ value added courses/laboratory courses/up gradations in tune with the department's vision.

Program Outcomes and Program Specific Outcomes

Program outcomes describe what students are expected to know or be able to do by the time of graduation. The program specific outcomes broadly describe the overall capabilities a student is expected to possess at the end of the undergraduate Programme. The program outcomes and program specific outcomes of under-graduate program in civil engineering are as follows:

Program outcomes and Program Specific Outcomes

a) PROGRAM OUTCOMES (POs)

PO 1. Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.

PO 2. Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.

PO 3. Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.

PO 4. Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems.

PO 5. Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.

PO 6. Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.

PO 7. Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.

PO 8. Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.

PO 9. Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.

PO 10. Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO 11. Demonstrate knowledge and understanding of the engineering and management

principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO 12. Recognize the need for and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

Table B.2.1.4a

b) PROGRAM SPECIFIC OUTCOMES (PSOs)

PSO1. Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as softwares, towards solving technical problems requiring civil engineering interventions.

PSO2. Ability to furnish and/or analyze designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.

PSO3. Ability to conduct field and laboratory investigations pertaining to civil engineering domain and utilize modern engineering tools and techniques.

Table B.2.1.4b

Alignment of Programme outcomes with Graduate Attributes of NBA

Programme Outcomes	Graduate Attributes (GAs) Satisfied
PO1: To apply the basic knowledge of contemporary science and technology along with civil engineering fundamentals and essential computational techniques/procedures that aid in solving real life engineering problems.	Engineering knowledge
PO2: To identify, formulate and analyze a complex civil engineering problem supported by literature survey leading to substantial conclusions.	Problem analysis
PO3: To obtain solutions for complex civil engineering problems and design system components/processes keeping in view the appropriate considerations for the public health and safety, society, culture and environment.	Design/ Development of solutions
PO4: To apply systematic approach includes design of experiments, analysis and interpretation of data, and synthesis of the information to investigate a complex civil engineering problem using research-based knowledge to obtain reasonable conclusions.	Conduct investigations of complex problems

PO5: To develop and use appropriate state-of-the-art software's and modern IT-based engineering tools/resources for modeling of complex civil engineering problems, duly identifying the limitations.	Modern tool usage
PO6: To utilize the contextual information in order to examine societal, health, safety, legal and cultural issues and identify the consequent responsibilities relevant to the professional engineering practice based on reasoning.	The Engineer and society
PO7: To ensure sustainable development by means of professional engineering solutions in context of the impact on the environment and the society.	Environment and sustainability
PO8: To adhere to professional ethics and norms, and respect human values while practicing the engineering profession.	Ethics
PO9: To perform efficiently as a member or leader of a team or as an individual in diverse work environments	Individual and team work
PO10: To deliberate effectively and clearly on activities related to engineering profession and to comprehend and communicate ideas, interpretations and outcomes of an engineering analysis efficiently in both verbal and printed form.	Communication
PO11: To implement knowledge and understanding of the engineering principles together with efficient management of time and financial resources as a leader or a team member in executing engineering projects.	Project management and finance
PO12: To have inclination to life-long learning through self-education, interaction with stalwarts in the field of civil engineering, participation in professional societies and constantly updating the knowledge regarding recent developments.	Life-long learning

Table B.2.1.4c

The above table indicates a strong alignment of the Programme outcomes of the department with the Graduate attributes expected from a civil engineering graduate.

The correlation between the POs and PEOs.

The correlation between Program Outcomes and Program Educational Objectives is established in Table below.

Correlation between POs/ PSOs and PEOs

Program Outcomes	Program Educational Objectives met through the PO's STRONGLY & VERY STRONGLY
PO1	PEO1; PEO2; PEO4; PEO5; PEO6
PO2	PEO1; PEO2; PEO4; PEO5; PEO6
PO3	PEO1; PEO2; PEO4; PEO5; PEO6
PO4	PEO1; PEO2; PEO4; PEO5; PEO6
PO5	PEO1; PEO2; PEO4; PEO5; PEO6

PO6	PEO2; PEOs3; EO4; PEO6
PO7	PEO1; PEO2; PEOs3; PEO4; PEO6
PO8	PEO1; PEO2; PEOs3
PO9	PEO2; PEOs3
PO10	PEO2; PEOs3
PO11	PEO1; PEO2; PEO6
PO12	PEO1; PEO2; PEO4; PEO5; PEO6
PSO1	PEO1; PEO2; PEOs3; PEO4; PEO5; PEO6
PSO2	PEO1; PEO2; PEOs3; PEO4; PEO5
PSO3	PEO1; PEO2; PEO4; PEO5; PEO6

Table B.2.1.4d

The correlation between the two is therefore very strong to strong meaning very satisfactory.

Contribution of Course Components to the program outcomes

The broad course components are mapped to POs and PSOs and the results are depicted in TableB.2.1.4e to depict how these help in the attainment of program outcomes.

Table 2.1.4.5 Mapping of Curriculum components to POs/PSOs

Curriculum component	Number of credits	POs achieved	Justification for the achievement
Mathematics and Basic Sciences	24	PO1, PO2, PO3	**PO1** - Basic mathematical and scientific understanding is essential to engineering knowledge **PO2** - Mathematical understanding is prerequisite to analysis of engineering problems **PO3** - Helps in mathematical formulation of problems and solutions **PSO2** - Mathematics is used for data and result analysis
Basic Engineering Courses	12	PO1, PO2, PO6, PO7 PSO1 PSO2 PSO3	**PO1** - Imparts knowledge of engineering fundamentals. **PO2** - Provides basic knowhow for Engineering analysis **PO6** - Help in relating engineering to society and societal issues **PO7** - Help in achieving sustainable engineering solutions **PSO1** - Provides basic knowledge of engineering principles **PSO2** - Develops capability of applying engineering in problem analysis **PSO3** - Helps in developing laboratory and field engineering skills
HSS	09	PO8, PO9, PO10 PSO2	**PO8** - Helps in developing professional ethics **PO9** - Help in developing qualities of planning and cooperation **PO10** - Equip individuals with efficient communication skills **PSO2** - Enable individuals to prepare reports, publications, etc.

Professional core including Project/seminars/training/internship	143	PO1, PO2, PO3, PO4, PO5, PO6, PO7, PO12 PSO1 PSO2 PSO3	**PO1** - Provide fundamental knowledge of civil engineering **PO2** - Develop capability of engineering analysis of problems **PO3** - Help in attaining engineering solutions compatible with public health and society **PO4** - Aid in learning design, analysis, interpretation of data and synthesis of information **PO5** - Provide knowledge about availability and usage of modern tools in civil engineering **PO6** - Develop skills to analyze societal, health and other public issues in engineering context **PO7** - Provide capability to incorporate environmental constraints in engineering solutions for sustainability **PO12** – Lifelong learning is motivated. **PSO1** - Study various civil engineering principles in these subjects. **PSO2** - Provide knowledge for analyzing and developing designs **PSO3** - Surveying, mapping and engineering drawing skills are developed
Electives	12	PO3, PO5, PO11, PO12 PSO1 PSO2 PSO3	**PO3** - Study about processes that meet the specified needs **PO5** - Problem specific tools and techniques are learnt **PO11** - Management related subjects can be learnt **PO12** - Motivate individuals towards specific skill enhancement **PSO1** - Provide subject specific technical civil engineering knowledge **PSO2** - Help in developing enhanced skills of design and analysis **PSO3** - Specific skills related to surveying can be learnt

Table B.2.1.4d

2.2 TEACHING -LEARNING PROCESS (64)

2.2.1 Process followed to improve quality of Teaching Learning (14)

A. Adherence to academic calendar (2)

Academic Calendar Year 2020

Month	Activities Planned
March	Registration B.Tech. (Spring 2020 session) Commencement of classes Registration for P.G and PhD (Spring 2019 session) Registration B.Tech. Even Semesters, M. Tech./M.Sc. 2nd and 4th and Ph.D. (Spring 2019 session) Registration with late fee B.Tech., M. Tech./M.Sc. 2nd and 4th and Ph.D. (Spring 2020 session) Commencement of Classes Registration of P.G and Ph. D
April	Sports Week
May	Mid Term Examination Advertisement for admission to (a) M. Tech (sponsored), (b) Ph. D B.Tech. Project Viva-voce and Practical Examination
June	B.Tech. 8th semester End Term Examination UG, PG and Ph. D End Term Examinations Registration of Supplementary Exam. (Even Semester) Registration of Supplementary Exam. (Odd Semester)
July	Supplementary Examinations for odd semester; Registration for U.G./ P.G. / Ph.D. (Autumn 2020);
August	Registration with late fee Commencement of classes Fresher's Orientation Day
September	Techvaganza Mid-Term Examination ;
October	Convocation 18 Feb 2021 National Entrepreneurship Day Registration of Supplementary Exam. (Odd Semester)
November	End Semester Examinations

	Registration for Supplementary Exam. (Even Semester) Supplementary Examination for Even Semester
December	Supplementary Examination for Even Semester; Winter Vacations for students

Table B.2.2.1a

Adherence Report 2020

SPRING-2020				**Adherence**	**Remark**
S. No.	**Activity**	**Date**			
		From	**To**		
1.	Registration for U.G. 2nd Semester	09-03-2020	11-03-2020	Yes	Executed on Date
	Commencement of classes of U.G. 2nd Semester	12-03-2020		Yes	Executed on Date
	Registration for U.G. 4th Semester	12-03-2020	13-03-2020	Yes	Executed on Date
	Commencement of classes of U.G. 4th Semester	16-03-2020		Yes	Executed on Date
	Registration for U.G. 6th Semester	16-03-2020	17-03-2020	Yes	Executed on Date
	Commencement of classes of U.G. 6th Semester	18-03-2020		Yes	Executed on Date
	Registration for U.G. 8th Semester	09-03-2020	11-03-2020	Yes	Executed on Date
	Commencement of classes of U.G. 8th Semester	12-03-2020		Yes	Executed on Date
	Registration for P.G. & PhD	09-03-2020	11-03-2020	Yes	Executed on Date
	Commencement of classes of P.G. & PhD	12-03-2020		Yes	Executed on Date
2.	Registration with late fee @ Rs.400/=per day	Applicable after 5th day of Registration		Yes	Executed on Date
3.	Sports week	11-04-2020	13-04-202	Suspended	Due to spread of COVID-19 Pandemic
4.	Mid-Term examination	04-05-2020		Suspended	Due to spread of COVID-19 Pandemic
5.	Advertisement for admission to: a) M. Tech (sponsored category) b) Ph. D	Last Week of May		Suspended	Due to spread of COVID-19 Pandemic
End-Term Examinations					
6.	B. Tech Project viva-voce Exam	Last week of May,2020		Postponed	Due to spread of COVID-19 Pandemic
	B. Tech 8th Semester	10-06-2020 13-06-2020		Postponed	Due to spread of COVID-19 Pandemic
	Registration for Supplementary Examinations with Regular candidates	03-06-2020 to 07-06-2020		Postponed	Due to spread of COVID-19 Pandemic

	B. Tech. 2nd, 4th & 6th M. Tech /M.Sc. 2nd & 4th semesters and Ph.D.	From 10-06-2020		Postponed	Due to spread of COVID-19 Pandemic
7.	Registration for Supplementary Examinations (Odd Semester)	15-06-2020 to 26 -06-2020		Postponed	Due to spread of COVID-19 Pandemic
8.	Supplementary Examinations for odd Semesters	From 05-07-2020		Postponed	Due to spread of COVID-19 Pandemic
9.	Registration for Special Supplementary Exam for 8th Semester	01-06-2019 to -2019		Postponed	Due to spread of COVID-19 Pandemic
Autumn-2020					
Registration & Commencement of Classes					
1.	Registration for U.G.,P.G.& Ph.D.	29-07-2019	01-08-2019	Yes	Executed on Date
	Registration with late fee @ Rs.400/=per day	Up to 05-08-2019		No	Relaxed due to abrogation of Article 370 in J&K
	Commencement of classes	01-08-2019		No	Postponed due to abrogation of Article 370 in J&K. Classes commenced from 11 Nov, 2019.
2.	Fresher's Orientation day	20-08-2019		Postponed	Held on 15 Nov, 2019
3.	Sports Event	06-09-2019	08-09-2019	Suspended	Due to abrogation of Article 370 in J&K
4.	Midterm Examinations	16-09-2019		Suspended	Due to abrogation of Article 370 in J&K
5.	Convocation	28-09-2019		Deferred	Due to abrogation of Article 370 in J&K
6.	National Entrepreneurship Day	09-11-2019		Deferred	Due to abrogation of Article 370 in J&K
End-Term Examinations					
7.	Practical Examinations	1st week of November		Postponed	3rd week of December
8.	Registration for Supplementary Examinations with Regular candidates	01-11-2019 to 07-11-2019		Yes	
9.	End Semester Examinations	From 11-11-2019		Postponed	25-02-2020
10.	Registration for Supplementary Examinations (Even Semester)	20-11-2019 to 28-11-2019		Yes	
11.	Supplementary Examinations for Even Semesters	From 01-12-2019		Postponed	16-03-2020
12.	Winter Vacations for Students	10-12-2019		Yes	Executed on Date

Table B.2.2.1b

Academic Calendar Year 2019

Month	Activities Planned
February	Registration B.Tech. (Spring 2019 session) Commencement of classes Registration for P.G and PhD (Spring 2019 session) Registration B.Tech. Even Semesters, M.Tech./M.Sc. 2nd and 4th and Ph.D. (Spring 2018 session) Registration with late fee B.Tech. , M.Tech./M.Sc. 2nd and 4th and Ph.D. (Spring 2019 session) Commencement of Classes
March	Extra-Curricular Activities – 5-day workshop on Project Planning
April	Mid-Term examinations TECHVAGANZA
May	Advertisement for admission to M.Tech (sponsored) , Alumni Visit: Practical Examinations; Advertisement for PH.D. admissions; End Semester Examination B.Tech. 8th Semester
June	B.Tech. Project Viva-voce Examination Registration for Supplementary examinations End Semester Examination B.Tech. 2nd, 4th and 6th Semesters, M.Tech. /M.Sc. 2nd and 4th and Ph.D. Summer breaks for students
July	Supplementary Examinations for odd semester; Special Supplementary Examinations for 8th Semester; Registration for U.G./ P.G. / Ph.D. (Autumn 2019);
August	Commencement of classes; Registration with late fee Fresher's Orientation Day
September	Extra-Curricular Activities – Sports Event; Mid-Term Examination ; Convocation
October	Celebration of Rashtriya Ekta Diwas; Run for Unity; National Innovation Day
November	National Entrepreneurship Day; Practical Examinations; End Semester Examinations; Registration for Supplementary Examination for Even Semester
December	Supplementary Examination for Even Semester; Winter Vacations for students

Table B.2.2.1c

Adherence Report 2019

SPRING-2019				Adherence	Remark
S. No.	**Activity**	**Date**			
		From	**To**		
1.	Reopening of Institute for Faculty	18-02-2019		Yes	Executed on Date
	Registration for U.G. , P.G & Ph.D.	18-02-2019	22-02-2019	Yes	Executed on Date

	Registration with late fee @ Rs.400/=per day	25-02-2019	28-02-2019	Yes	Executed on Date
	Commencement of classes	Up to 25-02-2019		Yes	Executed on Date
2.	Mid-Term Examinations	18-04-2018		Yes	Executed on Date
3.	Techvaganza	27-04-2019 & 28-04-2019		Yes	
4.	Advertisement for admission to: c) M. Tech (sponsored category) d) Ph. D	3rd Week of May		Yes	Executed on Date
End-Term Examinations					
5.	B. Tech 8th Semester	From 23-05-2 019		Yes	Executed on Date
	B. Tech Project viva-voce Exam	10-06-2019 13-06-2019		Yes	Executed on Date
	Registration for Supplementary Examinations with Regular candidates	03-06-2019 to 07-06-2019		Yes	Executed on Date
	B. Tech. 2nd, 4th & 6th M. Tech /M.Sc. 2nd & 4th semesters and Ph.D.	From 10-06-2019		Yes	Executed on Date
6	Registration for Supplementary Examinations (Odd Semester)	24-06-2019 to 02-07-2019		Yes	Executed on Date
7.	Supplementary Examinations for odd Semesters	From 04-07-2019		Yes	Executed on Date
8.	Registration for Special Supplementary Exam for 8th Semester	01-07-2019 to 11-07-2019		Yes	Executed on Date
9.	Special Supplementary Examinations for 8th Semester	From 15-07-2019		Yes	Executed on Date
10.	Summer Break	23-06-2019	28-07-2019	Yes	Executed on Date
Autumn-2019					
Registration & Commencement of Classes					
1.	Registration for U.G.,P.G.& Ph.D.	29-07-2019	01-08-2019	Yes	Executed on Date
	Registration with late fee @ Rs.400/=per day	Up to 05-08-2019		No	Relaxed due to abrogation of Article 370 in J&K
	Commencement of classes	01-08-2019		No	Postponed due to abrogation of Article 370 in J&K. Classes commenced from 11 Nov, 2019.
2.	Fresher's Orientation day	20-08-2019		Postponed	Held on 15 Nov, 2019
3.	Sports Event	06-09-2019	08-09-2019	Suspended	Due to abrogation of Article 370 in J&K
4.	Midterm Examinations	16-09-2019		Suspended	Due to abrogation of Article 370 in J&K

5.	Convocation	28-09-2019	Deferred	Due to abrogation of Article 370 in J&K
6.	National Entrepreneurship Day	09-11-2019	Deferred	Due to abrogation of Article 370 in J&K
End-Term Examinations				
7.	Practical Examinations	1st week of November	Postponed	3rd week of December
8.	Registration for Supplementary Examinations with Regular candidates	01-11-2019 to 07-11-2019	Yes	
9.	End Semester Examinations	From 11-11-2019	Postponed	25-02-2020
10.	Registration for Supplementary Examinations (Even Semester)	20-11-2019 to 28-11-2019	Yes	
11.	Supplementary Examinations for Even Semesters	From 01-12-2019	Postponed	16-03-2020
12.	Winter Vacations for Students	10-12-2019	Yes	Executed on Date

Table B.2.2.1d

Academic Calendar Year 2018

Month	Activities Planned
February	Registration B.Tech. 8th Semester (Spring 2018 session) Commencement of classes for B.Tech. 8th Semester Registration with late fee B.Tech. 8th Semester (Spring 2018 session) Registration B.Tech. 2nd, 4th and 6th Semesters, M.Tech./M.Sc. 2nd and 4th and Ph.D. (Spring 2018 session)
March	Registration with late fee B.Tech. 2nd, 4th and 6th Semesters, M.Tech./M.Sc. 2nd and 4th and Ph.D. (Spring 2018 session) Commencement of classes for B.Tech. 2nd, 4th and 6th Semesters, M.Tech./M.Sc. 2nd and 4th and Ph.D.
April	Mid-Term exam B.Tech. 8th Semester Mid-Term exam B.Tech. 2nd, 4th and 6th Semesters, M.Tech./M.Sc. 2nd and 4th and Ph.D.; Alumni Meet-2018; Extra-Curricular Activities
May	Annual Day; Practical Examinations; Advertisement for PH.D. admissions; End Semester Examination B.Tech. Semester
June	B.Tech. Project Viva-voce Examination End Semester Examination B.Tech. 2nd, 4th and 6th Semesters, M.Tech./M.Sc. 2nd and 4th and Ph.D.
July	M.Tech. Dissertation Viva-voce Exam; Supplementary Examinations for odd semester; Summer Break; Special Supplementary Examinations for 8th Semester; Registration for U.G./ P.G. / Ph.D. (Autumn 2018); Commencement of classes; Registration with late fee
August	Fresher's Orientation Day
September	Extra-Curricular Activities; Mid-Term Examination; Convocation Alumni Meet Delhi Chapter
October	Tech. Fest/ ECA

	National Innovation Day
November	Practical Examination; National Entrepreneur Day End Semester Examination; Supplementary Examination for Even Semester
December	Winter Vacations for students

Table B.2.2.1e

Adherence Report 2018

ACTIVITY	Date		Adherence	Remark
REGISTRATION	From	To		
B.Tech. 8th semester	19-02-2018	21-02-2018	Yes	Executed on Date
Registration with late fee @ Rs. 400/= per day	Up to 26-02-2018		Yes	Executed on Date
B.Tech.. 2nd 4th& 6th semesters and M.Tech./ M.Sc. 2nd& 4th and Ph.D.	26-02-2018 to 28-02-2018		Yes	Executed on Date
Registration with late fee @ Rs. 400/= per day	Up to 05-03-2018		Yes	Implemented
COMMENCEMENT OF CLASSES				
Commencement of Classes for B. Tech.. 8th semester	22-02-2018		Yes	Executed on Date
Commencement of Classes for B.Tech.. 2nd& 4th , 6th semesters and M.Tech./ M.Sc. 2nd& 4th and Ph.D.	01-03-2018		Yes	Executed on Date
Extra-Curricular Activities	28-04-2018 to 30-04-2018		Yes	Executed on Date
Alumni meet-2018	28-04-2018 to 29-04-2018		Yes	Executed on Date
B.Tech.. 8th Semester	16-04-2018 to 21-04-2018		Yes	Executed on Date
B.Tech.. 2nd,4th& 6th; M.Tech./M.Sc. 2nd& 4th semesters and Ph.D..	23-04-2018 to 28-04-2018		Yes	Executed on Date
ANNUAL DAY	01-05-2018		Deferred	Lock down
PRACTICAL EXAMINATIONS				
B.Tech.. Project viva-voce Exam	11-06-2018 to 12-06-2018		Yes	Executed on Date
M.Tech. Dissertation Viva-voce Exam	1st week of July-2018		Yes	Executed on Date
END SEMESTER				

B.Tech.. 8th	28-05-2018		Yes	Executed on Date
B.Tech.. 2nd, 4th& 6th; M.Tech. / M.Sc. 2nd& 4th semesters and Ph.D.	19-06-2018		Yes	Executed on Date
Advertisement for Ph.D. admissions	Last week of May-2018		Yes	Executed on Date
Supplementary Examinations for odd semester	From 02-07-2018		Yes	Executed on Date
Summer Break	10-07-2018	22-07-2018	Yes	Executed on Date
Special Supplementary Examinations for 8th semester	16-07-2018		Yes	Executed on Date
Registration for U.G., P.G. & Ph.D.	**23-07-2018 to 25-07-2018**		Yes	Executed on Date
Registration with late fee @Rs 400/= per day	Up to 30-07-2018		Yes	Executed on Date
Commencement of classes	26-07-2018		Yes	Executed on Date
Extracurricular activity	07-09-2018 to 15-09-2018		No	Deferred due Prevailing condition
Midterm examination	10-09-2018 to 15-09-2018		Postponed one week	17-09-2018 to 22-09-2018
Convocation	22-09-2018		Yes	Executed on Date
Alumni meet Delhi chapter	29-09-2018 to 30-09-2018		Yes	Executed on Date
Practical examination	1st week of November		Yes	Executed on Date
National Entrepreneur day	09-11-2018		Yes	Executed on Date
End semester examination	From 12-11-2018		Yes	Executed on Date
Supplementary examinations for even semester	From 26-11-2018		Yes	Executed on Date
Winter vacation for students	10-12-2018		Yes	Executed on Date

Table B.2.2.1f

B. Pedagogical initiatives (2)

B.1 Real time examples

- To demonstrate the complexity and unpredictability of real issues, and to stimulate critical thinking real world examples are discussed.
- Inter- and multi-disciplinary approaches are used for problem solving.
- In order to demonstrate that there is no perfect solution to a particular problem real world problems are invoked.
- Real world examples help students think more analytically about the solutions.

B.2 Interactive classrooms

Classes are made more interactive by encouraging student participation as follows:

- Asking students to elaborate something they have written in a response paper or on the class' discussion board.
- Having students to answer other students' questions.
- Punctuating the lecture with questions.
- Interrupting the lecture with a sample exam question.
- Asking students to interpret a statistic, a graph, a chart, or another visual image.
- Integrating a case study or an inquiry or a problem solving exercise into the class.
- Integrating student presentations into the class.
- Asking questions that involve higher-order thinking skills like diagnostic, challenge, evaluation or prediction questions.
- Asking students to summarize the main points that they learned in class that day and the points they found most confusing.
- Asking the students to explain the relevance, utility, or significance of the information presented in the class.

B.3 Slide Presentation

Slide presentation is used to benefit the students by engaging in multiple learning styles, increasing visual impact, improving audience focus and providing annotations and highlights.

B.4 Video Lectures

Video lecturer are imparted that are archived and can be accessed anytime anywhere. For certain topics and concepts video can be used by the novice students who have lower knowledge to process the concepts. Almost 50% of the lectures halls are fitted with LCD projectors for facilitate this initiative.

B.5 Collaborative learning

Theory subjects and Lab:

Classes for theory /tutorial and labs are conducted as per well notified Time-table issued by the time table I/C of the department under the signatures of the HOD.

- For lab classes Groups comprising a maximum of five to six students are formed and

each group is given experiment for conduct as per the syllabus of the lab by the faculty and asked to submit a report. Prior to this demonstration is given for the experiment and lab manuals are provided in the lab. For every experiment.

- A class representative is nominated by the co-coordinator of each class for maintaining communication with students.
- An assessment on the reports submitted by the students is done by the faculty to analyse the expected outcome from the activity is achieved.
- The tasks assigned could be from one to three in each semester as decided by the faculty member depending on the course.
- The focus of the tasks is on learning new technologies, enhance the knowledge on a particular topic, studying new tools to be in pace with the industry, doing some mini projects, etc.
- During the Covid-19 pandemic, for Spring 2020, all theory classes were conducted using online platforms. The course teachers taught using different platforms including ZOOM, google meet, Webexin, Microsoft Teams, etc. The student WhatsApp groups were formed for easy communication and weekly course assignments were given using google classrooms.
- For each course, class notes and other materials were also uploaded in the google classroom and on institute website for student's easy accesses.

B.6 Group Discussion

Group Discussions is an excellent strategy for enhancing student motivation, fostering, intellectual agility and encouraging democratic habits. It create opportunities for students to practice and to sharpen a number of skills including the ability to articulate and defend positions, consider different points of view, and enlist and evaluate evidence. The group discussions are promoted in the theory and lab classes.

B.7 Assignments

The purpose of the writing assignments is to help each student develop research and communication skills so they obtain the necessary information literacy skills to complete the engineering curriculum.

Writing assignments is a flexible means of demonstrating learning as well as a method of exploring one's thinking to stimulate learning. The civil engineering department strictly follows this method

- A minimum of two assignments is given for each course in a semester.
- The assignment given could be theoretical or a practical implementation.
- The assignments are designed so that the COs, POs and PSOs are covered in the questions asked in the assignments.
- In view of Covid-19 pandemic and other administrative lockdowns in the UT of Jammu and Kashmir, for Autumn 2019 semester onwards all course assignments including video demonstrations for laboratory assignments uploaded in Google classroom and institute website for the easy access to students.

B.8 Conducting Quiz

- Quizzes are conducted for all courses in all semesters.
- At least one quiz competition is held per course in a semester.
- Faculty keeps a document of the quiz questions.
- The mode of conducting quiz is oral and in the class.
- Quiz Competitions are organized to promote scholastic excellence and to provide a venue for interaction amongst students.

B.9 Tutorials

Tutorials are generally intended to

- Enables the students to pursue their individual academic interests within the context of the subject.
- Helps the students to gain a deep understanding of the subject matter.
- Develop students' ability to think and act likes a professional in their discipline.
- Develop students' basic academic skills like identification and evaluation of relevant resources, effective communication, effective time-management etc.
- For each subject, at least one hour in every week is allotted for conducting tutorial as shown under the heading "Structure of Curriculum" above.
- A tutorial register is maintained for each subject and regularly maintained by the concerned faculty.

B.10 Self-Learning Facility

The self-learning facilities provided in the institute are:

- A Common Computing Centre equipped with more than 100 computers is available 12 hours per day with high speed internet facility.
- A departmental computer lab equipped with 50 computers having necessary system and application software's is available for students to carry out their work.
- A Central Library with an excellent collection of Books, Journals, Technical magazines, Newspapers and non-book materials in engineering and technology, science, humanities and management like CD-ROM's are available.
- The digital library provides IP enabled access to a large number of full texts on line journal databases from the various publishers such as Science direct etc.

B.11 Co-curricular Activities

Lectures/ Seminars

- Eminent personalities are invited (visiting) from field deliver lectures articulating their thoughts and elaborating on their well-known works.

B.12 Class Assessment

The performance of students' ids made through surprise vive-voce to improve regularity of students in class and reading.

B.13 Industrial Training and Industrial Visits

The objectives of the industrial training is to expose the students to the engineering practice which is specific to their course specialization and to expose the students to the responsibility of an engineer and the engineering profession to develop the

students' communication skills that include daily interaction within the working environment and technical writing.

- The students of the civil engineering department are deputed to very important infrastructure projects for undergoing industrial training of minimum 6 weeks, at 5th and 6th semester levels.
- The same is evaluated at the end of 7th semester.
- In addition the students have several industrial visits depending upon faculty members.

B.14 Exhibitions

- Project exhibitions are encouraged during programs of technical festivals such as TECHVAGANZA etc. organized by NIT Srinagar.
- Students are encouraged to take part in exhibitions conducted by various organizations so that their innovative ideas are made known to the public.

C. Methodologies to support weak students and encourage bright students (02)

- The students scoring above 75% marks are grouped as bright students and measures are taken to encourage these bright students.
- The measures taken include the following and additional actions may be added according to the requirement:
    - Provided details of advanced books to be referred.
    - Suggest e-resources and journals.
    - Exposure new tool/ software.
    - Encouraged to take additional mini-projects
    - Allowed to engage a class on a particular day
- Bright students are asked to help weak students to boost their morale.
- Prepare quiz on topics from the subject.

Assistance to weak students

- The students who scored less than 50% marks are grouped as weak students.
- Remedial classes are conducted for the weak students by faculty.
- The number of hours taken for remedial classes is decided by the faculty as required.
- Remedial tests are conducted for the weaker students thereafter and the results are analyzed to identify the impact of the remedial classes.
- Additional measures are taken by the respective faculty in cases where the students fail to achieve the objective of remedial classes.

D. Quality of classroom teaching (Observation in a class) (2)

In order to facilitate the better classroom teaching the faculty members arrange the students in a classroom is such a way that the weaker students are constantly being monitored by the faculty member. It is always ensured that a weaker student is seated with a bright student. The classification of weaker and bright students is based on the

grades in the previous semesters and mutual consultation of the faculty members. There is constant interaction between the students and the faculty in a class. The faculty members encourage the students to interrupt the teacher during the lecture for asking questions. The relevance and the depth of the question help the faculty to assess the quality of the students and also the interest of the students in acquiring the knowledge. It consists of:

- A Faculty member stops during the lecture and asks questions regarding the topics which the faculty was discussing previously in the classroom. This ensures that the students remain attentive during the delivery of the lecture.
- The weaker students are frequently asked to repeat what the faculty is teaching in that particular class so that the students constantly maintain the rough notebook in the classroom.
- The faculty member would make rounds in the classroom so that the lectures are recorded by the students in the classroom.
- Numerical problems in the classroom are assigned to the students, group wise. Each group is monitored so that a healthy atmosphere of discussion among the students is initiated to solve the problems.

E. Conduct of experiments and continuous assessment in the laboratory (Observation in a Lab) (2)

- A lab manual is maintained in each laboratory.
- Each laboratory include three types of experiments:
    - Experiments in the prescribed syllabus.
    - Experiments that cover advanced topics.
    - Open-ended Experiments.
    - All the experiments in the prescribed syllabus are compulsorily followed and completed by the end of the semester.
    - Students should complete at least two or three experiments that cover the advanced topics in each laboratory.
    - Open-ended Experiments could be assigned by the faculty or the students may choose an experiment on their own to be completed in the laboratory.
    - The objective and the procedure for all experiments in the prescribed syllabus and is available in the lab manual.
    - The solution along with the objective and the procedure are added to the lab manual for the experiments that cover advanced topics.
    - Groups comprising a maximum of five to six students are formed in each class.
    - One from the group is designated as the group leader.
    - Each group may be assigned tasks by the faculty and a report on the activity is provided by the respective group leader.
    - Every student maintains a rough record to record the details of work done in each laboratory session.
    - The students are directed to write the step by step procedure to achieve a solution

for the given experiment.

- The faculty-in-charge checks the procedure and then students can proceed with doing the experiment.
- Student should record the observations in the rough record while doing the experiment.
- Students may also analyse the data to plot graph or other related work.
- The final output is verified by the faculty-in-charge.
- Students should add the details of the experiments done in the laboratory to the prescribed record book.
- Students can appear for the Practical Examination only if the record is certified by the faculty-in-charge.
- In view of Covid-19 Pandemic and other administrative lockdown in UT of Jammu and Kashmir, from Autumn 2019 all lab. sessions were conducted online; the recorded lab experiments were uploaded in the google classroom and institute website for easy access to students.

F. Continuous Assessment in the Laboratory (2)

The students are asked questions about the previous lab classes and small class tests are conducted frequently besides the discussion on and evaluation of the Lab notebooks prepared and maintained by the students.

G. Students feedback of teaching learning process and action taken (1)

Student's feedback

- It is a valuable for identifying areas for instructional improvement.
- The feedback is taken at the end of each semester.
- The HOD provides the suggestions for improvement based on the feedback of the students wherever needed. The format of the student feedback follows:

COURSE APPRAISAL/ FEEDBACK FORM

COURSE NO & TITLE: DATE:
FACULTY NAME: SEM:

PLEASE TICK IN THE APPROPRIATE BOX

S. No.	**Course Organization**	5	4	3	2	1
1	Were the objectives and course plan clearly specified?					
2	Was the course coverage and depth adequate?					
3	Did the topics provide any new knowledge?					
4	Was the prescribed study material readily available?					
	Presentation and Interaction					
5	How were the lectures in terms of clarity and presentation of the fundamental concepts?					
6	Rate the audibility and articulation of the instructors oral presentation					
7	Did the instructor encourage think logically and objectively?					
8	Was the instructor's response to the questions asked in the class satisfactory?					
9	Rate the instructor's attitude towards teaching of this course.					
10	Were the classes held regularly and on time?					
11	Rate the overall quality of teaching in this course					
	Evaluation					
12	Did the examinations reflect the courses plan?					
13	Were the examinations of appropriate level and length?					
14	Were the answer script promptly checked and returned?					
15	Was the grading fair and transparent?					
16	Did the midterm evaluation improve the understanding of this course?					

5=Excellent; 4=V. good; 3=Good; 2= Average and 1= Just satisfactory

Would you rate this course as one of the five best courses you have had so far? Yes/ no
If you have any further comments not covered by this questionnaire, please write below.

- In view of COVID-19 pandemic and administrative lockdown in the UT of Jammu and Kashmir, the mode of collecting student feedback was changed from offline to online from Autumn 2019 semester onwards. The platform of google forms was utilized by sending the hyper-links of each specific form to all students and hence the data was gathered therefrom.

Feedback analysis

The feedback forms are collected and are deliberated by a designated committee comprising HOD, a Professor, an Associate Professor and an Assistant Professor nominated by the HOD. Depending upon the feedback, the HOD communicates the feedback to the respective faculty member who comes to know about their strengths and deficiencies and gives them a chance to enhance their teaching skills. The HOD gives necessary suggestions, guidance and advice for the areas where improvement is needed. The feedback remains strictly confidential between the HOD and the concerned faculty members so that the morale of the faculty does not get affected.

2.2.2 Quality of end semester examination, internal semester question papers, assignments and evaluation (14)

A. Process for internal semester question paper setting and evaluation and effective process implementation (3)

- **To ensure the quality of the internal semester question papers the following process is adopted**
  - Regular midterm exams are held in strict adherence to the academic calendar of the institute.
  - The question papers are set in such a way that the COs maps the questions asked.
  - The question papers are examined and verified by the HOD to ensure the standard of the paper and ensures that the COs of the course are covered. The questions papers are modified if HOD is not satisfied with standard requirements of the question paper.
  - The questions asked are well balanced to ensure that all the components such as knowledge, comprehension, application, analysis etc. are encompassed.
  - Due to online mode of teaching-learning owing to COVID-19 Pandemic and administrative lockdown in the UT of Jammu and Kashmir, the midterm and end-term examinations from Autumn-2019 were conducted using online MCQ / descriptive type questions. The midterm exam was reduced from 90 minutes to 30 minutes for MCQ type.

- **To ensure the quality of the assignments following procedure is adopted**
  - At least two assignments are given before midterm and after the midterm (before the commencement of the major exam)
  - The assignments are designed to map the COs of the course.
  - The assignments are designed to cover both theoretical and numerical portion of the course.
  - The assignment s covers knowledge, comprehension, application, analysis etc. of the course.
  - The assignments may have questions designed by the faculty or an open book type.
  - The evaluated assignments are returned to the students with the remarks of faculty so as to point out the mistakes.
  - The marks earned by the students are displayed on the notice board for transparency so that the students come to know about the marks before final submission to the controller of examinations.

- **To ensure the quality of evaluation following procedure is place in the**

department

- The scheme of evaluation and solution to the problems in the question papers are prepared by the respective faculty in advance.
- The CO coverage and the marks allotted are recorded by the faculty. The
- The evaluated answer books are returned by the faculty to the students. The Students feedback is received by the faculty regarding the evaluation of each question.
- The students are encouraged to discuss any doubt or discrepancy regarding the evaluation.
- The marks of the students are forwarded only when the students are satisfied with evaluation.
- It is the statutory procedure of the institute to show the evaluated answer books to the students, once the students give in writing the that they have seen the answer books. The marks are forwarded to the concerned quarters.

- **To ensure the quality of the internal semester question papers, the following process is adopted:**
  - Regular midterm exams are held in strict adherence to the academic calendar of the institute.
  - The question papers are set in such a way that the COs map with the questions asked.
  - The question papers are examined and verified by the HOD to ensure the standard of the question paper and ensures that the COs of the course are covered. The questions papers are modified if HOD is not satisfied with standard requirements of the question paper.
  - The questions asked are well balanced to ensure that all the components such as knowledge, comprehension, application, analysis etc. are encompassed.
  - To ensure the quality of evaluation, following procedure is in place in the department
  - The scheme of evaluation and solution to the problems in the question papers are prepared by the respective faculty in advance.
  - The CO coverage and the marks allotted are recorded by the faculty.
  - The evaluated answer books are returned to the students by the faculty after evaluation, both in midterm and major exam. The students are encouraged to discuss any doubt or discrepancy regarding the evaluation.
  - The marks of the students are forwarded to the academic & examination section only after the students are satisfied with evaluation.
  - No student is left without seeing his evaluated answer books.

B. Process to ensure questions from outcomes/ learning level perspective (01)

- For each subject, a tentative question list is prepared according to the COs.
- While setting the question paper, previous institute exam papers of at least three years are taken into consideration to avoid repetition of questions.
- While setting a question papers an attempt is made to follow Bloom's taxonomy. The questions are prepared according to the level of toughness (viz., analysing the problems, implementation of modern tools, formulating the problems etc.).

The questions asked are of three categories:

- Questions of elementary level and can be answered by an average student, which require fundamentals of the course.
- Questions that need analysis and use of content covered as per syllabus.
- A few questions are based on advanced level. The solution of these

questions/problems require certain amount of critical thinking, analysis and knowledge.

C. Evidence of COs coverage in class test / mid-term tests (5)

- All class test and mid-term test papers cover all topics relevant to COs.
- A record of all class tests / mid-term tests / end semester test is maintained and submitted to the HOD for his perusal to ensure that all the topics are covered in these exams.
- A HOD/faculty member ensures that the questions asked previously (midterm) are not repeated so that major portions of COs are covered.
- All the faculty members are compulsorily required to maintain a question paper file (soft and hard copy) where all the question papers are saved so that question paper for end term is set without repeating of any question from midterm. This scheme helps to prevent repetition of questions and coverage of maximum COs.

D. Quality of assignments and its relevance to Cos (5)

- Assignment issue and submission dates are announced by the respective faculty members.
- A minimum of two assignments are given for each subject.
- To ensure the quality of the assignments following procedure is adopted
- The assignments are designed to map the COs of the course.
- The assignments are designed to cover both theoretical and numerical portion of the course.
- The questions given are categorized to knowledge, comprehension, application, analysis, evaluation and synthesis levels.
- Faculty can choose the type of assignment to be given (questions/ open book test/ seminars or presentations)
- In the evaluation of assignment, the required feedback corresponding to each answer is given by the faculty, so that the student can understand the mistake.
- The faculty after submission of every assignment explains the solution of the questions in the class which enable the students to perform well in the final examination.
- For any genuine reason, if a student is unable to perform well in the given internal assessment tests or assignment, improvement test is given to him/her.
- If a student remains absent for all the tests conducted, they are marked as "Absent" in the result.
- Assignments are used as a tool for practice and evaluation is based purely on internal assessment.

The assessment tools and processes used to gather the data upon which the evaluation of Course Outcome is based.

(A) List of assessment tools & processes

1. Direct Assessment Methods:

i. Continuous internal evaluation consisting of class surprise tests, mid-term examination, make-up tests, presentations and semester examination

ii. Assessment is implemented by conducting a written scheduled midterm

examination of 90 minutes duration having a weight age of 30%, class performance through assignments /interaction/tutorials/viva etc. having 10% and an end-semester major examination of 180 minutes with a weight age of 60%.

iii. As a result of the administrative lockdown during the abrogation of article 370 in J&K, the implementation of assessment for Autumn 2019 was changed to a written scheduled end-term examination of 180 minutes' duration having a weight age of 90%, and class performance through assignments /interaction/tutorials/viva etc. having 10% weightage.

iv. In view of COVID-19 pandemic, the mode of conducting the exam has been shifted from offline mode to online for Spring 2020. A scheduled midterm examination through online mode of 30 minutes' duration mostly MCQ type having a weight age of 30%, class performance through assignments /interaction/tutorials/viva etc. having 10% and an end-semester major examination with a total weightage of 60% was followed across institute. End-term examination constituted of an online test of 30 minutes with a weight age of 30%, comprehensive viva voice examination through online mode with a weightage of 20% and assignments with a weightage of 10%.

2. Indirect Assessment Methods:

i. Course exit survey

ii. Feedback from students

iii. Placement and higher studies

(B) The quality/relevance of assessment processes and tools used

Theory: A written examination covering the course contents taught having analytical involvement and other aspects as per the domain of the course with standard questions as per given time. The examinations are conducted as per a centrally notified schedule as the academic calendar.

Class Assessment: A continuous class assessment is done in the form of quiz, presentation and/or assignments.

Practical Exam: The lab exam is conducted by a committee formed by the Institute Examination cell along with the course coordinator.

Project: It gives students the opportunity to synthesize and apply the knowledge and analytical skills learned in the different disciplines. The project work is started in the seventh semester and continues on to eighth semester. Students are divided into groups of 3or 4 and programme coordinator allots a project guide for each group. The final evaluation is done by the project evaluation committee which also consists of an external from sister departments.

Seminar: The students present a seminar presentation on a topic of their choice and approved the assigned seminar guide. Seminar is evaluated based on the presentation by the students before an evaluation committee consisting of four faculty members.

Attainment of Course Outcomes of all courses with respect to set attainment levels

(a) Course outcome attainment levels:

The attainment levels are fixed as under:

Assessment Method	Level	Attainment levels
Minor	1	50% of the students scoring more than 40% marks
	2	60% of the students scoring more than 40% marks
	3	75% of the students scoring more than 40% marks
Major	1	50% of the students scoring more than 40% marks
	2	60% of the students scoring more than 40% marks
	3	75% of the students scoring more than 40% marks
Continuous Assessment	1	50% of the students scoring more than 40% marks
	2	60% of the students scoring more than 40% marks
	3	75% of the students scoring more than 40% marks

Table B.2.2.2a

The benchmark of attainment levels for the Academic year 2019 -2020 and onwards is fixed at 50%.

(b) Course outcome Attainment calculation of a course
Hydropower Engg (CIV-801)

Assessment Tool	CO1	CO2	CO3	CO4
Minor (Average)	3	3	3	3
Major	3	3	3	3
Continuous Assessment (Assignment)	3	3	3	3
Overall average	3	3	3	3
Overall CO	3(level 1)			

Table B.2.2.2b

$$\text{Direct CO} = \frac{3\,(\text{Mid—TERM})}{10} + \frac{6\,(\text{Major})}{10} + \frac{1\,(\text{Class Assessment})}{10}$$

Substituting in the above formula

$$\text{Overall CO} = \frac{3\,(3)}{10} + \frac{6\,(3)}{10} + \frac{1\,(3)}{10} = 3$$

For Autumn 2019 academic semester only, the following assessment formula was used (due to change in pattern of examination as result of lockdown due to abrogation of article 370 in erstwhile state of Jammu and Kashmir):

$$Direct\ CO = \frac{9\ (Mid-Term)}{10} + \frac{1\ (Class\ Assessment)}{10}$$

(c) CO Attainment of all courses (Autumn 2017-Spring 2019)

Course Code	Overall CO Attainment
PHY-101	2.65
PHY-102	2.75
HSS-101	3.0
CHM-101	2.75
CHM-101 L	2.75
MTH-101	2.25
CIV-102	2.4
PHY -201	3.0
PHY-202	3.0
HU-201	2.3
CHM-201	2.8
CHM-201L	2.3
MTH-201	4.5
CIV-201	2.25
CIV-301	1.15
CIV-302	2.8
CIV-303	2.83
CIV-304	2.2
CIV-401	2.52
CIV-403	2.05
CIV-404	2.91
CIV-405	2.6
CIV-501	1.88
CIV-502	1.92
CIV-503	2.05
CIV-504	1.32
CIV-505	1.82
CIV-511(E1)	2.125
CIV-511(E1)	3
CIV-601	1.84
CIV-602	2.58
CIV-603	2.27
CIV-604	1.9
CIV-611(E1)	2.52
CIV-612-E1	2.575
CIV-612-E2	1.2
CIV-703	3
CIV-704	2.43
CIV-711(E2)	
CIV-801	2.4

CIV-802	1.57
CIV-811(E1)	3
CIV-811(E1)	2.12
CIV-812(E2)	2.32
CIV-812(E2)	2.575
CIV-812(E2)	1.67
CIVIL-402	2.845

Table B.2.2.2c

(d) CO Attainment of all courses (Autumn 2019-Spring 2020)

Course Code	Overall CO Attainment
CIP100/ CIP-100 (CIV)	2.207
CIL100/ CIT-100 (CIV)	1.624
MEL100	2.82
PHY-101/PHL100	2.70
HUL-100	2.670
CHM-101/CYL-100	2.78
MTH-101/MAL100	1.56
HUP-100	2.30
PHY-102/PHP100	2.78
WSP100	2.9
HUL-101	2.600
EEL-100	2.38
ITL100	2.9
CYL-101	2.75
MTH-201/MAL-101	3
ELP-100	2.8
CYP100/CHM-101 L	2.80
ITP100	2.7
MAT-202/MTH-303	1.96
HSS 301	2.91
CIV-301	2.95
CIV-301 (P)	2.8
CIV-302	2.75
CIV-302(P)/CVL 202	2.9
CIV-303	1.61
CIV-303(P)	2
CIV-304	2.28
CVT-301/CIV-501	2.06
CVT-350	2.90
CIV-401	2.808
CIV-401 (ELECTIVE)	3
CIV-402	3
CIV-402(P)	3
CIV-403	2.375
CIV-403(P)	1.925
CIV-403(SC)	2
CIV-404	2.935

CIV-404 (P)	2.5
CIV-405	2.750
MTH-403	3.000
CIV-501(P)	3.000
CIV-502	2.280
CIV-502(P)	2.680
CIV-503	2.096
CIV-503(P)	3
CIV-504	1.1
CIV-505	2.690
CIV-506(E1)(CT)	2.250
CIV-506(E1)(ES)	2.46
CIV-601	2.800
CIV-601(P)	3.000
CIV-602	2.620
CIV-602(P)	3.000
CIV-603	2.900
CIV-603(P)	3
CIV-604	2.888
CIV-611(E1) (AGE)	2.440
CIV-611(E1) (WSM)	2.324
CIV-612-E2 (AH)	3
CIV-701	2.58
CIV-701 (P)	2.8
CIV-702	2.77
CIV-703	3.000
CIV-704	3
CIV-705	2.232
CIV-711(E1) (ASA)	2.16
CIV-711(E2) (R&AE)	2.960
CIV-801	3.0
CIV-802	2.800
CIV-811(E1) (RM&TE)	2.232
CIV-811(E1) (TP&E)	2.94
CIV-812(E2) (GIT)	2.633
Average	**2.60**

Table B.2.2.2d

The expected level of attainment for each outcome:

The expected level of each Program Outcome (POs) and Program Specific Outcome (PSOs) is given in Table 2.2.2e.

Expected level of attainment for each outcome

Description of Programme outcome (PO) / Programme specific outcome (PSO)	**Expected level of attainment**
PO1: Basic knowledge of contemporary Science and Technology along with Civil Engineering fundamentals and essential computational techniques/procedures that aid in solving real life engineering problems.	2 – 2.5

PO2: Formulate and analyze a complex civil engineering problem supported by literature survey leading to substantial conclusions.	2 – 2.5
PO3: Solutions for complex civil engineering problems and design system components/processes keeping in view the appropriate considerations for the public health and safety, society, culture and environment.	2 – 2.5
PO4: Systematic approach includes design of experiments, analysis and interpretation of data, and synthesis of the information to investigate a complex civil engineering problem using research-based knowledge to obtain reasonable conclusions.	2 – 2.5
PO5: Develop and use appropriate state-of-the-art software's and modern IT-based engineering tools/resources for modeling of complex civil engineering problems, dully identifying the limitations.	1.5 - 2
PO6: Utilize the contextual information in order to examine societal, health, safety, legal and cultural issues and identify the consequent responsibilities relevant to the professional engineering practice based on reasoning.	1.5 - 2
PO7: Ensure sustainable development by means of professional engineering solutions in context of the impact on the environment and the society.	1.5 - 2
PO8: Adhere to professional ethics and norms, and respect human values while practicing the engineering profession.	1.5 - 2
O9: Perform efficiently as a member or leader of a team or as an individual in diverse work environments	1 – 1.5
PO10: Deliberate effectively and clearly on activities related to engineering profession and to comprehend and communicate ideas, interpretations and outcomes of an engineering analysis efficiently in both verbal and printed form.	1 – 1.5
PO11: Implement knowledge and understanding of the engineering principles together with efficient management of time and financial resources as a leader or a team member in executing engineering projects.	2 – 2.5
PO12: Inclination to life-long learning through self-education, interaction with stalwarts in the field of civil engineering, participation in professional societies and constantly updating the knowledge regarding recent developments.	2 – 2.5
PSO1: Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as software's towards solving technical problems requiring civil engineering interventions.	2 – 2.5
PSO2: Ability to furnish and/or analyze designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.	1.5 - 2
PSO3: Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of surveying.	2 – 2.5

Table B.2.2.2e

Example Evaluation:
Course taken: Hydro power Engg. & DOS II CO-PO Mapping Matrix

COURSE		PO 1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Hydro Power Engg. Civ-801	CO1	3	3	3	3	-	2	2	1	-	2	-	2
	CO2	3	3	3	3	-	2	2	1	-	2	-	2
	CO3	3	3	3	3	-	2	3	1	-	2	-	2
	CO4	3	3	3	3	-	3	3	1	-	1	-	3
DOS-II CIV-601	CO1	3	3	3	3	2	1	2	2	-	-	3	2
	CO2	3	3	3	3	2	1	2	2	-	-	3	2
	CO3	3	3	3	3	2	1	2	2	-	-	3	2
	CO4	3	3	3	3	-	3	1	2	-	-	3	2
	CO5	3	3	3	3	-	1	-	-	-	-	3	-
	CO6	3	3	3	3	-	3	-	-	-	-	3	-

Table B.2.2.2f

CO-PSO Mapping Matrix

COURSE		PSO 1	PSO 2	PSO 3
Hydro Power Eng Civ-801	CO1	2	3	3
	CO2	2	2	2
	CO3	3	3	3
	CO4	3	3	2
DOS-II CIV-601	CO1	3	2	2
	CO2	3	2	2
	CO3	3	2	2
	CO4	3	2	2
	CO5	3	2	2
	CO6	3	2	2

Table B.2.2.2g

CO-Attainment Matrix

Assessment Tool	CO 1	CO 2	CO 3	CO 4
Minor (Average)	3	3	3	3
Major	3	3	3	3
Continuous Assessment (Assignment)	3	3	3	3
Overall average	3	3	3	3
Overall CO	3(level 1)			

Table B.2.2.2h

COURSE-PO Mapping Matrix

COURSE		PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Hydro- Power Engineering	Actual	3	3	3	3		2.25	2.5	1		1.75		2.25
	Attained	2.1	2.1	2.1	2.1		1.4	1.8	0.7		1.8		1.6

Table B.2.2.2i

Actual PO level is calculated by taking the average of POs from table 3.14.

Attained PO level is calculated by considering the COs to which the POs are related from table 3.14 and corresponding Co attainment from table 3.16

$$\text{Attained level for PO1} = \frac{\{(3\times3)+(3\times3)+(3\times3)+(3\times3)\}}{4\times3} = 3$$

Similarly, actual PSO level and Attained PSO level are calculated.

COURSE-PSO Mapping Matrix

COURSE		PSO1	PSO2	PSO3
Hydro-Power Engineering	Actual	2.5	2.75	2.5
	Attained	2.7	3.0	2.7

Table B.2.2.2j

Direct attainment is calculated by taking the averages of POs of all courses.

How results are documented and maintained

The documents related to direct and indirect assessment tools to calculate the attainment of program outcomes are maintained by the department and are listed as follows:

Document Maintenances

Sr. No	Assessment Tool	File Name	Faculty Responsible
1	Theory Examinations	Final Award Roll File	Head of the Department
	Midterm Examination	Course file	Course coordinator
	End Semester Examination	Semester result file	Course coordinator/ Head of Department
2	Laboratory exams	Laboratory Evaluation file	Course coordinator/ Head of Department
3	Comprehensive viva voce	Comprehensive viva voce examination file	Project coordinator/Head
4	Major project	Project Evaluation File	Project coordinator/Head
5	Seminar	Seminar Evaluation File	Project coordinator/Head
6	Placement	Placement record file	Placement coordinator
7	Publication work	Student publication work file	Program coordinator
8	Graduate exit and other survey	Stakeholder Feedback file	Program coordinator

Table B.2.2.2n

2.2.3 Quality of the student projects (18)

Process for identification of students projects

The projects are divided into different major groups depending availability of the specialization of the faculty and more or less allotted to faculty on a uniform basis.

A. Identification of project and allocation methodology to faculty members (2)

- The student's project activity starts at the commencement of the 7th semester.
- Students are divided into groups of 3-4 students.
- The students submit their area of interest for the project work so that the students explore and utilize their talent fully in order of preferences.
- Using principle of uniform distribution of students among the faculty available in different areas, students are assigned the faculty supervisor.
- The project proposals are framed by the students in consultation with the supervisor and discussion in the faculty group of the particular area of work and the finalized topics are submitted to the co-coordinator and HOD.

Process for continuous monitoring of student projects

- Students are directed to maintain a project diary to record the activities on day to day basis regarding the project work. The recorded included the details of their interactions with the project supervisor.

Process to ensure the quality of student projects

- The Project evaluation committee and the project guide together will analyse the nature of the project during the different stages of evaluation and make sure that the work is environment friendly, ensures safety, ethics and is cost effective.
- The projects are classified into different areas and their relevance to PO's and PSO's are identified to ensure its quality.

Flow diagram for allotment of project work:

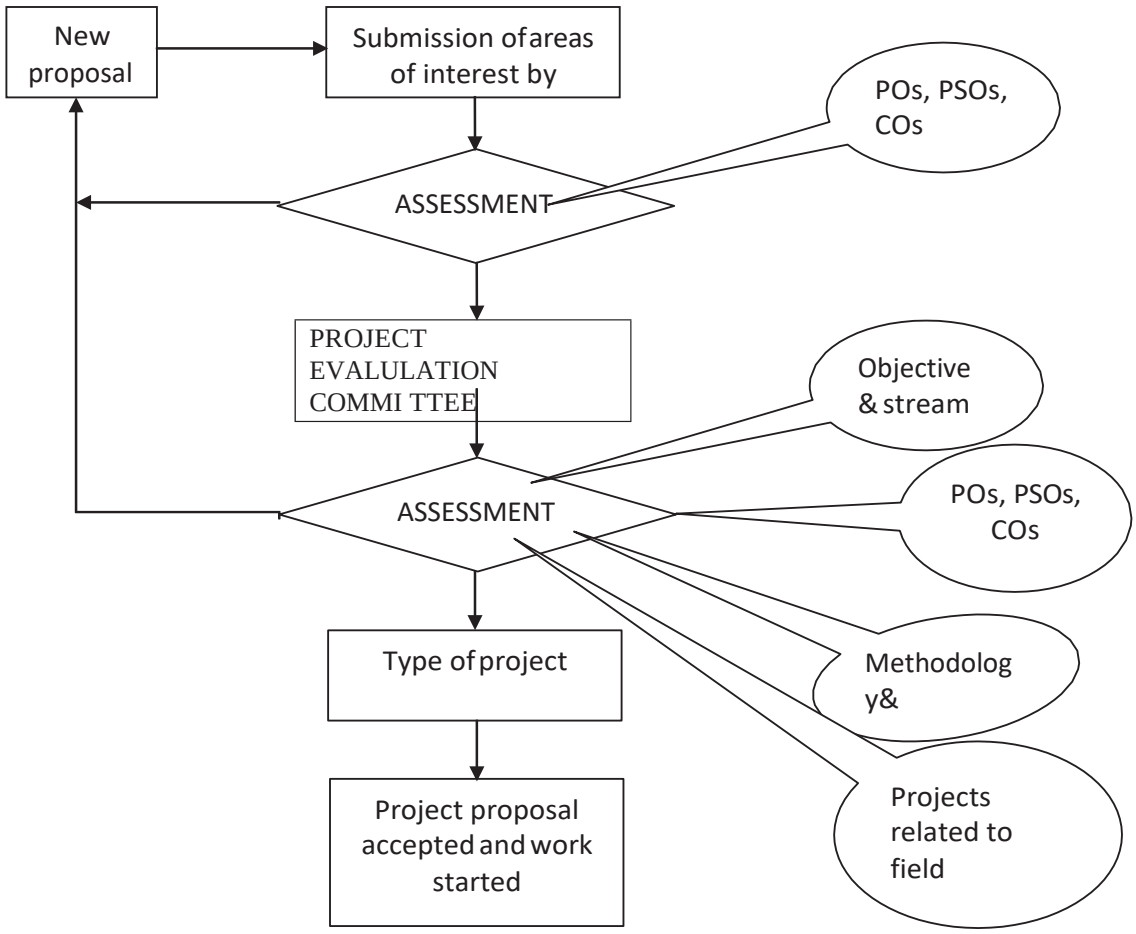


Figure B.2.2.3

A. Type and relevance of the projects and their contribution towards of POs and PSOs (01)

Project areas	Mapping with POs	Mapping with PSOs
Structural Engg	PO1 to PO12	PSO1 –PSO3
Geotechnical Engg	PO1 to PO12	PSO1 –PSO3
Transportation Planning & Engg	PO1 to PO12	PSO1 –PSO3
Water Resources & Env. Engg	PO1 to PO12	PSO1 –PSO3
Geology & Allied	PO1 to PO12	PSO1 –PSO3
Relevance to the POs and PSOs:	High	

Table B.2.2.3a

Department of Civil Engineering
National Institute of Technology Hazratbal Srinagar

Allotment of project/seminar supervisors for 7th semester civil engineering students

Batch: 2013-2017

S.No.	Name of Faculty member	Enr. No./13	Name
1	**Dr. A. R. Dar**	36	SANA FAYAZ
		80	MOHAMMAD SHOAIB MIR
		4	FAIZAN SIDIQUI
2	**Dr. J. A Naqash**	12	ISHFAQ AHMAD TELI
		14	AADIL NABI NATH
		15	ASIM MUSTAQ
		11	ISHFAQ MOHI UD DIN
		21	NAYEEM GULZAR NAJAR
		82	SHASHWAT SIKAWAR
		97	SHASHANK KATIYAR
		94	DEEPSHIKHA SANI
		109	KASURJULLA MAHENDRA
3	**Dr. J.M. Bandy**	18	AAMIR MUBARAK
		19	MUDASIR AHMAD HAJAM
		33	BANWARI LAL
		81	SHRI BHAGWANI SAINI
4	**Dr. J. A. Bhat**	61	YASIR FAROOQ BEIG
		5	MOHD ASLAM KUMAR
		46	ASSIF KHALIQ
		60	VINITA MEHAR
		79	ANKIT GUPTA
		48	MOHAMMAD AMIN KUMAR
5	**Dr. M.A.Tantary**	68	AIJAZ AHMAD
		34	NIKET GUPTA
		40	SANJEEV RAUSHAN
		28	GHULAM HAIDER
		49	AMRENDRA PRATAP RAI
		107	VIVEK UPADHYAY
6	**Er. A. A. Masoodi**	114	HJIMANSHU CHOUDHRY
		115	SANJEEV KUMAR
		93	VISHAL PRAKASH
		65	ARVIND SINGADIA
		71	PRINCA KUMAR
7	**Er. F. A Mir**	8	MUMTAZ AHMAD
		9	AADIL NISAR WANI
		26	SHEIKH AZEEM HAFIZ
		03	RAIMA TARIQ
		30	MUJEEB UL HAQ
		44	MUJTAHID MAMOON ALI

		45	MALIK KAMILA MUSTAQ
8	**Dr. M.Y.Shah**	7	NADIA MUBARAK
		13	HAFSAH AHMAD
		59	AFEER JALAL KHAN
		76	GIRIJA SHANKAR SHARMA
		91	AKASH VERMA
		95	AKSHAY JANWAY
9	**Dr. B.A.Mir**	16	VARUN KUMAR
		22	IMTISAL HUSSAIN SOFI
		23	VIJAY KUMAR

		108	RAMEHANDRA POTALIA
		20	RAHUL KUMAR
10	**Dr.M.S.Mir**	88	NIHAL PANDEY
		90	AVICHAL CHANDRA
		86	ANURAG SHARMA
		39	M. AMINE KUMAR
		85	RAJESH KUMAR
		25	THUPSTAN TSERNG
		101	MANISH KUMAR
		105	ANURAG PRATAP SINGH CHOUHAN
		64	RAMPAL
		24	SANTOSH KUMAR
11	**Dr. M. A. Lone**	1	ANJALI DUA
		2	SHIVRAM VERMA
		29	UMESH MAHOR
		39	RAHUL VERMA
		70	ABHINAV KUMAR
		75	ROBBY LAL
12	**Dr. M. A. Ahangar**	54	MANAN SHABIR SHERWANI
		52	SHAEQ SHOWKAT
		56	ARSLAN AMIN
		51	MIR DAWAR HABIB
		98	MANOJ KARELA
		100	DEVESH KUMAR
13	**Dr. A.Q.Dar**	106	SHIVAM TIWARI
		27	MOHD ANJUM
		31	HEEMANT MEENA

		63	PRADEEP KUMAR
		72	ABHISHEK KUMAR GAAUTAM
		78	DILIP KANADA
14	**Er.R.R.Mir**	87	AMIT RANJAN
		92	SANJAY KUMAR
		96	RAHUL CHUREY
		99	HEENA RAWAT
		103	ASHISH KUMAR
		110	AMRESH KUMAR

		104	ASHWANI KUMAR
15	**Er.Danish Ahmad**	89	ABDULLAH ANSARI
		116	MOHD ALTAF SHAH
		57	HAKEEM NADEEM SARWAI
		111	ROHIT KUMAR
		112	JITENDRA SINGH
16	**Dr. S.K.Bukhari**	10	MOIN UL ISLAM`
		43	MOONIS UL ISLAM MATOO
		66	SHUBHAM JADIJA
		74	VINOD KUMAR SHARMA
		84	SHUBAM BADGAL
		102	DEVKARAN

Table B.2.2.3b

Department Of Civil Engineering

National Institute Of Technology Hazratbal Srinagar

Allotment of project/seminar supervisors for 7th semester civil engineering students:

Batch: 2014-2018

S.No.	Name of Facultymember	Enr.No.	Name
1	**Dr. A. R. Dar**	24/14	MUHEEB MAJID NAJAR
		25/14	MUGEES TAHOOR
		26/14	MOHD HASEEB SHORA
		30/14	OWAIS SALEEM
		33/14	VIMAL JEET KHAJURA
		38/14	SUDHANSHU MAHAJAN
2	**Dr. J. A Naqash**	20/14	IMTIYAZ AHMAD AHANGER
		28/14	MEHBOOB ALI KHAN
		47/14	ZAKIR HUSSAIN
		101/14	DEEPAK
		104/14	GAURAV KUMAR
		105/14	SUNEEL KUMAR
3	**Dr. J.M. Bandy**	51/14	ABDUL BASIT KHAN
		53/14	MOHAMMAD SHAMSUL HAQ
		57/14	AMIR AZIZ SHEIKH
		86/14	PREM SINGH MEENA
		106/14	NEERAJ AGRAHARI
		643/14	RAVINDRA SINGH
4	**Dr. J. A. Bhat**	11/14	DACHEN DAWA
		642/14	PUSHKAR PRETAP SINGH
		70/14	BHANU PRATAP SINGH
		78/14	HIMANSHU GUJAR
		80/14	AVINASH KAJLA
		92/14	SUNIL KUMAR CHAHAR
		83/14	AZAD AHMED
		644/14	MOHD ASIF KHAN
		97/14	GULSHAN GARED
		98/14	SUNIL

		100/14	NARENDRA KUMAR
		118/14	JAGDISH PALIWAL
6	**Er. A. A. Masoodi**	119/10	SHIVDAR
		121/14	VAIBHAV GUPTA
		635/14	DEVESH SONI
		645/14	AMIT KUMAR
		650/14	LOVEKUSH KUMAR
		112/14	DINESH
7	**Er. F. A Mir**	120/14	MOHD ILYAS BHAT
		637/14	MD. SARFARAZ REYAZ
		641/14	MOHD RIZWAN
		638/14	KATIKI REDDY PRAVALLIKA
		639/14	AMIT SHUKLA
		646/14	ASHOK SHAIMA
8	**Dr. M.Y.Shah**	04/14	MS.SEERAT MALIK
		13/14	MS.SUZEENA IFTIKHAR
		16/14	MS. INSHA MUZAFFAR MALIK
		45/14	GURTEJ SINGH
		63/14	BAL GOPAL NAGAR
		87/14	MESHRAJ SINGH
9	**Dr. B.A.Mir**	654/14	BASIQ NASEER KHAN
		653/14	LALA MUSEDIQ ABBES SHABIR
		647/14	MOIN KHAN
		122/14	PARAS RATHORE
		636/14	ANIL KUMAR
		110/14	DEEPAK KR JHA
10	**Er. Falaq Zahoor**	03/14	MS.SUHAILA ANJUM
		05/14	WASEEL AHMAD DAR
		07/14	MS.FAAKIRAH RASHID MIR
		29/10	ANIES UL AMIN
		35/14	AAQIB RASHID BAHT
		54/14	NAVEED UL HASSAN
		55/14	MUIZ AHMED BHAT
		69/14	NAVEED MURTAZA GULZAR
		115/14	MIR FAZIAN FAROOQ
		21/14	ZUBAIR ZAHOOR BANDEY
		651/14	ASIF JEELANI BHAT
		652/14	ANAYAT BAHSIR
11	**Dr. M.S.Mir**	108/14	PRAKESH KUMAR
		111/14	SHUBHAM JAIN
		113/14	DAKSH JAIN
		114/14	VIPIN VIJAY
		116/14	SANJIV KUMAR BHARGEVA
		117/14	SONU KUMAR
12	**Dr. M. A. Lone**	01/14	HARIS WAJEEH MIR
		09/14	MAJID MOHI-UL-DIN
		12/14	SHAHIQ AHMAD WANI

		52/14	VISHAL TIKU
		60/14	PIYUSH KUMAR VAIBSHY
		61/14	CHANDRA KANT BHASKAR
13	**Dr. M. A. Ahangar**	08/14	UBAID HYDER MIR
		14/14	SYED ABDUL MATEEN
		15/14	SALMAN SADAT DAR
		64/14	VIKRAM JEET SINGH
		65/14	PANKAJ KUMAR
		66/14	RAJ KUMAR CHOTLA
14	**Dr. A.Q.Dar**	23/14	PANKAJ KUNDAL
		31/14	AMARJEET SINGH
		41/14	RANJEET KUMAR THAPA
		43/14	SHUBAM MAHAJAN
		36/14	ANUP KUMAR
		46/14	HIMANSHU ROY
15	**Er. R.R.Mir**	39/14	DHRUV TADWAL
		17/14	ATTI-UR-RAHMAN
		22/14	HOUSHER AHMAD MALIK
		27/14	MOHD IQBAL
		68/14	ANOOP YADAR
		77/14	PRASHANT MISHRA
		79/14	PRAKHAR KANAUJRA
16	**Er. Danish Ahmad**	40/14	AAQIF YOUSF BHAT
		32/14	SUHAIL YAQOOB
		37/14	ADIL RASOOL KUMAR

		50/14	PURUSHESH NAAD
		62/14	DEVENDRA MEENA
		72/14	SUNIDHI SUPRIYA
17	**Dr.S.R.Shah**	19/14	DHEERAJ KUMAR
		89/14	JAGDISH KUMAR KASAUSHAN
		91/14	BHARAT JAYSEWAL
		93/14	ADARSH SEHU
		95/14	AMIT KUMAR
		96/14	AVADHESH KUMAR
18	**Dr.S.K. Bukhari**	49/14	PUSHEP KUMAR
		59/14	SHEIKH AQUIB
		90/14	SHANKAR KUMAR
		123/14	ANUPEM KUMAR
		640/14	ADITYA PRAKASH
		44/14	VINOD KUMAR
		41/13-14	SHAISTA JAN

Table B.2.2.3b

Department of Civil Engineering
National Institute Of Technology Hazratbal Srinagar

Allotment of project/seminar supervisors for 7th semester civil engineering students
Batch: 2015-2019

S.No.	Name of Supervisor	Name	Enr.No.
1	**Dr. A. R. Dar**	Adfar Aaghaz Mir	Civ/53/15
		Zahid Parvaiz	Civ/03/15
		Amir Farooq Shah	Civ/31/15
		Akshay Saxena	Civ/139/15
		Rishabha Tiwar	Civ/140/15
		Anshu Agarwal	Civ/141/15
2	**Dr. J. A Naqash**	Ritik Sharma	Civ/117/15
		Rahul	Civ/120/15
		Abhishek Gourav	Civ/122/15
		Raghuvendra Pratap Singh	Civ/129/15
		Abhishek Panday	Civ/84/15
		Sunil Kumar Patel	Civ/121/15
3	**Dr. J.M. Bandy**	Yashawant Dhayal	Civ/130/15
		Pranjil Chaluhan	Civ/131/15
		Damini Pandit	Civ/132/15
4	**Er. F. A Mir**	Faisal Firdous	Civ/14/15
		Muzamil Shafi Wani	Civ/15/15
		Khalid ur Rehman	Civ/19/15
		Anand Kumar	Civ/109/15
		Devendra Kumar Tiwari	Civ/112/15
		Shailendra Singh	Civ/113/15
5	**Dr. M.Y.Shah**	Samma Malik	Civ/08/15
		Bazela Manzoor	Civ/11/15
		Asmat Nabi	Civ/24/15
		Haroon Rashid	Civ/18/15
		Mudasir Ahmad Zaki	Civ/43/15
		Rafiq Ahmad	Civ/46/15
6	**Dr. B.A.Mir**	Hanan Shawal	Civ/10/15
		Muzamil Hassan	Civ/52/15
		Nasir Ahmad Ahanger	Civ/57/15
		Shakir Ahmad Tarray	Civ/27/15
		Aqib Assad	Civ/28/15
		Imtiyaz Gul	Civ/49/15
7	**Dr. M. A. Lone**	Khushnuma Mushtaq	Civ/17/15
		Nasier Hussain	Civ/29/15
		Ishan Gautam	Civ/61/15
		Sunil Kumar	Civ/33/15
		Tsering Youtan	Civ/42/15
		Kunal Dogra	Civ/44/15
8	**D. M. A. Ahangar**	Bharat Gupta	Civ/59/15

		Ashish Meena	Civ/67/15
		Paul FGaisal	Civ/68/15
		Sahil Sharma	Civ/74/15
		Sunil Dhaker	Civ/133/15
		Jatin Siddhartha	Civ/35/15
9	**Dr. A.Q.Dar**	Pardeep Kumar	Civ/36/15
		Mahesh Kumar	Civ/37/15
		Akhil Kumar Bhagat	Civ/40/15
		Liyaqat Ali	Civ/38/15

		Junaid Ahmad Najar	Civ/41/15
		MD Firoz Alam	Civ/93/15
10	**Dr. J. A. Bhat**	Akash Yadav	Civ/134/15
		Anuraqg Kumar	Civ/135/15
		Kuldeep Chauhan	Civ/137/15
		Shivendra Sahai	Civ/62/15
		Iftikhar Gojri	Civ/75/15
11	**Dr.M.S.Mir**	Afaan Bilal	Civ/04/15
		Faheem Farooq Reshi	Civ/09/15
		Haidayat ullah	Civ/32/15
		Joseph Nicholas Jaideep	Civ/58/15
		Rohtan Singh	Civ/63/15
		Jogeshvar Bhindrar	Civ/65/15
12	**Dr.M.A.Tantary**	Aamir Suhail Hajam	Civ/16/15
		MD Fasihur Rahman	Civ/128/15
		Adfar Aaghaz Mir	Civ/53/15
		Yogesh Kumar	Civ/142/15
		Anil Kumar Yadavq	Civ/143/15
		Vinod Chaudhary	Civ/128/15
13	**Er. A. A. Masoodi**	Markandey Rai	Civ/118/15
		Ravi Kumar Verma	Civ/119/15
		Vikas Chandra	Civ/129/15
		Manishg Kumar	Civ/138/15
		Shnu Kumar	Civ/130/15
		Rishabh Sahu	Civ/131/15
14	**Er.Danish Ahmad**	Kriti Dhiman	Civ/05/15
		Zarnain Fayaz	Civ/06/15

		Aman Srivastava	Civ/136/15
		Vishav Jeet	Civ/12/15
		Sarthak Navesh	Civ/20/15
		Rohit Kumar Bhagat	Civ/25/15
15	**Er.R.R.Mir**	Sahil	Civ/108/15
		Money bGupta	Civ/110/15
		Vivek Kumar Yada	Civ/111/15
		Vinit Jangir	Civ/114/15
		Shubham Kumar Jangir	Civ/115/15
		Diryanshu Nath Tripathi	Civ/116/15
16	**Dr.S.R.Shah**	Abhi Atri	Civ/54/15
		Nitesh Kumar Meena	Civ/98/15

		Sharda Khande	Civ/104/15
		Alahari Jayanth	Civ/105/15
		Aman Kumar	Civ/106/15
		Ankit Kumar	Civ/107/15
17	**Dr.S.K. Bukhari**	Aayat Abid Kamli	Civ/02/15
		Irum Qadir	Civ/22/15
		Shahrukh Saleem	Civ/26/15
		Veenu Thappa	Civ/55/15
		Rohini Angral	Civ/66/15
		Updesh Kumar	Civ/80/15
18	**Er. Falaq Zahoor**	Fuzail Showkat Wani	Civ/60/15
		Sajad Ahmad Malla	Civ/73/15

		Ritika Mongra	Civ/86/15
		S. Mehran Rasool Andrabi	Civ/94/15
		Waseem Ahmad B hat	Civ/77/15
		Mohd Younis Hajam	Civ/07/15
		Wasim Ahmad Katariya	Civ/21/15
		Basit Tariq Guhnow	Civ/23/15
		Pirzada Uzair	Civ/39/15
		Irfan Ahmad Kumar	Civ/45/15
		Hilal Ahmad Najar	Civ/51/15
		Tawseef Iqbal	Civ/30/15

Table B.2.2.3c

Department Of Civil Engineering
National Institute Of Technology Hazratbal Srinagar

Allotment of project/seminar supervisors for 7th semester civil engineering students.

Batch: 2016-2020

Structural Engineering			
S.No.	**Name of Faculty member**	**Name**	**Enr.No.**
1	**Dr. A. R. Dar**	Sheikh Junaid Fayaz	2017BCIV003
		Masroor Shafi	2017BCIV076
		Shakir Rather	2017BCIV044
2	**Dr. J. A. Bhat**	FAIZAN YOUSUF	2017BCIV014
		AAQIB AHMAD HAJAM	2017BCIV042
		Asif Nawaz Ahmad Bhat	2017BCIV040
		JYOTI PRAKASH	2017BCIV101
		Abhay mishra	2017BCIV085
		NITISH KUMAR	2017BCIV084
3	**Dr.M.A.Tantary**	Umer farooq	2017BCIV039
		MIR MUNEEB	2017BCIV007
		M vinay kumar	2017BCIV090
		Venkat Sai boddepalli	2017BCIV100
		Aman Saurav	2017BCIV106
4	**Er. A. A. Masoodi**	Harveer Singh	2017BCIV077
		MOHD ASHRAF KAMRAN	2017BCIV002
		Shivam satyadarshi	2017BCIV112

		Deepak Kumar	2017BCIV029
		Amresh ranjan	2017BCIV079
		Pradeep Kumar Meena	2017BCIV109
5	**Dr. F. A. Sofi**	MOIN IBNE ASHRAF	2017BCIV071
		Faizan ul haq	2017BCIV038
		Vineet Kumar	2017BCIV057
		Tajamul Islam	2017BCIV065
		OWASE AHMAD TEELI	2017BCIV001
		AFROZ	2017BCIV107
6	**Dr. Shakeel Waseem**	Zahoor Ahmad Teli	2017BCIV072
		Syed Faheem	2017BCIV008
		Burhan Ahmad Wani	2017BCIV037
		Azhar ud din Ghakhad	2017BCIV062
		Sanjeev kumar Verma	2017BCIV091
		Rigzen Angmo	2017BCIV075
Geotechnical Engineering			
7	**Er. F. A. Mir**	Soban Nasir	2017BCIV053
		Abrar Naseer	2017BCIV055
		Waseem Niyaz	2017BCIV006
		Mohsin Aadil	2017BCIV047
		Ankush kumar	2017BCIV059
		Anooj Kumar	2017BCIV041
8	**Dr. M.Y.Shah**	Mosin Shabir Bhat	2017BCIV011
		Faheem Ahmad Ahangar	2017BCIV017
		Mohammad Shoaib Shairgogrie	2017BCIV021
		Aalima Showkat	2017BCIV023
		Aijaz Ahmad Baig	2017BCIV012
		Aaqib Ayoub Mir	2017BCIV010
9	**Dr. B.A.Mir**	Taseen Rashid	2017BCIV013
		AAQIB GULL	2017BCIV028
		Nitish kumar	2017BCIV105
		Angad mahawar	2017BCIV093
		MUBASHIR HUSSAIN MALIK	2017BCIV027
		Auqib Rashid Dar	2017BCIV019
Transportation Engineering			
10	**Dr. M.S.Mir**	ZAHID ZAHOOR BHAT	2017BCIV043
		Aman Kumar	2017BCIV049
		Malik Najeebul Feroz	2017BCIV025
		Hebah Jahan	2017BCIV069
		Danish Shafi	2017BCIV036
		Mohd Hussain Swalehi	2017BCIV022
		Danish Bashir	2017BCIV031
		Amit Damathia	2017BCIV005
11	**Dr.Abdullha**	Umer Nabi	2017BCIV034
		Sourabh Mishra	2017BCIV087
		Bisma farooq	2017bciv061
		Ankit Kumar Maurya	2017BCIV099
		Asifa Jan	2017BCIV074

		SANDEEP SINGH	2017BCIV073
Water Resources Engineering			
12	**Dr. M. A. Lone**	Kiran Choudhary	2017BCIV050
		ASLAM KHAN	2017BCIV097
		PRINCE SALMAN NAJAR	2017BCIV051
		Vishal Kumar	2017BCIV096
		Aasif Ali	2017BCIV082
		Amit kumar	2017BCIV086
13	**Dr. M. A. Ahangar**	NIKHIL ANAND	2017BCIV052
		Shalini priya	2017BCIV060
		JITENDRA KUMAR VERMA	2017BCIV098
		Manikant kumar	2017BCIV088
		RAHUL MEENA	2017BCIV048
		Prakhar Goyal	2017BCIV080
14	**Dr. A.Q.Dar**	Dinesh Shougaijam	2017BCIV102
		KUNDAN KUMAR	2017BCIV045
		ABHAY KUMAR	2017BCIV108
		Badavath Suresh	2017BCIV046
		JUNAID JAMEEL	2017BCIV111
		DHARMENDRA KUMAR	2017BCIV103
15	**Er.R.R.Mir**	GAURAV ANAND	2017BCIV113
		GOPAL KUMAR	2017BCIV116
		ASHUTOSH KUMAR	2017BCIV081
		Pallvi Kundal	2017BCIV078
		Manu Saksham Mangotra	2017BCIV114
		NIDHI SINGH	2017BCIV089
16	**Er.Danish Ahmad**	Mudasir Ahmad Teli	2017BCIV064
		Praveen Meena	2017BCIV104
		Prashant Singh Gautam	2017BCIV110
		Satish Saini	2017BCIV092
		Brahmdutt prajapati	2017bciv115
17	**Dr.S.R.Shah**	Pavan Kumar	2017BCIV095
		Mohsin Aadil Ramzan	2017BCIV047
		Priya Kumari	2017BCIV004
		Javid Ahmad Dar	2017BCIV018
		Chahat	2017BCIV032
		Manish Sharma	2017BCIV094
Engineering Geology			
18	**Dr.S.K. Bukhari**	Arif Reyaz	2017BCIV033
		Akash Singh	2017bciv015
		Noamann bin farooq	2017bciv020
		Akash Bharti	2017BCIV030
		RISHABH KATIYAR	2017BCIV056
		Mustafa	2017BCIV009
19	**Er. Falaq Zahoor**	Owaise Bashir	2017BCIV016
		Sajad Ali	221/08-20

Table B.2.2.3d

Distribution of students among various Areas Based on Faculty Strength:

Batch: 2013-2017

Project Areas	Faculty Strength in the Area	No of Students
		2013-2017
Structural Engineering	07	33
Geotechnical Engineering	03	18
Transportation Engineering & Planning	01	10
Water Resources & Env. Engg	05	30
Geology & Related Areas	01	06

Table B.2.2.3e

Batch: 2013-2017

Project Areas	Faculty Strength in the Area	No of Students
		2014-2018
Structural Engineering	06	36
Geotechnical Engineering	04	30
Transportation Engineering & Planning	01	06
Water Resources & Env. Engg	06	37
Geology & Related Areas	01	07

Table B.2.2.3f

Batch: 2015-2019

Project Areas	Faculty Strength in the Area	No of Students
		2015-2019
Structural Engineering	06	26
Geotechnical Engineering	04	30
Transportation Engineering & Planning	01	06
Water Resources & Env. Engg	06	36
Geology & Related Areas	01	06

Table B.2.2.3g

Batch: 2016-2020

Project Areas	Faculty Strength in the Area	No of Students
		2016-2020
Structural Engineering	06	32
Geotechnical Engineering	04	18
Transportation Engineering & Planning	01	14
Water Resources & Env. Engg	06	35
Geology & Related Areas	01	08

Table B.2.2.3h

C. Project related to industry (02)

- The students are encouraged to take up the industry related projects. This objective is attained by choosing a problem from the industry where the students have undergone the practical training at the lower semester. During the practical training the students encounter different problems which they choose as their final year project.

D. Process for monitoring and evaluation (02)

- The supervisor maintains a diary regarding the work carried out by the students working under him. The supervisor interacts periodically usually at-least once a week with the students to determine the progress and to evaluate the contribution of each student. Thus a fool proof monitoring and evaluation is ensured.
- The departmental project evaluation committee meets twice in 7th and 8th semester to assess the progress of the projects.

E. Process to assess individual and team performance (03)

- As has been stated above the students remain in constant touch with the supervisor.
- During the interaction the supervisors enquires from the group members about the progress of the work. This process helps the supervisor to determine the performance of the individual and the team. The students are awarded marks during this interaction also by the supervisor so that none of the students lags behind and develop a quality to work individually and with the team.

F. Quality of completed projects and Evaluation (05)

- In order ensure the quality work, a departmental committee is constituted comprising of all supervisors as members and HOD as chairman. At the end of 7th semester students are advised to present the work completed so far in front of the committee. The deficiencies are pointed out to the students and they get tuned for the completion of the targeted topic for the project.

The final exam of the project work is held at the end of the 8th semester. The students submit a well-documented Project Report duly certified by the supervisor in a hard bound form. A committee constituted by the HOD and approved by the director, comprising of the departmental members, an external member of the sister department (nominated by the director) and HOD as chairman examines project. The composition of the Departmental Project Review Committee (DPRC) is as under:

1. HOD as Chairman
2. A Professor from a sister department of the Institute
3. An expert preferably from outside the Institute
4. One Senior Faculty member of the Department
5. Concerned supervisor

A PPT presentation is given by the students one by one in the group in front of the committee.

The presentation is followed by the question - answer session and the examination of the prototype developed. The committee members record the marks awarded to each student and

final award is arrived at.

- The projects are evaluated by the committee according to the following scheme.

Project Evaluation Committee Criteria for Evaluation	
Criteria	**Marks**
Fulfilment of POs, PSOs & COs	10
Report/contents etc. Design /Supervisor assessment	40
Presentation /Q&A	30
Knowledge of the work done	20
Total	**100**

Table B.2.2.3i

G. Evidences of papers published / Awards received by projects etc. (03)

- Project reports are available in the department and with the respective supervisor faculty members. Papers published are with the faculty members as evidence

2.2.4 Initiatives related to industry interaction (09)

A. Industry Oriented Activities (03)

The department has a strong relationship and interaction with the construction industry through consultancy and has been contributing in a very strong way for the technology development and addressing of complex problems**.**

B. Industry involvement in the program design and curriculum (02)

As has been stated in the process for designing the program curriculum (2.1.1) an important feedback is sought from industry where the students get employed so that the performance of the students is enquired. Depending upon the performance as revealed by the feedback of the employer necessary changes are made in the curriculum.

- In view of the COVID-19 Pandemic and other administrative lockdown situation in UT of Jammu and Kashmir, the mode of generating feedback from employers was changed from offline to online for Autumn 2019 onwards. The platform of google forms was utilized by sending the links of each specific form to stakeholders and hence the data was gathered therefrom.

Civil Engineering Department
National Institute of Technology, Srinagar
INDUSTRY FEEEDBACK FOR CURRUCULAM DESIGN

The purpose of this survey is to obtain Employer's input on the quality of education of undergraduate programs in NIT, Srinagar. Your sincere cooperation would enable us to improve the quality of our graduates as per your requirements

Name of Company/ Organization			
Mailing address			
Sector Private/Public/Academia			
What are the pertinent employability skills to stay updated in current industry trends and thereby improve the quality of the undergraduate program?	Logical Thinking	Good Aptitude	Excellent Communication

Rate the NIT Srinagar Graduates working in your organization using the following criterion.
Put tick mark Knowledge, Skills, Abilities, Attitude and other Attributes expected out of NIT Srinagar graduates.

No.	Overall, are you satisfied with	Excellent (3)	Good (2)	Satisfied (1)
1	Capacity for development and analysis of engineering problems and formulation of appropriate solutions, retaining professional and ethical responsibilities.			
2	Aptitude for self-education, ability to learn new skills and a clear appreciation for the value of life-long learning to update professional knowledge.			
3	Understanding professional engineering solutions for sustainable development and their application in global, national and societal contexts.			
4	Competence for acquiring new skills and applying them in research and development.			
5	Fundamental knowledge in mathematics and science and professional fluency in English both communicative and technical forms.			
6	Development of management and leadership skills that enable successful function of multi-disciplinary teams.			

Table B.2.2.4a

C. Industry involvement in the partial delivery of any regular courses for students (02)

Industry people who are stalwarts and are predominantly involved in particular areas of works in the field have been invited from time to time to teach some specific parts of syllabi of some courses like 5th Sem HEPMS etc.

D. Impact analysis of industry institute interaction and actions taken thereof (02)

The industry institute interaction has been made possible in various ways. The students have been taken for technical visits and shown live projects under execution, the industry people have been invited for lectures on specific projects and works and students have been involved in the various consultancy/ testing works received from industries. Industrial trainings of students are also conducted. The impact of the same has been assessed during the evaluation processes and getting feedback from the students.

2.2.5 Initiatives related to industry internship/ summer training (09)

A. Industry training /tours for students (02)

Industrial training/tours are organized at 7th and 8th semester levels when the students are fully acquainted with the different streams of mechanical engineering. Following 1 day tours were organized in 2015 to 2017

S.No.	Year-wise Details of Technical Tour with semester/batch and project name/ date		
	2017	2018	2019
1	8thSem 2013 batch visited Flyover project Srinagar in May2017	3rdSem 2014 batch visited Upper Sindh Hydel Project in May 2018	6th Sem 2016 batch visited Kishanganga Power Station, Bandipora
2	7thSem 2014 batch visited Srinagar Flyover Project in Oct.2017	-	-

Table B.2.2.5a

B. Industrial / internship/ summer training of more than two weeks and post training assessment (03)

It constitutes an important component of the curriculum of the department. Students are deputed to projects of their interest and convenience during the winter vacation.

Details of the Students who have undergone Industrial Training of more than 2-weeks
Batch: 2013-2017

S.No.	Name of the student	En. No.	Particulars of Practical Training
01.	Anjali Dua	01/13	FLYOVER FROM BIKHRAM CHOWK TO GANDHINAGAR ,JKERA
02.	Shivram Verma	02/13	FLYOVER FROM BIKHRAM CHOWK TO GHANDHINAGAR ,JKERA
03.	Raima Tariq	03/13	FLYOVER RAMBHAG JKERA
04.	Faizan Sidiqui	04/13	DMRC PHASE III
05.	Mohd Aslam Kumar	05/13	ECONOMIC RECONSTRUCTION AGENCY RAMBHAG SRINAGAR JKERA
06.	Nadia Mubarak	07/13	JK FLYOVER RAMBAG ERA
07.	Mumtaz Ahmad	08/13	FLYOVER FROM BIKHRAM CHOWK TO GHANDHINAGAR ,JK ERA
08.	Aadil Nisar Wani	09/13	FLYOVER RAMBHAGA JK ER
09.	Moin ul Islam`	10/13	FLYOVER RAMBHAG JK ERA
10.	Ishfaq Mohi ud Din	11/13	FLYOVER RAMBHAGA JK ER
11.	Ishfaq Ahmad Teli	12/13	PROPOSED SIMPLY SUPPORTED

			PSC GIRDER BRIDGE OVER RIVER R&B VAILOO
12.	Hafsah Ahmad	13/13	FLYOVER RAMBHAG JK ERA
13.	Aadil Nabi Nath	14/13	SPAN GIRDER OVER RIVER JELHUM ANANTHNAG ,R&B ANANTHNAG
14.	Asim Mustaq	15/13	CONSTRUCTION OF NEW BRIDGE GANDERBAL JKPCC
15.	Varun Kumar	16/13	FLYOVER FROM BIKHRAM CHOWK TO GHANDHINAGAR ,JK ERA
16.	Aamir Mubarak	18/13	DMRC PHASE III
17.	Mudasir Ahmad Hajam	19/13	FLYOVER RAMBHAGA JK ER
18.	Rahul Kumar	20/13	FLYOVER FROM BIKHRAM CHOWK TO GHANDHINAGAR ,JK ERA
19.	Nayeem Gulzar Najar	21/13	PROPOSED SIMPLY SUPPORTED PSC GIRDER BRIDGE OVER RIVER R&B VAILOO
20.	Imtisal Hussain sofi	22/13	PROPOSED SIMPLY SUPPORTED PSC GIRDER BRIDGE OVER RIVER R&B VAILOO
21.	Vijay Kumar	23/13	RISING AND MAINTENANCE OF ASH DUKE NTPC VIDYANCHAL
22.	Santosh Kumar	24/13	REDEVEPLOMENT OF POLICE STATION DELHI RITES LIMITED
23.	Thupstan Tserng	25/13	DELHI METRO RAIL COORPORATION
24.	Sheikh Azeem Hafiz	26/13	FLYOVER RAMBHAGA JK ER
25.	Mohd Anjum	27/13	PROPOSED SIMPLY SUPPORTED PSC GIRDER BRIDGE OVER RIVER R&B VAILOO
26.	Ghulam Haider	28/13	FLYOVER RAMBHAGA JK ER
27.	Umesh Mahor	29/13	REDEVEPLOMENT OF POLICE STATION DELHI RITES LIMITED
28.	Mujeeb ul Haq	30/13	FLYOVER RAMBHAGA JK ER
29.	Heemant Meena	31/13	DMRC PHASE III
30.	Banwari Lal	33/13	DELHI METRO RAIL COORPORATION
31.	Niket Gupta	34/13	
32	Sana Fayaz	36/13	DMRC PHASE III
33.	Rahul Verma	39/13	
34.	Sanjeev Raushan	40/13	
35.	Moonis ul Islam Matoo	43/13	FLYOVER RAMBHAGA JK ER
36.	Mujtahid Mamoon Ali	44/13	FLYOVER RAMBHAG JK ERA
37.	Malik Kamila Mustaq	45/13	DELHI METRO RAIL COORPORATION
38.	Assif Khaliq	46/13	FLYOVER RAMBHAG JK ERA
39.	Mohammad Amin Kumar	48/13	CONSTRUCTION OF ROAD RAMKAY INFRA STRUCTURE

			AWANTIPORA
40.	Amrendra Pratap Rai	49/13	
41	Mir Dawar Habib	51/13	FLYOVER RAMBHAGA JK ERA
42.	Shaeq Showkat	52/13	
43..	Manan Shabir Sherwani	54/13	
44.	Arslan Amin	56/13	FLYOVER RAMBHAGA JK ERA
45.	Hakeem Nadeem Sarwai	57/13	
46.	Afeer Jalal Khan	59/13	FLYOVER RAMBHAG JK ERA
47.	Vinita Mehar	60/13	
48.	Yasir Farooq Beig	61/13	DMRC PHASE III
49.	Pradeep Kumar	63/13	FLYOVER FROM BIKHRAM CHOWK TO GHANDHINAGAR ,JK ERA
50.	Rampal	64/13	CONSTRUCTION OF BUILDING RSRDCC RAJASTAN
51.	Arvind Singadia	65/13	CONSTRUCTION OF BUILDING RSRDCC RAJASTAN
52..	Shubham Jadija	66/13	DMRC PHASE III
53.	Aijaz Ahmad	68/13	PROPOSED SIMPLY SUPPORTED PSC GIRDER BRIDGE OVER RIVER R&B VAILOO
54..	Abhinav Kumar	70/13	CONSTRUCTION OF CEMENT CONCRETE PAVEMENT PWD JHUNJHUNU
55.	Princa Kumar	71/13	CONSTRUCTION OF CEMENT CONCRETE PAVEMENT PWD JHUNJHUNU
56.	Abhishek Kumar Gaautam	72/13	CONSTRUCTION OF ROAD SWANKY INFRASTATE ENERGY LIMITED BIHAR
57.	Vinod Kumar Sharma	74/13	CONSTRUCTION OF ROAD SWANKY INFRASTATE ENERGY LIMITED BIHAR
58.	Robby Lal	75/13	CONSTRUCTION OF CEMENT CONCRETE PAVEMENT PWD JHUNJHUNU
59.	Girija Shankar Sharma	76/13	DMRC PHASE III
60.	Dilip Kanada	79/13	ANALYSIS AND DESIGN OF SUPERSTRUCTURE OF MAIN LINE VALUE BUILDING L&T GULF
61.	Ankit Gupta	80/13	DMRC PHASE III
62.	Mohammad Shoaib Mir	78/13	DMRC PHASE III
63	Shri Bhagwani Saini	81/13	CONSTRUCTION OF CEMENT CONCRETE PAVEMENT PWD JHUNJHUNU
64..	Shashwat Sikawar	82/13	METALLURGICAL AND MATERIAL HANDLING NEW DELHI L&T
65.	Shubam Badgal	84/13	OSC UP
66.	Rajesh Kumar	85/13	DELHI METRO RAIL

			COORPORATION
67.	Anurag Sharma	86/13	
68.	Amit Ranjan	87/13	
69.	Nihal Pandey	88/13	OSC UP
70	Abdullah Ansari	89/13	CONSTRUCTION OF ROAD SWANKY INFRASTATE ENERGY LIMITED BIHAR
71.	Avichal Chandra	90/13	
72..	Akash Verma	91/13	DELHI METRO RAIL COORPORATION
73.	Sanjay Kumar	92/13	RISING AND MAINTENANCE OF ASH DUKE NTPC VIDYANCHAL
74.	Vishal prakash	93/13	
75.	Deepshikha Sani	94/13	CONSTRUCTION AND DESIGN OF STRUCTURE AT ESSAR STEEL INDIA LIMITED GUJRAT
76.	Akshay Janway	95/13	REDEVEPLOMENT OF POLICE STATION DELHI RITES LIMITED
77..	Rahul Churey	96/13	TAWA PROJECT CIRCLE MADYA PRADESH
78.	Shashank Katiyar	97/13	CONSTRUCTION AND DESIGN OF STRUCTURE AT ESSAR STEEL INDIA LIMITED GUJRAT
79.	Manoj IKarela	98/13	CONSTRUCTION OF BUILDING RSRDCC RAJASTAN
80	Heena Rawat	99/13	DMRC PHASE III
81.	Devesh Kumar	100/13	DMRC LIMITED
82.	Manish Kumar	101/13	CONSTRUCTION OF FLYOVER PATNA,BRPNN
83.	Devkaran	102/13	DMRC LIMITED
84.	Ashish Kumar	103/13	CONSTRUCTION OF FLYOVER PATNA,BRPNN
85.	Ashwani Kumar	104/13	CONSTRUCTION OF FLYOVER PATNA,BRPNN
86.	Anurag Pratap Singh Chouhan	105/13	OSC UP
87.	Shivam Tiwari	106/13	CONSTRUCTION OF FLYOVER PATNA,BRPNN
88.	Vivek Upadhyay	107/13	RISING AND MAINTENANCE OF ASH DUKE NTPC VIDYANCHAL
89.	Ramehandra Potalia	108/13	CONSTRUCTION OF UNDERGROUND STATION AND TUNNEL ,J KUMAN DELHI
90.	Kasurjulla Mahendra	109/13	DMRC PHASE III
91.	Amresh Kumar	110/13	DMRC PHASE III
92.	Rohit Kumar	111/13	RISING AND MAINTENANCE OF ASH DUKE NTPC VIDYANCHAL
93.	Jitendra Singh	11213	RISING AND MAINTENANCE OF ASH DUKE NTPC VIDYANCHAL
94.	HJimanshu Choudhry	114/13	CONSTRUCTION OF

			UNDERGROUND STATION AND TUNNEL ,J KUMAN DELHI
95.	Sanjeev Kumar	115/13	DMRC PHASE III
96.	Mohd Altaf Shah	116/13	FLYOVER RAMBHAG JK ERA

Table B.2.2.5b

Details of the Students who have undergone Industrial Training of more than 2-weeks-Batch 2014-2018

S.No	Name Of The Student	En.No	Particulars of Practical Training
1.	Haris Wajeeh Mir	01/14	CONSTRUCTION OF BRIDGE, GANDERBAL, JKPDC
2.	Ms. Suhaila Anjum	03/14	CONSTRUCTION OF 96 FLATS ALONG WITH COMMUNITY AND MARRIAGE HALL, JKPCC
3.	Ms. Seerat Malik	04/14	JKPCC LIMITED SRINAGAR
4.	Easeel Ahmad Dar	05/14	CONSTRUCTION OF AUDITORIUM HALL, R AND B SRINAGAR
5.	Ms. Faakirah Rashid Mir	07/14	JKPCC LIMITED SRINAGAR
6.	Ubaid Hyder Mir	08/14	CONSTRUCTION OF FLYOVER EXPRESSWAY CORRIDOR BY ERA
7.	Majid Mohi-Ul-Din	09/14	JKPCC LIMITED SRINAGAR
8.	Dachen Dawa	11/14	CONSTRUCTION OF BOYS HOSTEL GMC, JAMMU, JKPCC
9.	Shahiq Ahmad Wani	12/14	CONSTRUCTION OF WATALBAGH, BRIDGE, JKPCC, GANDERBAL
10.	Ms.Suzeena Iftikhar	13/14	
11.	Syed Abdul Mateen	14/14	BEIGH CONSTRUCTIONS CO. PVT. LTD. BY PASS JAMMU.
12.	Salman Sadat Dar	15/14	SURVEYING AND ESTIMATION OF A 2.5KM ROAD, PWD, J AND K
13.	Ms. Insha Muzaffar	16/14	JKPCC LIMITED JAMMU
	Malik		
14.	Atti-Ur-Rahman	17/14	JKPCC LIMITED JAMMU
15.	Dheeraj Kumar	19/14	JKPCC LIMITED JAMMU
16.	Imtiyaz Ahmad Ahanger	20/14	SALAL POWER PROJECT, NHPC
17.	Zubair Zahoor Bandey	21/14	CONSTRUCTION OF AUDITORIUM AT RAJBHAWANR&BSRINAGAR
18.	Housher Ahmad Malik	22/14	JKPCC LIMITED JAMMU
19.	Pankaj Kundal	23/14	JKPCC LIMITED JAMMU
20.	Muheeb Majid Najar	24/14	NEW AUTRIANTUNNELOING METHOD, AFCONS
21.	Mugees Tahoor	25/14	NEW AUSTRIAN TUNNELING METHOD, AFCONS
22.	Mohd Haseeb Shora	26/14	NEW AUSTRIAN TUNNELING METHOD, AFCONS
23.	Mohd Iqbal	27/14	CONSTRUCTION OF NEW LEGISLATIVE ASSEMBLY COMPLEX AT JAMMU , JKPCC
	Mehboob Ali Khan	28/14	CONSTRUCTION OF NEW

24.			LEGISLATIVE ASSEMBLY COMPLEX AT JAMMU , JKPCC
25.	Anies Ul Amin	29/14	PWD (R&B) SRINAGAR
26.	Owais Saleem	30/14	PARNATI HYDRO ELECTRIC PROJECT SURENKOTPOONCH.
27.	Amarjeet Singh	31/14	JKPCC LIMITED JAMMU
28.	Suhail Yaqoob	32/14	PWD (R&B) SRINAGAR
29.	Vimal Jeet Khajura	33/14	CONSTRUCTION OF 300M PRE-STRESSED CONCRETE BRIDGE, PCC, JAMMU
30.	Aaqil Rashid Baht	35/14	CONSTRUCTION OF SCHOOL BUILDING, PWD,ANANTNAG
31.	Anup Kumar	36/14	ERA
32.	Adil Rasool Kumar	37/14	CONSTRUCTION OF CENTRAL UNIVERSITY, JAMMU, SEW, INFTRASTRUCTURE
33.	Sudhanshu Mahajan	38/14	PARNATI HYDRO ELECTRIC PROJECT SURENKOTPOONCH.
34.	Dhruv Tadwal	39/14	JKPCC LIMITED JAMMU
35.	Aaqif Yousf Bhat	40/14	CONSTRUCTION OF 300M PRE-STRESSED CONCRETE BRIDGE, PCC, JAMMU
36.	Ranjeet Kumar Thapa	41/14	CONSTRUCTION OF CENTRAL UNIVERSITY, JAMMU, SEW, INFTRASTRUCTURE
37.	Shubam Mahajan	43/14	CONSTRUCTION OF 300M PRE-STRESSED CONCRETE BRIDGE, PCC, JAMMU
38.	Vinod Kumar	44/14	LUCKNOW METRO, L AND T PVT LIMITED
39.	Gurtej Singh	45/14	JKPCC LIMITED JAMMU
40.	Himanshu Roy	46/14	SALAL POWER PROJECT, NHPC
41.	Zakir Hussain	47/14	SPACE ENGINEERS CONSORTIUM PVT. LTD.SRINAGAR
42.	Pushep Kumar	49/14	JKPCC LIMITED JAMMU
43.	Purushesh Naad	50/14	LOWER KALNAI HYDRO ELECTRIC PROJECT , JKPDC
44.	Abdul Basit Khan	51/14	SPACE ENGINEERS CONSORTIUM PVT. LTD.SRINAGAR
45.	Vishal Tiku	52/14	DY. PROJECT MANAGER , JKUSDIP (WS-02) ERA JAMMU
46.	Mohammad Shamsul Haq	53/14	SPACE ENGINEERS CONSORTIUM PVT. LTD. SRINAGAR
47.	Naveed Ul Hassan	54/14	37.5MW PARNAI, HEP, POONCH, JKSPDC
48.	Muiz Ahmed Bhat	55/14	PARNAI HEP, JKSPDC
49.	Amir Aziz Sheikh	57/14	-DO
50.	Sheikh Aquib	59/14	CONSTRUCTION OF 300M PRE STRESSED BRIDGE, ECC

51.	Piyush Kumar Vaibshy	60/14	LUCKNOW METRO, L AND T PVT LIMITED
52.	Chandra Kant Bhaskar	61/14	CONSTRUCTION OF AN EDUCATIONAL BUILDING, PWD, UP
53.	Devendra Meena	62/14	DESIGN OF A HOSTEL BUILDING, CPWD, JAIPUR
54.	Bal Gopal Nagar	63/14	MNIT, JAIPUR RAJASTAN
55.	Vikram Jeet Singh	64/14	SALAL POWER PROJECT, NHPC
56.	Pankaj Kumar	65/14	SALAL POWER PROJECT, NHPC
57.	Raj Kumar Chotla	66/14	HYDRO-ELECTRIC POWER PROJECT ON LOWER KALNAINALLA
58.	Anoop Yadar	68/14	HYDRO-ELECTRIC POWER PROJECT ON LOWER KALNAINALLA
59.	Naveed Murtaza Gulzar	69/14	CONSTRUCTION OF CEMENT CONCRETE PAVEMENT, PWD, UP
60.	Bhanu Pratap Singh	70/14	DESIGN OF A HOSTEL BUILDING, CPWD, JAIPUR
61.	Sunidhi Supriya	72/14	DESIGN OF AN INSTITUTIONAL BUILDING, CWD ,KOTA
62.	Prashant Mishra	77/14	DESIGN OF A HOSTEL BUILDING, CPWD, JAIPUR
63.	Himanshu Gujar	78/14	DESIGN OF AN INSTITUTIONAL BUILDING, CWD ,KOTA
64.	Prakhar Kanaujra	79/14	CONSTRUCTION OF CEMENT CONCRETE PAVEMENT, PWD, UP
65.	Avinash Kajla	80/14	DY. CHIEF ENGINEER CONSTRUCTION DIV-I NORTH WESTERN RAILWAY, JAIPUR
66.	Azad Ahmed	83/14	DEVELOPMENT OF ROADS FOR CENTRAL UNIVERSITY JAMMU, SEW INFRASTRUCTURE
67.	Prem Singh Meena	86/14	DESIGN OF A HOSTEL BUILDING, CPWD, JAIPUR
68.	Meshrai Singh	87/14	DESIGN OF A HOSTEL BUILDING, CPWD, JAIPUR
69.	Jagdish Kumar Kasaushan	89/14	CENTRAL TOOL ROOM AND TRAINING CENTRE BUBNESHWAR
70.	Shankar Kumar	90/14	CENTRAL TOOL ROOM AND TRAINING CENTRE BUBNESHWAR
71.	Bharat Jaysewal	91/14	DESIGN OF AN OFFICE BUILDING, PWD JAIPUR
72.	Sunil Kumar Chahar	92/14	LUCKNOW METRO RAIL PROJECT, LMRC
73.	Adarsh Sehu	93/14	LUCKNOW METRO RAIL PROJECT, LMRC
74.	Amit Kumar	95/14	PROJECT OF ROAD AND BUILDING WORKS, PWD, JHUNJHUNU
75	Avadhesh Kumar	96/14	CONSTRUCTION OF ROAD, PWD
76	Gulshan Gared	97/14	CONSTRUCTION OF GOPALAM BUILDING , PWD, JAIPUR

77	Sunil	98/14	PWD DIVISION, SIKAR
78	Narendra Kumar	100/14	PWD DIVISION, SIKAR
79	Deepak	101/14	DESIGN OF AN EDUCATION BUILDING, PWD SUB DN-II JHUNJHUNU
80	Gaurav Kumar	104/14	CONSTRUCTION OF FLYOVER FROM MITHAPPUR TO CHIRAIYATANT, BRPNNL, PATNA
81	Suneel Kumar	105/14	LUCKNOW METRO RAIL PROJECT, LMRC
82	Neeraj Agrahari	106/14	LUCKNOW METRO RAIL PROJECT, LMRC
83	Prakesh Kumar	108/14	CONSTRUCTION OF FLYOVER FROM MITHAPPUR TO CHIRAIYATANT, BRPNNL, PATNA
84	Deepak Kr Jha	110/14	
85	Shubham Jain	111/14	MANAGING DIRECTOR, BIHARRAJYAPULNIRMANNIGRAM LTD. PATNA.
87	Dinesh	112/14	AAI, NEW DELHI
88	Daksh Jain	113/14	AAI, NEW DELHI
89	Vipin Vijay	114/14	LUCKNOW METRO RAIL PROJECT, LMRC
90	Mir Fazian Farooq	115/14	ANALYSIS AND DESIGN OF MULTI STOREY RESIDENTIAL BUILDING, CADD TRAINING SERVICE CENTER AWANTIPORA
91	Sanjiv Kumar Bhargeva	116/14	D.T.T.D.C.LTD. MAJNUKATILA OUTER RING ROAD, DELHI.
92	Sonu Kumar	117/14	AAI,NEW DELHI
93	Jagdish Paliwal	118/14	LUCKNOW METRO RAIL PROJECT, LMRC
94	Shivdar	119/14	L AND T LIMITED CONSTRUCTION DIVISION HYDERABAD.
95	Mohd Ilyas Bhat	120/14	ANALYSIS AND DESIGN OF MULTI STOREY RESIDENTIAL BUILDING, CADD TRAINING SERVICE CENTER AWANTIPORA
96	Vaibhav Gupta	121/14	LUCKNOW METRO RAIL PROJECT, LMRC
97	Paras Rathore	122/14	CONSTRUCTION OF FOUR LANE, ROB IN LIEU OF RUB B-72, JODHPUR DEVELOPMENT AUTHORITY
98	Anupem Kumar	123/14	LUCKNOW METRO RAIL PROJECT
99	Devesh Soni	635/14	HIGH LEVEL BRIDGE PARALLEL TO KOTA BARRAGE ACROSS RIVER CHAMBAL, UIT , KOTA
100	Anil Kumar	636/14	L AND T LIMITED CONSTRUCTION DIVISION HYDERABAD.

101	Md. Sarfaraz Reyaz	637/14	D.T.T.D.C.LTD. MAJNUKATILA OUTER RING ROAD, DELHI.
102	Katiki Reddy Pravallika Reddy	638/14	L AND T LIMITED CONSTRUCTION DIVISION HYDERABAD.
103	Amit Shukla	639/14	AAI,NEW DELHI
104	Aditya Prakash	640/14	CONSTRUCTION OF FLYOVER, BRPNN, PATNA
105	Mohd Rizwan	641/14	NOIDA METRO PROJECT, DRMC, NEW DELHI
106	Pushkar Pretap Singh	642/14	NOIDA METRO PROJECT, DMRC, NEW DELHI
107	Ravindra Singh	643/14	NOIDA METRO PROJECT, DRMC, NEW DELHI
108	Mohd Asif Khan	644/14	CONSTRUCTION OF SIGNATURE BRIDGE, DTTDC,NEW DELHI
109	Amit Kumar	645/14	PWD DIVISION, SIKAR
110	Ashok Shaima	646/14	PWD DIVISION –II JAIPUR
111	Moin Khan	647/14	L AND T LIMITED CONSTRUCTION DIVISION HYDERABAD.
112	Krishna Singh	648/14	CONSTRUCTION OF ROAD CPW, SIKAR
113	Prashent Kumar Bhardwaj	649/14	AAI,NEW DELHI
114	Lovekush Kumar	650/14	CONSTRUCTION OF ROAD CPW, SIKAR
115	Asif Jeelani Bhat	651/14	JKPCC, SRINAGAR
116	Anayat Bahsir	652/14	CONSTRUCTION OF ROAD CPW, SIKAR
117	Lala Musediq Abbes Shabir	653/14	PWD DIVISION –II JAIPUR
118	Basiq Naseer Khan	654/14	SALAL POWER PROJECT, NHPC
119	Shasti Jan	41/13-14	SALAL POWER PROJECT, NHPC

Table B.2.2.5c

Details of the Students who have undergone Industrial Training of more than 2-weeks

Batch: 2015-2019

S.No	Name of The Student	En. No	Particulars of Practical Training
01.	Aayat Abid Kamli	Civ/02/15	INTEGRATED MANAGEMNT SYSTEM PROCEDURESERA, SNC LAVALIN
02.	Zahid Parvaiz	Civ/03/15	CONSTRUCTION OF A FLYOVER, JKERA
03.	Afaan Bilal	Civ/04/15	CONSTRUCTION OF ELEVATED EXPRESSWAY COORIDOOR, SRINAGAR, JKERA

04.	Kriti Dhiman	Civ/05/15	CIVIL ENGINEERING WORK PRACTICES, AAI NEW DELHI
05.	Zarnain Fayaz	Civ/06/15	REDEVELOPMENT OF KIDWA NAGAR NEW DELHI, NBCC
06.	Mohd Younis Hajam	Civ/07/15	CONSTRUCTION OF BRIDGE, JKPWD PULWAMA
07.	Samma Malik	Civ/08/15	CONSTRCUTION OF MIGRANT COLONY, BUDGAM, JKPCC
08.	Faheem Farooq Reshi	Civ/09/15	CONSTRUCTION OF A FLYOVER, JKERA
09.	Hanan Shawal	Civ/10/15	CONSTRUCTION OF A FLYOVER, JKERA
10.	Bazela Manzoor	Civ/11/15	CONSTRUCTION OF A FLYOVER, JKERA
11.	Vishav Jeet	Civ/12/15	CONSTRUCTION OF LINK TAXI HELICOPTER PARKING, JAMMU AIRPORT
12.	Faisal Firdous	Civ/14/15	CONSTRUCTION OF A FLYOVER, JKERA
13.	Muzamil Shafi Wani	Civ/15/15	CONSTRUCTION OF A FLYOVER, JKERA
14.	Aamir Suhail Hajam	Civ/16/15	CONSTRUCTION OF CULVERTS, PWD QAZIGUND
15.	Khushnuma Mushtaq	Civ/17/15	WESTERN REGION PIPELINE PROJECT, IOCL
16.	Haroon Rashid	Civ/18/15	CONSTRUCTION OF A FLYOVER, JKERA
17.	Khalid ur Rehman	Civ/19/15	CONSTRUCTION OF BRIDGE, SHARIFABAD, BEMINA, JKPCC
18.	Sarthak Navesh	Civ/20/15	CONSTRUCTION OF GIRLS HOSTEL, GMC JAMMU, JKPCC
19.	Wasim Ahmad Katariya	Civ/21/15	CONSTRUCTION OF A FLYOVER, JKERA
20.	IrumQadir	Civ/22/15	CONSTRUCTION OF A FLYOVER, JKERA
21.	Basit Tariq Guhnow	Civ/23/15	CONSTRUCTION OF A FLYOVER, JKERA
22.	Asmat Nabi	Civ/24/15	CONSTRUCTION OF A FLYOVER, JKERA
23.	Rohit Kumar Bhagat	Civ/25/15	CONSTRUCTION OF BRIDGE, JAMMU, JKPCC
24.	Shahrukh Saleem	Civ/26/15	CONSTRUCTION OF BRIDGE, JAMMU, JKPCC
25.	Shakir Ahmad Tarray	Civ/27/15	CONSTRUCTION OF A FLYOVER, JKERA
26.	Aqib Assad	Civ/28/15	CONSTRUCTION OF A FLYOVER, JKERA
27.	Nasier Hussain	Civ/29/15	CONSTRUCTION OF A FLYOVER, JKERA

28.	Tawseef Iqbal	Civ/30/15	CONSTRUCTION OF BRIDGE, SHARIFABAD, BEMINA, JKPCC
29.	Amir Farooq Shah	Civ/31/15	CONSTRUCTION OF A FLYOVER, JKERA
30.	Haidayatullah	Civ/32/15	CONSTRUCTION OF ADDITIONAL BLOCK OF GDC JAMMU, JKPCC
31.	Sunil Kumar	Civ/33/15	CONSTRUCTION OF GIRLS HOSTEL, SKAUST JAMMU
32.	Jatin Siddhartha	Civ/35/15	TRACK MAINTENANCE IN SUB URBAN SECTIONS, WESTERN RAILWAYS
33.	Pardeep Kumar	Civ/36/15	BUILDING CONSTRUCTION PROJECT, JKPWD
34.	Mahesh Kumar	Civ/37/15	BUILDING CONSTRUCTION PROJECT, JKPWD
35.	Liyaqat Ali	Civ/38/15	BUILDING CONSTRUCTION PROJECT, JKPWD
36.	Pirzada Uzair	Civ/39/15	CONSTRUCTION OF BRIDGE, SHARIFABAD, BEMINA, JKPCC
37.	Akhil Kumar Bhagat	Civ/40/15	CONSTRUCTION OF GIRLS HOSTEL, SKAUST JAMMU
38.	Junaid Ahmad Najar	Civ/41/15	CONSTRUCTION OF A FLYOVER, JKERA
39.	Tsering Youtan	Civ/42/15	CIVIL ENGINEERING WORK PRACTICES, AAI NEW DELHI
40.	Mudasir Ahmad Zaki	Civ/43/15	CONSTRUCTION OF A FLYOVER, JKERA
41.	Kunal Dogra	Civ/44/15	CONSTRUCTION OF GIRLS HOSTEL BUILDING JAMMU, JKPCC
42.	Irfan Ahmad Kumar	Civ/45/15	CONSTRUCTION OF A FLYOVER, JKERA
43.	Rafiq Ahmad	Civ/46/15	CONSTRUCTION OF A MULTI STOREYED BUILDING (G+7) DD BUILDERS
44.	Imtiyaz Gul	Civ/4915	CONSTRUCTION OF A FLYOVER, JKERA
45.	Hilal Ahmad Najar	Civ/51/15	CONSTRUCTION OF A FLYOVER, JKERA
46.	Muzamil Hassan	Civ/52/15	CONSTRUCTION OF A FLYOVER, JKERA
47.	Adfar Aaghaz Mir	Civ/53/15	CONSTRUCTION OF A FLYOVER, JKERA
48.	Abhi Atri	Civ/54/15	WRITERS CLUB BUILDING CONSTRUCTION PROJECT, R&B JAMMU
49.	Veenu Thappa	Civ/55/15	CONSTRUCTION OF A MULTI STOREYED BUILDING (G+7) DD BUILDERS
50.	Nasir Ahmad Ahanger	Civ/57/15	CONSTRUCTION OF ELEVATED EXPRESSWAY COORIDOOR,

			SRINAGAR, JKERA
51.	Joseph Nicholas Jaideep	Civ/58/15	CONSTRUCTION STAGE ANALYSIS AND EXECUTION STUDY OF PRE-CAST SEGMENTED EXTRA DOSED, BARAPULLAH BRIDGE, L&T
52.	Bharat Gupta	Civ/59/15	FUNCTIONS OF ONGC IN CIVIL ENGG, ONGC
53.	Fuzail Showkat Wani	Civ/60/15	CONSTRUCTION OF ELEVATED EXPRESSWAY COORIDOOR, SRINAGAR, JKERA
54.	Ishan Gautam	Civ/61/15	WESTERN REGION PIPELINE PROJECT, IOCL
55.	Shivendra Sahai	Civ/62/15	CONSTRUCTION OF CEMENT
			CONCRETE PAVEMENT, UPPWD
56.	Rohtan Singh	Civ/63/15	CONSTRUCTION OF CEMENT CONCRETE PAVEMENT, UPPWD
57.	Jogeshvar Bhindrar	Civ/65/15	DESIGN OF A RESIDENTIAL BUILDING, PWD RAJASTHAN
58.	Rohini Angral	Civ/66/15	CONSTRUCTION OF A MULTI STOREYED BUILDING (G+7) DD BUILDERS
59.	Ashish Meena	Civ/67/15	DESIGN OF A RESIDENTIAL BUILDING, PWD RAJASTHAN
60.	Paul F Gaisal	Civ/68/15	CONSTRUCTION OF A FLYOVER, JKERA
61.	Sajad Ahmad Malla	Civ/73/15	CONSTRUCTION OF A FLYOVER, JKERA
62.	Sahil Sharma	Civ/74/15erz	GOVT. HOSPITAL CONSTRUCTION PROJECT, JKPCC
63.	Iftikhar Gojri	Civ/76/15	CONSTRUCTION OF ELEVATED EXPRESSWAY COORIDOOR, SRINAGAR, JKERA
64.	Waseem Ahmad Bhat	Civ/77/15	CONSTRUCTION OF FLYOVER FROM JAHANGIR CHOWK TO RAMBAGH, JKERA
65.	Updesh Kumar	Civ/80/15	CONSTRUCTION OF METRO STATION, LUCKNOW METRO CORPORATION
66.	Abhishek Panday	Civ/84/15	CONSTRUCTION OF METRO STATION, LUCKNOW METRO CORPORATION
67.	Ritika Mongra	Civ/86/15	CONSTRUCTION OF A MULTI STOREYED BUILDING (G+7) DD BUILDERS
68.	MD Firoz Alam	Civ/93/15	CONSTRUCTION OF METRO STATION, LUCKNOW METRO CORPORATION
69.	S. Mehran Rasool Andrabi	Civ/94/15	CONSTRUCTION OF FLYOVER FROM JAHANGIR CHOWK TO RAMBAGH, JK ERA

70.	Nitesh Kumar Meena	Civ/98/15	DESIGN OF A RESIDENTIAL BUILDING, PWD RAJASTHAN
71,=.	Sharda Khande	Civ/104/15	CONSTRUCTION OF VILLAGE ROAD BRIDGE, RAIGARHCHATTISGARH
72.	Alahari Jayanth	Civ/105/15	FUNCTIONS OF ONGC IN CIVIL ENGG, ONGC
73.	Aman Kumar	Civ/106/15	CONSTRUCTION OF METRO STATION, LUCKNOW METRO CORPORATION
74.	Ankit Kumar	Civ/107/15	CONSTRUCTION OF A BUILDING, PWD RAJASTHAN
75.	Sahil	Civ/108/15	GOVT. HOSPITAL CONSTRUCTION PROJECT, JKPCC
76.	Anand Kumar	Civ/109/15	METRO RAILWAY STATION CONSTRUCTION, DMRC
77.	Money Gupta	Civ/110/15	CONSTRUCTION OF CEMENT CONCRETE PAVEMENT, MPRRDA
78.	Vivek Kumar Yada	Civ/111/15	PARBATI HYDROELECTRIC PROJECT STAGE-III, KULLU
79.	Devendra Kumar Tiwari	Civ/112/15	CONSTRUCTION OF RESIDENTIAL TOWNSHIP, NCL SINGRAULI
80.	Shailendra Singh	Civ/113/15	CONSTRUCTION OF METRO STATION, LUCKNOW METRO CORPORATION
81.	VinitJangir	Civ/114/15	DESIGN OF A RESIDENTIAL BUILDING, PWD RAJASTHAN
82.	Shubham Kumar Jangir	Civ/115/15	CONSTRUCTION OF A BUILDING, PWD RAJASTHAN
83.	Diryanshu Nath Tripathi	Civ/116/15	OBRA COAL FIRED THERMAL POWER PROJECT, UPRVONL
84.	Ritik Sharma	Civ/117/15	PRE- FEASIBILITY REPORT FOR AIRPORT EXPANSION, IGI AIRPORT NEW DELHI
85.	Markandey Rai	Civ/118/15	CONSTRUCTION OF METRO STATION, LUCKNOW METRO CORPORATION
86.	Ravi Kumar Verma	Civ/119/15	DESIGN OF A RESIDENTIAL BUILDING, PWD RAJASTHAN
87.	Rahul	Civ/120/15	RAILWAY BRIDGE CONSTRUCTION
88.	Sunil Kumar Patel	Civ/121/15	CONSTRUCTION OF BRIDGES, DMRC
89.	Abhishek Gourav	Civ/122/15	PARBATI HYDROELECTRIC PROJECT STAGE-III, KULLU
90.	MD Fasihur Rahman	Civ/123/15	DELHI METRO RAIL PROJECT, CC94 NOIDA
91.	Vikas Chandra	Civ/124/15	CONSTRUCTION OF METRO STATION, LUCKNOW METRO CORPORATION
92.	Yashawant Dhayal	Civ/125/15	DESIGN AND CONSTRUCTION OF A BUILDING, PWD
			CONSTRUCTION STAGE ANALYSIS

93.	Pranjil Chaluhan	Civ/127/15	AND EXECUTION STUDY OF PRE-CAST SEGMENTED EXTRA DOSED, BARAPULLAH BRIDGE, L&T
94.	Damini Pandit	Civ/128/15	ELITA GARDEN VISTA PROJECT-PHASE-II, SIMPLEX INFRASTRUCTURES LTD.
95.	Sunil Dhaker	Civ/129/15	DESIGN OF A RESIDENTIAL BUILDING, JAIPUR
96.	Akash Yadav	Civ/130/15	DESIGN OF A BUILDING CONSTRUCTION , PWD CHURU
97.	Anuraqg Kumar	Civ/131/15	CONSTRUCTION OF METRO STATION, LUCKNOW METRO CORPORATION
98.	Aman Srivastava	Civ/132/15	REDEVELOPMENT OF KIDWA
			NAGAR NEW DELHI, NBCC
99.	Kuldeep Chauhan	Civ/133/15	DESIGN OF A BUILDING CONSTRUCTION, PWD CHURU
100.	Manishg Kumar	Civ/134/15	CONSTRUCTION OF GANGA PATH, BSRDC, BIHAR
101.	Akshay Saxena	Civ/135/15	WTP, RO PLANT AND STP AT JUBILEE TOWER NOIDA, GAIL LTD.
102.	Rishabha Tiwar	Civ/136/15	URBAN ELECTRIFICATION OF KANPUR CITY, IPDS KANPUR
103.	Anshu Agarwal	Civ/137/15	DESIGN AND CONSTRUCTION OF A BUILDING, PWD CHURU
104.	Yogesh Kumar	Civ/138/15	PARBATI HYDROELECTRIC PROJECT STAGE-III, KULLU
105.	Anil Kumar Yadavq	Civ/139/15	FUNCTIONS OF ONGC IN CIVIL ENGG, ONGC
106.	Vinold Chaudhary	Civ/140/15	PROVISION OF INFRASTRUCTURE WORK, CP&B PVT. LTD ASSAM
107.	Raghuvendra Pratap Singh	Civ/141/15	SCHOOL BUILDING CONSTRUCTION, NULINE CONSTRUCTION, BHOPAL
108.	Shnu Kumar	Civ/142/15	PANORAMA SQUARE, SIMANCHAL INFRATECH PVT. LTD
109.	Rishabh Sahu	Civ/143/15	URBAN ELECTRIFICATION OF KANPUR CITY, IPDS KANPUR

Table B.2.2.5d

Post training assessment of the practical training is evaluated at the end of the 7th semester, by a committee constituted by the HOD. It carries 2 credits. The students give a PPT wherein they give a detailed report of the work done. The presentation is followed by an interaction session. The students are compulsorily supposed to submit a hard copy of the work done and is maintained in department as record. The credits are awarded based on the presentation, interaction and the practical training record.

For the academic year 2020-21 due to Covid-19 pandemic students have not participated in the two week Internship Programme and have rather opted for research based online internships.

C. Impact analysis of industrial training (02)

The students are provided with the feedback forms to rate their industrial training/internship. It is done to identify the level of achievement.

The feedback is obtained from the students at the end of 7th semester to assess the achievement of the objectives of the industrial training/ summer training/internship/ industrial tour.

Due to the COVID-19 pandemic and other administrative lockdown in the UT of Jammu and Kashmir, the mode of generating feedback from students was changed from offline to online for Autumn 2019 onwards. The platform of google forms was utilized by sending the links of each specific form to all students and hence the data was gathered therefrom.

Department of Civil Engineering
Feedback Form to Assess the Industrial Training

Name of the student: **Enrollment No :**

1. Rank the departmental initiative about the seriousness regarding industrial training etc. :

Excellent	☐	**Good**	☐	**Average**	☐	**Fair**	☐	

2. Rate the faculty help you got in choosing the proper place for the training:

Excellent	☐	**Good**	☐	**Average**	☐	**Fair**	☐	

3. Rate the exposure you got to the practical working environment:

Excellent	☐	**Good**	☐	**Average**	☐	**Fair**	☐	

4 Did you become aware about the practical aspects of civil engineering during the training: Yes/No

5 Did you notice some interesting facts and new technologies during the training:

6 Would you suggest your juniors to undergo training there: Yes/No

7. Suggestions which will make such training more useful and interesting:

Table B.2.2.e

D. Student feedback on initiative (02)

(Analysis of Students feedback on initiative (industrial training))

The student's feedback is obtained and evaluated corrective action is taken accordingly. The action includes:

1. To identify the project sites where students would be deputed.
2. If the students are not satisfied with the training imparted at a particular project/work, the students are not deputed to undergo training in at such projects in future.

CRITERION 3	COURSE OUTCOMES AND PROGRAM OUTCOMES	Max. Marks: 175 Claimed: 175

3.1 CORRELATION BETWEEN THE COURSES AND THE PROGRAM OUTCOMES (POs) AND PROGRAM SPECIFIC OUTCOMES (PSOs) (25) **Claimed:25**

Program Outcomes (POs):

PO1: Engineering Knowledge

To apply the basic knowledge of contemporary science and technology along with civil engineering fundamentals and essential computational techniques/procedures that aid in solving real life engineering problems.

PO2: Problem Analysis

To identify, formulate and analyze a complex civil engineering problem supported by literature survey leading to substantial conclusions.

PO3: Design/Development of solutions

To obtain solutions for complex civil engineering problems and design system components/processes keeping in view the appropriate considerations for the public health and safety, society, culture and environment.

PO4: Conduct investigations of Complex Problems

To apply systematic approach includes design of experiments, analysis and interpretation of data, and synthesis of the information to investigate a complex civil engineering problem using research-based knowledge to obtain reasonable conclusions.

PO5: Modern tool usage

To develop and use appropriate state-of-the-art software's and modern IT-based engineering tools/resources for modelling of complex civil engineering problems, duly identifying the limitations.

PO6: The Engineer and Society

To utilize the contextual information in order to examine societal, health, safety, legal and cultural issues and identify the consequent responsibilities relevant to the professional engineering practice based on reasoning.

PO7: Environment and Sustainability

To ensure sustainable development by means of professional engineering solutions in context of the impact on the environment and the society.

PO8: Ethics and Professionalism

To adhere to professional ethics and norms, and respect human values while practicing the engineering profession.

PO9: Teamwork and Leadership

To perform efficiently as a member or leader of a team or as an individual in diverse work environments

PO10: Communication Skills

To deliberate effectively and clearly on activities related to engineering profession and to comprehend and communicate ideas, interpretations and outcomes of an engineering analysis efficiently in both verbal and printed form.

PO11: Project Management and Finance

To implement knowledge and understanding of the engineering principles together with efficient management of time and financial resources as a leader or a team member in executing engineering projects.

PO12: Life Long Learning

To have inclination to life-long learning through self-education, interaction with stalwarts in the field of civil engineering, participation in professional societies and constantly updating the knowledge regarding recent developments.

Program Specific Outcomes (PSOs)

The Program Specific Outcomes broadly describe the overall capabilities a student is expected to possess at the end of the undergraduate program. The Program Specific Outcomes of the undergraduate program in Civil Engineering Department are given in Table B.3.1a.

PSO	Statement
PSO1	Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as software's towards solving technical problems requiring civil engineering interventions.
PSO2	Ability to furnish and/or analyze designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.
PSO3	Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of surveying.

Table 3.1a.

3.1.1. Evidence of Course Outcomes (COs):(5) **Claimed:5**

The course outcomes are statements describing the expected depth of understanding of the disciplinary subject and the essential abilities related to the subject upon completion of the course.

Eight core courses are mentioned below for demonstration with one course per semester in Table B.3.1b.

S. No.	Courses	Course Outcomes	
1.	CIV-201/ CIL100: ENGINEERING DRAWING	CIV-102.1	Comprehend general projection theory, with an emphasis on the use of orthographic projection to represent three-dimensional objects in two-dimensional views.
		CIV-102.2	Apply auxiliary or sectional views to most practically represent engineered parts.
		CIV-102.3	Understand the intersection, development of surface of body and fasteners.
		CIV-102.4	To interpret Orthographic, Isometric and Perspective views of objects.
2.	CIV-201/ CIL100: ENGINEERING MECHANICS	CIV-201.1	Determine the resultants in planer force systems. Identify and quantify all forces associated with a static framework
		CIV-201.2	Calculate the center of gravity, center of mass, and centroid for simple and composite volumes. Determine moment of area of plane sections. To determine the forces in members of a plane truss.
		CIV-201.3	Determine the resultants in planer force systems using energy principles.
		CIV-201.4	Understand the fundamental concepts of stress and strain and the relationship between both through the strain-stress equations in order to solve problems for simple tri-dimensional elastic solids. Solve problems in kinematic and dynamic systems
		CIV-201.5	Solve problems in kinematic and dynamic systems
3.	CIV-301/ CVT201: STRUCTURAL ANALYSIS-I	CIV-301.1	Understand the concepts of stress and strain, principal stresses and principal planes
		CIV-301.2	Determine Shear force and bending moment in beams and understand concept of theory of simple bending.
		CIV-301.3	Calculate the deflection of beams by different methods and selection of method for determining slope or deflection
		CIV-301.4	Apply basic equation of torsion in design of circular shafts and helical springs
		CIV-301.5	To understand the buckling behavior of columns subjected to axial loads.
4.	CIV-401/ CVT250:	CIV-401.1	Identify the degree of indeterminacy of different types of structures

	STRUCTURAL ANALYSIS-II	CIV-401.2	Determine the strain energy and compute the deflection of determinate beams, frames and trusses using energy principles.
		CIV-401.3	Analyze statically indeterminate structures by force methods.
		CIV-401.4	Analyze statically indeterminate structures by force methods.
		CIV-401.5	Analyze building frames by approximate methods for horizontal and vertical loads
5.	CIV-501/CVT301: DESIGN OF STRUCTURES-I	CIV-501.1	To develop basic understanding of reinforced concrete as a construction material.
		CIV-501.2	To develop understanding of various design philosophies and their differences.
		CIV-501.3	To understand behavior of RCC beams.
		CIV-501.4	To understand behavior of RCC members under flexural shear
		CIV-501.5	To understand behavior of compression members.
6.	CIV-601/CVT350: DESIGN OF STRUCTURES-II	CIV-601.1	Design of bolted and welded connections; concentric and eccentric
		CIV-601.2	Design of rolled and built-up tension members.
		CIV-601.3	Design of rolled and built-up compression members
		CIV-601.4	Design of laterally supported and unsupported flexural members
		CIV-601.5	Design of plate girders
		CIV-601.6	Understanding failure modes and application of Limit States Design philosophies of Steel Design
7.	CIV -701/CVT401: ENVIRONMENTAL ENGINEERING-I/WATER SUPPLY AND SANITARY ENGINEERING	CIV -701.1	To develop the concept about various aspects related to drinking water quality and quantity.
		CIV -701.2	To understand the various aspects of storage and distribution of drinking water.
		CIV -701.3	To design water treatment plants.
		CIV -701.4	To have knowledge about various aspects related to sanitation of buildings.
8.	CIV -802/CVT451: BRIDGE ENGINEERING	CIV -802.1	Classify different types of bridges and demonstrate fundamental knowledge of design of bridges and understand hydrologic and hydraulic aspects of waterway bridges.
		CIV -802.2	Use influence lines to calculate maximum effects (forces) due to standard moving vehicle loads prescribed in IRC Codes. Select an appropriate load system as per IRC-6 and evaluate design forces and moments in bridges.
		CIV-802.3	Design the slab culvert
		CIV-802.4	Design the Truss type bridges including cross beams and stringers.

		CIV-802.5	Design Plate Girder Bridges both composite and non-composite.
		CIV-802.6	Design slabs for all types of bridges.

Table 3.1b

The COs are published at the following level:

- Institute Website
- Course syllabus
- Newsletters
- Reports
- Notice Boards

3.1.2. Explanation of Course Articulation Matrix to be ascertained:(10) **(Claimed: 10)**

The various levels of correlation used are as follows:

Strong correlation (High) - **"3"**
Moderate correlation (Medium) - **"2"**
Low correlation (Low) - **"1"**
No correlation - "- "

3.1.2.1. Demonstration of CO-PO and PSO mapping for courses mentioned at 3.1.b

The mapping of the course outcomes with program outcomes and program specific outcome mentioned in Table 3.1.b are given in the Table 3.1.c.

COURSE	CO	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
CIV-102/ CIP100	CIV-102.1	3	3	3	3	2	2	2	-	3	3	2	2	3	3	3
	CIV-102.2	3	3	3	3	2	2	2	-	3	3	2	2	3	3	3
	CIV-102.3	3	3	3	3	2	2	2	-	3	3	2	2	3	3	3
	CIV-102.4	3	3	3	3	2	2	2	-	3	3	2	2	3	3	3
	CO	3	3	3	3	2	2	2	-	3	3	2	2	3	3	3
CIV-201/ CIL100	CIV-201.1	3	3	1	1	-	2	1	-	-	-	-	-	2	-	1
	CIV-201.2	3	3	2	2	-	2	1	-	-	-	-	-	2	1	2
	CIV-201.3	3	3	2	2	-	2	1	-	-	-	-	-	2	1	2
	CIV-201.4	3	3	2	2	-	2	1	-	-	-	-	-	2	1	2
	CIV-201.5	3	3	2	2	-	2	1	-	-	-	-	-	2	1	2
	CO	3	3	1.8	1.8	-	2	1	-	-	-	-	-	2	1	1.8
CIV-301/ CVT201	CIV-301.1	3	2	2	3	1								3	2	1
	CIV-301.2	3	3	3	2	2								3	3	1
	CIV-301.3	3	3	2	3	3								2	2	1

	CIV-301.4	3	2	2	2	3								3	1	1
	CIV-301.5	3	2	3	2	2								1	2	1
	CO	3	2.4	2.4	2.4	2.2	-	-	-	-	-	-	-	2.4	2	1
CIV-401/ CVT250	CIV-401.1	3	2.4	2.4	2	2	-	-	-	-	-	-	-	2.4	2	1
	CIV-401.2	3	2.4	2.4	2	2	-	-	-	-	-	-	-	2.4	2	1
	CIV-401.3	3	2.4	2.4	2	2	-	-	-	-	-	-	-	2.4	2	1
	CIV-401.4	3	2.4	2.4	2	2	-	-	-	-	-	-	-	2.4	2	1
	CIV-401.5	3	2.4	2.4	2	2	-	-	-	-	-	-	-	2.4	2	1
	CO	3	2.4	2.4	2	2	-	-	-	-	-	-	-	2.4	2	1
CIV-501/ CVT301	CIV-501.1	3	2	3							2		3	3	2	3
	CIV-501.2	3	2	3							2		3	3	2	3
	CIV-501.3	3	2	3							2		3	3	2	3
	CIV-501.4	3	2	3							2		3	3	2	3
	CIV-501.5	3	2	3							2		3	3	2	3
	CO	3	2	3	-	-	-	-	-	-	2	-	3	3	2	3
CIV-601/ CVT350	CIV-601.1	3	3	3	3	2	1	2	2	-	-	3	2	3	2	2
	CIV-601.2	3	3	3	3	2	1	2	2	-	-	3	2	3	2	2
	CIV-601.3	3	3	3	3	2	1	2	2	-	-	3	2	3	2	2
	CIV-601.4	3	3	3	3	-	3	1	2	-	-	3	2	3	2	2
	CIV-601.5	3	3	3	3	-	1	-	-	-	-	3	-	3	2	2
	CIV-601.6	3	3	3	3	-	3	-	-	-	-	3	-	3	2	2
	CO	3	3	3	3	2	1.67	1.8	2	-	-	3	2	3	2	2
CIV-70/ CVT401	CIV-701.1	3	3	-	-	3	2	-	2	2	3	-	2	2	2	1
	CIV-701.2	2	3	-	-	2	3	-	2	2	2	-	1	2	2	2
	CIV-701.3	3	2	-	-	3	3	-	2	3	3	-	3	3	2	3
	CIV-701.4	1	2	1	1	1	-	-	-	-	1	1	-	2	1	3
	CO	2.3	2.5	1	1	2.3	2.67	-	2	2.33	2.3	1	2	2.25	1.75	2.25
CIV-802/ CVT451	CIV-802.1	3	3	3	3	-	2	2	-	-	-	-	2	3	3	3
	CIV-802.2	3	3	3	3	2	2	2	-	-	-	2	2	3	3	3
	CIV-802.3	3	3	2	2	-	2	2	-	-	-	2	2	3	3	3

	CIV-802.4	3	3	2	2	-	2	2	-	-	-	2	2	3	3	3
	CIV-802.5	3	3	2	2	-	2	2	-	-	-	2	2	3	3	3
	CIV-802.6	3	3	2	2	-	2	2	-	-	-	2	2	3	3	3
	CO	3	3	2.3	2.3	2	2	2	-	-	-	2	2	3	3	3

Table 3.1c

3.1.3. Explanation of Program Articulation Matrix to be ascertained (10): Claimed:10

The various levels of correlation used are as follows:

Strong correlation	-	**3**
Moderate correlation	-	**2**
Low correlation	-	**1**
No correlation	-	"- "

3.1.3.1. Demonstration of mapping of courses with POs and PSOs

The mapping of the courses with the program outcomes and program specific outcomes has been shown in the following Table 3.1d.

COURSE CODE	**PO 1**	**PO 2**	**PO 3**	**PO 4**	**PO 5**	**PO 6**	**PO 7**	**PO 8**	**PO 9**	**PO 1**	**PO 11**	**PO 12**	**PSO 1**	**PSO 2**	**PSO 3**
CIV-102/ CIP100	3	3	3	3	2	2	2	-	3	3	2	2	3	3	3
CIV-201/ CIL100	3	3	1.8	1.8	-	2	1	-	-	-	-	-	2	1	1.8
CIV-301	3	2.4	2.4	2.4	2.2	-	-	-	-	-	-	-	2.4	2	1
CIV-401	3	2.4	2.4	2	2	-	-	-	-	-	-	-	2.4	2	1
CIV-501	3	2	3	-	-	-	-	-	-	2	-	3	3	2	3
CIV-601	3	3	3	3	2	1.67	1.8	2	-	-	3	2	3	2	2
CIV-701	2.3	2.5	1	1	2.3	2.67	-	2	2.33	2.3	1	2	2.25	1.75	2.25
CIV-801	3	3	2.3	2.3	2	2	2	-	-	-	2	2	3	3	3

Table 3.1d

Table 3.1e provides the details of various courses and their COs mapping with the Program Outcomes and Program Specific outcomes.

Program Articulation matrix

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
MEL100	Elements of Mechanical Engg.	3	2	-	-	-	-	-	-	-	2	-	3	3	2	3
PHL100	Engineering Physics	3	3	2.8	2	2	1			1						
HUL 100	Basic English and Communication Skills	2	2	2			2			2.3	2.6	2	2.5	2	2	1
HUP 100	Language Laboratory									3	3	3	2			
CIL100	Engineering Mechanics	3	3	1.8	1.8		2	1						2	1	1.8
MAL100	Mathematics -I	2.4	1.8	2.6								1	3	1.6	2.4	1.2
PHP100	Physics Laboratory-I	3	3	2.8	2	2	1			1						
WSP100	Work shop Practice	3	1	1		1	1	2	1	3	1	2	2			
EEL-100	Basic Electrical Engineering	2.8	1.8	1.6	2.4	1.8	1.4	-	-	-	-	-	1.4	2	2	2.2
ITL100	Computer Programming	2.75	2.3	2.5	3	1.8							2.5	3	1.5	1
CYL-101	Environmental studies	2.8	2.5	3		1.8	2.8	3			2	1.5	2.3	2.3	1.5	2
ELP-100	Basic Electrical Engineering	2.67	1.7	1.5	2.5	1	1.3	-	-	-	-	2.3	1.4	1.5	1.5	2
CYP100	Engineering Chemistry Lab.	2.5	1.5			2.5	2	2.3			1.3	2	1.3	2	2.25	1
ITP100	Computer Programming Laboratory	2	2.5	2.8	2.5	2				1	2			-	-	-
CIP100	Engineering Drawing	3	3	3	3	2	2	2		3	3	2	2	3	3	3
HUL 101	Advanced English Communication Skills and Organizational Behaviour	2	2	2			2.5			2.3	2.6	2	2	2	2	1
MAL101	Mathematics II	2.4	1.8	2.4	-	-	-	-	-	-	-	1	3	1.6	2.4	1.2
CIV-301	Structural Analysis-I	3	2.5	2	1.8	-	2	1	-	-	-	-	1	3	1	2
CIV-301(P)	Structural Engineering Lab I	3	1.8	1.3	1	-	2	1.3	-	-	-	-	-	3	1.75	2
CIV-302	Fluid Mechanics I	2.5					2.8	2.5	2	2.5	2.8		2.3	2.5	2.3	2
CIV-302(P)	Fluid Mechanics Lab I	2.3	1	1	1.5	2.5	1.3	1	2.8	1.5	1.5	1.5	2.3	2.3	2.8	2
CIV-303	Surveying I	3	1.5	1.5			2.3	1		1.5	1.8			3	3	1
CIV-303(P)	Surveying Lab I	2.75	2	2.3	1.75	2.8	1.5	1.5	1.3	2.5	2.3	1.3	1	2.5	2	1
MTH-303	Mathematics III	2.2	2.4	2.4	2.4						1		1	1.8	2.6	
HSS-301	Humanities and Social Science I	3	2	3							2		3	3	2	3
ELE-304	Electrical Engineering Tech	2.66	1.6	1.5	2.5	1	1.3					2.3	1.4			
ELE-304(P)	Electrical Engineering Lab	2.5	2.3		1.8		2.5	2				2.3	2.5			

CIV-401	Structural Analysis-II	3	2.4	2.4	2.4	2.2								2.4	2	1
CIV-402	Fluid Flow in Pipes and Channels	2.5	2.3	1.8	1.5								2	2.5	2.3	2.5
CIV-402(P)	Fluid Mechanics Lab II	3	3	3	3		3	3					3	3	2	3
CIV-403	Surveying II	3	2.8	2.8	1	1.8	1	1	1	2	2	1	1	2	1	2
CIV-403(P)	Surveying Lab II	3	2.9	2.9	2	1.8	2	2	1	2	2	1	2	2.5	1.5	2.5
CIV-404	Engineering Geology and Materials	3	2	2							2		3	3	2	3
CIV-404 (P)	Geology Lab	2.25	2.8	-	-	1.3	1.3	2.8	2	2	-	-	2.3	2	3	2.75
CIV-405	Building Drawing and Construction	3					2.5	3	3	3	2.5	2.5	2.5	3	3	3
MTH-406	Mathematics II	2	2.4	2.2							1		1	1.8	2.6	1
CIV-400	Professional Development Activities	3	3	3	1	2	3	3	2	2	3	3	3	2	1.5	2.5
CIV-501	Design of Structures-I	3	2	3	-	-	-	-	-	-	2	-	3	3	2	3
CIV-501(P)	Concrete Laboratory	3	2	1.8	2		2	1					2	3	2	2
CIV-502	Highway Engineering and PMS	3	2	1.8	2		1.8	1.8					2	3	2	1.8
CIV-502(P)	Highway Lab.	2.5	2.7	2.7	2.3	2	2.5	2.3					2.5	2.5	2.7	2.5
CIV-503	Geotechnical Engineering -I	3	2.2	2	1.8		2	1.8					2	3	2.2	2.6
CIV-503(P)	Geotechnical Laboratory I	2.9	2.2	2.1	2.0		2.1	1.7					2.1	2.9	2.2	2.2
CIV-504	Water Resources Engineering	3	2.8	3	2.7	2.3	2.7	2.4					2.3	2.4	2.8	2.5
CIV-505	Structural Analysis-III	2.7	2.7	2.7	1.16	2	2	2					2.1	2.7	2.7	2.4
CIV-500	Professional Development Activities	3	3	3	1	2	3	3	2	2	3	3	3	2	1.5	2.5
CIV-506: E1	Engineering Seismology	2.3	2.3	2.5	2.25	2.8	2.8	2.5	2	2.5	2.8		2.3	2.5	2.25	2
CIV-511:E1	Concrete Technology	3	2.8	3			3	2.5	3		2.8		2.8	3	2.75	2.5
CIV-601	Design of Structures-II	3	3	3	3	2	1.67	1.8	2	-	-	3	2	3	2	2
CIV-601(P)	Structural Engineering Lab. II	3	3	3	3		2	2					2	3	3	3
CIV-602	Traffic Engineering and Road Facilities	2.5	2.7	2.7	2.3	2	2.5	2.3					2.5	2.5	2.7	2.5
CIV-602(P)	Traffic Engineering Lab	2.5	2.7	2.7	2.3	2	2.5	2.3					2.5	2.5	2.7	2.5
CIV-603	Geotechnical Engineering -II	3	3	3	3		2	2					2	3	3	3
CIV-603(P)	Geotechnical Laboratory II	3	3	3	3		3	1.5				1	2	3	3	3
CIV-604	Irrigation and Hydraulic Structures	3	2.3	2.3	2.3	1	2.5	2.3					2.5	3	2.3	2.25
CIV-611:E1	Water-Shed Management	2	2	1.8	1.8	1.5	2	-	-	-	-	-	2	2	2	2
CIV-612:E2	Applied Hydrology	2.8	2.8	2.8	3	2.5	2.3	2.8					2.5	2.75	3	2.75
CIV-612:E2	Advanced Structural Analysis	3	3	3	3	1.3	2	2	-	-	-	-	2	3	3	3

CIV-701	Water supply & Sanitary Engineering	2.3	2.5	1	1	2.3	2.67	-	2	2.33	2.3	1	2	2.25	1.75	2.25
CIV-701(P)	Water Quality lab	2.5	2.7	2.7	2.3	2	2.5	2.3	-	-	-	-	2.5	2.5	2.67	2.5
CIV-702	Structural Dynamics	3	2.3	2.7	1.5	1.5	2	1.5	2	1	1.5	-	2	-	-	-
CIV-703	Construction Technology & Management	3	2	2	-	-	-	-	-	-	2	-	3	3	2	3
CIV-704	Design of Structures-III	3	3	3	3	2	2	2	-	-	-	-	3	3	3	3
CIV-705	Quantity Surveying and Cost Evaluation	3	3	1.8	1.8	-	2	1	-	-	-	-	-	2	1.5	2
CIV-706	Seminar	3	3	3	1	2	3	3	2	2	3	3	3	2	1.5	2.5
CIV-707	Project Pre-Work	3	3	3	3	3	3	2.5	2.5	1.5	1.5	1	2.5	3	2	2
CIV-711:E1	Railway and Airport Engineering	3	3	3	3	2	2	2	-	-	-	-	2	3	3	3
CIV-711:E1	Advanced geotechnical engineering	3	3	3	3	1.3	2	2	-	-	-	-	2	3	3	3
CIV-700	Professional Development Activities	3	3	3	3	3.0	3	2.5	2.5	1.5	1.5	1	2.5	3	2	2
CIV-801	Hydropower Engineering	2.5					2.8	2.5	2	2.5	2.8		2.3	2.5	2.3	2
CIV-802	Bridge Engineering	3	3	2.3	2.3	2	2	2	-	-	-	2	2	3	3	3
CIV-803	Project	3	1	1	3	2	3	2	1	2	2	2	2	3	2	2
CIV-804	Practical Training & Viva-Voce	3	3	3	3	2	2	1	1	2	2	1	2	2	2	2
CIV-811:E1	Rock Mechanics and Tunneling Technology	3	3	1.8	1.8		2	1						2	1.5	2.2
CIV-812:E2	Ground Improvement Techniques	2	2	2.3	2.3	2.3	1.3	2.3	1	1.7	1.7	1	2.7	2	3	3
		2.76	2.43	2.39	2.21	1.96	2.15	2.02	1.87	2.02	2.12	1.82	2.22	2.54	2.24	2.24

Table 3.1e

3.2.Attainment of Course Outcomes:(75) Claimed:75

3.2.1. Describe the assessment tools and processes used to gather the data upon which the evaluation of Course Outcome is based: (10) Claimed:10

3.2.2. CO Assessment Rubrics:

COs are evaluated based on the performance of students in a mid-term examination, one major examination and continuous assessment (in the form of assignments and quizzes). The contributions are 30%, 60% and 10% for the mid-term exam, major exam and continuous assessment, respectively.
However, the lockdowns due to abrogation of Article 370 and subsequent COVID-19, the regular pattern examination couldn't possible and alternative evaluation schemes were adopted. For Autumn 2019, the contributions are 90% and 10% for major exam and continuous assessment respectively. In Spring 2020 the classes were held online and the evaluation was based on Mid Term (30%) as assignments and Major (40%) as Comprehensive Viva-Voce Examination (CVVE), the remaining 30% was based on the Maximum Semester Grade Point Average (SGPA) up to previous semesters. Whereas for the assessment of CO attainment purpose, the Assignments was given weightage of 40% and CVVE has been given 60% weightage.

Assessment of Course Outcomes (Upto Spring 2019)

(a) Theory Courses:

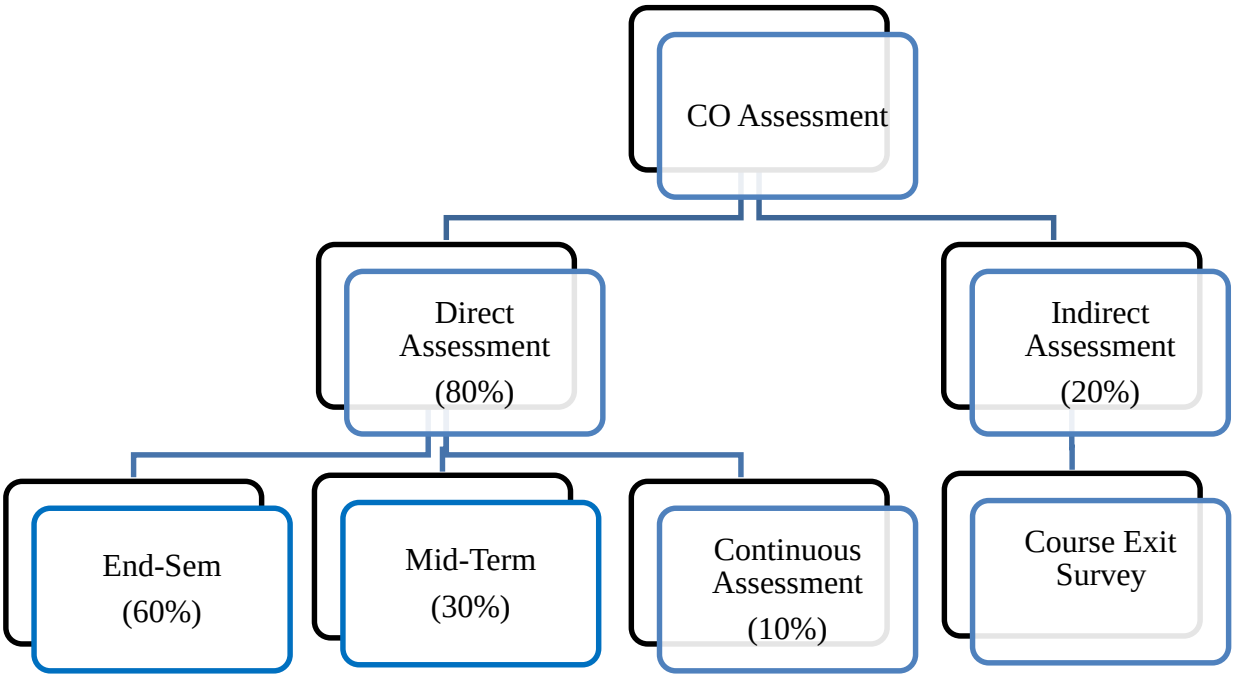


Fig. 3.2a

(b) Laboratory/ Practical Courses:

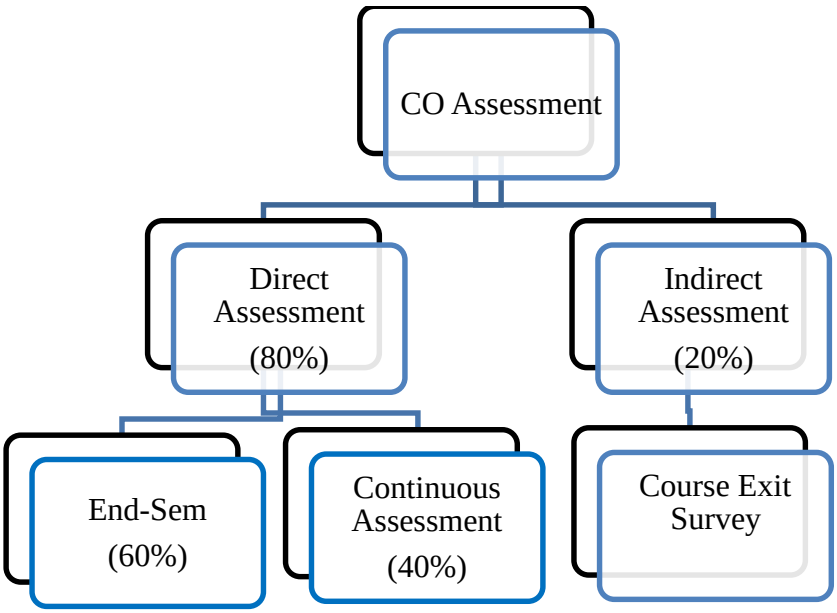


Fig. 3.2b

Assessment of Course Outcomes (Autumn 2019)

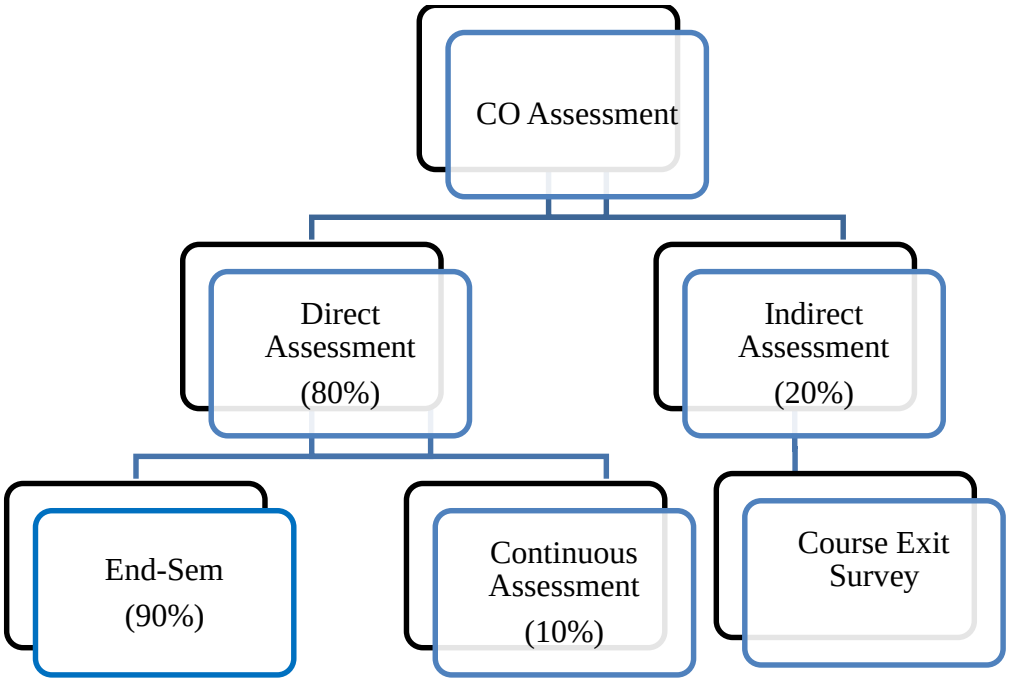


Fig. 3.2a

(b) Laboratory/ Practical Courses:

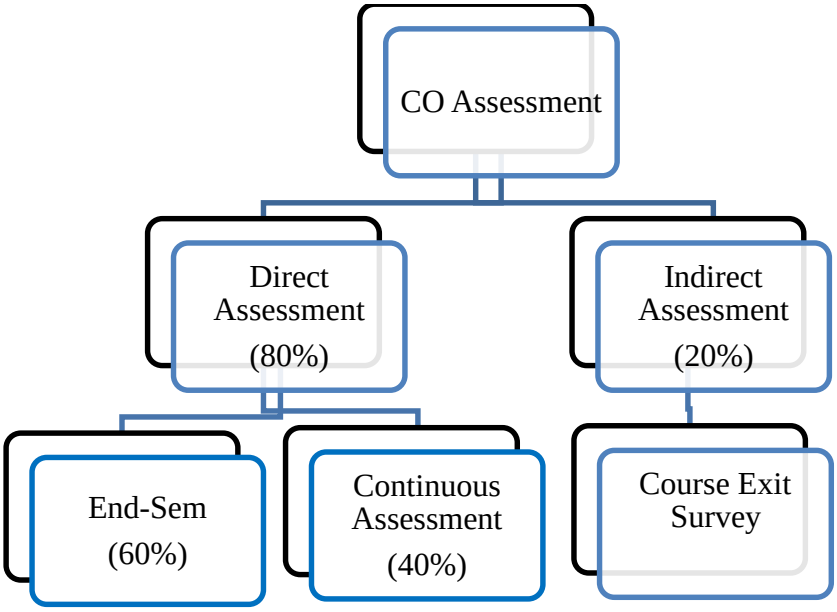


Fig. 3.2b

Assessment of Course Outcomes (Spring 2020 onward)

(a) Theory Courses:

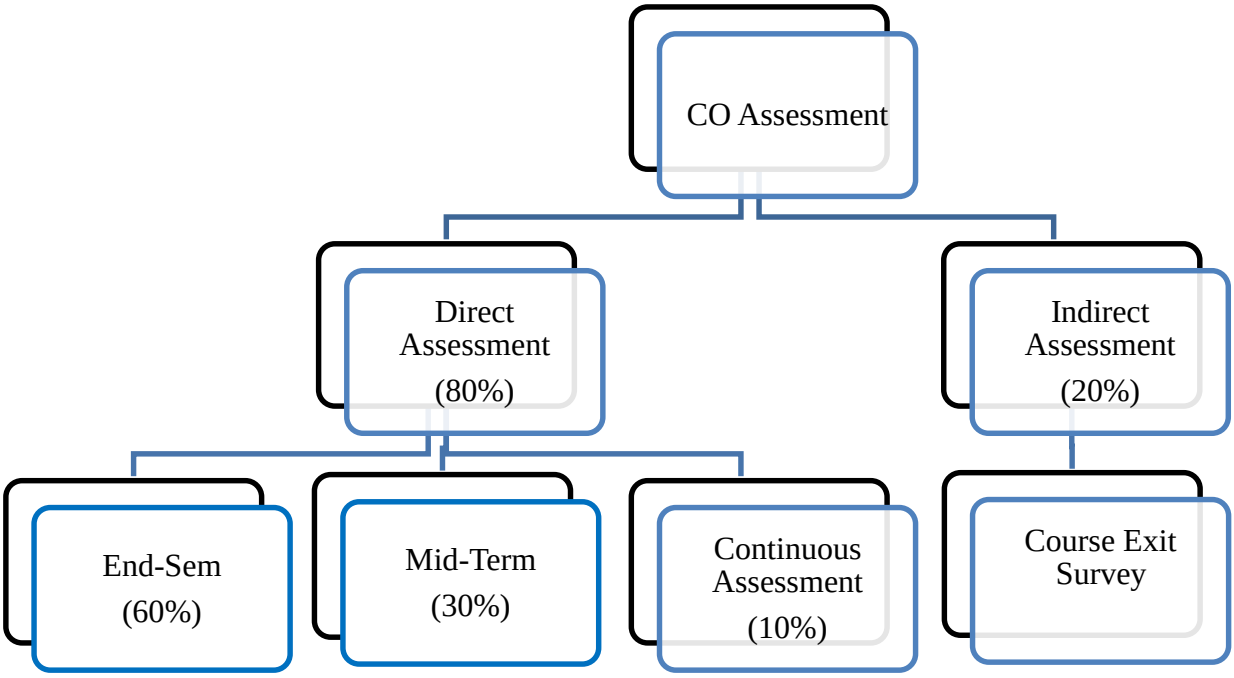


Fig. 3.2a

(b) Laboratory/ Practical Courses:

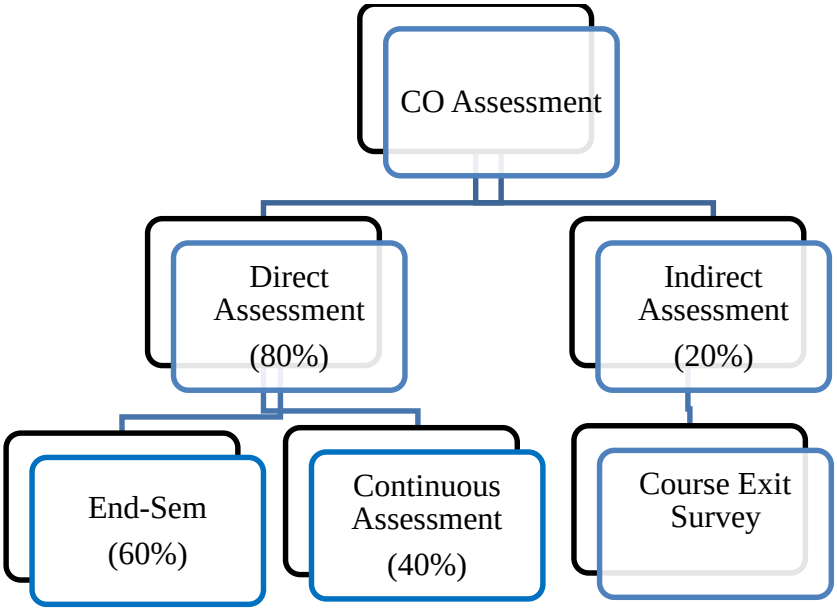


Fig. 3.2b

CO Assessment Tools:

The various assessment tools used to evaluate COs and the frequency with which the assessment processes are carried out are listed in Table 3.2.a

DIRECT ASSESSMENT TOOLS			
Course Type		**Assessment Tools**	**Frequency**
Theory		Mid-Term exam	Once per course
		Continuous Assessment	Twice/Thrice per course
		End Semester Exam	Once per course
Practical		Continuous Assessment	Every lab session
		End Semester Exam	Once per course
Seminar (7th sem)		Presentation	Once per course
Project	**Phase I (7th sem)**	Review	Once per semester
	Phase II (8th sem)	Review	Once/Twice per semester
		Evaluation by Guide	Continuous evaluation
		Demonstration / Final Evaluation	Once per course
Viva Voce (8th sem)		End Semester Assessment	Once per program

Table 3.2.a Direct Assessment Tools

Program shall have set Course Outcome attainment levels for all courses.

Direct Course Outcome attainment levels (up to Spring semester 2018**)**

Assessment Method	**Level**	**Attainment Levels**
Midterm Exam	1	**50%** of students scoring more than **40%** marks
	2	**60%** of students scoring more than **40%** marks
	3	**75%** of students scoring more than **40%** marks
End Semester Exam	1	**50%** of students scoring more than **40%** marks
	2	**60%** of students scoring more than **40%** marks
	3	**75%** of students scoring more than **40%** marks
Continuous Assessment	1	**50%** of students scoring more than **50%** marks
	2	**60%** of students scoring more than **50%** marks
	3	**75%** of students scoring more than **50%** marks

Table 3.2.b

Direct Course Outcome attainment levels (Autumn semester 2018 onwards)

Assessment Method	Level	Attainment Levels
Midterm Exam	1	**50%** of students scoring more than **50%** marks
	2	**60%** of students scoring more than **50%** marks
	3	**70%** of students scoring more than **50%** marks
End Semester Exam	1	**50%** of students scoring more than **50%** marks
	2	**60%** of students scoring more than **50%** marks
	3	**70%** of students scoring more than **50%** marks
Continuous Assessment	1	**50%** of students scoring more than **50%** marks
	2	**60%** of students scoring more than **50%** marks
	3	**70%** of students scoring more than **50%** marks

Table 3.2.c

The process to evaluate each of the above components is described step by step:

Measuring Course Outcome attained through End Term Examination (weightage 60%)

This part shall be calculated using the marks obtained by students in the end semester examination. The end term examination consists of 5 questions covering all the COs, out of which only 4 questions need to be attempted by the students. The assessment shall be given in terms of marks obtained by the student in each CO.

The method used is as follows:

Step1: Check the answer sheets of all students and enter their marks in the excel format with each sub part of every question in separate column. Ex: 1 a, 1 b, 1 c etc. should all have a separate column.

Step2: For a CO, identify the questions belonging to it as mentioned against each question in the question paper.

Step3: CO attainment percentage is calculated by counting the number of students who attempted a CO and scored above or equal to benchmark set (50% for Autumn 2018 onwards/ 40%, up to Spring 2018) and dividing by total no. of students taking the course, for each CO.

Step4: For each CO, Attainment level is assigned as explained.

Measuring Course Outcome attained through Midterm Exams (Weightage -30%).

The method used is as follows:

Step1: Check the answer sheets of all students and enter their marks in the excel format with each sub part of every question in separate column. Ex: 1 a, 1 b, 1 c etc. should all have a separate column.

Step2: For a CO, identify the questions belonging to it as mentioned against each question in the question paper.

Step3: Calculate the CO attainment percentage for each student by counting the number of students scoring above or equal to benchmark set (50% for Autumn 2018 onwards/ 40%, up to Spring 2017) and dividing by total no. of students taking the course, for each CO.

Step4: For each CO, Attainment level is assigned as explained.

Measuring CO Attainment through Assignments (Weightage-10%)

The assignment given includes all COs of the course. The assessment shall be given in terms of marks obtained by the student in each CO. The method used is as follows:

Step1: Check the assignment of all students and enter their marks in the excel format with each sub part of every question in separate column. Ex: 1 a, 1 b, 1 c etc. should all have a separate column.

Step2: For a CO, identify the questions belonging to it as mentioned against each question in the assignment.

Step3: Calculate the CO attainment percentage for each student by counting the number of students scoring above or equal to benchmark set (50%) and dividing by total no. of students taking the course, for each CO.

Step4: For each CO, Attainment level is assigned according to the method as explained.

Direct CO Attainment

Direct CO Attainment is calculated by giving specific weightage to the individual CO attainments of End Term (60% weightage), Mid Term (30%) and Assignments (10%).

Indirect CO Attainment

Indirect CO Attainment is evaluated on the basis of course exit survey in which students grade the Attainment COs as 1, 2 or 3. 1 means CO is Mildly Attained, 2 means Moderately Attained and 3 refers to excellent Attainment. Finally, the Indirect CO Attainment is taken as the average response of all the students

Overall CO Attainment

Overall CO Attainment is calculated by giving a weightage of 80% to Direct Attainment and 20%

Example to demonstrate the CO Attainment Evaluation Process:

In order to demonstrate the CO attainment evaluation process, an example of XYZ course file of spring 2020 has been provided below:

XYZ Course **SESSION: SPRING-2020**

CO-PO/PSO MAPPING MATRIX

COs	**POs**												**PSOs**		
	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**	**1**	**2**	**3**
1	3	2	2		2	1	2	2				2	3	2	3
2	3	2	2		2	2	2	2				2	3	2	3
3	3	2	2		2	2	2	2				2	3	2	3
4	3	3	3			3	1	2			3	2	3	1	3
Average	3	2.25	2.25		2	2	1.75	2			3	2	3	1.75	3

Table 3.2.d

Direct assessment for course outcome

(End semester examination + Mid Semester examination + Assignment)

Calculating the attainment level of Course Outcome (Direct Assessment) by considering the weight age of 60% for End Semester, weight age of 30% for Mid Semester Examinations and weight age of 10% for Assignments

Direct CO Attainment= 60% (End Semester) + 30% (Mid Semester) + 10% (Assignment)

S. No.	Course Outcome	Major CO Attainment	Minor CO Attainment	Assignment CO Attainment	Direct CO Attainment
1	CO1	3	3	3	3
2	CO2	3	1	3	2.4
3	CO3	3		3	2.1
4	CO4	3		3	2.1

Table 3.2.e

Indirect assessment for course outcome

Course Exit Survey

- If maximum number of students are saying that CO is Weakly attained ----Level-1
- If maximum number of students are saying that CO is Moderately attained ----Level-2
- If maximum number of students are saying that CO is Strongly attained ----Level-3

Given below is result of attainment of CO's for **XYZ course (example)** based on course exit survey

Course Outcome	CO attainment
CO1	**2.66**
CO2	**2.59**
CO3	**2.51**
CO4	**2.34**

Table 3.2.f

CO ATTAINMENT CALCULATION

(Direct Assessment + Indirect Assessment)

Calculating the attainment level of **Overall Course Outcome** (Direct Assessment + Indirect Assessment) by considering the weight age of 80% for direct assessment and weight age of 20% for indirect Assessment.

Overall Course Outcome= 80% Direct + 20% Indirect

S. No	Course Outcome	CO attainment (Direct Assessment)	CO attainment (Indirect Assessment)	Overall CO attainment = 80% Direct + 20% Indirect
1	CO1	3	2.66	**2.9**
2	CO2	2.4	2.59	**2.4**
3	CO3	2.1	2.51	**2.2**
4	CO4	2.1	2.34	**2.1**

Table 3.2.g

3.2.3. Record the attainment of Course Outcomes of all courses with respect to set attainment levels: (65)

Claimed:65

CO Attainment of all courses:

Course Code	Course Name	CO	Attainment (2019-2020)	Attainment (2018-2019)	Attainment (2017-2018)
CIV-102/ CIP100	Engineering Drawing	CIV-102.1	2.24	0.74	1.97
		CIV-102.2	2.08	0.65	2.2
		CIV-102.3	2.06	0.66	1.23
		CIV-102.4	2.08	0.71	1.19
		Avg. CO	2.11	0.69	1.65
MTH-101	Mathematics I	MTH-101.1	2.55	2.7	2.1
		MTH-101.2	1.65	2.7	1.5
		MTH-101.3	1.2	2.4	1.5
		MTH-101.4	1.2	1.5	0.9
		MTH-101.5	1.2	1.5	0.9
		Avg. CO	1.56	2.16	1.38
IT-101	Computer Fundamentals and Problem solving Techniques	IT-101.1	3	3	3
		IT-101.2	3	3	3
		IT-101.3	2.38	2.1	2.1
		IT-101.4	2.78	2.1	2.1
		Avg. CO	2.79	2.55	2.55
PHY-101	Physics I	PHY-101.1	2.9	2.4	3
		PHY-101.2	2.88	1.8	1.2
		PHY-101.3	2.8	0.9	0.9
		PHY-101.4	2.7	0.3	0.2
		Avg. CO	2.82	1.35	1.325
PHY-101(P)	Physics Lab I	PHY-101(P).1	3	3	3
		PHY-101(P).2	3	3	3
		PHY-101(P).3	3	3	3

		PHY-101(P).4	3	3	3
		Avg. CO	3	3	3
CHM-101	Chemistry I	CHM-101.1	2.2	2.4	3
		CHM-101.2	2.3	2.4	3
		CHM-101.3	2.1	2.4	3
		CHM-101.4	2.2	1.8	2.1
		Avg. CO	2.2	2.25	2.78
CHM-101(P)	Chemistry Lab I	CHM-101(P).1	3	3	3
		CHM-101(P).2	3	3	3
		CHM-101(P).3	3	3	3
		CHM-101(P).4	3	3	3
		Avg. CO	3	3	3
HSS-101	Communication Skills and Oral Presentation	HSS-101.1	2.9	2.7	2
		HSS-101.2	2.9	2.7	2
		HSS-101.3	2.91	2.7	2
		HSS-101.4	2.92	1	2
		Avg CO	2.90	2.26	2
WSP-1	Workshop Lab I	WSP-1.1	3	3	2.4
		WSP-1.2	3	3	3
		WSP-1.3	3	3	3
		WSP-1.4	3	3	2.4
		WSP-1.5	3	3	2.4
		Avg. CO	3	3	2.64
CIV-201/ CIL100	Engineering Mechanics	CIV-201.1	2.18	1.82	3
		CIV-201.2	2.28	2.04	2.08
		CIV-201.3	1.46	1.92	2.28
		CIV-201.4	1.46	2.66	2.8
		CIV-201.5	1.46	2.52	2.28
		Avg CO	1.768	2.192	2.49
MTH-201	Mathematics II	MTH-201.1	2.55	3	3
		MTH-201.2	2.55	3	2.4
		MTH-201.3	2.1	3	2.4
		MTH-201.4	2.1	1.5	1.5
		MTH-201.5	2.1	2.1	1.5
		Avg CO	2.28	2.52	2.16
CSE-201	Computer Programming	CSE-201.1	3	3	3
		CSE-201.2	3	3	3
		CSE-201.3	3	3	3
		CSE-201.4	2.3	2.1	2.1
		Avg CO	2.82	2.78	2.78
		CSE-202(P).1	2.7	2.6	2.2

CSE-202(P)	Computer Programming Lab	CSE-202(P).2	2.5	2.6	2.2
		CSE-202(P).3	2.7	2.6	2.2
		CSE-202(P).4	2.2	2.2	2.2
		Avg CO	2.53	2.5	2.2
PHY-201	Physics II	PHY-101.1	3	3	3
		PHY-101.2	2.5	2.4	1.8
		PHY-101.3	2.2	2.1	1.5
		PHY-101.4	0.5	0.2	0.3
		Avg. CO	2.05	1.93	1.65
PHY-201(P)	Physics Lab II	PHY-201(P).1	2.1	2.4	2.4
		PHY-201(P).2	2.4	3	3
		PHY-201(P).3	2	2.6	2.4
		PHY-201(P).4	2	3	3
		Avg. CO	2.13	2.75	2.7
CHM-201	Chemistry II	CHM-201.1	2.9	3	3
		CHM-201.2	2	3	2.8
		CHM-201.3	2.1	2.4	3
		CHM-201.4	2.2	2.1	2.2
		Avg. CO	2.3	2.63	2.75
CHM-201(P)	Chemistry Lab II	CHM-201(P).1	3	3	3
		CHM-201(P).2	3	3	3
		CHM-201(P).3	3	3	3
		CHM-201(P).4	3	3	3
		Avg. CO	3	3	3
HU-201	Introduction to Social Sciences	HU-201.1	2.7	2.7	2.7
		HU-201.2	2.2	1.8	2.7
		HU-201.3	2.4	2.7	1.8
		HU-201.4	2.3	2.1	3
		HU-201.5	2.1	1.8	1.8
		Avg. CO	2.34	2.22	2.4
MEC-201	Machine Drawing	MEC-201.1	1.85	1.95	3
		MEC-201.2	1.4	1.3	3
		MEC-201.3	1.1	0.9	2.55
		MEC-201.4	0.8	0.45	1.2
		Avg. CO	1.29	1.15	2.44
WSP-1	Workshop Lab II	WSP-2.1	3	3	3
		WSP-2.2	3	3	3
		WSP-2.3	3	3	3
		WSP-2.4	3	3	3
		Avg. CO	3	3	3
	Structural Analysis I	CIV-301.1	3	1.92	1.92

CIV-301/ CVT201		CIV-301.2	3	2.32	1.76
		CIV-301.3	3	1.66	1.26
		CIV-301.4	3	0.42	0.42
		CIV-301.5	2.76	1.58	1.34
		Avg CO	2.95	1.58	1.34
CIV-301(P)/ CVL201	Structural Engineering Lab I	CIV-301(P).1	3	3	3
		CIV-301(P).2	2.54	2.52	2.04
		CIV-301(P).3	2.62	2.52	3
		CIV-301(P).4	3	3	2.52
		Avg CO	2.79	2.76	2.64
CIV 302/ CVT202	Fluid Mechanics I	CIV302.1	2.8	3	2.76
		CIV302.2	3	2.94	3
		CIV302.3	2.7	2.96	3
		CIV302.4	2.5	2.94	1.8
		Avg CO	2.75	2.96	2.64
CIV 302(P)/ CVL202	Fluid Mechanics Lab I	CIV 302(P).1	3	3	3
		CIV 302(P).2	3	3	3
		CIV 302(P).3	3	3	3
		CIV 302(P).4	3	3	3
		CIV 302(P).5	3	3	3
		Avg CO	3	3	3
CIV 303/ CVT203	Surveying I	CIV 303.1	2.22	2.93	2.93
		CIV 303.2	1.5	2.2	2.92
		CIV 303.3	1.5	2.66	2.66
		CIV 303.4	1.22	2.60	2.84
		Avg CO	1.61	2.60	2.84
CIV 303(P)/ CVL203	Surveying Lab I	CIV 303(P).1	2	2.8	2.5
		CIV 303(P).2	2	3	2.5
		CIV 303(P).3	2	3	2.52
		CIV 303(P).4	2.00	2.90	2.40
		Avg CO	2	2.9	2.414
MTH-303/ MAT201	Mathematics I	MTH-303.1	2.1	2.52	3
		MTH-303.2	1.65	2.56	2.8
		MTH-303.3	1.65	2.56	2.08
		MTH-303.4	1.65	1.8	1.8
		MTH-303.5	2.1	1.8	1.8
		Avg CO	1.83	2.25	2.3
ELE-304	Electrical Engineering Tech	NOT FLOATED	2.9	2.32	2.32
			2.6	2.52	2.52
			2.7	2.44	2.44
			2.9	2.08	2.08

			2.9	2.08	2.08
		Avg CO	2.8	2.29	2.29
ELE-304(P)	Electrical Engineering Lab	NOT FLOATED	3	3	3
			3	3	3
			3	3	3
			3	3	3
		Avg CO	3	3	3
HSS-301	Humanities and Social Sciences I	HSS-301.1	2.9	2.9	2.9
		HSS-301.2	2.9	2.9	2.91
		HSS-301.3	2.91	2.91	2.88
		HSS-301.4	2.92	2.92	2.92
		HSS-301.5	2.9	2.9	2.91
		HSS-301.6	2.9	2.9	2.92
		Avg CO	2.90	2.90	2.90
CIV-401/ CVT250	Structural Analysis II	CIV-401.1	3	2.93	2.93
		CIV-401.2	3	2.89	2.89
		CIV-401.3	3	2.94	2.94
		CIV-401.4	3	2.17	2.17
		CIV-401.5	2.4	2.73	2.73
		Avg CO	2.88	2.73	2.73
CIV-402/ CVT251	Fluid Flow in Pipes and Channels	CIV-402.1	3	3	2.7
		CIV-402.2	2.94	2.94	2.06
		CIV-402.3	2.96	2.96	2.9
		CIV-402.4	2.94	2.94	2.9
		Avg CO		2.96	2.64
CIV-402(P)/ CVL251	Fluid Mechanics Lab II	CIV-402(P).1	3	3	3
		CIV-402(P).2	3	3	3
		CIV-402(P).3	3	3	3
		CIV-402(P).4	3	3	3
		Avg CO	3	3	3
CIV-403/ CVT252	Surveying II	CIV-403.1	2.9	1.08	2.42
		CIV-403.2	2.6	2.22	1.95
		CIV-403.3	1.9	2.3	1.95
		CIV-403.4	2.1	2.21	2.65
		Avg CO	2.38	1.95	2.24
CIV-403(P)/ CVL252	Surveying Lab II	CIV-403(P).1	2	2.94	2.94
		CIV-403(P).2	2	2.95	2.94
		CIV-403(P).3	2	2.92	2.92
		CIV-403(P).4	2	2.84	2.86
		Avg CO	2.00	2.91	2.92
	Surveying Camp	CIV-403(SC).1		3	2.94

CIV-403(SC)/ CVT255		CIV-403(SC).2	NOT CONDUCTED	3	2.94
		CIV-403(SC).3		3	2.94
		CIV-403(SC).4		2.8	2.86
		Avg CO		2.95	2.92
CIV-404/ CVT253	Engineering Geology and Materials/ Engineering Geology	CIV-404.1	2.88	2.08	2.96
		CIV-404.2	2	1.96	2.92
		CIV-404.3	2.12	2.01	2.2
		CIV-404.4	2	1.96	2.17
		Avg CO	2.25	2.00	2.56
CIV-404/ CVL253	Engineering Geology Lab	CIV-404 (P).1	2.88	3	3
		CIV-404 (P).2	2	3	3
		CIV-404 (P).3	2.12	3	3
		CIV-404 (P).4	2	3	3
		Avg CO	2.25	3	3
CIV-405/ CVT254	Building Drawing and Construction/ Civil Engineering Drawing	CIV-405.1	2.99	2.38	2.95
		CIV-405.2	2.985	2.96	2.94
		CIV-405.3	2.04	2.98	2.25
		CIV-405.4	2.99	2.77	2.71
		Avg CO	2.75	2.77	2.71
MTH-406/ MAT256	Mathematics II	MTH-406.1	3	2.8	2.8
		MTH-406.2	3	3	3
		MTH-403.3	3	2.56	2.8
		MTH-403.4	3	2.28	2.04
		Avg CO	3	2.66	2.66
CIV-501/ CVT301	Design of Structures-I	CIV-501.1	2.08	2.21	2.42
		CIV-501.2	2.28	2.23	2.42
		CIV-501.3	1.56	2.48	2
		CIV-501.4	1.28	2.96	1.71
		CIV-501.5	1.56	1.65	1.71
		Avg CO	1.75	2.31	2.05
CIV-501(P)/ CVL301	Concrete Laboratory	CIV-501(P).1	3	3	2.2
		CIV-501(P).2	3	3	2.04
		CIV-501(P).3	3	3	1.72
		CIV-501(P).4	3	3	2.54
		Avg CO	3	3	2.125
CIV 502/ CVT302	Highway Engineering and PMS	CIV502.1	0.84	0.84	1.56
		CIV502.2	3	3	2.04
		CIV502.3	3	3	2.28

		CIV502.4	2.76	2.76	2.04
		CIV502.5	2.04	2.04	2.76
		CIV502.6	2.04	2.04	2.04
		Avg CO	2.28	2.28	2.12
CIV-502(P)/ CVL302	Pavement lab/ Highway Laboratory	CIV-502(P).1	3	3	3
		CIV-502(P).2	3	3	3
		CIV-502(P).3	2.52	3	3
		CIV-502(P).4	2.2	3	3
		Avg CO	2.68	3	3
CIV-503/ CVT303	Geotechnical Engineering I	CIV-503.1	2.28	2.8	2.32
		CIV-503.2	1.56	2.28	2.56
		CIV-503.3	1.56	2.28	2.28
		CIV-503.4	2.8	2.08	2.28
		CIV-503.5	2.28	2.08	2.28
		Avg CO	2.1	2.3	2.35
CIV-503(P)/ CVL303	Geotechnical Lab I	CIV-503(P).1	3	3	3
		CIV-503(P).2	3	3	3
		CIV-503(P).3	3	3	3
		CIV-503(P).4	3	3	3
		Avg CO	3	3	3
CIV-504/ CVT304	Water Resources Engineering	CIV-504.1	2.28	2.52	2.4
		CIV-504.2	2.52	2.76	2.84
		CIV-504.3	0.64	0.44	0.44
		CIV-504.4	1.9	2.28	1.76
		CIV-504.5	1.36	1.84	1.12
		CIV-504.6	0.2	0.2	2.08
		CIV-504.7	0.64	0.64	0.44
		Avg CO	1.36	1.53	1.58
CIV-505a/ CVT305	Structural Analysis III	CIV-505.1	3	2.76	2.32
		CIV-505.2	3	3	2.52
		CIV-505.3	2.28	2.08	2.28
		Avg CO	2.76	2.61	2.37
CIV-505b	QSCE	CIV-505.1	NOT FLOATED	NOT FLOATED	2.3
		CIV-505.2			2.52
		CIV-505.3			2.52
		CIV-505.4			2.08
		CIV-505.5			1.36
		Avg CO			2.15
CIV-511:E1/	Engineering Seismology	CIV-511:E1.1	3	NOT FLOATED	NOT FLOATED
		CIV-511:E1.2	1.56		
		CIV-511:E1.3	2.28		

CVT307		CIV-511:E1.4	3		
		Avg CO	2.46		
CIV-511:E1/ CVT307	Concrete Technology	CIV-511:E1.1	2.63	2.63	NOT FLOATED
		CIV-511:E1.2	2.46	2.46	
		CIV-511:E1.3	2	2	
		CIV-511:E1.4	2.21	2.21	
		Avg CO	2.32	2.22	
CIV-601/ CVT350	Design of Structures-II	CIV-601.1	2.95	2.45	2.93
		CIV-601.2	2.62	2.94	2.94
		CIV-601.3	2.65	2.96	2.32
		CIV-601.4	2.64	2.24	2.96
		CIV-601.5	2.93	2.21	2.37
		CIV-601.6	2.99	2.25	2.96
		Avg CO	2.78	2.50	2.75
CIV-601(P)/ CVL350	Structural Engineering Lab.	CIV-601(P).1	3	3	3
		CIV-601(P).2	3	3	3
		CIV-601(P).3	3	3	3
		CIV-601(P).4	3	3	3
		Avg CO	3	3	3
CIV-602	Traffic Engineering and Road Facilities	CIV-602.1	3	3	2.99
		CIV-602.2	2.28	2.28	3
		CIV-602.3	2.92	3	2.83
		CIV-602.4	2.28	2.28	2.04
		Avg CO	2.62	2.64	2.72
CIV-602(P)/ CVT351	Traffic Engineering Lab	CIV-602(P).1	3	3	3
		CIV-602(P).2	3	3	3
		CIV-602(P).3	3	3	3
		CIV-602(P).4	3	3	3
		Avg CO	3	3	3
CIV-603/ CVT352	Geotechnical Engineering -II	CIV-603.1	3	2.8	2.32
		CIV-603.2	2.8	2.28	2.28
		CIV-603.3	3	2.28	2.28
		CIV-603.4	2.8	3	2.8
		Avg CO	2.9	2.59	2.42
CIV-603(P)/ CVL352	Geotechnical Laboratory II	CIV-603(P).1	3	3	3
		CIV-6032(P).2	3	3	3
		CIV-603(P).3	3	3	3
		CIV-603(P).4	3	3	3
		Avg CO	3	3	3
CIV-604/ CVT353	Irrigation and Hydraulic Structures	CIV-604.1	2.89	0.76	1.71
		CIV-604.2	2.89	2.43	1.71

		CIV-604.3	2.88	2.19	1.22
		CIV-604.4	2.89	2.16	1.66
		Avg CO	2.89	1.89	1.58
CIV-611:E1/ CVT	Water-Shed Management	CIV-611:E1.1	3	3	3
		CIV-611:E1.2	2.9	2.8	2.8
		CIV-611:E1.3	2.85	2.8	2.8
		CIV-611:E1.4	2.19	2.16	2.16
		CIV-611:E1.5	2.2	2.28	2.28
		Avg CO	2.63	2.61	2.61
CIV-612:E2/ CVT354	Applied Hydrology	CIV-612:E2.1	3	3	NOT FLOATED
		CIV-612:E2.2	3	2.32	
		CIV-612:E2.3	3	2.8	
		CIV-612:E2.4	3	2.16	
		Avg CO	3	2.57	
CIV-612:E2/ CVT354	Advanced Structural Analysis	CIV-612:E2.1	NOT FLOATED	0.84	NOT FLOATED
		CIV-612:E2.2		2.28	
		CIV-612:E2.3		2.28	
		CIV-612:E2.4		2.76	
		CIV-612:E2.5		2.76	
		CIV-612:E2.6		2.04	
		Avg CO		2.16	
CIV-701/ CVT401	Water supply & Sanitary Engineering/ Environmental Engineering-I	CIV-701.1	3	3	3
		CIV-701.2	3	3	3
		CIV-701.3	2.52	2.52	2.92
		CIV-701.4	1.8	1.8	2.28
		Avg CO	2.58	2.58	2.8
CIV-701(P)/ CVL401	Water Quality lab	CIV-701(P).1	3	3	3
		CIV-701(P).2	3	3	3
		CIV-701(P).3	3	3	3
		CIV-701(P).4	3	3	3
		Avg CO	3	3	3
CIV-702/ CVT402	Structural Dynamics	CIV-702.1	3	2.45	2.53
		CIV-702.2	3	1.72	2.28
		CIV-702.3	2.8	2.02	2.1
		CIV-702.4	2.28	1.19	2.15
		Avg CO	2.77	1.85	2.27
CIV-703/ CVT403	Construction Technology & Management	CIV-703.1	3.00	2.95	2.95
		CIV-703.2	3.00	2.94	2.94
		CIV-703.3	3.00	2.96	2.96
		CIV-703.4	3.00	2.95	2.95
		Avg CO	3	2.95	2.95

CIV-704/ CVT404	Design of Structures-III	CIV-704.1	3.00	2.97	2.90
		CIV-704.2	3.00	2.27	2.30
		CIV-704.3	3.00	2.27	2.30
		CIV-704.4	3.00	2.75	2.90
		CIV-704.5	3.00	2.25	2.30
		Avg CO	3.00	2.50	2.54
CIV-706/ CVS405	Seminar	CIV-705.1	3	3	3
		CIV-705.2	3	3	3
		CIV-705.3	3	3	3
		CIV-705.4	3	3	3
		Avg CO	3	3	3
CIV-707/ CVP406	Project Pre-Work	CIV-706.1	2.56	2.46	2.48
		CIV-706.2	2.45	2.33	2.29
		CIV-706.3	2.38	2.44	2.43
		CIV-706.4	2.67	2.47	2.48
		CIV-706.5	2.32	2.37	2.39
		Avg CO	2.48	2.42	2.42
CIV-711:E1/ CVT406	Railway and Airport Engineering	CIV-711:E1.1	2.96	2.95	2.95
		CIV-711:E1.2	2.94	2.95	2.94
		CIV-711:E1.3	2.96	2.47	2.25
		CIV-711:E1.4	2.98	2.79	2.71
		Avg CO	2.96	2.79	2.71
CIV-711:E1/ CVT406	Advanced Geotechnical Engineering	CIV-711:E1.1	2.6	NOT FLOATED	NOT FLOATED
		CIV-711:E1.2	2.8		
		CIV-711:E1.3	2.28		
		Avg CO	2.28		
CIV-711:E2/ CVT406	Computer Aided Design	CIV-711:E2.1	NOT FLOATED	3	1.2
		CIV-711:E2.2		3	3
		CIV-711:E2.3		3	3
		CIV-711:E2.4		2.04	1.8
		Avg CO		2.76	2.25
CIV-801/ CVT450	Hydropower Engineering	CIV-801.1	2.80	2.21	3.40
		CIV-801.2	3.00	1.47	3.40
		CIV-801.3	2.80	2.66	3.40
		CIV-801.4	3.00	1.90	3.30
		Avg CO	2.90	2.06	3.38
CIV-802/ CVT451	Bridge Engineering	CIV-802.1	2.00	2.92	2.80
		CIV-802.2	2.96	2.91	2.80
		CIV-802.3	2.98	2.17	2.80
		CIV-802.4	2.96	2.63	2.90
		CIV-802.5	1.98	2.14	2.90

		CIV-802.6	2.96	2.20	2.80
		Avg CO	2.64	2.50	2.83
CIV-803/ CVP452	Project	CIV-803.1	2.68	2.46	2.48
		CIV-803.2	2.66	2.33	2.29
		CIV-803.3	2.32	2.44	2.43
		CIV-803.4	2.56	2.47	2.48
		CIV-803.5	2.62	2.37	2.39
		Avg CO	2.57	2.42	2.42
CIV-811:E1/ CVT454	Transportation Planning and Economics	CIV-811:E1.1	NOT FLOATED	1.56	1.56
		CIV-811:E1.2		3	2.04
		CIV-811:E1.3		3	3
		CIV-811:E1.4		2.04	2.04
		Avg CO		2.4	2.16
CIV-811:E1/ CVT454	Rock Mech and Tunnel Engineering	CIV-811:E1.1	2.28	NOT FLOATED	2.904
		CIV-811:E1.2	2.28		2.9
		CIV-811:E1.3	2.28		2.92
		CIV-811:E1.4	2.28		2.904
		CIV-811:E1.5	2.28		2.91
CIV-812:E2/ CVT455	Environmental Engineering II	CIV-812:E2.1	NOT FLOATED	2.52	3
		CIV-812:E2.2		3	2.52
		CIV-812:E2.3		3	3
		CIV-812:E2.4		2.28	1.8
		Avg CO		2.7	2.58
CIV-812:E2/ CVT455	Earthquake Resistant Design	CIV-812:E2.1	NOT FLOATED	2.93	2.93
		CIV-812:E2.2		2.93	2.93
		CIV-812:E2.3		2.19	1.71
		CIV-812:E2.4		2.16	2.16
		Avg CO		2.55	2.43
CIV-812:E2/ CVT455	Ground Improvement Techniques	CIV-812:E2.1	3	0.99	NOT FLOATED
		CIV-812:E2.2	2.4	2.4	
		CIV-812:E2.3	2.5	2.18	
		CIV-812:E2.4	2.4	2.11	
		Avg CO	2.58	1.92	

Table 3.2.h

3.3. Attainment of Program Outcomes and Program Specific Outcomes (75)

Claimed 75

3.3.1. Describe the assessment tools and processes used for assessing the attainment of each of the program Outcomes and Program Specific Outcomes: (10) **Claimed:10**

3.3.1.1 List of assessment tools and process:

PO/PSO assessment is done by giving 80% weightage to direct assessment and 20% weightage to indirect assessment.

Direct assessment is based on CO attainment, where 60% weightage is given to attainment through the Major exam and 30% weightage is given to attainment through Minor assessments and 10% weightage is given to attainment through assignment/quiz.

Indirect assessment is done through program exit survey, alumni survey and employer survey. Program exit survey and employer survey are given a weightage of 25% each and alumni survey is given a weightage of 50% as has been decided at institute level.

PO and PSO Assessment Tool:

The various direct and indirect assessment tools used to evaluate POs & PSOs and the frequency with which the assessment processes are carried out are listed in Table 3.3. a.

<table>
<tr><td rowspan="12">Direct (80% weightage)</td><td rowspan="12">CO Assessment</td><td colspan="2">Course</td><td>Assessment Tools</td><td>Frequency</td></tr>
<tr><td colspan="2" rowspan="3">Theory</td><td>Midterm</td><td>once/course</td></tr>
<tr><td>Continuous Assessment</td><td>Weekly</td></tr>
<tr><td>Major</td><td>Once/course</td></tr>
<tr><td colspan="2" rowspan="2">Lab</td><td>Continuous Assessment (Report, Experiments)</td><td>Daily</td></tr>
<tr><td>Major Lab Exam (Viva Voce, perform a given experiment)</td><td>Once/lab course</td></tr>
<tr><td colspan="2" rowspan="2">Seminar</td><td>Presentation</td><td>Twice/Course</td></tr>
<tr><td>Report</td><td>Once/course</td></tr>
<tr><td rowspan="4">Project</td><td rowspan="2">7th Semester</td><td>Mid-Term Evaluation</td><td>Once/course</td></tr>
<tr><td>End- Term Evaluation</td><td>Once/course</td></tr>
<tr><td rowspan="2">8th Semester</td><td>Mid-Term Evaluation</td><td>Once/course</td></tr>
<tr><td>End- Term Evaluation (Demonstration and evaluation by External Examiner)</td><td>Once/course</td></tr>
<tr><td rowspan="3">Indirect (20% weightage)</td><td rowspan="3">Surveys</td><td colspan="3">Program Exit Survey</td><td>Once in a year</td></tr>
<tr><td colspan="3">Employer Survey</td><td>Once in a year</td></tr>
<tr><td colspan="3">Alumni Survey</td><td>Once in a year</td></tr>
</table>

Table 3.3.a Assessment tools used for evaluation of PO and PSO attainment

(B) Quality / relevance of assessment tools and processes:

i. Direct Assessment Tools and Process

Direct assessment tools described in section 3.2.1 are used for the direct assessment of POs and PSOs. Initially, the attainment of each course outcome is determined as described in section 3.2.2. The attainment of each PO corresponding to a course is determined from the attainment values obtained for each course outcome related to that PO and the CO-PO mapping values. Similarly, the values of PSO attainment are also determined. By factoring the attainment of Cos,

PO attainment = (PO mapping level/3) *CO attainment PSO attainment = (PSO mapping level/3) *CO attainment

ii. PO/PSO attainment of a course (example)

XYZ course file **SESSION: SPRING-2020**

CO	CO Attainment	PO1	PO1 ATT.	PO2	PO2 ATT.	PO3	PO3 ATT.	PO4	PO4 ATT.	PO5	PO5 ATT.	PO6	PO6 ATT.	PO7	PO7 ATT.	PO8	PO8 ATT.	PO9	PO9ATT.	PO10	PO10ATT.	PO11	PO11 ATT.	PO12	PO12 ATT.	PSO1	PSO1 ATT.	PSO2	PSO2 ATT.	PSO3	PSO3 ATT.
CO1	2.9	3	2.9	2	2.0	2	2.0			2	2.0	1	1.0	2	2.0	2	2.0							2	2.0	3	2.9	2	2.0	3	2.9
CO2	2.4	3	2.4	2	1.6	2	1.6			2	1.6	2	1.6	2	1.6	2	1.6							2	1.6	3	2.4	2	1.6	3	2.4
CO3	2.2	3	2.2	2	1.5	2	1.5			2	1.5	2	1.5	2	1.5	2	1.5							2	1.5	3	2.2	2	1.5	3	2.2
CO4	2.1	3	2.1	3	2.1	3	2.1					3	2.1	1	0.7	2	1.4					3.0	2.1	2	1.4	3	2.1	1	0.7	3	2.1
Average Attainment	2.4		2.4		1.8		1.8		0		1.7		1.6		1.4		1.6						2.1		1.6		2.4		1.4		2.4

Table 3.3.b

PO & PSO ATTAINMENT CALCULATION (IN-DIRECT ASSESSMENT)

Employer's feedback, Alumni Feedback & Student exit survey is considered for this purpose. In Students exit survey, a questionnaire was designed for this purpose and the average responses of the outgoing students for each PO is computed.

POs & PSOs	Attainment levels
PO1	2
PO2	2
PO3	2
PO4	1
PO5	2
PO6	2
PO7	3
PO8	2
PO9	3
PO10	2
PO11	3
PO12	2
PSO1	3
PSO2	3
PSO2	2

Table 3.3.c

OVERALL PO/PSO ATTAINMENT CALCULATIONS

Direct Assessment + In Direct Assessment

Finally, overall PO attainment values are computed by adding direct and indirect PO attainment values in the proportion of 80:20 respectively i.e., 80% weightage for direct assessment and 20% for indirect assessment

Overall PO/PSO attainment = (80% Direct + 20% Indirect)

POs	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Indirect Attainment	2	2	2	1	2	2	3	2	3	2	3	2	3	3	3
Direct Attainment	2.4	1.8	1.8	0	1.7	1.6	1.4	1.6	0	0	2.1	1.6	2.4	1.4	2.4
Overall PO Attainment	2.32	1.84	1.84	0.2	1.76	1.68	1.72	1.68	0.6	0.4	2.28	1.68	2.52	1.72	2.52

Table 3.3.d

i. Indirect Assessment Tools and Process

Indirect assessment is done through program exit survey, alumni survey and employer survey Alumni survey, Program exit survey, and Employer survey are given a weightage of 50%, 25% and 25% respectively.

CO-PO and PSO Mapping Matrix

S. No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO1 0	PO1 1	PO1 2	PSO 1	PSO 2	PSO 3
xyz504 .1	3	2	1	2	-	1	1	2	-	-	-	2	3	3	2
xyz504 .2	2	2	3	2	-	1	1	2	-	-	-	2	3	3	2
xyz504 .3	3	2	1	3	-	3	1	2	-	-	-	2	3	3	2

Table 3.3.e

CO attainment Marks

Assessment Tools	CO1	CO2	CO3
Continuous Assessment (Assignment)	3	2	3
Continuous Assessment (Quiz)	3	2	3
Continuous Assessment (MCQ Quiz)	2	2	2
Continuous Assessment (Presentation)	2	2	2
Continuous Assessment (Average)	2.5	2	2.5
Mid Term	3	2.5	2.5
Major	3	2	3
CO Attainment	2.9	2	2.75

Table 3.3.f

CO Attainment (Average) 2.6

CO-PSO Mapping Matrix

S. No.	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PS O1	PS O2	PS O3
xyz 504 (Actual)	3	3	3	3	1	2	2	3	1	1	1	3	3	3	3
xyz 504 (Attained)	2.6	2.6	2.8	2.7	0.8	1.7	1.8	2.7	0.8	0.8	0.8	2.6	2.6	2.6	2.6

Table 3.3.g

Attainment of PO1 is calculated by corresponding the COs to which PO1 is correlated and corresponding CO attainment.

Sample Calculations:

Attainment of PO1: $= \frac{[(2.9)+(2)+(2.75)]}{3} = \mathbf{2.6}$

Attainment of PSO1 is calculated by considering the COs to which PSO1 is correlated and corresponding CO attainment.

Sample Calculation: attainment of PSO1=

Attainment of PSO1: $= \frac{[(2.9)+(2)+(2.75)]}{3} = \mathbf{2.6}$

(ii) Indirect Assessment Tools and Process:
Indirect assessment is done through program exit survey, alumni survey and employer survey where program exit survey and employer survey are given a weightage of 25% each and alumni survey is given a weightage of 50%.

Program Exit Survey:
An exit survey is conducted for students who have graduated out of the department for that year. The questionnaire format in the exit survey form to evaluate the attainment of POs and PSOs is given in section (a) and relation of POs & PSOs with each question is given in section (b).

Questionnaire Format

<table>
<tr><td colspan="4">Civil Engineering Department

<u>National Institute of Technology, Srinagar</u>

Exiting Students Survey</td></tr>
<tr><td colspan="2">Name:</td><td colspan="2">En. Roll. No:</td></tr>
<tr><td colspan="2">Phone No.</td><td colspan="2">Email:</td></tr>
<tr><td colspan="4">Assessment of Abilities, Skills and Attributes acquired at NIT Srinagar.

Please rate each of the following items in terms how well your education at NIT Srinagar prepared you for them.</td></tr>
<tr><td>1</td><td colspan="3">Basic knowledge in mathematics, science, engineering and humanities.</td></tr>
<tr><td></td><td>Extremely Satisfied</td><td>Satisfied</td><td>Not Satisfied</td></tr>
<tr><td>2</td><td colspan="3">Ability to identify, design, analyse and solve civil engineering problems</td></tr>
<tr><td></td><td>Extremely Satisfied</td><td>Satisfied</td><td>Not Satisfied</td></tr>
<tr><td>3</td><td colspan="3">Ability to identify, design, analyse and solve civil engineering problems</td></tr>
<tr><td></td><td>Extremely Satisfied</td><td>Satisfied</td><td>Not Satisfied</td></tr>
<tr><td>4</td><td colspan="3">Design/ development of complex engineering problems and their solutions</td></tr>
</table>

	Extremely Satisfied	**Satisfied**	**Not Satisfied**
5	Use of research-based knowledge and research methods		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**
6	Demonstrate the ability to apply advanced technologies to solve contemporary and new problems		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**
7	Awareness to apply engineering solutions in global, national and societal contexts		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**
8	Understanding professional engineering solutions in societal and environmental contexts		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**
9	Understanding of professional and ethical responsibility		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**
10	Ability to function as an effective member in multi-disciplinary teams		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**
11	Proficient in English language in both communicative and technical forms		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**
12	Demonstrate the ability to choose and apply appropriate resource management techniques		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**
13	Capable of self-education and clearly understand the value of updating their professional knowledge to engage in life-long learning		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**
14	Ability to integrate theory and practice to construct systems of varying complexity		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**
15	Ability to apply civil engineering skills, tools and mathematical techniques to analyse, design and model complex systems		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**
16	Ability to design and manage small-scale projects to develop a career in civil engineering		
	Extremely Satisfied	**Satisfied**	**Not Satisfied**

Table 3.3.h

1. Please list some very important skills that you think you had learned in the engineering program.
2. Please write down any comments or suggestions that you think will improve the engineering programs at NIT Srinagar.
3. Please comment about the department Vision and Mission:

Signature:

Relation of POs and PSOs with questionnaire:

POs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
Questions	Q1	Q2	Q3	Q4	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q6	Q14	Q15

Table 3.3.i

PO/PSO	**Question**	**Justification**
PO1	Q1	Both Q1 and PO1 are related to basic knowledge of engineering and mathematics
PO2	Q2	Q2 asks about solution to civil engineering problems which is also the statement of PO2
PO3	Q3	Both represent the same idea
PO4	Q4	Investigation of complex problems is related to PO4
PO5	Q6	Both represent the same idea
PO6	Q7	Q7 deals with engineering solutions to global, national and societal contexts which is the basic idea of PO6
PO7	Q8	Both Q8 and PO7 talk about sustainable development
PO8	Q9	Professionalism and ethics are related to PO8
PO9	Q10	Both talk about teamwork
PO10	Q11	Both are related to communication
PO11	Q12	Resource management is the common theme of PO11 and Q12
PO12	Q13	Both are concerned with lifelong learning
PSO1	Q6	Use of technical resources and advanced technology forms the basis of PSO1 which is asked about in Q6
PSO2	Q14	Both represent the similar idea
PSO3	Q15	PSO3 and Q15 are about Civil Engineering skills and tools

Table 3.3.j

Evaluation Process:

The questionnaire consists of 16 questions which are relevant for assessing each PO and PSO. Each question is having 3 options, namely, extremely satisfied, satisfied and somewhat satisfied, which is given marks 3, 2 and 1 respectively. The survey results are tabulated and the average values corresponding to each PO and PSO are calculated.

Employer Survey:

Feedback is taken at a frequency of once in two years from the employers who had given jobs to our graduates. The questionnaire format in the employer survey form to evaluate attainment of POs and PSOs is given in section (a) and the relation of POs & PSOs with each question is given in section(b)(d)Questionnaire Format:

Rate the NIT SRINAGAR graduates working in your organization using the following criterion. Put a tick mark ()

Questionnaire Format:

Knowledge, Skills, Abilities, Attitude and other Attributes expected out of NIT SRINAGAR graduates

Sl. No	Overall, are you satisfied with:	Extremely Satisfied	Satisfied	Somewhat Satisfied
1	Capacity for development and analysis of engineering problems and formulation of appropriate solutions, retaining professional and ethical responsibilities.			
2	Aptitude for self-education, ability to learn new skills and a clear appreciation for the value of lifelong learning to update professional Knowledge			
3	Understanding professional engineering solutions for sustainable development and their application in global, national and societal contexts.			
4	Competence for acquiring new skills and applying them in research and development			
5	Fundamental knowledge in mathematics and science and professional fluency in English both communicative and technical forms			
6	Dexterity in the differentiation of management techniques and possession of leadership skills that enable the successful function of multi-disciplinary teams			

Table 3.3.k

Relation of POs and PSOs with questionnaire:

Pos/PSOs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
Questions	Q5	Q1	Q3	Q1	Q1	Q3	Q3	Q1	Q6	Q5	Q6	Q2	Q4	Q3	Q3

Table 3.3l

PO/PSO	Question	Justification
PO1	Q5	Both Q5 and PO1 are related to basic knowledge of engineering and mathematics
PO2	Q1	Q1 asks about solution to civil engineering problems which is also the statement of PO2
PO3	Q3	Engineering solutions in global, national and societal contexts are related to PO3 which has been asked in Q3
PO4	Q1	Investigation of complex problems is related to PO4
PO5	Q1	Both represent the same idea
PO6	Q3	Similar statements
PO7	Q3	Both Q3 and PO7 talk about sustainable development
PO8	Q1	Professionalism and ethics are related to PO8
PO9	Q6	Q6 asks about the statement of PO9
PO10	Q5	Q5 enquires about efficient communication techniques same as PO10
PO11	Q6	Resource management is the common theme of PO11 and Q6
PO12	Q2	Both represent the same idea
PSO1	Q4	Use of technical resources and advanced technology forms the basis of PSO1 which is asked about in Q4
PSO2	Q3	Ability to construct structural systems is what Q3 asks about
PSO3	Q3	Q3 and the statement of PSO3 relate to the same idea

Table 3.3m

Evaluation Process:

The questionnaire consists of 6 questions. These questions are relevant for assessing each PO and PSO. If multiple questions satisfy a PO, then their average is taken. A similar procedure is followed for PSOs also. Each question is having 3 options namely, extremely satisfied, satisfied and somewhat satisfied, which is given marks 3, 2 and 1 respectively. These marks are tabulated and the average values corresponding to each PO and PSO are determined.

Alumni Survey:

Feedback is taken from alumni. The questionnaire format in the alumni survey form to evaluate attainment of POs and PSOs is given in section (a) and the relation of POs & PSOs with each question is given in section (b).

Questionnaire Format:

Assessment of Knowledge, Skills, Abilities, Attitude, and attributes acquired at NIT SRINAGAR.

Civil Engineering Department **National Institute of Technology Srinagar** **Alumni Survey Form**	
Thank you for taking the time to fill out this questionnaire. All the information will be kept confidential and will be used only for statistical purposes. As an alumnus, your opinions are valued and are utilized to help us make periodic changes and updates for continuous improvement of our undergraduate program	
Name(optional)	
Year of Graduation	

Mailing address		
Placement	Before/after graduation	Core/Software
Name of the Company		

Please rate each of the following skills, abilities or attributes in terms of their importance to state how well your education at Civil Engineering Department, National Institute of Technology, Srinagar prepared you for these. Write the appropriate number by Using Scale (1 to 3).

1= Satisfactory; 2=Good; 3=Excellent

Skills, Abilities and Attributes	Rating
Apply Knowledge of mathematics, Basic sciences and Engineering	
Problem Identification and Analysis	
Design a system and develop solution to the problem	
Investigate and handle complex problems	
Ability to use techniques and tools in engineering practice	
Understand and appreciate the impact of engineering in the societal and global contexts	
Awareness of existing issues (e.g. Economics of engineering, Environmental issues)	
Understand professional and ethical responsibilities as an engineer (e.g., safety, professional ethics, code of conduct)	
Function effectively in teams	
Proficient in English language in both communicative and technical forms	
Awareness of the need for life-long learning (Seeking further education, self-learning, Membership in professional societies)	
Project Management and Finance	

Signature	Suggestion if any:

Table 3.3n

Relation of POs and PSOs with questionnaire:

POs	**PO1**	**PO2**	**PO3**	**PO4**	**PO5**	**PO6**	**PO7**	**PO8**	**PO9**	**PO10**	**PO11**	**PO12**	**PSO1**	**PSO2**	**PSO3**
Questions	Q1	Q2	Q3	Q4	Q5	Q7	Q6	Q8	Q9	Q10	Q12	Q11	Q5	Q4	Q5

Table 3.3o

POs	Questions	Justification
PO1	Q1	Related as both are related to basic sciences
PO2	Q2	Related since both are related to identification and analysis processes
PO3	Q3	Related as they are the same
PO4	Q4	Related as both have a common goal
PO5	Q5	Related since both include use of recent techniques
PO6	Q7	Related as both points are related to existing issues
PO7	Q6	Related as both have a mutual goal
PO8	Q8	Related as both include professional ethics
PO9	Q9	Related as both include team work
PO10	Q10	Related as both are based on communication skills
PO11	Q12	Related due to the mention of time and finance in both points
PO12	Q11	Related as both include lifelong learning
PSO1	Q5	Related as both include use of techniques and tools
PSO2	Q4	Related as both include investigations
PSO3	Q5	Related as it includes more than use of techniques and tools

Table 3.3p

a) Evaluation Process:

The questionnaire consists of 12 questions which are relevant for assessing each PO and PSO. Each question is having 3 options, namely, extremely satisfied, satisfied and somewhat satisfied, which is given marks 3, 2, and 1 respectively. These marks are tabulated and the average is value is shown:

3.3.2. Provide results of evaluation of each PO and PSO: (65) **Claimed: 65**

3.3.2.1 PO and PSO Attainment

The PO Attainment Direct, Indirect and Final attainment for the four academic years viz. 2019-20, 2018-2019 and 2017-2018 has been provided in the following Tables.

PO Attainment (Direct): Academic Year 2019-2020

Course Code	Course Name	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7	PO 8	PO 9	PO 10	PO 11	PO 12	PSO 1	PSO 2	PSO 3
MEL100	Elements of Mechanical Engg.	1.70	1.13	1.13	-	-	-	-	-	-	1.13	0.00	1.70	1.70	1.21	1.70
PHL100	Engineering Physics	2.80	2.70	2.61	1.20	0.99	0.95	-	-	0.90	-	-	-	-	-	-
CYL-100	Engineering Chemistry	1.90	1.85	1.80	0.75	-	1.15	1.65	0.80	0.70	1.25	1.43	2.00	2.17	1.45	1.93
HUL 100	Basic English and Communication Skills	-	-	-	-	-	0.88	-	-	1.50	2.25	1.25	0.75	-	-	-
HUP 100	Language Laboratory	-	-	-	-	-	-	-	-	1.50	2.25	1.50	1.00	-	-	-
CIL100	Engineering Mechanics	1.77	1.77	1.03	1.03	-	1.18	0.59	-	-	-	-	-	1.18	0.45	1.03
MAL100	Mathematics -I	1.24	1.00	1.34	-	-	-	-	-	-	-	0.33	0.30	0.74	1.27	0.57
PHP100	Physics Laboratory-I	1.82	2.00	0.92	1.00	0.93	1.00	1.00	0.82	1.00	1.00	-	0.91	1.50	-	-
WSP100	Work shop Practice	1.00	-	-	-	-	1.00	-	1.00	1.00	-	-	1.20	-	-	-
EEL-100	Basic Electrical Engineering	2.00	1.30	1.10	1.20	0.25	0.60	-	-	-	-	1.14	0.99	0.88	0.69	1.26
ITL100	Computer Programming	0.70	2.10	2.20		2.10	-	-	-	-	-	1.30	1.20	-	1.87	2.50

CYL-101	Environmental studies	1.00	2.70	2.82	1.90	-	1.80	2.74	1.78	1.86	-	1.76	0.91	-	-	-
ELP-100	Basic Electrical Engineering	2.10	1.00		1.35	-	2.33	1.80	-	-	-	2.08	-	0.92	0.75	1.53
CYP100	Engineering Chemistry Lab.	2.12	2.00	0.91	1.00	0.92	1.00	1.00	0.91	1.22	-	-	0.93	1.50	-	-
ITP100	Computer Programming Laboratory	1.00	0.92	2.30	1.00	3.00	1.00	-	1.00	-	-	-	2.00	-	-	-
CIP100	Engineering Drawing	1.69	1.69	1.69	1.69	1.13	1.13	1.13	0.00	1.75	1.75	1.41	1.41	1.69	1.69	1.69
HUL 101	Advanced English Communication Skills and Organizational Behaviour	-	-	-	-	-	0.80	-	-	0.92	1.73	0.83	0.64	-	-	-
MAL101	Mathematics II	2.28	1.72	2.32	-	-	-	-	-	-	-	0.56	0.60	1.48	2.32	1.16
CIV-201	Engineering Mechanics	1.62	1.62	0.99	0.99		1.08	0.54	-	-	-	-	-	1.08	0.45	0.99
CIV-301	Structural Analysis-I	2.81	2.16	1.98	2.24	2.04	-	-	-	-	-	-	-	2.30	1.82	0.86
CIV-301(P)	Structural Engineering Lab I	3.00	2.90	3.00	2.90	-	1.20	1.20	1.00	1.00	1.10	1.00	1.00	2.90	3.00	2.00
CIV-302	Fluid Mechanics I	2.30	-	-	-	-	2.50	2.30	1.90	2.30	2.50	-	2.00	2.30	2.10	1.83
CIV-302(P)	Fluid Mechanics Lab I	2.25	1.00	1.00	1.50	2.50	1.35	1.00	2.75	1.50	1.50	1.50	2.25	2.25	2.75	2.00
CIV-303	Surveying I	1.30	1.41	1.01	-	-	-	-	-	-	1.42	-	1.61	1.10	1.42	0.60
CIV-303(P)	Surveying Lab I	1.65	1.20	1.35	1.05	1.65	0.90	0.75	0.75	1.50	1.35	0.75	0.60	1.50	1.20	0.60
MTH-303	Mathematics I	1.66	1.56	1.15	-	-	-	-	-	-	1.56	-	1.77	1.33	1.56	0.67
HSS-301	Humanities and Social Science I	-	1.14	0.57	-	-	0.47	0.58	0.15	0.57	-	1.42	1.84	-	-	-
ELE-304	Electrical Engineering Tech	2.12	1.38	1.23	1.82	1.38	1.06	-	-	-	-	1.66	1.07	1.51	1.56	1.69
ELE-304(P)	Electrical Engineering Lab	2.00	0.00	-	-	-	1.00					-	-	1.00	-	-
CIV-401	Structural Analysis-II	2.48	2.12	2.06	2.05	1.98	-	-	-	-	-	-	-	2.30	1.78	0.74
CIV-402	Fluid Flow in Pipes and Channels	2.50	2.25	1.75	1.50	-	-	-	-	-	-	-	2.00	2.50	2.25	25.00
CIV-402(P)	Fluid Mechanics Lab II	3.00	3.00	3.00	3.00	-	6.00	6.00	-	-	-	-	3.00	3.00	3.00	2.00

CIV-403	Surveying II	2.38	2.22	2.13	0.79	1.37	0.79	0.79	0.79	1.58	1.58	0.79	0.79	1.58	0.79	1.58
CIV-403(P)	Surveying Lab II	1.65	1.20	1.35	1.05	1.65	0.90	0.75	0.75	1.50	1.35	0.75	0.60	1.50	1.20	0.60
CIV-404	Engineering Geology and Materials	3.00	2.00	2.00	-	-	-	-	-	-	2.00	-	3.00	3.00	2.00	3.00
CIV-404 (P)	Geology Lab	1.72	2.00	-	-	0.92	0.92	2.00	1.55	1.55	-	-	1.72	1.55	2.25	2.25
CIV-405	Building Drawing and Construction	2.50	-	-	-	-	2.25	2.25	2.25	2.50	2.50	2.50	2.57	2.50	2.50	2.57
MTH-406	Mathematics II	2.00	2.08	2.18	0.10	0.20	0.20	0.30	0.20	0.30	1.10	0.84	0.56	1.92	2.74	1.10
CIV-400	Professional Development Activities	3.00	3.00	2.90	2.50	3.00	2.00	2.00	2.00	1.00	1.00	1.00	2.00	2.70	2.00	1.50
CIV-501	Design of Structures-I	2.06	1.38	2.06	-	-	-	-	-	-	1.38	-	2.06	2.06	1.38	2.06
CIV-501(P)	Concrete Laboratory	3.00	2.00	1.75	2.00	-	2.00	1.00	-	-	-	-	2.00	3.00	2.00	2.00
CIV-502	Highway Engineering and PMS	2.76	1.84	1.84	1.84	-	0.92	0.92	-	-	-	-	1.84	2.76	1.84	1.84
CIV-502(P)	Highway Lab.	2.18	1.68	1.68	1.50	1.29	2.18	2.00	-	-	-	-	2.18	2.18	1.68	2.18
CIV-503	Geotechnical Engineering - I	2.10	1.50	1.31	1.25	-	1.40	1.21	-	-	-	-	1.40	2.10	1.50	1.84
CIV-503(P)	Geotechnical Laboratory I	3.00	2.00	1.20	2.00	-	2.00	1.00	-	-	-	-	2.00	3.00	2.00	3.00
CIV-504	Water Resources Engineering	1.10	0.80	0.70	0.70	0.50	0.90	0.70	-	-	-	-	1.10	0.80	0.60	0.70
CIV-505	Structural Analysis-III	2.31	2.31	2.31	2.08	2.00	1.74	1.74	-	-	-	-	1.74	2.31	2.31	2.31
CIV-500	Professional Development Activities	3.00	2.80	3.00	2.75	3.00	2.20	2.00	2.00	1.10	1.20	1.00	2.10	2.90	2.00	1.50
CIV-506: E1	Engineering Seismology	1.89	1.89	2.02	1.77	2.33	2.21	2.08	1.64	2.08	2.33	-	1.95	2.08	1.89	1.58
CIV-511:E1	Concrete Technology	2.25	2.03	2.25	-	-	2.25	2.10	2.25		2.03	-	2.10	2.25	2.03	1.83
CIV-601	Design of Structures-II	2.90	1.93	2.90	-	-	-	-	-	-	1.93	-	2.90	2.90	1.93	2.90
CIV-601(P)	Structural Engineering Lab. II	3.00	3.00	3.00	3.00	-	2.00	2.00	-	-	-	-	2.00	3.00	3.00	3.00

CIV-602	Traffic Engineering and Road Facilities	2.20	1.70	1.70	1.51	1.26	2.20	2.01	-	-	-		2.20	2.20	1.70	2.20
CIV-602(P)	Traffic Engineering Lab	2.50	2.67	2.67	2.33	2.00	2.50	2.25	-	-	-	-	2.50	2.50	2.67	2.50
CIV-603	Geotechnical Engineering - II	2.90	2.90	2.90	2.90	-	1.93	1.93	-	-	-	-	1.93	2.90	2.90	2.90
CIV-603(P)	Geotechnical Laboratory II	3.00	2.00	1.20	2.00	-	2.00	1.00	-	-	-	-	-	-	-	2.00
CIV-604	Irrigation and Hydraulic Structures	2.90	2.15	2.15	2.15	1.00	2.40	2.15	-	-	-	-	2.40	2.90	2.15	2.40
CIV-611:E1	Water-Shed Management	1.73	2.03	1.65	1.55	0.87	1.73	1.73	-	-	-	1.35	1.63	1.93	1.63	1.83
CIV-612:E2	Applied Hydrology	2.75	2.75	2.75	3.00	2.50	2.33	2.75	-	-	-	-	2.50	2.75	3.00	2.75
CIV-612:E2	Advanced Structural Analysis	2.16	2.16	2.16	2.16	0.89	1.44	1.44	-	-		-	1.44	2.16	2.16	2.16
CIV-701	Water supply & Sanitary Engineering	1.15	1.41	1.72	1.31	1.15	1.41	1.15	1.41		-	-	1.39	1.39	1.41	1.45
CIV-701(P)	Water Quality lab	2.00	2.50	-	2.50	-	2.80	2.80	-	-	-	-	2.90	2.60	2.70	2.90
CIV-702	Structural Dynamics	1.85	1.40	1.22	0.91	0.94	0.25	0.91	0.25	0.13	0.91	0.00	1.23	1.59	1.19	1.10
CIV-703	Construction Technology & Management	3.00	2.00	2.00	-	-	-	-	-	-	-	-	2.00	3.00	2.00	3.00
CIV-704	Design of Structures-III	3.00	3.00	3.00	3.00	3.00	2.00	2.00	2.00	-	-	-	-	3.00	3.00	3.00
CIV-705	Quantity Surveying and Cost Evaluation	2.23	2.23	1.35	1.38		1.38	1.23		-	-	-	-	1.38	1.09	1.62
CIV-706	Seminar	2.40	1.60	2.40	2.40	2.40	1.60	1.60	1.60	2.40	2.40	0.80	2.40	1.60	1.20	2.00
CIV-707	Project Pre-Work	2.50	1.00	1.00	1.00	2.00	1.00	1.00	1.00	0.50	0.50	0.25	2.00	3.00	2.00	2.00
CIV-711:E1	Railway and Airport Engineering	3.00	3.00	3.00	3.00	2.00	2.00	2.00	-	-	-	-	2.00	3.00	3.00	3.00
CIV-711:E1	Advanced geotechnical engineering	1.10	1.33	1.43	1.53	1.03	0.68	0.88	0.98	1.15	1.33	0.73	1.03	0.83	1.03	0.98
CIV-700	Professional Development Activities	3.00	2.80	3.00	2.75	3.00	2.20	2.00	2.00	1.10	1.20	1.00	2.10	2.90	2.00	1.50
CIV-801	Hydropower Engineering	2.50	-	-	-	-	2.75	2.50	2.00	2.50	2.75	-	2.75	2.50	2.25	2.00
CIV-802	Bridge Engineering	2.64	2.64	2.04	2.04	0.33	1.76	1.76	-	-	-	1.54	1.76	2.64	2.64	2.64

CIV-803	Project	3.00	1.00	1.00	3.00	2.00	3.00	2.00	1.00	2.00	2.00	2.00	2.00	3.00	2.00	2.00
CIV-804	Practical Training & Viva-Voce	3.00	3.00	2.90	3.00	2.00	2.00	1.00	1.00	2.00	2.00	1.00	2.00	2.00	1.50	1.50
CIV-811:E1	Rock Mechanics and Tunneling Technology	2.23	2.23	1.38	1.38	-	1.38	1.23	-	-	-	-	-	1.38	1.09	1.62
CIV-812:E2/	Ground Improvement Techniques	0.80	0.87	1.00	1.07	0.67	0.53	0.87	0.40	0.73	0.73	0.40	1.07	0.80	1.20	1.20
	Direct Attainment	2.21	1.91	1.87	1.79	1.60	1.60	1.59	1.25	1.35	1.61	1.09	1.69	2.07	1.84	2.18

Table 3.3q1

PO Attainment (Inirect): Academic Year 2019-2020

S.No.	Survey	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	Program Exit Survey	3	2	2	2	3	2	2	3	2	3	2	3	3	2	3
2	Alumni Survey	3	3	3	3	3	3	3	3	3	3	3	3	3	3	3
3	Employer Survey	2	2	3	3	3	3	3	3	2	2	2	3	3	3	3
	Indirect Attainment	2.67	2.3	2.7	2.67	3	2.7	2.7	3	2.3	2.667	2.33	3	3	2.67	3

Table 3.3q2

Final Attainment for Academic Year 2019-2020

Attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Direct Attainment (80%)	2.21	1.91	1.87	1.79	1.60	1.60	1.59	1.25	1.35	1.61	1.09	1.69	2.07	1.84	2.18
Indirect Attainment (20%)	2.67	2.33	2.67	2.67	3.00	2.67	2.67	3.00	2.33	2.67	2.33	3.00	3.00	2.67	3.00
Overall PO Attainment	2.44	2.12	2.27	2.23	2.30	2.14	2.13	2.13	1.84	2.14	1.71	2.35	2.54	2.26	2.59

Table 3.3q3

PO Attainment (Direct): Academic Year 2018-2019

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CHM-101	Chemistry-I	2.10	1.70	1.14	-	-	-	-	-	-	1.38	-	1.74	1.14	1.13	1.34
CHM-101P	Chemistry Laboratory-I	2.43	1.46	-	-	2.44	1.94	2.19	-	-	1.30	1.94	1.21	2.43	2.43	1.46
PHY-101	Physics-I	1.35	1.35	1.15	0.60	1.12	0.45	-	-	-	-	-	-	-	-	-
PHY-102P	Physics Laboratory-I	3.00	3.00	2.75	2.00	2.00	1.00	-	-	1.00	-	-	-	-	-	-
HSS-101	Communication Skills and Oral Presentation	-	-	-	-	-	-	-	-	1.85	2.11	1.89	-	-	-	-
IT - 101	Computer Fundamentals & Problem-Solving Techniques	2.23	1.09	0.75	-	0.85	-	-	-	-	-	-	1.73	2.15	1.65	1.21
MTH - 101	MATHEMATICS-I	1.82	1.39	1.98	0.34	-	-	-	-	-	-	0.46	0.55	1.17	1.86	0.88
CIV-102	Engineering Drawing	0.69	0.69	0.69	0.69	0.46	0.46	0.46	-	0.69	0.69	0.46	0.46	0.69	0.69	0.69
WSP I	Work-Shop Practice I	2.60	1.66	0.64	-	-	-	-	-	-	-	-	1.64	0.78	1.68	0.74
CHM-201	Chemistry-II	1.74	1.76	2.00	0.89	1.44	0.87	2.11	0.89	0.89	1.78	-	1.56	1.74	2.01	1.11
CHM-201P	Chemistry Laboratory-II	2.75	2.55	1.50	-	-	-	-	-	-	1.75	-	2.25	2.12	2.50	1.50
PHY-201	Physics-II	1.92	1.92	1.67	0.84	0.64	-	-	-	0.64	-	-	-	-	-	-
PHY-202P	Physics Laboratory-II	2.70	2.70	2.50	1.80	1.80	0.90	-	-	0.90	-	-	-	-	-	-
CSC-201	Computer Programming	2.48	1.68	2.34	1.50	1.63	-	-	-	-	-	-	2.25	2.72	1.33	0.91
CSE-202P	Computer Programming Lab	1.88	1.86	2.06	1.32	1.86	-	-	-	0.37	-	-	2.24	0.75	1.87	0.75
HU-201	Introduction to Social Sciences	-	-	0.35	-	-	1.07	0.88	0.94	1.02	0.35	0.39	0.35	-	-	-
MTH - 201	MATHEMATICS-II	2.03	1.56	2.00	-	-	-	-	-	-	-	0.53	0.60	1.34	2.06	0.97
CIV-201	Engineering Mechanics	2.19	2.19	1.34	1.34	-	1.46	0.78	-	-	-	-	-	1.46	0.68	1.34
WSP II	Work-Shop Practice II	1.56	1.22	1.52	-	-	-	-	-	-	-	0.40	-	1.05	1.30	0.73
MED-201	Machine Drawing	1.23	0.08	1.30	0.18	-	-	-	0.68	1.53	-	-	0.08	1.33	1.01	0.42
CIV-301	Structural Analysis-I	1.50	1.50	1.50	0.90	-	1.20	0.50	-	-	-	-	0.50	1.50	0.60	1.20
CIV-301(P)	Structural Engineering Lab I	2.76	1.63	1.17	0.92	-	1.84	1.13	-	-	-	-	1.59	2.76	1.63	1.84
CIV-302	Fluid Mechanics I	2.50	-	-	-	-	2.75	2.50	2.00	2.50	2.75	-	2.25	2.50	2.25	2.00
CIV-302(P)	Fluid Mechanics Lab I	2.50	2.67	2.67	2.33	2.00	2.50	2.25	-	-	-	-	2.50	2.50	2.67	-
CIV-303	Surveying I	2.73	2.22	2.20	1.62	2.47	1.69	0.24	1.23	2.42	1.22	0.49	0.95	2.46	1.92	1.18
CIV-303(P)	Surveying Lab I	2.00	1.40	1.00	2.00	-	2.00	-	-	-	-	-	2.00	2.00	1.00	1.60

MTH-303	Mathematics I	1.66	1.56	1.15	-	-	-	-	-	-	1.56	-	1.77	1.33	1.56	0.67
HSS-301	Humanities and Social Science I	-	1.14	0.57	-	-	0.47	0.58	0.15	0.57	-	1.42	1.84	-	-	-
ELE-304	Electrical Engineering Tech	2.12	1.38	1.23	1.82	1.38	1.06	-	-	-	-	1.66	1.07	1.51	1.56	1.69
ELE-304(P)	Electrical Engineering Lab	2.00	0.00	-	-	-	1.00	-	-	-	-	-	-	1.00	-	-
CIV-401	Structural Analysis-II	2.73	2.20	1.90	2.15	2.02	2.65	0.80	1.16	1.16	-	-	0.80	2.65	1.75	0.67
CIV-402	Fluid Flow in Pipes and Channels	2.50	-	-	-	-	2.75	2.50	2.00	2.50	2.75	-	2.25	2.50	2.25	2.00
CIV-402(P)	Fluid Mechanics Lab II	2.36	2.36	2.36	2.36	-	2.36	2.36	-	-	-	-	2.36	2.36	1.57	2.36
CIV-403	Surveying II	2.63	1.91	2.09	1.65	2.72	1.41	0.64	0.95	2.33	2.17	0.94	0.22	2.38	1.72	0.97
CIV-403(P)	Surveying Lab II	3.00	2.50	2.00	2.00	-	2.00	-	-	-	-	-	2.00	3.00	2.00	3.00
CIV-403(SC)	Surveying Camp	2.73	1.85	2.05	1.92	2.60	1.68	1.16	0.70	2.16	1.67	0.92	0.89	2.85	1.93	1.41
CIV-404	Engineering Geology and Materials	2.03	-	-	-	-	-	2.28	2.03	1.68	2.03	2.28	1.78	2.03	1.93	1.54
CIV-404 (P)	Geology Lab	2.10	2.65	-	-	1.15	1.15	2.65	1.90	1.90	-	-	2.10	1.90	2.85	2.85
CIV-405	Building Drawing and Construction	2.40	-	-	-	-	2.03	1.78	2.03	2.40	2.03	2.40	2.03	2.10	2.40	2.40
MTH-406	Mathematics II	2.01	2.22	2.26	1.62	-	-	-	-	-	-	-	2.03	2.02	2.47	-
CIV-501	Design of Structures-I	2.20	2.20	2.20	2.20	0.88	1.13	1.08	1.28	-	-	2.20	1.28	2.20	1.46	1.46
CIV-501(P)	Concrete Laboratory	3.00	2.00	1.75	2.00	-	2.00	1.00	-	-	-	-	2.00	3.00	2.00	2.00
CIV-502	Highway Engineering and PMS	2.28	1.52	1.41	1.52	-	1.37	1.37	-	-	-	-	1.52	2.28	1.52	1.41
CIV-502(P)	Highway Lab.	2.50	2.67	2.67	2.33	2.00	2.50	2.25	-	-	-	-	2.50	2.50	2.67	2.50
CIV-503	Geotechnical Engineering -I	2.34	1.71	1.57	1.41	-	1.56	1.42	-	-	-	-	1.56	2.34	1.71	2.01
CIV-503(P)	Geotechnical Laboratory I	3.00	2.00	1.20	2.00	-	2.00	1.00	-	-	-	-	2.00	3.00	2.00	3.00
CIV-504	Water Resources Engineering	1.50	1.20	1.10	1.10	0.80	1.20	1.00	-	-	-	-	1.10	1.10	1.00	1.10
CIV-505	Structural Analysis-III	2.12	2.12	2.12	1.86	-	1.58	1.58	-	-	-	-	1.58	2.12	2.12	2.12
CIV-511:E1	Concrete Technology	2.25	2.03	2.25	-	-	2.25	2.10	2.25	-	2.03	-	2.10	2.25	2.03	1.83
CIV-601	Design of Structures-II	2.45	2.45	2.45	2.45	0.93	1.28	1.05	1.16	-	-	2.45	1.16	2.45	1.63	1.63
CIV-601(P)	Structural Engineering Lab.	3.00	3.00	3.00	3.00	-	2.00	2.00	-	-	-	-	2.00	3.00	3.00	3.00

CIV-602	Traffic Engineering and Road Facilities	2.20	1.70	1.70	1.51	1.26	2.20	2.01	-	-	-	-	2.20	2.20	1.70	2.20
CIV-602(P)	Traffic Engineering Lab	2.50	2.67	2.67	2.33	2.00	2.50	2.25	-	-	-	-	2.50	2.50	2.67	2.50
CIV-603	Geotechnical Engineering -II	2.59	2.59	2.59	2.59	-	1.73	1.73	-	-	-	-	1.73	2.59	2.59	2.59
CIV-603(P)	Geotechnical Laboratory II	3.00	2.00	1.20	2.00	-	2.00	1.00	-	-	-	-	2.00	3.00	2.00	3.00
CIV-604	Irrigation and Hydraulic Structures	1.80	1.40	1.40	1.40	0.80	1.60	1.40	-	-	-	-	1.60	1.80	1.40	1.40
CIV-611:E1	Water-Shed Management	1.73	1.73	1.55	1.55	0.47	1.73	1.73	-	-	-	1.25	1.73	1.73	1.73	1.73
CIV-612:E2	Applied Hydrology	2.11	2.11	2.11	2.11	2.11	1.20	2.12	-	-	-	-	2.14	1.44	1.63	1.69
CIV-612:E2	Advanced Structural Analysis	2.16	2.16	2.16	2.16	0.89	1.44	1.44	-	-	-	-	1.44	2.16	2.16	2.16
CIV-701	Water supply & Sanitary Engineering	2.00	2.22	-	0.20	2.00	1.90	-	1.40	1.60	2.03	0.15	1.38	1.93	1.60	1.83
CIV-701(P)	Water Quality lab	2.00	1.00	-	2.00	-	1.00	2.00	-	-	-	-	2.00	2.00	1.00	2.00
CIV-702	Structural Dynamics	1.43	1.43	1.13	0.92	0.93	0.20	0.92	0.20	0.10	0.92	-	1.23	1.65	1.12	1.13
CIV-703	Construction Technology & Management	2.61	2.61	-	-	2.61	2.61	-	1.96	2.29	2.61	-	1.96	2.29	1.96	1.96
CIV-704	Design of Structures-III	2.50	2.50	2.50	2.50	1.67	1.67	1.67	-	-	-	-	2.50	2.50	2.50	2.50
CIV-705	Seminar	2.40	1.60	2.40	2.40	2.40	1.60	1.60	1.60	2.40	2.40	0.80	2.40	1.60	1.20	2.00
CIV-706	Project Pre-Work	2.50	1.00	1.00	1.00	2.00	1.00	1.00	1.00	0.50	0.50	0.25	2.00	3.00	2.00	2.00
CIV-711:E1	Railway and Airport Engineering	2.70	2.70	2.70	2.70	1.80	1.80	1.80	-	-	-	-	1.80	2.70	2.70	2.70
CIV-712: E2	Computer Aided Design	1.42	1.34	1.67	1.42	2.17	-	-	-	-	1.17	1.67	-	2.34	1.42	2.26
CIV-801	Hydropower Engineering	1.95	1.95	1.95	1.95	-	1.30	1.70	0.70	-	1.30	-	1.60	1.80	2.00	1.80
CIV-802	Bridge Engineering	2.50	2.50	2.00	2.00	1.70	1.70	1.70	-	-	-	1.60	1.70	2.50	2.50	2.50
CIV-803	Project	2.48	2.48	2.48	2.48	1.64	1.96	2.26	2.42	2.42	2.17	2.46	2.46	2.46	2.46	2.46
CIV-811:E1	Transportation Planning and Economics	2.02	1.60	1.60	1.60	1.34	1.60	1.60	0.00	0.00	0.00	1.60	1.60	2.02	1.60	1.60
CIV-812:E2	Environmental Engineering	2.07	2.26	0.19	0.19	2.07	1.92	-	1.42	1.67	2.07	0.19	1.42	2.05	1.61	2.03
CIV-812:E2	Earthquake Resistant Design	2.52	1.93	1.70	0.95	1.40	1.50	1.18	0.97	-	1.07	-	1.63	2.08	1.90	1.50
CIV-812:E2	Ground Improvement Techniques	2.08	2.09	1.75	2.00	2.28	1.19	2.11	0.90	1.13	2.03	1.18	2.42	1.82	2.37	2.03
	Direct Attainment	**2.23**	**1.88**	**1.75**	**1.65**	**1.63**	**1.61**	**1.54**	**1.26**	**1.45**	**1.64**	**1.23**	**1.66**	**2.07**	**1.84**	**1.74**

Table 3.3r1

PO Attainment (Indirect): Academic Year 2018-2019

S. No.	Survey	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	Program Exit Survey	2.64	2.83	2.78	2.94	2.98	2.66	2.92	2.95	2.75	2.59	2.80	2.80	2.65	2.31	2.66
2	Alumni Survey	2.84	2.53	2.63	2.79	2.58	2.47	2.47	2.63	2.68	2.68	2.53	2.37	2.58	2.79	2.58
3	Employer Survey	2.25	2.75	2.75	2.25	2.25	2.75	2.75	2.25	2.00	2.25	2.00	3.00	2.25	2.75	2.25
	Indirect Attainment	2.64	2.66	2.70	2.69	2.60	2.59	2.65	2.62	2.53	2.55	2.46	2.63	2.52	2.66	2.52

Table 3.3r2

Final Attainment for Academic Year 2018-2019

Attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Direct Attainment (80%)	2.23	1.88	1.75	1.65	1.63	1.61	1.54	1.26	1.45	1.64	1.23	1.66	2.07	1.84	1.74
Indirect Attainment (20%)	2.64	2.66	2.7	2.69	2.6	2.59	2.65	2.62	2.53	2.55	2.46	2.63	2.51	2.66	2.52
Overall Attainment	**2.44**	**2.27**	**2.23**	**2.17**	**2.12**	**2.10**	**2.10**	**1.94**	**1.99**	**2.10**	**1.85**	**2.15**	**2.29**	**2.25**	**2.13**

Table 3.3r3

PO Attainment (Direct): Academic Year 2017-2018

Course Code	Course Name	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
CHM-101	Chemistry-I	2.48	1.99	1.33	-	1.69	1.2	1.57	-	0.71	1.63	1.92	2.05	2.12	2.23	1.57
CHM-101P	Chemistry Laboratory-I	2.36	1.41	-	-	2.35	1.88	2.12	-	-	1.26	1.88	1.78	2.35	2.36	1.41
PHY-101	Physics-I	1.32	1.32	1.07	0.54	1.05	0.44	-	-	-	-	-	-	-	-	-
PHY-102P	Physics Laboratory-I	3	3	2.75	2	2	1	-	-	1	-	-	-	-	-	-

HSS-101	Communication Skills and Oral Presentation	-	-	-	-	-	-	-	-	1.57	1.74	1.57	-	-	-	-
IT - 101	Computer Fundamentals & Problem-Solving Techniques	2.23	1.09	0.37		0.85	-	-	-	-	-	-	1.73	2.15	1.65	1.2
MTH - 101	MATHEMATICS-I	1.43	1.12	1.58	0.28	-	-	-	-	-	-	0.38	0.408	0.93	1.5	0.69
CIV-102	Engineering Drawing	1.43	1.43	1.43	1.43	1	1	1	-	1.43	1.43	1	1	1.43	1.43	1.43
WSP I	Work-Shop Practice I	2.28	1.48	0.64	-	-	-	-	-	-	-	-	1.58	0.66	1.66	0.62
CHM-201	Chemistry-II	1.76	1.56	2.1	0.91	1.44	0.88	2.14	0.92	0.92	1.68	-	1.46	1.76	2.21	1.21
CHM-201P	Chemistry Laboratory-II	2.38	1.85	1.58	-	-	1.78	1.85	-	-	1.38	1.21	1.83	2.34	2.38	1.65
PHY-201	Physics-II	1.65	1.65	1.4	0.4	0.55	-	-	-	0.55	-	-	-	-	-	-
PHY-202P	Physics Laboratory-II	3	3	2.75	2	2	1	-	-	1	-	-	-	-	-	-
CSC-201	Computer Programming	2.48	1.68	2.34	1.5	1.63	-	-	-	-	-	-	2.25	2.72	1.33	0.91
CSE-202P	Computer Programming Lab	1.88	1.86	2.06	1.32	1.86	-	-	-	0.37	-	-	2.24	0.75	1.87	0.75
HU-201	Introduction to Social Sciences	-	-	-	-	-	1.21	1.02	0.99	0.93	0.25	0.43	0.27	-	-	-
MTH - 201	MATHEMATICS-II	1.81	1.4	1.77	-	-	-	-	-	-	-	0.46	0.5	1.14	1.84	0.87
CIV-201	Engineering Mechanics	2.49	2.49	1.46	1.46	-	1.66	0.83	-	-	-	-	-	1.66	0.63	1.46
WSP II	Work-Shop Practice II	1.96	1.45	1.88	-	-	-	-	-	-	-	0.44	-	1.04	1.26	0.74
MED-201	Machine Drawing	1.96	0.12	2.11	0.24	-	-	-	1.07	0.82	-	-	0.12	2.08	1.42	0.7
CIV-301	Structural Analysis-I	1.5	1.5	1.3	0.9	-	1.2	0.5	-	-	-	-	0.5	1.5	0.6	1.2
CIV-301(P)	Structural Engineering Lab I	2.55	1.55	1.1	0.85	-	1.7	1	-	-	-	-	1.45	2.55	1.55	1.7
CIV-302	Fluid Mechanics I	2.1	2.2	-	0.2	2.09	2	-	1.5	1.7	2.1	0.15	1.46	2.01	1.61	1.93
CIV-302(P)	Fluid Mechanics Lab I	1.62	0.27	0.27	1.25	-	0.3	0.3	-	-	-	-	0.27	1.75	0.14	1.92
CIV-303	Surveying I	2.11	2.18	2.2	1.65	2.39	1.68	0.25	1.18	2.44	0.24	0.47	0.95	2.6	1.9	1.23
CIV-303(P)	Surveying Lab I	2	1.4	1	2	-	2	-	-	-	-	-	2	2	1	1.6
MTH-303	Mathematics I	1.66	1.56	1.15	-	-	-	-	-	-	1.56	-	1.77	1.33	1.56	0.67
HSS-301	Humanities and Social Science I	-	1.14	0.57	-	-	0.47	0.58	0.24	0.57	-	1.42	1.84	-	-	-
ELE-304	Electrical Engineering Tech	2.12	1.38	1.23	1.82	1.38	1.06	-	-	-	-	1.66	1.07	1.51	1.56	1.69
ELE-304(P)	Electrical Engineering Lab	2	0	-	-	-	1	-	-	-	-	-	-	1	-	-

CIV-401	Structural Analysis-II	2.73	2.2	1.9	2.15	2.02	2.65	0.8	1.16	1.16	-	-	0.8	2.65	1.75	0.67
CIV-402	Fluid Flow in Pipes and Channels	2.325	-	-	-	-	2.55	2.35	1.85	2.35	2.575	-	2.14	2.35	2.1	1.87
CIV-402(P)	Fluid Mechanics Lab II	2.36	2.36	2.36	2.36	-	2.36	2.36	-	-	-	-	2.36	2.36	1.57	2.36
CIV-403	Surveying II	2.24	2.08	2.04	0.75	1.33	0.75	0.75	0.75	1.5	1.5	0.75	0.75	1.5	0.75	1.5
CIV-403(P)	Surveying Lab II	2.67	1.93	2.03	1.65	2.7	1.38	0.64	0.94	2.33	2.18	0.97	0.23	2.41	1.78	0.96
CIV-403(SC)	Surveying Camp	2.72	1.85	2.05	1.92	2.6	1.68	1.16	0.7	2.16	1.67	0.92	0.89	2.85	1.93	1.41
CIV-404	Engineering Geology and Materials	2.5	-	-	-	-	2.75	2.5	2	2.5	2.75	-	2.25	2.5	2.25	2
CIV-404(P)	Engineering Geology Lab	2.25	2.75	-	-	1.25	1.25	2.75	2	2	-	-	2.25	2	2	2
CIV-405	Building Drawing and Construction	2.3	-	-	-	-	2.05	2.05	2.05	2.3	2.3	2.3	2.37	2.3	2.3	2.55
MTH-406	Mathematics II	2.01	2.22	2.26	1.62	-	-	-	-	-	-	-	2.03	2.02	2.47	-
CIV-501	Design of Structures-I	1.92	1.92	1.92	1.92	0.88	0.84	0.98	1.08	-	-	1.92	1.08	1.92	1.28	1.28
CIV-501(P)	Concrete Laboratory	2.13	1.42	1.23	1.42	-	1.42	0.71	-	-	-	-	1.42	2.13	1.42	1.42
CIV-502	Highway Engineering and PMS	2.12	1.41	1.26	1.41	-	1.3	1.3	-	-	-	-	1.41	2.12	1.41	1.26
CIV-502(P)	Pavement Lab	2.5	2.67	2.67	2.33	2	2.5	2.25	-	-	-	-	2.5	2.5	2.67	2.5
CIV-503	Geotechnical Engineering -I	2.34	1.71	1.56	1.41	-	1.56	1.41	-	-	-	-	1.56	2.34	1.71	2.01
CIV-503(P)	Geotechnical Laboratory I	2.9	1.9	1.2	1.9	-	1.9	1	-	-	-	-	1.9	2.9	1.9	2.9
CIV-504	Water Resources Engineering	1.6	1.3	1.1	1.1	0.9	1.3	1.1	-	-	-	-	1.2	1.2	1.2	1.2
CIV-505a	Structural Analysis III	2.12	2.12	2.12	1.86	-	1.58	1.58	-	-	-	-	1.58	2.12	2.12	2.12
CIV-505b	Quantity Surveying and Cost Evaluation	2.15	2.15	1.27	1.59	-	1.58	1.12	-	-	-	-	-	1.4	1.03	1.51
CIV-511:E1	Engineering Seismology	2.5	2.8	2.5	2.5	2.8	2.8	2.5	2	2.5	2.8	-	2.3	2.03	1.93	1.54
CIV-601	Design of Structures-II	2.75	2.75	2.75	2.75	0.91	1.58	1.07	1.24	-	-	2.75	1.24	2.75	1.83	1.83
CIV-601(P)	Structural Engineering Lab.	3	3	3	3	-	2	2	-	-	-	-	2	3	3	3
CIV-602	Traffic Engineering and Road Facilities	2.22	1.72	1.72	1.55	1.31	2.22	2.05	-	-	-	-	2.22	2.22	1.72	2.22
CIV-602(P)	Traffic Engineering Lab	2.5	2.67	2.67	2.33	2	2.5	2.25	-	-	-	-	2.5	2.5	2.67	2.5
CIV-603	Geotechnical Engineering - II	2.42	2.42	2.42	2.42	-	1.61	1.61	-	-	-	-	1.61	2.42	2.42	2.42

CIV-603(P)	Geotechnical Laboratory II	3	2	1.2	2	-	2	1	-	-	-	-	2	3	2	3
CIV-604	Irrigation and Hydraulic Structures	1.35	1.03	1.03	1.03	0.4	1.1	0.98	-	-	-	-	1.1	1.35	1.03	1.03
CIV-611:E1	Water-Shed Management	1.73	1.73	1.55	1.55	0.47	1.73	1.73	-	-	-	1.25	1.73	1.73	1.73	1.73
CIV-701	Water supply & Sanitary Engineering	2.17	2.37	0.007	0.19	2.17	1.98	-	1.49	1.73	2.17	0.19	1.48	2.11	1.68	2.05
CIV-701(P)	Water Quality lab	2	1	-	2	-	1	2	-	-	-	-	2	2	1	2
CIV-702	Structural Dynamics	2.2	1.7	1.4	1.1	1.1	1.8	1.1	0.3	0.1	1.1	-	1.5	1.9	1.5	1.3
CIV-703	Construction Tech. & Management	2.66	2.66	-	-	2.66	2.66	-	2	2.33	2.66	-	2	2.33	2	2
CIV-704	Design of Structures-III	2.54	2.54	2.54	2.54	1.69	1.69	1.69	-	-	-	-	2.54	2.54	2.54	2.54
CIV-705	Seminar	2.4	1.6	2.4	2.4	2.4	1.6	1.6	1.6	2.4	2.4	0.8	2.4	1.6	1.2	2
CIV-706	Project Pre-Work	2.5	1	1	1	2	1	1	1	0.5	0.5	0.25	2	3	2	2
CIV-711:E1	Railway and Airport Engineering	2.7	2.7	2.7	2.7	1.8	1.8	1.8	-	-	-	-	1.8	2.7	2.7	2.7
CIV-711:E2	Advanced Structural Analysis	2.16	2.16	2.16	2.16	0.89	1.44	1.44	-	-	-	-	1.44	2.16	2.16	2.16
CIV-712: E2	Computer Aided Design	1.18	1.22	1.55	1.3	1.81	-	-	-	-	1.05	1.55	-	1.98	1.3	1.9
CIV-801	Hydropower Engineering	1.95	1.95	1.95	1.95	-	1.3	1.7	0.7	-	1.3	-	1.6	1.8	2	1.8
CIV-802	Bridge Engineering	2.5	2.6	2	2	1.6	1.7	1.7	-	-	-	1.7	1.7	2.6	2.6	2.6
CIV-803	Project	2.37	2.37	2.37	2.37	1.52	2.02	2.11	2.32	2.32	2.01	2.37	2.37	2.37	2.37	2.37
CIV-811:E1	Rock Mech and Tunnel Engineering	2.32	2.5	2.5	2.32	2.5	2.25	2.25	1.82	2.25	2.25	-	2	2.03	1.93	1.54
CIV-812:E2a	Environmental Engineering	2.07	2.18	0.15	0.15	2.07	1.88	-	1.42	1.67	2.07	0.15	1.46	1.97	1.57	1.87
CIV-812:E2b	Earthquake Resistant Design	2.52	1.93	1.7	0.95	1.4	1.5	1.18	0.97	-	1.07	-	1.63	2.08	1.9	1.5
	Direct Attainment	**2.21**	**1.85**	**1.71**	**1.59**	**1.65**	**1.61**	**1.47**	**1.31**	**1.54**	**1.64**	**1.14**	**1.59**	**2.05**	**1.76**	**1.70**

Table 3.3s1

PO Attainment (Indirect): Academic Year 2017-2018

S. No.	Survey	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
1	Program Exit Survey	2.68	2.86	2.79	2.95	2.97	2.70	2.98	2.98	2.78	2.62	2.80	2.76	2.64	2.32	2.70
2	Alumni Survey	2.82	2.55	2.55	2.91	2.73	2.46	2.36	2.55	2.73	2.64	2.64	2.46	2.73	2.91	2.73
3	Average Employer Survey	2.25	2.75	2.75	2.25	2.25	2.75	2.75	2.25	2.00	2.25	2.00	3.00	2.25	2.75	2.25
	Indirect Attainment	**2.64**	**2.68**	**2.66**	**2.75**	**2.67**	**2.59**	**2.61**	**2.58**	**2.56**	**2.54**	**2.52**	**2.67**	**2.59**	**2.72**	**2.60**

Table 3.3s2

Final Attainment for Academic Year 2017-2018

Attainment	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
Direct Attainment (80%)	2.21	1.85	1.71	1.59	1.65	1.61	1.47	1.31	1.54	1.64	1.14	1.59	2.05	1.76	1.70
Indirect Attainment (20%)	2.64	2.68	2.66	2.75	2.67	2.59	2.61	2.58	2.56	2.54	2.52	2.67	2.59	2.72	2.6
Overall Attainment	**2.43**	**2.27**	**2.19**	**2.17**	**2.16**	**2.1**	**2.04**	**1.95**	**2.05**	**2.09**	**1.83**	**2.13**	**2.32**	**2.24**	**2.15**

Table 3.3s3

OVERALL PO/PSO ATTAINMENT LEVELS

Sessions	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12	PSO1	PSO2	PSO3
2019-20	2.44	2.12	2.27	2.23	2.30	2.14	2.13	2.13	1.84	2.14	1.71	2.35	2.54	2.26	2.59
2018-19	2.44	2.27	2.23	2.17	2.12	2.1	2.1	1.94	1.99	2.1	1.85	2.15	2.29	2.25	2.13
2017-18	2.43	2.27	2.19	2.17	2.16	2.1	2.04	1.95	2.05	2.09	1.83	2.13	2.32	2.24	2.15

Table 3.3u

CRITERION 4	STUDENTS' PERFORMANCE	Max. Marks: 100 Claimed: 80.59

4.1 ENROLMENT RATIO (20)

Item (Information to be provided Cumulatively for all the shifts with Explicit headings, wherever Applicable)	CAY 2020- 2021	CAYm1 2019- 2020	CAYm2 2018-2019
Sanctioned intake of the program (*N*)	183	157	136
Total number of students admitted in first year *minus* number of students migrated to other programs/institutions plus no. of students migrated to this program (*N*1)	174	146	132
Number of students admitted in 2nd year in the same batch via lateral entry (*N*2)	0	0	0
Separate division students, if applicable (N3)	0	0	0
Total number of students admitted in the Program (*N*1 + *N*2 + N3)	174	146	132

Table B.4a

CAY – Current Academic Year
CAYm1- Current Academic Year minus1= Current Assessment Year
CAYm2 - Current Academic Year minus2=Current Assessment Year minus 1
LYG – Last Year Graduate minus 1
LYGm1 – Last Year Graduate minus 1
LYGm2 – Last Year Graduate minus 2

Year of Entry	N1+N2+N3 (As defined above)	Number of students who have successfully graduated without backlogs in any semester/year of study (Without Backlog means no compartment or failures in any semester/year of study)			
		I Year	II Year	III Year	IV Year
CAY (2020-2021)	174				
CAYm1 (2019-2020)	146	118			
CAYm2 (2018-2019)	132	64	117		

CAYm3 (2017-2018)	105	50	76	104	
CAYm4 (LYG) (2016-2017)	76	55	58	58	71
CAYm5 (LYG m1) (2015-2016)	109	85	78	84	77
CAYm6 (LYG m2) (2014-2015)	118	92	90	95	104

Table B.4b

Year of Entry	**N1+N2+N3 (As defined above)**	**Number of students who have successfully graduated in stipulated period of study) [Total of with Backlog + without Backlog]**			
		I Year	**II Year**	**III Year**	**IV Year**
CAY (2020-2021)	174				
CAYm1 (2019-2020)	146	142			
CAYm2 (2018-2019)	132	126	128		
CAYm3 (2017-2018)	105	105	105	105	
CAYm4 (LYG) (2016-2017)	76	76	76	76	76
CAYm5 (LYG m1) (2015-2016)	109	109	109	109	109
CAYm6 (LYG m2) (2014-2015)	118	118	118	118	118

Table B.4.1c

Enrolment Ratio = Average of Total students admitted in the 1st year / Sanctioned intake of program for the previous 3 academic years including Current Academic Year (CAY)

	N (From Table 4.1)	**N1(From Table 4.1)**	**Enrolment Ratio**
2020- 2021	183	174	95.1
2019- 2020	157	146	92.9
2018-2019	136	132	97.0

Table B.4.1

Average = [(ER1 + ER2 + ER3)/3]: 95
Assessment: 20

4.2. Success Rate in the stipulated period of the program (17.6)

4.2.1. Success rate without backlogs in any semester/year of study (12.6)

SI= (Number of students who have graduated from the program without backlog)/ (Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry and separate division, if applicable) Average SI = Mean of Success Index (SI) for past three batches

Item	Latest Year of Graduation, **LYG(CAYm3) 2016-2017**	Latest Year of Graduation minus 1, **LYGm1,(CAYm4) 2015-2016**	Latest Year of Graduation minus 2, **LYGm2,(CAYm5) 2014-2015**
X Number of students admitted in the corresponding First Year + admitted in 2nd year via lateral entry and separate division, if applicable	76	109	118
Y Number of students who have graduated without backlogs in the stipulated period	71	77	104
Success Index (SI=Y/X)	0.934	0.706	0.881

Table B.4.2.1

Average SI [(SI1 + SI2 + SI3) / 3]: 0.840

Success rate without backlogs in any year of study = 15 [Average SI] = 15 X 0.840 = **12.6**

4.2.2 Success rate with backlog in stipulated period (actual duration of the programme) (5)
SI= (Number of students who graduated from the program in the stipulated period of course duration)/ (Number of students admitted in the first year of that batch and admitted in 2nd year via lateral entry and separate division, if applicable)

Average SI = mean of Success Index (SI) for past three batches.

Item	**Latest Year of Graduation, LYG(CAYm4) 2016-2017**	**Latest Year of Graduation minus1, LYGm1,(CAYm5) 2015-2016**	**Latest Year of Graduation minus 2, LYGm2, (CAYm6) 2014-2015**
X Number of students admitted In the corresponding First Year + admitted in 2nd year via Lateral entry and separate division, if applicable	76	109	118

Y Number of students who have graduated in the stipulated period	76	109	118
Success Index (SI=Y/X)	1	1	1

Table B.4.2.2

Average SI [(SI1 + SI2 + SI3) / 3]: 1
Success rate = 5 x Average SI = 5 X 1 = **5**

4.3. Academic Performance in Second Year (6.5)

Academic Performance Level = Average API (Academic Performance Index)

***API** = ((Mean of 2nd Year Grade Point Average of all successful Students on a 10 point-scale) or (Mean of the percentage of marks of all successful students in Second Year/10)) x (number of successful students/number of students appeared in the examination)*

Successful students are those who are permitted to proceed to the third year.

Academic Performance	2019-2020	2018-2019	2017-2018
Mean of CGPA or Mean Percentage of all successful students (X)	7.43	5.39	6.67
Total no. of successful students (Y)	128	105	76
Total no. of students appeared in the examination (Z)	128	105	76
API = x* (Y/Z)	7.43	5.39	6.67
Average API [(AP1 + AP2 + AP3)/3]	**(7.43+5.39+6.67)/3 = 6.5**		

Table B.4.3

4.4. Placement, Higher Studies and Entrepreneurship (17.49)

Item	CAYm1 (2019-2020)	CAYm2 (2018-2019)	CAYm3 (2017-2018)
Total No. of Final Year Students (N)	75	109	118
No. of students placed in companies or Government Sector (X)	31	34	44
No. of students admitted to higher studies with valid qualifying scores (GATE or equivalent State or National Level Tests, GRE, GMAT etc.) (Y)	16	28	19
No. of students turned entrepreneur in engineering/technology (Z)	0	0	2
X+Y+Z	47	62	65
Placement Index : (X + Y + Z)/N	0.63	0.57	0.55

Table B.4.4

Average placement [(P1 + P2 + P3)/3]: 0.583

Assessment [30 × average placement]: 17.49

4.5 Professional Activities (19)

4.5.1 Professional societies / chapters and organizing engineering events (05)
(Instruction: The institution may provide data for past three years).

A. Professional societies / chapters

1. American Society of Civil Engineers (ASCE)
2. Indian Society of Earthgquake Technology (ISET)
3. International Association of Hydrogeologists (IAH)
4. Institute of Engineers
5. Indian Geotechnical Society (IGS)
6. Indian Roads Congress (IRC)
7. Institute of Urban Transport (IUT)
8. World Conference on Transport Research Society (WCTRS)
9. Indian Water Resources Society (IWRS)
10. Institute of Electrical and Electronicsd Engineers (IEEE)
11. International Association for Hydro-Environmental Engineering and Research (IAHR)

B. TechVeganza (Annual Technical Event) 2017-2018

1. 'TechVeganza' Spring 2017
Name of Event: RESER-WHERE--
This event was about construction of masonry reservoir whose capacity should be 120 liters. It was a team event and each team comprised of 2 or 3 members.

Name of Event: THE ESTIMATER
As this event was based on the estimation skills and observation power which is the basic need in civil engineering, it judged the estimating ability of the participants for better accuracy and precision.
The final round judged the accuracy and speed of the engineers in various fields like traffic engineering and logistics while testing their mental strength and sharpness in different situations.

Name of Event: TRUSS-O-MANIAC
The competition was to check the creativity and technical knowledge of the participants, they will be asked to build a truss. It tests the students' theoretical knowledge and how effectively they can use it to build and give life to practical working models. Drawing or designing (isometric and elevation) with proper dimensioning on a paper under the surveillance of the organizing team.

2018-2019

1. Techvaganza Spring 2018
Name of Event: BRIDGE THE GORGE
PURPOSE: to bring your own innovative bridge model and create a revolution in field of civil engineering.

THEME: Bridges are one of the most useful and magnificent structures of the modern civilization. With ever-improving designs, bridges carry loads of immense magnitude and nature and are also expected to handle incidental loads due to natural calamities.

Name of Event: FILTER THE LITTER
Participants in the event were subjected to a challenge to make a sand filter that can clean translucent water to make it look transparent with naked eyes. Such a sand filter must filter water at fastest rate to be itself best of the rest

Name of Event: KONSTRUKTOR
Civil engineering nurtures upon innovations pertaining sustainable development alongside this technocratic world. Eradicate your anxiety and construct any civil engineering model which will be admired by others. This competition was to test the creativity, dexterity and aesthetic sense of the participants.

2. A Planning Competition: College Planning

Planners share a belief that something can be done about improving and maintaining our human-made and natural environments. The purpose of this event is to develop an appreciation of the role of proper planning in avoiding chaotic and destructive consequences of random construction methods.

2019-2020

1. Techvaganza Spring 2019.
   One week workshop on Water Conservation Management From 30th July'19 to 3rd August'19

2020-2021

2. Short term online coursed conducted
   1. Course on "Advances in Geotechnical Engineering" from 26th September 2020 to 30th September 2020
   2. Course on "Software Applications in Civil Engineering" from 26th October 2021 to 30th October 2020
   3. Course on Remote Sensing Applications in Groundwater Extraction Measurements" from 11th January 2021 to 14th January
   4. Course on "Advances in Structural Engineering" from 15th 2021 February to 19th February 2021

C. National Service Scheme (NSS)
The students attended many camps and conducted various activities with regard to NSS during 2016-17, 2017-18 and 2018-19.

4.5.2 Publication of technical magazines, newsletters, etc. (04)

1. NIT Srinagar annual college magazine (SABZAR)
2. Elsevier
3. Springer Nature

4. SAGE Publications
5. Wiley
6. Emerald
7. IoS Press
8. Taylor & Francis
9. American Society of Civil Engineers (ASCE)
10. Routledge
11. IEEE

4.5.3 Participation in inter-institute events by students of the program of study (10)

2017-2018

1. E-summit (organized by IIT Bombay) Students from the department participated in the event
2. The students participated in inter institute NSS camps during 2016-17, 2017-18 and 2018-19.

CRITERION 5	FACULTY INFORMATION AND CONTRIBUTION	Max. Marks: 200 Marks Claimed: 171.5

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualification	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2020-21*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
1	Dr. M. A. Ahanger	Professor	Ph.D	Univ of Kashmir	IIT Delhi	Univ. of Kashmir	16/12/1989	07/04/2007	Permanent	Water Resource Engineering	05	100	NA
2	Dr. A. R. Dar	Professor	Ph.D	Univ of Kashmir	Univ of Roorkee	Univ. of Birmingham, UK	1982	1991	Permanent	Structural Engineering	XX	NA	NA
3	Dr. M. A. Lone	Professor	Ph.D	IEI Kolkata	IIT Roorkee	Univ of Kashmir	16/12/1989	04/07/1996	Permanent	Water Resources Engineering	5	NA	NA
4	Dr. A. Q. Dar	Professor	Ph.D	Univ of Kashmir	Univ of Kashmir	Univ of Kashmir	16/12/1989	2007	Permanent	Water Resources Engineering	08	NA	NA
5	Dr. J. A. Bhat	Professor	Ph.D	Univ of Kashmir	IIT Delhi	IIT Delhi	16/12/1989	12/03/2005	Permanent	Structural Engineering	12	NA	NA
6	Dr. M. S. Mir	Professor	Ph.D	Univ of Kashmir	IIT Roorkee	IIT Bombay	01/03/1994	14/04/2009	Permanent	Transportation Engineering	26	NA	NA

Table B.5b. Consolidated Faculty Profile for the Year 2020-21

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualificati	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2020-21*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
7	Dr. B. A. Mir	Professor	Ph.D	Univ of Kashmir	IISc Bangalore	IIT Bombay	04/01/1996	29/06/2010	Permanent	Geotechnical Engineering	12	NA	NA
8	Dr. S K Bukhari	Professor	Ph.D			Univ of Jammu	27/03/2000	20/02/2000	Permanent	Geosciences and Rock Engineering	XX		
9	Dr. S. R. Shah	Professor	Ph.D	Univ of Kashmir	IIT Delhi	IIT Roorkee	May,1984	June, 2002	Permanent	Water Resources Engineering	01	NA	NA
10	Dr. M. A. Tantary	Professor	Ph.D	Univ of Kashmir	IIT Delhi	Univ of Roorkee	01/03/1994	DD/MM/19XX	Permanent	Structural Engineering	05	NA	NA
11	Er. F A Mir	Assoc. Professor	M. Tech	Univ of Kashmir	IIT Delhi	NA	11/09/1984	1989	Permanent	Geotechnical Engineering	XX	NA	NA
12	Dr. J A Naqash	Assoc. Professor	Ph.D	Univ of Kashmir	IIT Delhi	IIT Roorkee	March, 1985	May, 2008	Permanent	Structural Engineering	XX	NA	NA
13	Er. Danish Ahmad	Assoc. Professor	M. Tech	Univ of Kashmir	Univ of Kashmir	NA	01/05/1984		Permanent	Environmental Engineering	XX	NA	NA
14	Er A A Masoodi	Assoc. Professor	M. Tech	Univ of Kashmir	IIT Delhi	NA	26/10/1996	24/08/2009	Permanent	Structural Engineering	04	NA	NA

Table B.5b. Consolidated Faculty Profile for the Year 2020-21 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualificati	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2020-21*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
15	Dr. J M Banday	Assoc. Professor	Ph.D	Univ of Kashmir	IIT Delhi	IISc Bangalore	May, 1985	1996	Permanent	Structural Engineering	XX	NA	NA
16	Dr. M. Y Shah	Assoc. Professor	Ph.D	Univ of Kashmir	IIT Delhi	IIT Roorkee	01/03/1994	24/08/2009	Permanent	Geotechnical Engineering	05	NA	NA
17	Er R R Mir	Assoc. Professor	M. Tech	Univ of Kashmir	NIT Srinagar	NA	26/10/1996	July, 2006	Permanent	Water Resources Engineering	XX		
18	Dr. Shakeel Waseem	Asstt. Professor	Ph.D	Univ of Jammu	IIT Roorkee	IIT Roorkee	10/11/2018	14/04/2017	Permanent	Structural Engineering	03		
19	Dr. F. A. Sofi	Asstt. Professor	Ph.D	NIT Srinagar	IIT Bombay	University of Nebraska Lincoln, USA	10/11/2018	12/01/2017	Permanent	Structural Engineering	07		
20	Dr. Abdullah Ahmad	Asstt. Professor	Ph.D	Aligarh Muslim University	IIT Roorkee	IIT Roorkee	01/11/2018	06/08/2016	Permanent	Transportation Engineering	01		

Table B.5b. Consolidated Faculty Profile for the Year 2020-21 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2020-21*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
21	Er. Falak Zahoor	Tr. Trainee	Perusing Ph.D.	NIT Srinagar	NA	IIT Delhi	01/01/2016		Permanent (Contract)	Geotechnical Engineering	XX		
22	Faiza Manzoor	Asstt. Professor	M. Tech						Contractual				
23	Ishfaq Amin	Asstt. Professor	M. Tech						Contractual		XX		
24	Amer Iliyas	Asstt. Professor	M. Tech						Contractual		XX		
25	Manzoor Ahmad	Asstt. Professor	M. Tech						Contractual		XX		
26	Ahmar Malik	Asstt. Professor	M. Tech						Contractual		XX		
27	Bushra Mushtaq	Asstt. Professor	M. Tech						Contractual		XX		
28	Asif Farooq	Asstt. Professor	M. Tech						Contractual		XX		
29	Naiyara Khan	Asstt. Professor	M. Tech						Contractual		XX		
30	Hafsa Farooq	Asstt. Professor	M. Tech	SRM University	Jamia Millia Islamia		27/3/2019		Contractual		5		31/12/2020

Table B.5b. Consolidated Faculty Profile for the Year 2020-21 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2020-21*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
31	Syed Rayid Andarabi	Asstt. Professor	M. Tech						Contractual		XX		
32	Sualiheen Ahmad	Asstt. Professor	M. Tech						Contractual		XX		

Table B.5b. Consolidated Faculty Profile for the Year 2020-21 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualification	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2019-20*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
1	Dr. M. A. Ahanger	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	Univ. of Kashmir	16/12/1989	07/04/2007	Permanent	Water Resources Engineering	05	NA	NA
2	Dr. A. R. Dar	Professor	Ph.D.	Univ of Kashmir	Univ of Roorkee	Univ. of Birmingham, UK	1982	1991	Permanent	Structural Engineering		NA	NA
3	Dr. M. A. Lone	Professor	Ph.D.	IEI Kolkata	IIT Roorkee	Univ of Kashmir	16/12/1989	04.07.1996	Permanent	Water Resources Engineering	10	NA	NA
4	Dr. A. Q. Dar	Professor	Ph.D.	Univ of Kashmir	Univ of Kashmir	Univ of Kashmir	16/12/1989	2007	Permanent	Water Resources Engineering	10	NA	NA
5	Dr. J. A. Bhat	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Delhi	16/12/1989	12/03/2005	Permanent	Structural Engineering	01	NA	NA
6	Dr. M. S. Mir	Professor	Ph.D.	Univ of Kashmir	IIT Roorkee	IIT Bombay	01/03/1994	14.04.2009	Permanent	Transportation Engineering		NA	NA

Table B.5c. Consolidated Faculty Profile for the Year 2019-20

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualificati	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2019-20*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
7	Dr. B. A. Mir	Professor	Ph.D.	Univ of Kashmir	IISc Bangalore	IIT Bombay	04/01/1996	29/06/2010	Permanent	Geotechnical Engineering	12	NA	NA
8	Dr. S K Bukhari	Assoc. Professor	Ph.D.			Univ of Jammu	27/03/2000	20/02/2000	Permanent	Geosciences and Rock Engineering			
9	Dr. S. R. Shah	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	May,1984	June, 2002	Permanent	Water Resources Engineering	1	NA	NA
10	Dr. M. A. Tantary	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	Univ of Roorkee	01/03/1994		Permanent	Structural Engineering	08	NA	NA
11	Er. F A Mir	Assoc. Professor	M. Tech	Univ of Kashmir	IIT Delhi	NA	11/09/1984	1989	Permanent	Geotechnical Engineering		NA	NA
12	Dr. J A Naqash	Assoc. Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	March, 1985	May, 2008	Permanent	Structural Engineering		NA	NA
13	Er. Danish Ahmad	Assoc. Professor	M. Tech	Univ of Kashmir	Univ of Kashmir	NA	01/05/1984		Permanent	Environmental Engineering		NA	NA
14	Er A A Masoodi	Assoc. Professor	M. Tech	U.O.K	IIT Delhi	NA	26/10/1996		Permanent	Structural Engineering		NA	NA

Table B.5c. Consolidated Faculty Profile for the Year 2019-20 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualificati	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2019-20*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
15	Dr. J M Banday	Assoc. Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IISc Bangalore	May, 1985	1996	Permanent	Structural Engineering		NA	NA
16	Dr. M. Y Shah	Assoc. Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	01/03/1994	24/08/2009	Permanent	Geotechnical Engineering	03	NA	NA
17	Er R R Mir	Assoc. Professor	M. Tech	Univ of Kashmir	NIT Srinagar	NA	26/10/1996	July, 2006	Permanent	Water Resources Engineering			
18	Dr. Shakeel Waseem	Asstt. Professor	Ph.D.	Univ of Jammu	IIT Roorkee	IIT Roorkee	10/11/2018	14/04/2017	Permanent (Contract)	Structural Engineering	1		
19	Dr. F. A. Sofi	Asstt. Professor	Ph.D.	NIT Srinagar	IIT Bombay	University of Nebraska Lincoln, USA	10/11/2018	12/01/2017	Permanent (Contract)	Structural Engineering	3		
20	Dr. Abdullah Ahmad	Asstt. Professor	Ph.D.	Aligarh Muslim University	IIT Roorkee	IIT Roorkee	01/11/2018	06/08/2016	Permanent (Contract)	Transportation Engineering	1		

Table B.5c. Consolidated Faculty Profile for the Year 2019-20 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2019-20*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
21	Er. Falak Zahoor	Tr. Trainee	Pursuing Ph.D.	NIT Srinagar	NA	IIT Delhi	01/01/2016		Permanent (Contract)	Geotechnical Engineering	2		
22	Faiza Manzoor	Asstt. Professor	M. Tech						Contractual				
23	Ishfaq Amin	Asstt. Professor	M. Tech						Contractual				
24	Amer Iliyas	Asstt. Professor	M. Tech						Contractual				
25	Manzoor Ahmad	Asstt. Professor	M. Tech						Contractual				
26	Ahmar Malik	Asstt. Professor	M. Tech						Contractual				
27	Bushra Mushtaq	Asstt. Professor	M. Tech						Contractual				
28	Asif Farooq	Asstt. Professor	M. Tech						Contractual				
29	Naiyara Khan	Asstt. Professor	M. Tech						Contractual				
30	Hafsa Farooq	Asstt. Professor	M. Tech	SRM University	Jamia Millia Islamia		6/3/2018		Contractual		5		31/12/2020

Table B.5c. Consolidated Faculty Profile for the Year 2019-20 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2019-20*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
31	Syed Rayid Andarabi	Asstt. Professor	M. Tech						Contractual				
32	Sualiheen Ahmad	Asstt. Professor	M. Tech						Contractual				
33	Iram Gul Wani	Asstt. Professor	M. Tech						Contractual				

Table B.5c. Consolidated Faculty Profile for the Year 2019-20 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualification	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2018-19*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
1	Dr. M. A. Ahanger	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	Univ. of Kashmir	16/12/1989	07/04/2007	Permanent	Water Resources Engineering	05	NA	NA
2	Dr. A. R. Dar	Professor	Ph.D.	Univ of Kashmir	Univ of Roorkee	Univ. of Birmingham, UK	1982	1991	Permanent	Structural Engineering		NA	NA
3	Dr. M. A. Lone	Professor	Ph.D.	IEI Kolkata	IIT Roorkee	Univ of Kashmir	16/12/1989	04.07.1996	Permanent	Water Resources Engineering	10	NA	NA
4	Dr. A. Q. Dar	Professor	Ph.D.	Univ of Kashmir	Univ of Kashmir	Univ of Kashmir	16/12/1989	2007	Permanent	Water Resources Engineering	04	NA	NA
5	Dr. J. A. Bhat	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Delhi	16/12/1989	12/03/2005	Permanent	Structural Engineering	1	NA	NA
6	Dr. M. S. Mir	Professor	Ph.D.	Univ of Kashmir	IIT Roorkee	IIT Bombay	01/03/1994	14.04.2009	Permanent	Transportation Engineering		NA	NA

Table B.5d. Consolidated Faculty Profile for the Year 2018-19 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualification	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2018-19*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
7	Dr. B. A. Mir	Professor	Ph.D.	Univ of Kashmir	IISc Bangalore	IIT Bombay	04/01/1996	29/06/2010	Permanent	Geotechnical Engineering	10	NA	NA
8	Dr. S K Bukhari	Assoc. Professor	Ph.D.			Univ of Jammu	27/03/2000	20/02/2000	Permanent	Geosciences and Rock Engineering			
9	Dr. S. R. Shah	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	May,1984	June, 2002	Permanent	Water Resources Engineering		NA	NA
10	Dr. M. A. Tantary	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	Univ of Roorkee	01/03/1994		Permanent	Structural Engineering	07	NA	NA
11	Er. F A Mir	Assoc. Professor	M. Tech	Univ of Kashmir	IIT Delhi	NA	11/09/1984	1989	Permanent	Geotechnical Engineering		NA	NA
12	Dr. J A Naqash	Assoc. Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	March, 1985	May, 2008	Permanent	Structural Engineering		NA	NA
13	Er. Danish Ahmad	Assoc. Professor	M. Tech	Univ of Kashmir	Univ of Kashmir	NA	01/05/1984		Permanent	Environmental Engineering		NA	NA
14	Er A A Masoodi	Assoc. Professor	M. Tech	Univ of Kashmir	IIT Delhi	NA	26/10/1996		Permanent	Structural Engineering			

Table B.5d. Consolidated Faculty Profile for the Year 2018-19 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualificati	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2018-19*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
15	Dr J M Banday	Assoc. Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IISc Bangalore	May, 1985	1996	Permanent	Structural Engineering		NA	NA
16	Dr. M. Y Shah	Assoc. Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	01/03/1994	24/08/2009	Permanent	Geotechnical Engineering	03	NA	NA
17	Er R R Mir	Assoc. Professor	M. Tech	Univ of Kashmir	NIT Srinagar	NA	26/10/1996	July, 2006	Permanent	Water Resources Engineering			
18	Dr. Shakeel Waseem	Asstt. Professor	Ph.D.	Univ of Jammu	IIT Roorkee	IIT Roorkee	10/11/2018	14/04/2017	Permanent (Contract)	Structural Engineering	XX		
19	Dr. F. A. Sofi	Asstt. Professor	Ph.D.	Univ of Kashmir	IIT Bombay	University of Nebraka Lincoln, USA	10/11/2018	12/1/2017	Permanent (Contract)	Structural Engineering	2		
20	Dr. Abdullah Ahmad	Asstt. Professor	Ph.D.	Aligarh Muslim University	IIT Roorkee	IIT Roorkee	01/11/2018	06/08/2016	Permanent (Contract)	Transportation Engineering	XX		

Table B.5d. Consolidated Faculty Profile for the Year 2018-19 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2018-19*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
21	Er. Falak Zahoor	Tr. Trainee	Pursuing Ph.D.	NIT Srinagar	NA	IIT Delhi	01/01/2016		Permanent (Contract)	Geotechnical Engineering	1	100	
22	Faiza Manzoor	Asstt. Professor	Ph.D.	Univ of Kashmir	NIT Sgr	IIT Roorkee	03/03/2016		Contractual	Structural Engineering			
23	Ishfaq Amin	Asstt. Professor	M. Tech	GCET Jammu	NITH	NA	09/03/2016		Contractual	Transportation Engineering			
24	Amer Iliyas	Asstt. Professor	M. Tech	BGSBU	MDU	NA	09/03/2016		Contractual	Environmental Engineering			
25	Manzoor Ahmad	Asstt. Professor	M. Tech	BGSBU	BSARU Chennai	NA	9/03/2016		Contractual	Structural Engineering			
26	Ahmar Malik	Asstt. Professor	M. Tech	PTU	KU	NA	25/03/2017		Contractual	Transportation Engineering			
27	Bushra Mushtaq	Asstt. Professor	M. Tech	MDU	AFU	NA	23/03/2017		Contractual	Construction Management & Technology			

Table B.5d. Consolidated Faculty Profile for the Year 2018-19 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2018-19*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
28	Asif Farooq	Asstt. Professor	M. Tech	RSCOE	SPPU	NA	25/03/2017		Contractual	Environmental Engineering			
29	Naiyara Khan	Asstt. Professor	M. Tech	IUST	NITSRI	NA	25/03/2017		Contractual	Transportation Engineering			
30	Hafsa Farooq	Asstt. Professor	M. Tech	SRM University	Jamia Millia Islamia		6/3/2018		Contractual		5		
31	Syed Rayid Andarabi	Asstt. Professor	M. Tech	PTU	NITTTR	NA	13/04/2017		Contractual	Construction Technology & Management			
32	Sualiheen Ahmad	Asstt. Professor	M. Tech	SSM	SITSRI	NA	13/04/2017		Contractual	Water Resources Engineering			
33	Iram Gul Wani	Asstt. Professor	M. Tech	LPU	LPU	NA	13/04/2017		Contractual	Structural Engineering			

Table B.5d. Consolidated Faculty Profile for the Year 2018-19 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualification	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2017-18*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
1	Dr. M. A. Ahanger	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	Univ. of Kashmir	16/12/1989	07/04/2007	Permanent	Water Resources Engineering		NA	NA
2	Dr. A. R. Dar	Professor	Ph.D.	Univ of Kashmir	Univ of Roorkee	Univ. of Birmingham, UK	1982	1991	Permanent	Structural Engineering		NA	NA
3	Dr. M. A. Lone	Professor	Ph.D.	IEI Kolkata	IIT Roorkee	Univ of Kashmir	16/12/1989	04.07.1996	Permanent	Water Resources Engineering		NA	NA
4	Dr. A. Q. Dar	Professor	Ph.D.	Univ of Kashmir	Univ of Kashmir	Univ of Kashmir	16/12/1989	2007	Permanent	Water Resources Engineering		NA	NA
5	Dr. J. A. Bhat	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Delhi	16/12/1989	12/03/2005	Permanent	Structural Engineering		NA	NA
6	Dr. M. S. Mir	Professor	Ph.D.	Univ of Kashmir	IIT Roorkee	IIT Bombay	01/03/1994	14.04.2009	Permanent	Transportation Engineering		NA	NA

Table B.5e. Consolidated Faculty Profile for the Year 2017-18 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualificati	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2017-18*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
7	Dr. B. A. Mir	Professor	Ph.D.	Univ of Kashmir	IISc Bangalore	IIT Bombay	04/01/1996	29/06/2010	Permanent	Geotechnical Engineering	05	NA	NA
8	Dr. S K Bukhari	Assoc. Professor	Ph.D.			Univ of Jammu	27/03/2000	20/02/2000	Permanent	Geosciences and Rock Engineering			
9	Dr. S. R. Shah	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	May,1984	June, 2002	Permanent	Water Resources Engineering		NA	NA
10	Dr. M. A. Tantary	Professor	Ph.D.	Univ of Kashmir	IIT Delhi	Univ of Roorkee	01/03/1994		Permanent	Structural Engineering		NA	NA
11	Er. F A Mir	Assoc. Professor	M. Tech	Univ of Kashmir	IIT Delhi	NA	11/09/1984	1989	Permanent	Geotechnical Engineering		NA	NA
12	Dr. J A Naqash	Assoc. Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	March, 1985	May, 2008	Permanent	Structural Engineering		NA	NA
13	Er. Danish Ahmad	Assoc. Professor	M. Tech	Univ of Kashmir	Univ of Kashmir	NA	01/05/1984	DD/MM/19XX	Permanent	Environmental Engineering		NA	NA
14	Er A A Masoodi	Assoc. Professor	M. Tech	Univ of Kashmir	IIT Delhi	NA	26/10/1996	DD/MM/19XX	Permanent	Structural Engineering			

Table B.5e. Consolidated Faculty Profile for the Year 2017-18 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest Qualificati	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2017-18*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
15	Dr. J M Banday	Assoc. Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IISc Bangalore	May, 1985	1996	Permanent	Structural Engineering		NA	NA
16	Dr. M. Y Shah	Assoc. Professor	Ph.D.	Univ of Kashmir	IIT Delhi	IIT Roorkee	01/03/1994	24/08/2009	Permanent	Geotechnical Engineering	01		
17	Er R R Mir	Assoc. Professor	M. Tech	Univ of Kashmir	NIT Srinagar	NA	26/10/1996	July, 2006	Permanent	Water Resources Engineering			
18	Er. Falak Zahoor	Tr. Trainee	Pursuing Ph.D.	NIT Srinagar	NA	IIT Delhi	01/01/2016		Permanent (Contract)	Geotechnical Engineering			
19	Dr. Ashif Hussain Shah	Asstt. Professor	Ph.D.	Univ of Kashmir	NIT Sgr	IIT Roorkee	03/03/2016		Contractual	Structural Engineering			
20	Sheikh Muzamil	Asstt. Professor	M. Tech	GCET Jammu	NITH	NA	09/03/2016		Contractual	Transportation Engineering			
21	Ishfaq Amin	Asstt. Professor	M. Tech	BGSBU	MDU	NA	09/03/2016		Contractual	Environmental Engineering			
22	Shoaib Bashir Wani	Asstt. Professor	M. Tech	BGSBU	BSARU Chennai	NA	9/03/2016		Contractual	Structural Engineering			

Table B.5e. Consolidated Faculty Profile for the Year 2017-18 (contd…)

Sl. No.	Name of the Faculty Member	Position	QUALIFICATION (Institute)				Date of Joining	Date of acquiring Highest	Nature of appointment	Area of Specialization	Publications in Journals/ Conferences (*2017-18*)	%Load in UG/PG/ 1ST Year	Date of leaving
			Highest Degree	UG	PG	Ph.D.							
23	Er. Ubaid Illahi	Asstt. Professor	M. Tech	PTU	KU	NA	25/03/2017		Contractual	Transportation Engineering			
24	Er. Suhail Aijaz Shah	Asstt. Professor	M. Tech	MDU	AFU	NA	23/03/2017		Contractual	Construction Management & Technology			
25	Er. Arnab Saha	Asstt. Professor	M. Tech	RSCOE	SPPU	NA	25/03/2017		Contractual	Environmental Engineering			
26	Mohd Asif	Asstt. Professor	M. Tech	IUST	NITSRI	NA	25/03/2017		Contractual	Transportation Engineering			
27	Bushra Mushtaq	Asstt. Professor	M. Tech	MDU	MDU	NA	13/04/2017		Contractual	Construction Technology & Management			
28	Nairaya Khan	Asstt. Professor	M. Tech	PTU	NITTTR	NA	13/04/2017		Contractual	Construction Technology & Management			
29	Saima Showkat	Asstt. Professor	M. Tech	SSM	SITSRI	NA	13/04/2017		Contractual	Water Resources Engineering			
30	Mohd Tajamuil	Asstt. Professor	M. Tech	LPU	LPU	NA	13/04/2017		Contractual	Structural Engineering			

Table B.5e. Consolidated Faculty Profile for the Year 2017-18 (contd…)

5.1. Student-Faculty Ratio (SFR) **(Max^{m}. Marks: 20)**

No. of UG Programs in the Department: n = B. Tech Civil Engg
No. of PG programs in the department (m) = 4
No. of Students in UG 2nd Year = **u1; No.** of Students in UG 3rd Year= **u2**
No. of Students in UG 4th Year= **u3**
No. of students in PG 1st year = **p1; No**. of students in PG 2nd year= **p2**
No. of students = Sanctioned intake + Actual admitted lateral entry students
UG = u1+u2+u3; PG = p1+p2;
Total No. of students, S = UG + PG; Student Faculty Ratio, SFR = S / F
The Student-Faculty Ratio (**SFR**) for the current academic year 2017-18 and the preceding years (2016-17, 2015-16) is given in the following tabular form:

Student-Faculty Ratio

Year	**CAY: 2020-21**	**CAY: 2019-20**	**CAY: 2018-19**	**CAY: 2017-18 (1)**
u_1 (Sanctioned intake)	183	183	136	123
u_2	183	136	123	123
u_3	136	123	123	123
No of students in each year: UG = (u_1+u_2+u_3)	**502**	**442**	**382**	**369**
p1.1 (Str. Engg) (Sanctioned intake)	30	30	25	25
P1.2 (Water Res. Engg)	18	18	15	15
P1.3 (Geo. Tech Engg)	20	20	17	17
P1.4 (Transp. Engg)	21	21	18	18
No of students in 1ST year: **PG1** = ($P_{1.1}$+$P_{1.2}$+ $P_{1.3}$+$P_{1.4}$)	**91**	**91**	**75**	**75**
P2.1 (Str. Engg) (Sanctioned intake)	30	25	25	25
P2.2 (Water Res. Engg)	18	15	15	15
P2.3 (Geo. Tech Engg)	20	17	17	17
P2.4 (Transp. Engg)	21	18	18	18
No of students in 2nd year: **PG2** = ($P_{2.1}$+$P_{2.2}$+ $P_{2.3}$+$P_{2.4}$)	**91**	**75**	**75**	**75**
No of students in each year: PG = (PG1+PG2)	**182**	**166**	**150**	**150**
Total No of Students in each year: S = UG+PG	**684**	**608**	**532**	**519**
Total No of Faculty# in the Department = F	**32**	**33**	**33**	**30**
Student Faculty Ratio (SFR) = S/F	21.3	18.4	16.1	17.3
Average SFR=(SFR1+SFR2+SFR3)/3		**18.2**		
	Assessment / Marks Claimed*			**17**
	#: **(excluding first year faculty)**			

Table B.5.1a

**: Marks to be given proportionally from a maximum of 20 to a minimum of 10 for average SFR between 15:1 to 25:1, and zero for average SFR higher than 25:1. Marks distribution is given as below:*

< = 15 - 20 Marks	< = 19 - 16 Marks	< = 23 - 12 Marks	> 25.0 - 0 Marks

< = 17 - 18 Marks	< = 21 - 14 Marks	< = 25 - 10 Marks	

Table B.5.1b

The contractual faculty (doing away with the terminology of visiting/adjunct faculty, whatsoever) who have taught for **2 consecutive semesters** in the corresponding academic year on full time basis shall be considered for the purpose of calculation in the Student Faculty Ratio.

5.1.1. Information about the regular and contractual faculty as per the format mentioned below:

Information about the regular and contractual faculty

Year	Total number of regular faculty in the department	Total number of contractual faculty in the department
CAY 2020-21	21	11
CAY 2019-20	21	12
CAY 2018-19	21	12
CAYm1 2017-18	18	12

Table B.5.1.1a

5.2. Faculty Cadre Proportion (Max^{m}. Marks: 20)

RF: No. of faculty required to comply with 15:1 Student-Faculty Ratio based on number of students as per 5.1:

Year	No. of Students (S)	No. of Faculty Required (RF)	No. of Faculty Retained
CAY 2020-21 (UG+PG)	684	45	32
CAY 2019-20 (UG+PG)	608	40	33
CAY 2018-19 (UG+PG)	532	37	33
CAYm1 2017-18 (UG+PG)	519	35	30

Table B.5.2a

The reference Faculty Cadre Proportion is RF1: RF2: RF3 = 1:2:6

RF1: No. of Professors required (= RF x 1/9) to comply with 15:1 Student- Faculty ratio based on no. of students (N) as per 5.1

RF2: No. of Associate Professors required (=RF x 2/9) to comply with 15:1 Student- Faculty ratio based on no. of students (N) as per 5.1

RF3: No. of Assistant Professors required (=RF x 6/9) to comply with 15:1 Student- Faculty ratio based on no. of students (N) as per 5.1

The Cadre Ratio Marks can be computed by the following expression:

$$\text{Carde Ratio Marks} = \left[\frac{\text{AF1}}{\text{RF1}} + \frac{0.6*AF2}{RF2} + \frac{0.4*AF3}{RF3}\right]*10$$

Maximum marks to be limited if it exceeds 20. However, if AF1 = AF2 = 0, then zero marks are to be awarded.

The reference Faculty cadre proportion in proportion of 1(F1): 2(F2): 6(F3) (excluding first year faculty) is given in tabular form below:

Year	Professors		Associate Professors		Assistant Professors	
	Required *RF1*	**Available *AF1***	**Required: *RF2***	**Available *AF2***	**Required *RF3***	**Available *AF3***
CAY **2020-21**	5	9	10	9	30	14
CAY **2019-20**	5	9	9	9	27	15
CAY **2018-19**	4	9	8	9	25	15
CAYm1 (2017-18)	4	9	8	9	23	12
Average Number	***RF1***	***AF1***	***RF2***	***AF2***	***RF3***	***AF3***
	4.5	9	9	9	26	14
Assessment / Marks Claimed						**20**

Table B.5.2b

5.3. Faculty Qualification **(Max^{m}. Marks: 20)**

Faculty Qualification can be determined by using the following expression:

$$FQ = 2*\left[\frac{(10X+4Y)}{F}\right]$$ = 12.9

Where: X = No. of regular faculty with Ph.D.

Y = No. of regular faculty with M. Tech.

F = No. of regular faculty required to comply 20:1 Faculty Student ratio

(no. of faculty and no. of students required are to be calculated as per 5.1)

Faculty Qualification for the last Four Years is given in Tabular form as below:

Faculty Qualification

YEAR	X	Y	F	$FQ = 2*\left[\frac{(10X+4Y)}{F}\right]$	Marks Claimed

CAY2020-21	17	4	34	10.9	Max^{m}. Marks to be awarded for Faculty Qualification = 20
CAY2019-20	17	4	30	12.4	
CAY2018-19	17	4	28	13.3	
CAYm1(2017-18)	18	4	26	15.1	
Average Assessment for 4 Years				12.9	
Assessment / Points Claimed					**12.9**

Table B.5.3

5.4. Faculty Retention **(Max^{m}. Marks: 10)**

The grading for Faculty retention is explored as below:

Sl. No.	Item	Marks
1	> = 90% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	10
2	>=75% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	8
3	>=60% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	6
4	>=50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	4
5	<50% of required Faculty members retained during the period of assessment keeping CAYm2 as base year	0
Maximum Points to be Claimed = 10		

Table B.5.4a

No. of faculty members retained in CAY (2020-21) = 32
No. of faculty members retained in CAY (2019-20) = 33
No. of faculty members retained in CAY (2018-19) = 33
No. of faculty members retained in CAY (2017-18) = 30
No. of faculty members retained during assessment period are summarized in Table B. 5.4 as below:

Faculty Retention

Sl. No.	Description	CAY (2020-2021)	CAY (2019-2020)	CAY1 (2018-19)	CAY2 (2017-18)
1	No. of Faculty retained	32	33	33	30
2	Total number of Faculty in CAYm2	33	33	30	35
3	% Faculty retained	97	100	100	86
Average					**96**

Assessment / Points Claimed = 10

Table B.5.4b

5.5 Faculty competencies in correlation to Program Specific Criteria

(Max^{m}. Marks: 10)

Sl. No.	**Description of activity**	**Max^{m}. Points/Marks**
1	Number of quality publications in refereed/SCI journals, Citations, Books/Books Chapters etc	6
2	Ph.D. guided/Ph.D. awarded during the assessment period while working in the Institute	4
Marks/Points Claimed		10

The details for each faculty member (specialization, research publications, etc.,) are given in Tabular form below (**2017-21**):

S. No	**Name of Faculty Member**	**Qualification**	**Specialization**	**Research areas**	**Research publications**
1	Dr M A Ahanger (HOD)	Ph.D. (Univ. Of Kashmir) M. Tech. (IIT Delhi B. E. REC Sgr	Water Resources Engg	1.Hydrology Modelling 2. Sediment Transport 3. Climate Change	11
2	Dr. A R Dar	Ph.D. (UK) M. Tech. (Univ. of Roorkee) B. E. REC Sgr	Structural Engg	1.Earthquake Resistant Design 2.Design of Steel and pre-stressed Bridges 3.Earthquake Resistance	06
3	Dr M A Lone (HAG)	Ph.D. (Univ. of Kashmir) M. E. IIT Roorkee B.E. IEI Kolkata	Water Resources Engg	1. Hydraulic Structures. 2. Surface Water Hydrology. 3. Water Resources Engineering.	35
4	Dr A Q Dar	Ph.D. (Univ. Of Kashmir) M. E. (Univ. Of Kashmir) B. E. REC Sgr	Water Resources Engg	1.Hydraulic Structures 2. Hydraulics	24
5	Dr. J A Bhat	Ph.D. (IIT Delhi)	Structural Engg	1.Earthquake Engineering	31

		M. Tech. (IIT Delhi) B. E. REC Sgr		2. Multistory Buildings 3.Civil Engineering Materials	
6	Dr M S Mir	Ph.D. Ph.D. (IIT Bombay) M. Tech. Ph.D. (Univ. of Roorkee) B. E. REC Sgr	Transportation Engg	1.Travel Demand Modelling 2.Land Use Transport Planning 3.Transport Safety 4.Behavioural Modelling	80
7	Dr. B A Mir	Ph.D. (IIT Bombay) M. E. (IISc) B. E. REC Sgr	Geotechnical Engg	1.Prediction of Soil Behaviour, 2.Foundation Engineering, 3.Critical State Soil Mechanics, 4.Expansive Soil Engg., 5.Ground Improvement, 6.Reinforced Soil Structures, 7.Environmental Geotechnics, 8.Fly Ash Characterization 9. Pavement Material Characterization	39
8	Dr. S K Bukhari	Ph.D. (Univ. of Jammu)	Geosciences and Rock Engineering	1. Environment and Geoinformatics 2. Rock Mechncais 3. Underground Structures 4. Engineering Seismology	13
9	Dr S R Shah	Ph.D. (Univ. of Roorkee) M. Tech. (IIT Delhi) B. E. REC Sgr	Water Resources Engg	1.Water Resources & Environmental Engg 2.Hydraulic structures, Irritation Engg., water soil plant	13

				and atmospheric relationship, and Hydropower.	
10	Dr. M A Tantary	Ph.D. (Univ. of Roorkee) M. Tech. (IIT Delhi) B. E. REC Sgr	Structural Engg	1. Fibre Reinforced Concrete	23
11	Er. F A Mir	M. Tech. (IIT Delhi) B. E. REC Sgr	Geotechnical Engg	1.Soil Characterization 2.Pavement Materials 3.Foundations 4. Rock Mechanics	04
12	Dr. J A Naqash	Ph.D. (IIT Roorkee) M. Tech. (IIT Delhi) B. E. REC Sgr	Structural Engg	1.Seismic Micro-zonation 2.Concrete Structures 3.Concrete Technology	05
13	Er. Danish Ahmad	M. E. (Univ. of Kashmir) B. E. REC Sgr	Environmental Engg	1. Environmental Engg 2. Water Quality 3. Treatment Plants 4. Solid Wastes 5. Solar Water Purifiers	03
14	Er A A Masoodi	M. Tech. (IIT Delhi) B. E. REC Sgr	Structural Engg	1. Concrete Types and Their Characteristics	02
15	Dr J M Banday	Ph.D. (IISc) M. Tech. Ph.D. (IIT Delhi) B. E. REC Sgr	Structural Engg	1.Matrix Analysis of Framed Structures 2.FEM and its application to different Type of Structures 3.Fracture Mechanics of Concrete Structures	02
16	Dr. M. Y Shah	Ph.D. (IIT Rookree) M. Tech. (IIT Delhi) B. E. REC Sgr	Geotechnical Engg	1.Foundation Engineering 2.Soil Reinforcement 3.Ground	16

				Improvement 4.Slope Stability	
17	Er R R Mir	M. E. (Univ. of kashmir) B. E. REC Sgr	Environmental Engg	1.Environmental Engineering 2. Water Body Studies	02
18	Dr. Shakeel Ah. Waseem	Ph.D. (IIT Roorkee)	Structural Engg	1.Sustainable Concrete; 2.Structural Timber; 3.Structural Behaviour of Reinforced Concrete. 4.Development and Testing of Indigenous Ultra High-Performance Concrete.	09
19	Dr. Fayaz Ah. Sofi	Ph.D. (USA)	Structural Engg	1.Finite Element Modelling; 2.Double-Skin Tubular Columns; 3. Machine Learning Applications; 4.Structural System-based Evaluation of Composite Steel Girder Bridges; 5.Curved and Straight Corrugated Steel Girders; 6. Asset Management and Health Monitoring.	03
20	Dr. Abdullah Ahmad	Ph.D. (IIT Roorkee)	Transportation Engg	1.Traffic Engineering, 2.Pavement Materials, 3.Pavement Evaluation and Management	06
21	Er. F. Zahoor	Ph.D. (IIT Delhi, pursuing) B. Tech. NIT Sgr	Geotechnical Engg.	1.Seismic Microzonation	01

				2.Rock mechanics 3. Ground Improvement	
	Assessment / Marks claimed				**10**

Table B.5.5b

Note: Since contractual faculty leaves Institute after one year, therefore, these are not included in the above table.

5.6. Innovations by the Faculty in Teaching and Learning (Max^{m}. Marks: 10)

Description

Instructional materials

Each classroom is equipped with overhead projectors and some are equipped with the state-of-the-art smart boards (Hi-Tech Rooms). Textbooks, reference books, and study notes prepared by teachers are used for instruction. Lectures are delivered using PPTs. Other instruction tools are whiteboard, charts and diagrams and laboratory demonstration models.

Working models/charts/monograms:

Contributions to teaching and learning are activities that contribute to the improvement of student learning are listed below:

Sl. No	Description of Activities	Contributions
1	**Innovation in Teaching-Learning**	
	a. Interactive3D Virtual Models (Sketch Up)	Models used for demonstration of Water filters, Imhoff tanks, hydraulic models of Dams, sluice gates
	b. Flow charts for structural design procedures	YES
	c. Enriching teaching learning through power point presentations	YES
	d. Comprehending professional core courses by applying breadth courses	PDA courses being taught for each semester
	f. NPTEL course and Spoken Tutorials	YES: uploaded on Inst. Website
2	Industry-Institute Interaction Cell Activities	YES: T&P Deptt in place
3	Innovation & Entrepreneurship Development Cell Activities	YES: IIED Cell in place
4	**Civil Engineering Association Activities:**	
	a. Project – "Swapnaveedu"	SAP (Swachta Action Plan) as co-coordinator
	b. "Rooparekha"	Setting up of Hydrobiology Lab
	c. "Mindspark"	Setting up of CAD Lab. and Geotech Computational lab for Civil Engineering

		Department as well as Central facility for other Departments
5	Solid waste Incinerator	Solid waste being characterized for reuse as an engineered material in various Civil Engg. Activities
		Assessment / Points Claimed = 10

Table B.5.6

5.7. Faculty as participants in Faculty development/training activities/STTPs

(Max^{m}. Marks: 15)

A faculty scores maximum five points for participation as below:

- Participation in 2 to 5 days Faculty development program: 3 Points
- Participation > 5 days Faculty development program: 5 Points

Sl. No.	Name of Faculty Member	2020-21 CAY	2019-2020 CAY	2018-19 CAY	2017-18 CAY
1	Dr M A Ahanger (HOD)		06		
2	Dr. A R Dar				
3	Dr M A Lone (HAG)				
4	Dr A Q Dar	05			
5	Dr. J A Bhat	05			
6	Dr M S Mir				
7	Dr. B A Mir	05		05	05
8	Dr. S K Bukhari				
9	Dr S R Shah	05			
10	Dr. M A Tantary				
11	Dr. J A Naqash				
12	Er. F A Mir				
13	Er. Danish Ahmad			05	05
14	Er A A Masoodi			05	
15	Dr J M Banday				
16	Dr. M. Y Shah				
17	Er R R Mir				
18	Dr. S. A. Waseem				
19	Dr. F.A Sofi				
20	Dr. Abdullah Ahmad	05	05	05	
21	Er F. Zahoor			05	
SUM		25	11	25	10
RF= Number of Faculty required to comply with 15:1, RF		45	40	37	35
Assessment = 3*(Sum/0.5RF)		3.3	1.7	4.1	1.7
Average		2.7			

Table B.5.7

5.8. Research and Development (Max^m. Marks: 75)

5.8.1. Academic Research (Max^m. Marks: 20)

Academic Research includes Research Paper Publications, Ph.D. guidance, and Faculty receiving Ph.D. during the Assessment Period. The distribution of points/marks is given as below:

Sl. No.	Description of activity	Max^m. Points/Marks
1	Number of quality publications in refereed/SCI journals, Citations, Books/Books Chapters etc.	15
2	Ph.D. guided/Ph.D. awarded during the assessment period while working in the Institute	05
	Marks/Points Claimed	20

Table B.5.8.1a

Number of publications in refereed/SCI journals, Citations, Books/Books Chapters etc. by the faculty members is given in Tabular form below:

Research Publications by each Faculty Member

Sl. No.	Name of Faculty Member	No. of Publications: Maximum Marks = 15											
		CAY - 2020-21			CAY - 2019-20			CAY - 2018-19			CAY - 2017-18		
		Journals	Conf	Book Ch	Journals	Conf	Book Ch	Journals	Conf	Book Ch	Journals	Conf	Book Ch
1	Dr M A Ahanger (HOD)	05	-	-	05	-	-	05	-				
2	Dr. A R Dar	07	-		09	-	03	09	-	04	03	01	03
3	Dr M A Lone (HAG)	5	-	-	10	-	-	12	05		12	05	
4	Dr A Q Dar	10	05	01	08	05	01	04	01		01	01	
5	Dr. J A Bhat	10	01	-	01	-	-	01	-	-	01	-	-
6	Dr M S Mir	26			25	10		25	10		18	7	
7	Dr. B A Mir	11	06	09	01	07	04	01	07	04	03	04	02
8	Dr. S K Bukhari		-		03	-		05	-		05		
9	Dr S R Shah	01	-	-	-	01	-	-	-	-	-	-	-
10	Dr. M A Tantary	12	1		8	1		1	-				
11	Er. F A Mir	-	-		-	-					02	01	
12	Dr. J A Naqash	-	-		-	-					01	01	
13	Er. Danish Ahmad	-	-		-	-					02	-	
14	Er A A Masoodi	-	-		-	-		-	02				
15	Dr J M Banday	-	-		-	-					01	01	

16	Dr. M. Y Shah	05	-		03	-		-	-				
17	Er R R Mir	-	-		-	-		01	-				
18	Dr. Shakeel Waseem	2	1	1	0	-		3	-				
19	Dr. F. A. Sofi	1	4	2	1	2		3	-				
20	Dr. Abdullah Ahmad	1			1	-		1	-				
21	Er F. Zahoor	-	-	-	-	-	-	-	2	-	-	-	-
SUM		96	18	12	75	26	08	71	27	08	49	21	05
Journal Publications		291											
Conference Publications		75											
Book Chapters		33											

Table B.5.8.1b

The details for Ph.D. guided/Ph.D. awarded during the assessment period are given as below:

CAY	PhD Awarded	PhD Submitted	PhD Ongoing
2020-21	12	22	93
2019-20			
2018-19			
2017-18			

a. For award of Ph.D. during assessment period, following details are given:

Sl. No.	Name of Ph.D. Scholar	Academic Year	Research Topic/Ph.D. Thesis Title
01	Nadeem Gulzar	2020	Performance of Translucent Concrete
02	Arvind Cholkar	2021	SHM & Structural behaviour of Smart Concrete
03	Dr. Yasir Altaf	2017-18	Integrated Climate and Hydrological Modeling of a High Altitude Western Himalayan Catchment
05	Mir Bintul Huda		Effect of Obstacle type and Bed Material Gradation on Local Scour Phenomenon
06	Nasir Ahmad Rather		Protective Filter Design Criteria based on particle shape and base gradation parameters

Table B.5.8.1c

b. For Ph.D. ongoing during the assessment period, the following details are to be given:

Sl. No.	Name of Ph.D. Scholar	Academic Year	Name of University/Institute awarding Ph.D.
01	Vaseem Ahmad Shahnaz	2014	NIT Srinagar
02	Aamir Majid Bhat	2016	NIT Srinagar
03	Saika Manzoor	2017	NIT Srinagar
04	Sakiba Nabi	2016	NIT Srinagar
05	Taroob Bashir	2017	NIT Srinagar

06	Iftikhar Gull	2015	NIT Srinagar
07	Aliya Naseer	2017	NIT Srinagar
08	Zubair Rashid	2017	NIT Srinagar
09	Manan Hashim	2017	NIT Srinagar
10	Mir Basar Suhaib	2017	NIT Srinagar
11	Suhail Aijaz Khan	2018	NIT Srinagar

Table B.5.8.1d

c. For Ph.D. ongoing during the assessment period, the following details are to be given:

Sl. No.	**Name of Ph.D. Scholar**	**Academic Year**	**Name of University/Institute awarding Ph.D.**
01	Owais Nabi Bhat	2014	NIT Srinagar
02	Umer Salam	2016	NIT Srinagar
03	Syed Mohsin Shabir	2017	NIT Srinagar
04	Shiekh Umar	2016	NIT Srinagar
05	Mehlat Shah	2017	NIT Srinagar
06	Mr. H. P. Reddy	2017	NIT Srinagar
07	Mr. K. M. N. Saquib Wani	2017	NIT Srinagar
08	Ms. Sabreena Mohammod	2017	NIT Srinagar
09	Mr. Nadeem Gul	2017	NIT Srinagar
10	Mr. Asif Akbar	2017	NIT Srinagar
11	Ms. Rufaidah Shah	2018	NIT Srinagar
12	Mr. Amir-ul-Allah - Part time	2015	NIT Srinagar
Assessment / Maximum Points Claimed			**05**

Table B.5.8.1e

5.8.2. Sponsored Research (Max^{m}. Marks: 20)

The grading for Cumulative sponsored research during assessment years is given as below:
Amount > 50 Lakh – 20 Marks,; Amount > 40 and < 50 Lakh – 15 Marks; Amount > 30 and < 40 Lakh – 10 Marks,
Amount > 15 and < 30 Lakh – 5 Marks,; Amount< 15 Lakh – 0 Marks
The details for Sponsored Research Project Works may be given in Tabular form as below:

Sl. No.	**Project Title**	**Funding Agency**	**Amount (Lacs)**	**Duration**
1	Assessment of effect of climate change on water resources and adoption of	Ministry of Water Resources/Environmental Engg, GOI	01 Crore	Since 2008: ongoing

	strategies in respect of planning design & management of water resources system			
			Assessment/ Marks claimed	**20**

Table B.5.8.2

5.8.3. Development activities (Max^{m}. Marks: 15)

Sl. No.	Development activities	Contribution
1	Product Development	Low Cost Solar Water Purifier
2	Research laboratories	Water Resources management centre, Environmental and sustainability Studies Centre, Geotech. Computational Lab., CADD Lab
3	Instructional materials	For Environmental Engg. Lab., CAD Lab., Survey Lab and Geotech Lab
4	Working models/charts/monograms/Manuals etc.	**Yes**
	Points Claimed	**15**

Table B.5.8.3

5.8.4. Consultancy (from Industry) (Max^{m}. Marks: 20)

(Provide a list with Project Title, Funding Agency, Amount and Duration) Funding amount (Cumulative during assessment years):

Assessment Criterion			
Amount > 10 Lacs	20 Marks	Amount >= 4 Lacs and < 6 lacs	5 Marks
Amount >= 8 Lacs and <= 10 lacs	15 Marks	Amount >= 2 Lacs and < 4lacs	2 Mark
Amount >= 6 Lacs and < 8 lacs	10 Marks	Amount < 2 Lacs	0 Mark
Consultancy services offered to the industry vide material testing and certification of various construction materials. **Funding amount 2 Lacs (Cumulative during the assessment years)**			

Table B.5.8.4a

Consultancy details are:

AY	Project Title	Duration	Funding agency	Amount (Rs)
(2018-19)	Soil investigation construction of foundation	(Over a period of 12 Months)	Executive Engineer, Irrigatio & Flood Control Shopian,	1.05 Lacs

	for Lift Irrigation System at Shopian		Kashmir; No.: S-13707615; Dated: 19/03/2019	
	Soil investigation for preparation of Master Plan for River Jhelum, Srinagar		General Manager WAPCOS Pvt Ltd., Delhi (office at Rajbagh Srinagar); No.: WAP/Ward/NIT-Sri/Jhelum/2018/2778 Dated: 03/08/2018	2.225 Lacs
	Soil investigation for construction of Retaining Wall at RD 110.922km to RD110.972km along the bank of River Jhelum		Executive Engineer, Irrigation & Flood Control Sumbal Bandipora, J&K; No.: IFCDS/1336-38; Dated: 10/07/2018	1.08 Lacs
	Soil investigation for construction of Three Storey Indoor Sports Faclity Compolex at NIT Campus Srinagar		M/S CPWD NIT Srinagar Special Division, NIT Srinagar; No.: 20(33)/CPWD/2018-19/149 Dated: 02/05/2018	2.7 Lacs
(2017-18)	Hydrological Analysis and Design of Weir at Manchar Nallah Lolab Kupwara	(Over a period of 6 Months)	Irrigation & Flood Control Kashmir	11 Lacs
(2017-18)	Technical evaluation of Solid Waste Management Projects for various Districts of Kashmir Valley	(Over a period of 12 Months)	Urban Local Bodies Kashmir	20 Lacs
(2015-16)	Technical Evaluation of DPR for relocation of House Boats in Dal Lake	(Over a period of 12 Months)	J & K Lakes and Waterways Development Authority	7.1 Lacs
	Soil investigation for upgradation of roads under PMGSY, Pulwama		M/S Ex. Engineer PMGSY Div. Pulwama Kashmir	5 Lacs
(2014-15)	Soil investigation and stability analysis for LP Bund of River Jhelum at U/S Hajin Bridge near Pandabonie, Sumbal Bandipora	(Over a period of 12 Months)	M/S Ex. Engineer Irrigation & Flood Control Div. Sumbal Sonawari Kashmir	5 Lacs
	Sub-Soil Investigation Of G+ Seven Hospita Building At Skims Medical College Bemina, Srinagar		Civil works Division SKIMS Medical College Hospital, Bemina, Srinagar	9.6 Lacs
Total Amount over the THREE Assessment Years (2014-15 to -2016-17)				**57.7Lacs**
			Max^{m}. Marks/Points Claimed	**20**

Table B.5.8.4b

5.9. Faculty Performance Appraisal and Development System (FPADS)

(Max^{m}. Marks: 10)

Faculty members of Higher Educational Institutions today must perform a variety of tasks pertaining to diverse roles. In addition to instruction, Faculty members need to **innovate and conduct research** for their self-renewal, keep abreast with changes in technology, and develop expertise for effective implementation of curricula. They are also expected to provide services to the industry and community for understanding and contributing to the solution of real-life problems in industry. Another role relates to the shouldering of administrative responsibilities and co-operation with other Faculty, Heads-of- Departments and the Head of Institute. An effective performance appraisal system for Faculty is vital for optimizing the contribution of individual Faculty to institutional performance.
The assessment is based on:

A well-defined system for faculty appraisal for all the assessment years (Max^{m}. Marks: 05)

The institute has in place a continuous, incisive, well-organized, and effective faculty performance appraisal system for the faculty members. For this purpose an "Annual Assessment Report for the Faculty and the Staff" is prepared for every member. This report gives a detailed description of the members' contribution to teaching-learning process, contribution in laboratory development, course development and development of teaching aids, laboratory manuals, and special lectures. In addition, participation in of organizing seminars, symposia, conferences, continuing education programs, research and development activities, sponsored research projects, contribution to department and institute administration, etc., are also taken into account.

The annual assessment report is given due consideration in the process of promotion and up-gradation of faculty members and hence plays a vital role in the development of the academic, research and administrative system of the institute.

Its implementation and effectiveness (Max^{m}. Marks: 05)

1. Contribution by the Department:

a. Innovation: Innovative project on Low Cost Solar Water Purifier for NIT Campus

- **Implementation and Effectiveness**: Fabricated in house. Provides Distilled water for the Labs of NIT)

b. Services to community: Selected representative for Urban Local Bodies, Kashmir

- **Implementation and effectiveness:** Discussions and knowledge sharing for implementing solid waste management rules-2016 with Director ULB Kashmir. It will help solve the crises of Solid Waste

c. Services to community: **Selected representative for Srinagar Municipal Co operation**

- **Implementation and effectiveness:** Implementation of converting Solid Waste to RDF for Cement Plants, which can generate energy from waste

d. Keeping abreast with changes in technology:

- Completed 3 international online MOO courses on Sustainable development from Delft, Netherland
- Climate change- from British Columbia University
- Smart Cities from Ecole Polytechnique

2. Administrative responsibilities by the Faculty:

Administrative responsibilities rendered by the faculty members are:

Sl. No.	Name of the Faculty Member(s)	Responsibility	From	To	Durations (yrs)
01	Dr. B. A. Mir	Dean P&D Wing	July 31, 2020	till date	09 months
		O/C Geotechnical Engineering Division	Oct. 2018	till date	02 Yrs, 06 months
		Assoc, Dean P&D Wing	Aug. 2015	14/11/2019	04 Yrs, 2.5 months
		Chairman DPC, P&D Wing	Sept. 2015	14/11/2019	04 Yrs, 1.5 months
		Executive Engineer-Civil P&D Wing	Sept. 2015	14/11/2019	04 Yrs, 1.5 months
		PG Coordinator, Geotechnical Engineering Division	Aug. 2014	till date	06 Yrs, 06 months
		O/C Estates P&D Wing	Aug. 2011	Aug-15	04 Years
02	Dr. J. A. Bhat	O/C CPU	Sept. 2010	April. 2011	07 months
		O/C Parks and Gardens	Jul-12	Jul-15	03 Yrs
		Executive Engineer, Civil	Jul-12	Jul-15	03 Yrs
		Assoc. Dean P&D Wing	Jul-12	Jul-15	03 Yrs
		Dean P&D Wing	Jul-15	31/07/2018	03 yrs
		Chairman DPC, P&D Wing	Jul-12	Jul-15	03 Yrs
03	Er. F. A. Mir	O/C CPU	Jan. 2018	To date	
		Registrar, NIT Srinagar	July 2012	July 2017	05 Yrs
		Dean P&D	2006	2008	02 Yrs
		HOD Civil	Mar. 2005	Sept. 2006	1.5 Yrs
		Estates Engineer	2003	2004	1 Yrs
		Estates Engineer	1991	2001	10 Yrs
04	Dr. M. S. Mir	Dean Alumni & International Affairs	Sep-20	Till date	8 Months
		Chairman Library	July 2016	31/07/2018	+02 yrs
		Registrar, NIT Srinagar	Jul-17	01/03/2018	8 Months
05	Dr. A. R. Dar	Director (I/C) NIT	Oct. 2016	July 2017	09 Months

		HOD Civil Engineering	2003 2006 2012	2008 2009 2015	5 Years 3 years 3 years
		Dean P&D	July 2012	July 2015	03 Years
		Chairman DPC, Non-Teaching	July 2019	till-date	
06	Dr. S. K Bukhari	Registrar, NIT Srinagar	Jan, 2019	Till date	2 years
		Faculty In charge	Jan, 2019	Till date	2years
		Dena Alumni &International Affairs	Aug, 2018	2019	1 year
		Director Physical Education (I/C)	July 2019	till-date	
		Assoc. Dean (Sports)	July 2019	till date	
07	Dr. M A Lone	Head Civil	Sept.2009	July 2012	2 Yr. 10 Months
		Dean P&D	July 2012	July 2015	03 Years
		Head, Civil	July 2015	Nov.2017	2 Years-4Months
		Chairman DPC, Non-Teaching	July 2019	till-date	
		Chairman MACP, Non-Teaching	July 2019	till-date	
		Chairman Grievance Committee, Non-Teaching Staff	July 2019	till date	
08	Danish Ahmed	Chairman WRMC	26-10-20	Till date	2 Years
09	Dr. Fayaz Ahmad Sofi	O/C Estates P&D Wing	Feb 2019	Feb 2021	2 Years
		Executive Engineer	Nov 2019	Feb 2020	4 Months
		Warden (Tawi and PG hostels)	Nov 2018	Nov 2019	1 Year
		Coordinator NBA Criteria 2	Jun 2019	Till date	1 year and 10 months
		B.Tech. Semester Coordinator	Jan 2019	Till date	2 years and 4 months
		Faculty In charge Structural Engg. Lab	Jul 2019	Till date	1 year and 10 months
10	Dr. Shakeel Ahmad Waseem	Faculty In charge (Parks and Gardens)	Jul 2020	Till date	10 Months
		Warden (Jhelum Hostel)	Nov 2018	Nov 2020	2 Years
11	Er A.A Masoodi	Associate Dean P&D Wing	Nov. 2019	Till date	
12	Dr. M. A Ahanger	Controller of Examinations	May 2006	Nov-08	2.5 Years
		Coordinator M.Tech. WRE	2006	2012	6 Years

		Coordinator PhD. Civil Eng	2013	2016	
		O/C Hydraulic Section	2011	2016	5 Years
		O/C Hydraulic Section	2016	2019	2 Years
		Institute Coordinator Admissions B.Tech./ M. Tech/M.Sc through JoSA,CSAB/CCMT/CCMN	2016	2018	2 Years
		Dean Academic Affairs	December 2015	Oct-18	2 Years 10 Months
		HOD Civil Engg.	November 2019	Till Date	
		Chairman DUGC	November 2019	Till Date	
		Chairman DPGC	November 2019	Till Date	
		Officer in charge Hydraulics			
13	Dr A. Q Dar	Dean P&D	August 2018	July 2020	2 years
		Chairman minor works committee/Contract committee	September 2018	July 20200	1 year 11 Months
		Chairman House/ Space allotment committee,	September 2018	July 20200	1 year 11 Months
		Chairman Cafeteria / Canteen Committee,	September 2018	July 20200	1 year 11 Months
		Member of the Central Research Facilities Centre (CRFC) of the Institute	November 2016	Till date	4 years 5 months
		Chairman Purchase committee for Central Research Facilities Centre (CRFC) of the Institute	November 2016	Till date	4 years 5 months
		Dean P &D	01/08/2018	31/07/2020	2 years
		Chairman minor works commite	10/09/2018	31/07/2020	1 year 10 months
		Member of Central Research Facilties Center	10/12/2016	Till date	4.5 years
		O/C Water Resource Engineering			
		Coordinator of Btech Projects and Seminars	2007	2010	3 years
14	Dr M Y Shah	O/C Geotechnical Section	21/07/2014	Oct. 2019	5 years
		Seminar and Project Coordinator	27/08/2012	Till date	9 years
		O/C Estates	03/21	Till date	5 months
15	Dr M A Tantray	O/C Structures	Mar-21	Till - Date	
		Co-Chairman Benevalant fund committee of the institute	Mar-21	Till Date	

		Chairman Selection Committee for Department of Chemistry	2020	2020	
		O/C Estates Officer*	Mar-08	Feb 10	2 Years
16	Dr S R Shah	HOD	13 Nov. 2017	13 Nov. 2019	2 Years
		M Tech Coordinate Water Resource	March. 2018	Aug 2020	2.5 Years
		In charge WR Section	March 2018	June 2020	2 Years 3 Months

Table B.5.9

5.10. Visiting/Adjunct/Emeritus Faculty etc. (Max^{m}. Marks: 10)

Adjunct faculty also includes Industry experts. Provide details of participation and contributions in teaching and learning and /or research by visiting/adjunct/Emeritus faculty etc. for all the assessment years:

Sl. No.	Description of activities	Maximum Points to be awarded
1	Provision of inviting/having visited/adjunct/emeritus faculty	01
2	Minimum 50 hours per year interaction with adjunct faculty from industry/retired professors etc. (Minimum 50 hours interaction in a year will result in 3 marks for that year; 3 marks x 3	09

Table B.5.10a

Details for Visiting/Adjunct/Emeritus Faculty are given in Tabular form below:

Acad. Year	Name of the Guest faculty	Contributions in teaching and learning	Interaction hours
2017-18	--	--	--
2016-17	Prof. G. L Asawa, IIT Roorkee	Class Lect: 2ND M. Tech. Water Resources Engg and 8TH Sem B. Tech	16/05/16 to 26/05/2016: 50 hours
	Prof. K. S. Rao, IIT Delhi	Guest lecture: On Geologiocal investigations for Railway Bridge, J&K	02 hours
2015-16	--	--	--
		Marks Claimed	**04**

Table B.5.10b

CRITERION 6	Facilities and Technical Support	Max. Marks: 80 Claimed: 75

6.1 ADEQUATE AND WELL-EQUIPPED LABORATORIES, AND TECHNICAL MANPOWER (37)

The Department of Civil Engineering has well equipped laboratories and technical manpower as shown in Table below:

S. No	Name of laboratory	No of students per batch (Batch size)	Name of important equipments	Weekly utilization status (all the course for which the lab is utilized	Technical manpower support		
					Name of the technical officer	Designation	Qualification
1	**Fluid mechanics Lab**	35	1. Tilting Flume (S6-Mk II) with Flow meter, Pitot Tube, wear 01 No., Venturi meter 01 No., Sluice Gate 01 No, Automating Lifting and Manual Lifting, Sump Tanks 03 Nos. Dimensions of Flume: Length=7.50 m, Width=30 cm, Depth=45 cm. 2. Metacentric Height Determination Apparatus (Ship Model) with stand. 3. Pitot Tube with pipe. 4. Double Ring Infiltrometer, 05 sets. 5. Impact of Jet Apparatus.	12 Hours	1.Gulam Hassan Wani 2.Shirajuddin Shiekh	Technical Assistant Technical Assistant	Graduate(H&S) Under Matriculation

			6. Hydraulic Bench, 04 Nos. 7. V Notch, Rectangular Notch. 8. Reynolds Apparatus. 9. Orifice, Mouthpiece Cd, Cc. 10. Venturi and Orifice meter Apparatus with manometer. 11. Losses in Pipe and Bend Pipe Apparatus with manometer. 12. Bernoulli's Theorem Apparatus. 13. Pipe Friction Apparatus. 14. Darcy Apparatus with manometer. 15. Groundwater flow unit 16. Pipe surge and water hammer apparatus 17. River Flow Simulator 18. Pipe Networks Model 19. Cavitation Demonstration Model 20. Fluid Properties and Hydrostatic Bench 21. Tilting Flume.Dimensions: Length=24 m, width=1 m, depth=60 cm. (Automatic Lifting is not working). 22. Tilting Flume. Dimensions: Length=7.50				

			m, width=30 cm, depth=30 cm. 23. Tilting Flume with Length=3.50 m. 24. Turbines (Kaplan, Francis, Pelton). 25. Hydraulic Bench, 03 Nos. 26. Orifice Cd, Cc. 27. Permeability Apparatus, 03 Nos. 28. Forced Vortex Apparatus. 29. Minor Pipe Loss Apparatus. 30. Heleshaw Apparatus. 31. Apparatus for determination of Metacenter. 32. Tilting Flume, width=25 cm, depth=30cm (Hydraulic Jump) with collecting tank (70cm width, 80 cm length cross section) 33. Pipe Friction Apparatus (4 pipes). 34. Pitot Tube Apparatus (2-inch Pipe). 35. Reynolds Apparatus. 36. V Notch, Rectangular Notch with manometers. 37. Free Vortex Apparatus. 38. Impact of Jet Apparatus. 39. Venturimeter and				

			Orificemete 40. Apparatus for Bernoulli's Theorem				
2	**SOM Lab**	35	1. Universal Testing Machine-100 Ton Capacity 2. CTM- 100 Ton Capacity, Fully Computerized 3. Electric Hydraulic Jack-200 Ton 4. Actuator-10 Ton 5. Loading Frame-50 Ton 6. Hydraulic Jack manual (100 Ton & 20 Ton) 7. Deflection of Curved beam apparatus 8. Portal Frames. 9. Deflection of truss apparatus. 10. Unsymmetrical Bending apparatus. 11. Elastically Coupled beam apparatus. 12. Redundant joint apparatus. 13. 2 Hinge arch apparatus 14. Column buckling load apparatus. 15. Maxwell Reciprocal theorem apparatus. 16. Dial gauges- 6 No.	12	1.Gulam Rasool dar 2.Gulam Rasool Teli 3.Abdul Rasheed Raina	Senior Technical Assistant Technical Assistant Technical Assistant	Graduate and ITI Under Matriculation Under Matriculation

3	**Concrete Technology LAb**	35	1. Concrete Mixer 2. Table Vibrator 3. Needle Vibrator 4. Vicat Apparatus-4 in no. 5. Weighing Balance 6. Seives 7. Seive Shaker 8. Cemenrt Cube Vibrator 9. 150mm Cube moulds-20 in no. 10. 10X10X50cm beam moulds-12 in no. 11. Cylinder mould-15cm Diameter and 30cm height-13 in no. 12. Slump cone apparatus. 13. Compaction Factor apparatus. 14. PS 20 Reinforcement Detector.	12	1.Gulam Rasool dar 2.Gulam Rasool Teli 3.Abdul Rasheed RAina	Senior Technical Assistant Technical Assistant Technical Assistant	Graduate and ITI Under Matriculation Under Matriculation
4	**Pavement Engg. Laboratory**		**1.** Electronic Balance (Max. 30.0 kg , Precision 2.0g) **2.** Counter Weighing Balance (Max. 15kg) **3.** Bitumen Thin Film Oven **4.** Benkelman Beam **5.** Falling Weight Deflectometer **6.** Viscometer 7. Electronic Digital Top Balance (Max. 1.0 kg , Precision 1.0mg) 8. Universal Bitumen	12	Abdul Rashid Gulam Nabi	Technical Assistant Technical Assistant	ITI Matriculation

			penetrator 9. Laboratory Electric Oven 10. Crushing Value Apparatus 11. Aggregate Impact Value Apparatus 12. Cylindrical Measure for determination of unit weight of aggregates 13. Multipurpose Stirrer 14. Metallic Steel Frame for Buoyancy Balance 15. Bitumen Mix Compaction mould 16. Marshall Stability Test Apparatus 17. Deep Freezer 18. Flash and Fire Point (Open cup)Pensky Martens Apparatus 19. Ring & Ball Softening Point 20. Electrically operated Hot Plate 21. Laboratory Water Bath 22. Los Angles Abrasion Testing Equipment 23. Electronic Digital Top Balance (60kg) 24. Electronic Digital Top Balance (Max. 5.0 kg , Precision 0.10 g) 25. Electronic Digital Top Balance (Max. 10.0 kg ,				

			Precision 0.50 kg) 26. Battery Bank with UPS 27. Compression Testing Machine (2000 kN) 28. Accelerated Aggregate Polishing Machine 29. Portable Skid Resistance Friction Tester 30. Binder Extractor, electrically operated 31. Sieve Set (Brass) 32. Sieve Set (GI) 33. Tension and Compression Proving Ring (50 kN) 34. Tension and Compression Proving Ring (25 kN) 35. Steel Strain Dial Gauges 36. Bitumen Ductility Testing Machine 37. Axle Load Measurement Plate 38. Automatic Road Unevenness Bump Integrator 39. Data Analysis Machine (PC) 40. Bitumen Extractor 41. Riffle Sample Divider				

5	**Environmental engineering lab**	30	1. Water Still 2. Psaw Water Electric 3. Psaw Water Bath With 6 Holes 4. Psaw Water Bath With 12 Holes 5. Sieves 6. Hydrometer 7. Heating Mantle 8. Metzer Hot Air Oven 9. Hot Plate 2000w 10. Hot Plate 3000w 11. Keroy Triple Beam Balance With Box 12. Keroy Triple Beam Balance 13. Cases for Keroy Triple Beam Balance 14. Meterz Binocular Research Microscope 15. Deigital Ph Meter Catt Cl46 16. Ph Electrode C21 For Toshniowal Ph Meter 17. Nepholo Turbidity Meter Type 131 18. Plier 19. Screwdriver 20. Plastic Canes 21. Hand Gas 22. Water Testing Kit 23. Flame Photometer 24. Digital Dissolved Oxygen	6 hours	Ravi gi koul	Technical assistant	Matriculation

			Analyzer 25. KVA CVT 26. Hp Laser Printer 27. Hot Air Oven Inside Aluminium Chamber 28. Muffle Furnace 29. Digital Ph Meter 30. Digital Water Thermometer 31. Digital Ph Meter "Systronic" 32. Conductivity/TDS Meter 33. Distillation Apparatus Single Sledges 34. Distillation Apparatus Wrought Glass 35. D.O Meter 36. Ph Meter Digital Range (0-4) 37. TDS Digital Meter 38. Turbidity Meter Digital (0-1999ppm) 39. Water Testing Kit				
6	**Structural Analysis Lab**	35	1. Three Hinged Arch Apparatus 2. Two Hinged Arch Apparatus 3. Elastically Coupled Beam Apparatus 4. Portal Frame Apparatus 5. Redundant joint Apparatus 6. Curved Beam Apparatus	12	1.Gulam Rasool dar 2. Gulam Nabi 3.Gulam Rasool Teli	Senior Technical Assistant Technical Assistant Technical	Graduate and ITI Matriculation Under Matriculation

			7. Unsymmetrically Bending Apparatus 8. Elastic Properties of deflected Beam Apparatus 9. Deflection of Truss Apparatus 10. Column and Strut Apparatus		3.Abdul Rasheed Raina	Assistant Technical Assistant	Under Matriculation
7	**CAD Lab**	35	1. 46 PCs <u>Software's</u> 2. Plaxis 3D 3. Autocad 2017 4. Surfer 5. MATLAB 6. Optum G2 7. GEO Suite	12	Ashok Kumar Pandit	Technical Assistant	Matriculation
8	**Traffic Engg. Lab**	35	1. Traffic Data Analysis Machines (PCs) 2. Scientific Data Analysis and Graphing Software - Sigma Plot 3. Traffic Network and Isolated Intersection Study Tool-TRANSYT(Software) 4. Palm Top GPS set 5. Traffic Recording Camera 6. Traffic Recording Visual Display Unit 7. Driver Testing Equipment 8. Speed Gun 9. LCD Projector 10. Battery bank with UPS	12	Abdul Rashid	Technical Assistant	Matriculation ITI

			11. Traffic Volume Count Pads 12. Stop Watches 13. Reflective Safety Jackets1 14. Automatic Pneumatic Loop Based Traffic Counter				
9	**Survey Lab**	35	1. Alidade 2. Alidade telescopic 3. Binoculars 4. Barometer Anoride 5. Prismatic Compass 6. Chains 7. Chain pin 8. Survey Compass 9. Ghat tracer 10. Abney level 11. Level spirit 12. Goneometers 13. Mallets 14. Plumbing fork 15. Planimeter 16. Protector 17. Sextant 18. Level staff 19. Tents 20. Total Stations 21. Level Nikkon 22. Dumpy level 23. Auto level 24. Prismatic compass	12 hours/week	1. Ab. Hamid khan	technical assistant	Below matriculation
10	**Geotechnic-al Engg.**	35	1. Loading Frame with Proving rings 100kN,	12 ours/week	1.Md. Ismail	Senior technical	I.T.I

	Lab		50kN, 10kN, 5kN, 4kN, and 2kN 2. Digital Motor Sieve Shaker 3. Tri-axial Testing Apparatus 4. Labotronics pH Meter 5. Direct Shear Test 6. Large Scale DST 7. Digital DST with DAS 8. Digital LL Penetrometer 9. Motorized LL Device 10. Mechanical Loading Frame 11. Screw Type Loading Frame 12. Oedometer (1D-C) 13. Permeability Test Apparatus 14. SPT with Accessories 15. Lab. Vane Shear Apparatus 16. Field Vane Shear Apparatus 17. Hydrometer Shaker 18. Standard Cone Penetrometer 19. Electric Resistivity Apparatus 20. Hot Air Oven 21. Rapid Moisture Meter 22. Infrared Moisture Meter 23. MASW- Multi Channel		2. Ad. Aziz	assistant Technical Assistant	Below matriculation

			Analysis of Surface Waves 24. Slurry Mixer with Mould and other accessories 25. Air Compressor 26. Temperature Controlled Chamber 27. Static Plate Load Test Apparatus with all Accessories				
11	**Engg. Geology lab**	35	1. Weighing balance 2. Hot air oven	12 hours/week	1. Ravi ji koul	Technical Assistant	matriculation

Table B.6.1a

Additional facilities created for improving the quality of learning experience in laboratories

S. No	Facility Name	Details	Reason(s) for Creating Facility	Utilization	Area in which students are expected to have enhanced learning	Relevance to Pos/PSOs
1.	**Additional Equipments**	1. Cube mould 100mm 2. Lateral Extensometer 3. Rebound Hammer 4. Load cells 5. Cellular concrete mixer and foam generator. 6. MR Dampers 7. Small electrical concrete mixer. 8. Acid curing tanks 9. Brick moulds – 5.	1. Student project 2. Faculty research 2. Research Students	1. Student project 2. Faculty research 3. Research Students	Acquire knowledge beyond curriculum	Helps in speedy and effective attainment
2.	**Wi-Fi**		Wireless access of internet	Can access Wi-Fi anywhere in the campus 24 x 7	For knowledge sharing	
3.	**Hitech Rooms**	With Projectors, Cameras, ACs, LED TVs	For conducting Seminars, Guest lectures	Students and staff	For sharing knowledge	
4.	**Committee Room**	With Projectors, Cameras, ACs, LED TV	For conducting Seminars,	Students and staff	For sharing knowledge	
5.	**White Boards**	All labs are equipped	with white board	For explaining	experiments	
6.	**Generator**	Generator in the campus	Power failure	Power failure	Acquire knowledge without interruption	
7.	**Cabins for research scholars**	Cabins, PCs, Net facility	All labs are provided with cabins for research scholars in their respective field.	Research Scholars	Study and Research	

Table B.6.1b

6.2 LABORATORIES: MAINTENANCE AND OVERALL AMBIANCE (10/10)

General

- Students are allowed to use all labs at all time.
- White boards are made available in all labs.
- Extra lab hours are provided for students if required.
- Sufficient labs are present in department as per curriculum requirements.
- All the labs are equipped with good technical support staff available during working hours and beyond (as and when required by the students or faculty).

Computer lab

- CADD lab in the department is well equipped with sufficient number of PCs with internet connectivity.
- This lab is provided with un-interrupted power supply (UPS).
- Each student can use single PC for their lab work assigned /Project purpose.
- Labs are equipped with sufficient licensed software to run program specific curriculum.

Other laboratories

- All labs have ample working space for all lab works.
- All labs are well ventilated and well lit.
- Calibration, servicing and cleaning of equipments are done regularly.

All the labs are under the charge of specific faculty members and are maintained in good and working condition. Any funds required for maintenance are provided by the institute on submitting of an application by the I/C faculty member/s.

Ambiance

1.Survey Lab

The lab has different types of equipment stored in different sections and in a well-organized manner. The equipment is categorized into conventional and state-of-the-art types.

Figure B.6.2a

2. Computer Lab

A well-equipped computer lab with sufficient number of computers makes student easy in learning all software's. This lab consists of software's like CAD, STAAD Pro, and Surfer, etc. which are helpful for structural design.

Figure B.6.2b

3. Geotechnical Engineering Lab

Geotechnical engineering lab is well equipped with latest equipments for determination of soil properties, and almost each equipment is more than two in number. This lab is used for research and consultancy purpose also.

Figure B.6.2c

4. Transportation Engineering Labs

4.1 *Pavement Engineering Lab* is well equipped with the facilities like testing and design of bitumen and bituminous mixes, aggregates and other materials. This is also equipped with various types of equipment required for field studies of pavements. This lab is also used for PG and research purpose. This lab is also equipped with state-of-the-art equipment.

Figure B.6.2d

4.2 *Traffic Engineering Lab* is well equipped with all the required instruments and equipments that are helpful in overall understanding and practical knowledge of the students. It houses a number of traffic simulation and statistical softwares. It also is equipped with various manual, semi-automatic and automatic traffic data collection instruments.

Figure B.6.2e

4.3 *Advanced Asphalt Facility Lab* is a state-of-the-art facility for carrying out research work in bitumen and its mixes. It is home to the hands-on training of students, technology transfer to private sector and government and advanced research focused on design and analysis of flexible pavement, evaluation of the mechanical properties of each ingredient in a pavement mix and physical modelling.

Figure B.6.2f

5. Fluid Mechanics Lab

Fluid mechanics lab is equipped with advanced equipments which can be used for research purpose also along with UG level. This lab is also used for consultancy purposes.

Figure B.6.2g

6. Structural Engineering Labs

These include Structural Analysis Lab, Strength of Material Lab and Concrete Technology Lab. These labs are sufficiently equipped with the experiments required for UG level students.

Figure B.6.2h

Figure B.6.2i

Figure B.6.2j

7. Environmental Engineering Lab

Environmental Engineering Lab is fully equipped with relevant equipments and sensors for monitoring water and waste-water qualities including concentration levels of total dissolved/ suspended solids, turbidity, hardness, alkalinity, acidity, Chlorides, Biological Oxygen Demand (BOD), Chemical Oxygen Demand (COD), dissolved oxygen, etc.

Figure B.6.2k

8. Geology Lab

Geology Engineering Lab provides a hands-on survey on the fundamentals of physical geology, the identification and interpretation of rocks and minerals using topographic maps, aerial photography and satellite images.

Figure B.6.2l

6.3 SAFETY MEASURES IN LABORATORIES (10)

Many safety measures are in place in the laboratories of the department. Students too have to strictly follow some of the safety measures during lab hours. Below are safety measures provided in the labs: Same safety measures are adopted in other labs.

SL. No.	Name of the Laboratory	Safety measures
1	**Transportation Engineering Laboratory**	1.Fire safety (fire extinguisher) 2. Safety Jackets 3. First Aid Box 4. Additional MCB for each equipment 5. Lightning Arrest 6. Working Gloves
2	**Geotechnical Engineering Laboratory**	1.Fire safety (fire extinguisher) 2. First Aid Box 3. Additional MCB for each equipment 4. Lightning Arrest
3	**Survey Lab**	1.Fire safety (fire extinguisher) 2. First Aid Box 3. Additional MCB for each equipment 4. Lightning Arrest
4	**Strength of materials lab**	1.Fire safety (fire extinguisher) 2. First Aid Box

		3. Additional MCB for each equipment 4. Lightning Arrest
5	**Environmental Engineering Laboratory**	1.Fire safety (fire extinguisher) 2. First Aid Box 3. Additional MCB for each equipment 4. Lightning Arrest
6	**Concrete Technology Lab**	1.Fire safety (fire extinguisher) 2. First Aid Box 3. Additional MCB for each equipment 4. Lightning Arrest
7	**Fluid Mechanics lab**	1.Fire safety (fire extinguisher) 2. First Aid Box 3. Additional MCB for each equipment 4. Lightning Arrest

Table B.6.3

6.4 PROJECT/ LABORATORY FACILITIES (18)

All the laboratories are well equipped with equipment for conducting B.Tech Projects. The Labs have all the necessary equipment including the equipment required for field studies. Both analytical and experimental tools are available. For example, those students who are doing their project work in the area of Pavement Engineering or Traffic Engineering have all the Pavement material characterization equipment available in the lab besides equipment required for design of Bituminous, WMM, WBM mixes. Also, softwares for the analysis of data and field equipment like Benkelman Beam, Light FWD, Bump Integrator, Weighing Axle Load Plate, Traffic Recording Camera, Speed Gun, Count Pads, Stop Watches, Automatic Pneumatic Loop Based Counter, Reflective Safety Jackets etc. are available for project work of students. Many of the facilities available for project work of students are shown in tables above.

Any funding required for fabrication of equipment, purchase of equipment, purchase of material, with regard to the project work of the students, is readily provided by the NIT Srinagar administration on submission of an application by the students through their supervisors/ guides. There is a separate dedicated account-head for project work of the students. There are also some centralized facilities available in the institute where the students can do a part of their project work, if required, like Central Research Facility Lab where advanced equipment like XRD, SEM etc. are installed. The facilities available in other departments are also utilized and there is no restriction for that. A student doing project work in some area of Civil Engineering can use any lab in the department where the facility required for his/ her project work is available. This allows optimum utilization of the facilities.

CRITERION 7	CONTINUOUS IMPROVEMENT	Max. Marks: 75 Claimed: 68

7.1. ACTIONS TAKEN BASED ON THE RESULTS OF EVALUATION OF EACH OF THE POs & PSOs (28)

The Programme Assessment Committee of the Department peruses the attainment levels of POs and PSOs and analyses the gaps between and target and obtained attainment levels. They recommend and list the various actions that need to be taken in order to improve the obtained attainment levels and bring these close to the target levels.

POs & PSOs Attainment Levels and Actions for improvement – CAYm3 (2017-2018)

POs	Target Level (65%)	Attainment Level	Observations
PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
PO1	**1.80**	**2.23**	Civil engineering curriculum requires the strong foundation of theoretical and practical knowledge of science and mathematics, which the students study during their entire programme, especially in their first year, but improvement in correlating the theoretical concepts with applications is required.
Action 1: Visit industries that are working in core areas of civil engineering. Understand the design & construction processes to boost the technical knowledge. This also helped to understand work ethics followed in industries. **Action 2:** It is aimed that the Course Projects, final year Project Works and Camps relate the knowledge of applied and basic sciences to engineering applications in order to solve different types of complex engineering problems. **Action 3:** We inspire students to participate in technical events, other events where their basic knowledge should convert to application matching with defined level of their standards.			
PO2: Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.			
PO2	**1.58**	**1.92**	The problem solving and analyzing skills gained through, primarily, first and second year courses helps the students to apply the principles in real time applications and understand engineering science.
ACTION 1: Students are encouraged to observe, their homes and surroundings to gain insight into real life engineering problems and think of possible approaches/solutions to these problems. **ACTION 2:** Gained knowledge on complex engineering problems and solution on visiting field/ industry. **ACTION 3:** Latest Literature is made available and easily accessible to the students and application oriented project works are got conducted			
PO3: Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.			
PO3	**1.56**	**1.70**	Most of the projects developed by the student as course/ hobby

			projects/ major projects (final year) are considering the social and environmental issues.
ACTION1: Students are motivated to include all standard parameters and constraints according to National and International safety norms and to address environmental concerns. **ACTION2:** Courses, that inculcate the ability to Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations, are included and continuously updated **ACTION3:** Students are encouraged and motivated to take up project works that include and pertain to public health and safety, and the cultural, societal, and environmental considerations.			
PO4: Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems.			
PO4	**1.44**	**1.53**	It is observed that most of the project works are research based where students have to design experiments analyse and synthesise the data, produce results and derive specific conclusions. Sometimes the studies do not end with valid conclusions. Courses required to be included and syllabi updated to include and inculcate the analysis and research skills.
ACTION1: Academic workshops are coming into picture to apply more knowledge in terms of conduction of experiments and analysis of results at required level. **ACTION2:** Courses are included and syllabi updated to include and inculcate the analysis and research skills.			
PO5: Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.			
PO5	**1.27**	**1.28**	It is observed that Up-gradations of tools and resources are necessary to meet the industry standards and research.
ACTION1: Modern labs are developed to learn/ demonstrate the use of Modern software tools like MATLAB, TransCAD, AutoCAD, CUBE, VISSIM, TRANSYT, VISSIM, SigmaPlot, ArcGIS, StadPro etc. to specify fulfilment of requirement in engineering applications in new industrial era. **ACTION2:** Procurement of modern and state-of-the-art equipment in the laboratories and students exposed to the applicability and use of these by making them work on these modern equipments. **ACTION3:** Students are taught with modern modes and methods of teaching like using LCD Projectors and with interactive and digital boards and learning in smart class rooms equipped with real time lecture webcast/broadcast facilities.			
PO6: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.			
PO6	**1.40**	**1.58**	The courses of Civil Engineering are addressing the needs of, health, safety and social concerns regarding engineering practices in real life. Students need to be give more importance to these dimensions.
ACTION1: To understand the safety concerns and social aspects, students visited industry to expand their practical knowledge with the effect of improved practices in engineering. **ACTION2:** Students are encouraged to teach students, from in and outside campus, especially children who are from economically aweaker sections.			

<table>
<tr><td colspan="4">PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.</td></tr>
<tr><td>PO7</td><td>1.31</td><td>1.33</td><td>The issues of global and environmental awareness among the student should be improved.</td></tr>
<tr><td colspan="4">ACTION1: Students are encouraged to indulge in projects, in which global and environmental issues are improved, with respect to consumption of energy and utilization of renewable energy resources.

ACTION2: Courses, that deal with environmental and sustainability issues, have been introduced with the aim of understanding the impact of professional engineering solutions in societal and environmental contexts and understanding the need for bringing about sustainability in overall development.</td></tr>
<tr><td colspan="4">PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.</td></tr>
<tr><td>PO8</td><td>1.21</td><td>0.90</td><td>The students are doing better in improving the overall expertise in field of engineering but due to less stress on communications and ethical/ moral knowledge, there is some lagging.</td></tr>
<tr><td colspan="4">ACTION 1: Students are motivated and made aware about the demands of engineering profession, duties towards society & fellow human beings and importance of honesty and ethics.

ACTION 2: Lectures and awareness/ motivational programmes are conducted. Career readiness program, corporate lectures and motivational talks are arranged to overcome the above observations.</td></tr>
<tr><td colspan="4">PO9: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.</td></tr>
<tr><td>PO9</td><td>1.31</td><td>1.01</td><td>The students seem ready for working both as individuals and in a team work.</td></tr>
<tr><td colspan="4">ACTION1: Institute has initiated Program which provides a platform to work in individual as well as a group in the fields of Engineering. It helps the students to groom the skills like leadership or as an effective team member. There are a number of societies and clubs where the students learn to work both as individuals and in a team work environment.

ACTION2: The laboratory work of the students is condcuted by framing student groups so that students learn to work in a team environment.

ACTION3: The final year project work is conducted by first making student groups in which students with different abilities are included (decided on the basis of CGPA). These groups are allotted to faculty members as per the area-preference given by the students. This helps students to learn to work with team members of different capabilities and background.</td></tr>
<tr><td colspan="4">PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.</td></tr>
<tr><td>PO10</td><td>1.38</td><td>1.02</td><td>The communication, presentation and report writing skills are to be further improved among the students.</td></tr>
<tr><td colspan="4">ACTION1: Soft skills training is imparted to students to enhance various aspects of communication/technical talks by group discussions, presentations and new learning outcomes.

ACTION2: Regular instructions are communicated to the students about preparing project reports and making presentations.</td></tr>
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<table>
<tr><td colspan="4">ACTION3: Students that are seen to be weak in communication skills are encouraged to undergo relevant courses and are also referred to language lab for improving their communication skills.</td></tr>
<tr><td colspan="4">PO11: Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.</td></tr>
<tr><td>PO11</td><td>1.18</td><td>0.84</td><td>Few courses of curriculum give knowledge of Management principle and applying managerial principles to his/her work including financial implications and to manage the project in multidisciplinary environments.</td></tr>
<tr><td colspan="4">ACTION1: The awareness is created among the student regarding the management principles and managing projects. The relevant courses are revised and upgraded regularly to cater to latest techniques and trends in the area.</td></tr>
<tr><td colspan="4">PO12: Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.</td></tr>
<tr><td>PO12</td><td>1.44</td><td>1.64</td><td>The pre final year and final year courses of the program are demonstrating the resource for contemporary issues and lifelong learning.</td></tr>
<tr><td colspan="4">ACTION1: Students are made to recognize the importance of life long learning through pep/ motivational talks and programmes. Using ICT facilities, such as PPTs, live demonstration of topics imparted using video lecture and real time webcast and lecture contents including new technological developmental tools and knowledge of new products, gives students and life long knowledge to be further improved upon.

ACTION2: Existence of chapters of professional bodies/ societies like IGS, IUT etc and events under the banner of these societies gives students opportunity to have a life long learning. The students are encouraged to take membership of these societies.

ACTION3: The students are involved in the activities of alumni association and are encouraged to take membership of Association at the time of passing out.</td></tr>
<tr><td colspan="4">PSO1: Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as software’s towards solving technical problems requiring civil engineering interventions.</td></tr>
<tr><td>PSO1</td><td>1.65</td><td>2.00</td><td>Different tools and designs are used to develop/ implement, test, construct and maintain the civil engineering infrastructure for society. Publish/ exhibit/ innovate through conferences, journals etc.</td></tr>
<tr><td colspan="4">ACTION1: Academic workshops and conferences are coming into picture to apply more knowledge in terms of conduction of experiments and analysis as required.

ACTION2: Training programmes for use of softwares are conducted for students.

ACTION3: Courses of lab works in which students learn to use softwares are included in the curriculum. The syllabi of these courses are regularly updated.

ACTION4: Project works are encouraged that involve the usage of technical resources such as software’s towards for solving technical problems.</td></tr>
</table>

PSO2: Ability to furnish and/or analyze designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.			
PSO2	**1.45**	**1.80**	The courses of the program are demonstrating the resource fullness for contemporary issues. The project titles of the final year and pre-final year students are addressing the real life problems.
ACTION1: Students are motivated to take up the real life problems during their project work so that they can design, analyze and find solution which gives exposure to latest technologies.			
PSO3: Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of Data Collection/ Surveying/ Analysis/ Planning.			
PSO3	**1.46**	**1.71**	To inculcate ethics, good interpersonal relationships, ability to communicate, leadership and project management.
ACTION1: Career readiness program and corporate lectures are arranged to meet required expertise in field of engineering. **ACTION2:** Courses of lab works in which students learn to use modern tools are included in the curriculum. The syllabi of these courses are regularly updated. **ACTION3:** Project works are encouraged that involve the usage of modern tools and techniques of Data Collection/ Surveying/ Analysis/ Planning.			

Table B.7.1(a)

POs & PSOs Attainment Levels and Actions for improvement – CAYm2 (2018-2019)

POs	Target Level (70%)	Attainment Level	Observations
PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
PO1	**1.93**	**2.24**	Civil engineering curriculum requires the strong foundation of theoretical and practical knowledge of science and mathematics, which the students study during their entire programme, especially in their first year. Improvement in correlating the theoretical concepts with applications is required. Various actions taken during the past one year have shown good improvements.
Action 1: Visit industries that are working in core areas of civil engineering. Understand the design & construction processes to boost the technical knowledge. This also helped to understand work ethics followed in industries. **Action 2:** It is aimed that the Course Projects, final year Project Works and Camps relate the knowledge of applied and basic sciences to engineering applications in order to solve different types of complex engineering problems. **Action 3:** We inspire students to participate in technical events, other events where their basic knowledge should convert to application matching with defined level of their standards.			
PO2: Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.			
PO2	**1.70**	**1.91**	The problem solving and analyzing skills gained through,

			primarily, first and second year courses helps the students to apply the principles in real time applications and understand engineering science. This has shown an improvement due to various actions.
ACTION 1: Students are encouraged to observe, their homes and surroundings to gain insight into real life engineering problems and think of possible approaches/solutions to these problems. **ACTION 2:** Gained knowledge on complex engineering problems and solution on visiting field/ industry. **ACTION 3:** Latest Literature is made available and easily accessible to the students and application oriented project works are got conducted			
PO3: Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.			
PO3	**1.68**	**1.73**	Most of the projects developed by the student as course/ hobby projects/ major projects (final year) are considering the social and environmental issues. This is all the more true as now the students are encouraged more to do so.
ACTION1: Students are motivated to include all standard parameters and constraints according to National and International safety norms and to address environmental concerns. **ACTION2:** Courses, that inculcate the ability to Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations, are included and continuously updated **ACTION3:** Students are encouraged and motivated to take up project works that include and pertain to public health and safety, and the cultural, societal, and environmental considerations.			
PO4: Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems.			
PO4	**1.55**	**1.53**	It is observed that most of the project works are research based where students have to design experiments analyse and synthesise the data, produce results and derive specific conclusions. Courses have been included and syllabi updated to include and inculcate the analysis and research skills.
ACTION1: Academic workshops are coming into picture to apply more knowledge in terms of conduction of experiments and analysis of results at required level. **ACTION2:** Courses are included and syllabi updated to include and inculcate the analysis and research skills.			
PO5: Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.			
PO5	**1.37**	**1.23**	It is observed that Up-gradations of tools and resources are necessary to meet the industry standards and research. This has been a thrust area on which action has been taken and appreciable improvement has been achieved.
ACTION1: Modern labs are developed to learn/ demonstrate the use of Modern software tools like MATLAB, TransCAD, AutoCAD, CUBE, VISSIM, TRANSYT, SigmaPlot, ArcGIS, StadPro etc. to specify fulfilment of requirement in engineering applications in new industrial era. **ACTION2:** Procurement of modern and state-of-the-art equipment in the laboratories and students exposed to the applicability and use of these by making them work on these modern equipments.			

<table>
<tr><td colspan="4">ACTION3: Students are taught with modern modes and methods of teaching like using LCD Projectors and with interactive and digital boards and learning in smart class rooms equipped with real time lecture webcast/broadcast facilities.</td></tr>
<tr><td colspan="4">PO6: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.</td></tr>
<tr><td>PO6</td><td>1.50</td><td>1.53</td><td>The courses of Civil Engineering are addressing the needs of, health, safety and social concerns regarding engineering practices in real life. Students are now giving more importance to these dimensions.</td></tr>
<tr><td colspan="4">ACTION1: To understand the safety concerns and social aspects, students visited industry to expand their practical knowledge with the effect of improved practices in engineering.

ACTION2: Students are encouraged to teach students, from in and outside campus, especially children who are from economically aweaker sections.</td></tr>
<tr><td colspan="4">PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.</td></tr>
<tr><td>PO7</td><td>1.41</td><td>1.35</td><td>The issues of global and environmental awareness among the student has improved over the last one year.</td></tr>
<tr><td colspan="4">ACTION1: Students are encouraged to indulge in projects, in which global and environmental issues are improved, with respect to consumption of energy and utilization of renewable energy resources.

ACTION2: Courses, that deal with environmental and sustainability issues, have been introduced with the aim of understanding the impact of professional engineering solutions in societal and environmental contexts and understanding the need for bringing about sustainability in overall development.</td></tr>
<tr><td colspan="4">PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.</td></tr>
<tr><td>PO8</td><td>1.31</td><td>0.89</td><td>The students are doing better in improving the overall expertise in field of engineering but due to less stress on communications and ethical/ moral knowledge, there is some lagging. But efforts are continuing to take various actions and achieve the target levels.</td></tr>
<tr><td colspan="4">ACTION 1: Students are motivated and made aware about the demands of engineering profession, duties towards society & fellow human beings and importance of honesty and ethics.

ACTION 2: Lectures and awareness/ motivational programmes are conducted. Career readiness program, corporate lectures and motivational talks are arranged to overcome the above observations.</td></tr>
<tr><td colspan="4">PO9: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.</td></tr>
<tr><td>PO9</td><td>1.42</td><td>0.94</td><td>The students seem ready for working both as individuals and in a team work. This aspect is constantly encouraged in every aspect and stage of programme.</td></tr>
<tr><td colspan="4">ACTION1: Institute has initiated Program which provides a platform to work in individual as well as a group in the fields of Engineering. It helps the students to groom the skills like leadership or as an effective team member. There are a number of societies and clubs where the students learn to work both as individuals and in a team work environment.

ACTION2: The laboratory work of the students is condcuted by framing student groups so that students learn to</td></tr>
</table>

work in a team environment.

ACTION3: The final year project work is conducted by first making student groups in which students with different abilities are included (decided on the basis of CGPA). These groups are allotted to faculty members as per the area-preference given by the students. This helps students to learn to work with team members of different capabilities and background.

PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.

PO10	**1.49**	**1.00**	The communication, presentation and report writing skills are to be further improved among the students. Efforts are underway. Good improvement has been made.

ACTION1: Soft skills training is imparted to students to enhance various aspects of communication/technical talks by group discussions, presentations and new learning outcomes**.**

ACTION2: Regular instructions are communicated to the students about preparing project reports and making presentations.

ACTION3: Students that are seen to be weak in communication skills are encouraged to undergo relevant courses and are also referred to language lab for improving their communication skills.

PO11: Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.

PO11	**1.27**	**0.83**	Few courses of curriculum give knowledge of Management principle and applying managerial principles to his/her work including financial implications and to manage the project in multidisciplinary environments. It is being given due importance now.

ACTION1: The awareness is created among the student regarding the management principles and managing projects. The relevant courses are revised and upgraded regularly to cater to latest techniques and trends in the area.

PO12: Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.

PO12	**1.55**	**1.70**	The pre final year and final year courses of the program are demonstrating the resource for contemporary issues and lifelong learning. Many aspects are considered to bring about LLL. This is being viewed as one of the thrust areas to improve. Efforts are on to improve the attainment level.

ACTION1: Students are made to recognize the importance of life long learning through pep/ motivational talks and programmes. Using ICT facilities, such as PPTs, live demonstration of topics imparted using video lecture and real time webcast and lecture contents including new technological developmental tools and knowledge of new products, gives students and life long knowledge to be further improved upon.

ACTION2: Exixtence of chapters of professional bodies/ societies like IGS, IUT etc and events under the banner of these societies gives students opportunity to have a life long learning. The students are encouraged to

<table>
<tr><td colspan="4">take membership of these societies.

ACTION3: The students are involved in the activities of alumni association and are encouraged to take membership of Association at the time of passing out.</td></tr>
<tr><td colspan="4">PSO1: Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as software’s towards solving technical problems requiring civil engineering interventions.</td></tr>
<tr><td>PSO1</td><td>1.78</td><td>2.00</td><td>Different tools and designs are used to develop/ implement, test, construct and maintain the civil engineering infrastructure for society. Efforts are made to publish/ exhibit/ innovate through conferences/ journals/ workshops, purchase state of the art equipment and softwares etc. There is improvement every passing day. Continuous efforts are being made for the same.</td></tr>
<tr><td colspan="4">ACTION1: Academic workshops and conferences are coming into picture to apply more knowledge in terms of conduction of experiments and analysis as required.

ACTION2: Training programmes for use of softwares are conducted for students.

ACTION3: Courses of lab works in which students learn to use softwares are included in the curriculum. The syllabi of these courses are regularly updated.

ACTION4: Project works are encouraged that involve the usage of technical resources such as software’s towards for solving technical problems.</td></tr>
<tr><td colspan="4">PSO2: Ability to furnish and/or analyze designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.</td></tr>
<tr><td>PSO2</td><td>1.57</td><td>1.85</td><td>The courses of the program are demonstrating the resource fullness for contemporary issues.

The project titles of the final year and pre-final year students are addressing the real life problems.

The efforts to improve are producing good results.</td></tr>
<tr><td colspan="4">ACTION1: Students are motivated to take up the real life problems during their project work so that they can design, analyze and find solution which gives exposure to latest technologies.</td></tr>
<tr><td colspan="4">PSO3:Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of Data Collection/ Surveying/ Analysis/ Planning.</td></tr>
<tr><td>PSO3</td><td>1.57</td><td>1.71</td><td>Efforts are made to purchase state of the art equipment and softwares for the use of students. Students are inculcated the essence and importance of using modern tools and techniques of Data Collection/ Surveying/ Analysis/ Planning. They are encouraged to take up application and research oriented projects where they have to use the modern tools and techniques. Theory and Laboratory Courses also help to learn and use the modern tools and techniques. Good progress has been made in this direction.</td></tr>
<tr><td colspan="4">ACTION1: Career readiness program and corporate lectures are arranged to meet required expertise in field of engineering.</td></tr>
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ACTION2: Courses of lab works in which students learn to use modern tools are included in the curriculum. The syllabi of these courses are regularly updated.

ACTION3: Project works are encouraged that involve the usage of modern tools and techniques of Data Collection/ Surveying/ Analysis/ Planning.

Table B.7.1(b)

POs & PSOs Attainment Levels and Actions for improvement – CAYm1 (2019-2020)

POs	Target Level (75%)	Attainment Level	Observations
PO1: Engineering Knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
PO1	**2.07**	**2.39**	Civil engineering curriculum requires the strong foundation of theoretical and practical knowledge of science and mathematics, which the students study during their entire programme, especially in their first year. Improvement in correlating the theoretical concepts with applications is required. Various actions taken during the past one year have shown good improvements.
Action 1: Visit industries that are working in core areas of civil engineering. Understand the design & construction processes to boost the technical knowledge. This also helped to understand work ethics followed in industries. **Action 2:** It is aimed that the Course Projects, final year Project Works and Camps relate the knowledge of applied and basic sciences to engineering applications in order to solve different types of complex engineering problems. **Action 3:** We inspire students to participate in technical events, other events where their basic knowledge should convert to application matching with defined level of their standards.			
PO2: Problem Analysis: Identify, formulate, review research literature, and analyse complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences and engineering sciences.			
PO2	**1.82**	**2.03**	The problem solving and analyzing skills gained through, primarily, first and second year courses helps the students to apply the principles in real time applications and understand engineering science. This has shown an improvement due to various actions.
ACTION 1: Students are encouraged to observe, their homes and surroundings to gain insight into real life engineering problems and think of possible approaches/solutions to these problems. **ACTION 2:** Gained knowledge on complex engineering problems and solution on visiting field/ industry. **ACTION 3:** Latest Literature is made available and easily accessible to the students and application oriented project works are got conducted			
PO3: Design/Development of Solutions: Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.			
PO3	**1.80**	**2.13**	Most of the projects developed by the student as course/ hobby projects/ major projects (final year) are considering the social and environmental issues. This is all the more true as now the students are encouraged more to do so.
ACTION1: Students are motivated to include all standard parameters and constraints according to National and			

<table>
<tr><td colspan="4">International safety norms and to address environmental concerns.

ACTION2: Courses, that inculcate the ability to Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations, are included and continuously updated

ACTION3: Students are encouraged and motivated to take up project works that include and pertain to public health and safety, and the cultural, societal, and environmental considerations.</td></tr>
<tr><td colspan="4">PO4: Conduct Investigations of Complex Problems: Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions for complex problems.</td></tr>
<tr><td>PO4</td><td>1.66</td><td>2.00</td><td>It is observed that most of the project works are research based where students have to design experiments analyse and synthesise the data, produce results and derive specific conclusions. Courses have been included and syllabi updated to include and inculcate the analysis and research skills.</td></tr>
<tr><td colspan="4">ACTION1: Academic workshops are coming into picture to apply more knowledge in terms of conduction of experiments and analysis of results at required level.

ACTION2: Courses are included and syllabi updated to include and inculcate the analysis and research skills.</td></tr>
<tr><td colspan="4">PO5: Modern Tool Usage: Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modelling to complex engineering activities with an understanding of the limitations.</td></tr>
<tr><td>PO5</td><td>1.47</td><td>1.95</td><td>It is observed that Up-gradations of tools and resources are necessary to meet the industry standards and research. This has been a thrust area on which action has been taken and appreciable improvement has been achieved.</td></tr>
<tr><td colspan="4">ACTION1: Modern labs are developed to learn/ demonstrate the use of Modern software tools like MATLAB, TransCAD, AutoCAD, CUBE, VISSIM, TRANSYT, SigmaPlot, ArcGIS, StadPro etc. to specify fulfilment of requirement in engineering applications in new industrial era.

ACTION2: Procurement of modern and state-of-the-art equipment in the laboratories and students exposed to the applicability and use of these by making them work on these modern equipments.

ACTION3: Students are taught with modern modes and methods of teaching like using LCD Projectors and with interactive and digital boards and learning in smart class rooms equipped with real time lecture webcast/broadcast facilities.</td></tr>
<tr><td colspan="4">PO6: The Engineer and Society: Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.</td></tr>
<tr><td>PO6</td><td>1.61</td><td>2.00</td><td>The courses of Civil Engineering are addressing the needs of, health, safety and social concerns regarding engineering practices in real life. Students are now giving more importance to these dimensions.</td></tr>
<tr><td colspan="4">ACTION1: To understand the safety concerns and social aspects, students visited industry to expand their practical knowledge with the effect of improved practices in engineering.

ACTION2: Students are encouraged to teach students, from in and outside campus, especially children who are from economically aweaker sections.</td></tr>
<tr><td colspan="4">PO7: Environment and Sustainability: Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable development.</td></tr>
</table>

PO7	**1.51**	**1.91**	The issues of global and environmental awareness among the student has improved over the last one year.
ACTION1: Students are encouraged to indulge in projects, in which global and environmental issues are improved, with respect to consumption of energy and utilization of renewable energy resources. **ACTION2:** Courses, that deal with environmental and sustainability issues, have been introduced with the aim of understanding the impact of professional engineering solutions in societal and environmental contexts and understanding the need for bringing about sustainability in overall development.			
PO8: Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.			
PO8	**1.40**	**1.77**	The students are doing better in improving the overall expertise in field of engineering but due to less stress on communications and ethical/ moral knowledge, there is some lagging. But efforts are continuing to take various actions and achieve the target levels.
ACTION 1: Students are motivated and made aware about the demands of engineering profession, duties towards society & fellow human beings and importance of honesty and ethics. **ACTION 2:** Lectures and awareness/ motivational programmes are conducted. Career readiness program, corporate lectures and motivational talks are arranged to overcome the above observations.			
PO9: Individual and Team Work: Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.			
PO9	**1.52**	**1.45**	The students seem ready for working both as individuals and in a team work. This aspect is constantly encouraged in every aspect and stage of programme.
ACTION1: Institute has initiated Program which provides a platform to work in individual as well as a group in the fields of Engineering. It helps the students to groom the skills like leadership or as an effective team member. There are a number of societies and clubs where the students learn to work both as individuals and in a team work environment. **ACTION2:** The laboratory work of the students is condcuted by framing student groups so that students learn to work in a team environment. **ACTION3:** The final year project work is conducted by first making student groups in which students with different abilities are included (decided on the basis of CGPA). These groups are allotted to faculty members as per the area-preference given by the students. This helps students to learn to work with team members of different capabilities and background.			
PO10: Communication: Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.			
PO10	**1.59**	**1.68**	The communication, presentation and report writing skills are to be further improved among the students. Efforts are underway. Good improvement has been made.
ACTION1: Soft skills training is imparted to students to enhance various aspects of communication/technical talks by group discussions, presentations and new learning outcomes**.** **ACTION2:** Regular instructions are communicated to the students about preparing project reports and making presentations.			

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<tr><td colspan="4">ACTION3: Students that are seen to be weak in communication skills are encouraged to undergo relevant courses and are also referred to language lab for improving their communication skills.</td></tr>
<tr><td colspan="4">PO11: Project Management and Finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one’s own work, as a member and leader in a team, to manage projects and in multidisciplinary environments.</td></tr>
<tr><td>PO11</td><td>1.36</td><td>1.40</td><td>Few courses of curriculum give knowledge of Management principle and applying managerial principles to his/her work including financial implications and to manage the project in multidisciplinary environments. It is being given due importance now.</td></tr>
<tr><td colspan="4">ACTION1: The awareness is created among the student regarding the management principles and managing projects. The relevant courses are revised and upgraded regularly to cater to latest techniques and trends in the area.</td></tr>
<tr><td colspan="4">PO12: Life-long Learning: Recognize the need for, and have the preparation and ability to engage in independent and lifelong learning in the broadest context of technological change.</td></tr>
<tr><td>PO12</td><td>1.66</td><td>2.24</td><td>The pre final year and final year courses of the program are demonstrating the resource for contemporary issues and lifelong learning. Many aspects are considered to bring about LLL. This is being viewed as one of the thrust areas to improve. Efforts are on to improve the attainment level.</td></tr>
<tr><td colspan="4">ACTION1: Students are made to recognize the importance of life long learning through pep/ motivational talks and programmes. Using ICT facilities, such as PPTs, live demonstration of topics imparted using video lecture and real time webcast and lecture contents including new technological developmental tools and knowledge of new products, gives students and life long knowledge to be further improved upon.

ACTION2: Exixtence of chapters of professional bodies/ societies like IGS, IUT etc and events under the banner of these societies gives students opportunity to have a life long learning. The students are encouraged to take membership of these societies.

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<tr><td colspan="4">PSO1: Ability to demonstrate professional engineering approach, including application of principles and utilization of technical resources such as software’s towards solving technical problems requiring civil engineering interventions.</td></tr>
<tr><td>PSO1</td><td>1.91</td><td>2.41</td><td>Different tools and designs are used to develop/ implement, test, construct and maintain the civil engineering infrastructure for society. Efforts are made to publish/ exhibit/ innovate through conferences/ journals/ workshops, purchase state of the art equipment and softwares etc. There is improvement every passing day. Continuous efforts are being made for the same.</td></tr>
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<tr><td colspan="4">ACTION3: Courses of lab works in which students learn to use softwares are included in the curriculum. The syllabi of these courses are regularly updated.

ACTION4: Project works are encouraged that involve the usage of technical resources such as software’s towards for solving technical problems.</td></tr>
<tr><td colspan="4">PSO2: Ability to furnish and/or analyze designs and construct structural systems, produce related documents, drawings and reports, and present objective estimates of the related quantities.</td></tr>
<tr><td>PSO2</td><td>1.68</td><td>2.11</td><td>The courses of the program are demonstrating the resource fullness for contemporary issues.

The project titles of the final year and pre-final year students are addressing the real life problems.

The efforts to improve are producing good results.</td></tr>
<tr><td colspan="4">ACTION1: Students are motivated to take up the real life problems during their project work so that they can design, analyze and find solution which gives exposure to latest technologies.</td></tr>
<tr><td colspan="4">PSO3:Ability to conduct field and laboratory investigations pertaining to civil engineering domain, and utilize modern tools and techniques of Data Collection/ Surveying/ Analysis/ Planning.</td></tr>
<tr><td>PSO3</td><td>1.68</td><td>2.43</td><td>Efforts are made to purchase state of the art equipment and softwares for the use of students. Students are inculcated the essence and importance of using modern tools and techniques of Data Collection/ Surveying/ Analysis/ Planning. They are encouraged to take up application and research oriented projects where they have to use the modern tools and techniques. Theory and Laboratory Courses also help to learn and use the modern tools and techniques. Good progress has been made in this direction.</td></tr>
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ACTION3: Project works are encouraged that involve the usage of modern tools and techniques of Data Collection/ Surveying/ Analysis/ Planning.</td></tr>
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Table B.7.1(c)

Purchase of Equipment by Civil Engineering Department during the years 2016-2020

S. No.	Name of the Equipment	Name of the Lab.	Date of Procurement	Cost (INR)
01.	Falling Head Permeability (02 No.)	Geotech Engg. Lab.	15/02/2016	1,74000/=
02.	Constant Head Permeability (02 No.)	Geotech Engg. Lab.	15/02/2016	1,15600/=
03.	Front Loading Odometer (02 No.)	Geotech Engg. Lab.	15/02/2016	4,39100/=
04.	Vane Shear Test Set Up (02 No.)	Geotech Engg. Lab.	15/02/2016	82,800/=
05.	Static Cone Penetration	Geotech Engg. Lab.	15/02/2016	8,79,500/
06.	Infrared Moisture Meter (02 No.)	Geotech Engg. Lab.	15/02/2016	56,000/=

07.	Rapid Moisture Meter (02 No.)	Geotech Engg. Lab.	15/02/2016	46,400/=
08.	Compaction Ramer light (03 No.)	Geotech Engg. Lab.	15/02/2016	11,850/=
09.	Compaction Ramer Heavy (03 No.)	Geotech Engg. Lab.	15/02/2016	12,300/=
10.	Compaction Mould 100/127 (04 No.)	Geotech Engg. Lab.	15/02/2016	17,600/=
11.	Compaction Mould dia 150/127.3mm (04 No.)	Geotech Engg. Lab.	15/02/2016	22,860/=
12.	Sampling Tubes 38/150mm (10 No.)	Geotech Engg. Lab.	15/02/2016	22,500/=
13.	Digital Liquid Limit Penetrometer (02 No.)	Geotech Engg. Lab.	15/02/2016	58,000/=
14.	Liquid Limit Device (02 No.)	Geotech Engg. Lab.	15/02/2016	68,000/=
15.	Conventional Direct Shear Apparatus (02 No.)	Geotech Engg. Lab.	15/02/2016	4,60,000/=
16.	Director Residual Shear Testing Apparatus	Geotech Engg. Lab.	15/02/2016	10,45000/=
17.	Labotronics LT 49 ph. Meter (02 No.)	Geotech Engg. Lab.	29/04/2016	82,701/=
18.	Conventional Triaxial Test set up (02 No.)	Geotech Engg. Lab.	29/04/2016	11,90,000/=
19.	Conventional Triaxial Test set up digital	Geotech Engg. Lab.	29/04/2016	10,5000/=
20.	Digitized Motorized Sieve Shaker	Geotech Engg. Lab.	29/04/2016	1,29500/=
21.	Proving Ring with dial gauge of two KN , 4kn,5kn,10kn, 50kn,and 100kn (02 sets each)	Geotech Engg. Lab.	09/06/2016	2,72,500/=
22.	Extensometer	Structural Engg. Lab	05/01/2016	14,490/=
23.	CTM, Automatic Machine	Structural Engg. Lab	05/01/2016	14,32,449/=
24.	DO meter	PHE Lab	30/01/2017	12000/=
25.	PH Meter	PHE Lab	30/01/2017	17,500/=
26.	TDS Meter	PHE Lab	30/01/2017	11,500/=
27.	Turbidity Meter	PHE Lab	30/01/2017	13,800/=
28.	Water Testing Kit	PHE Lab	30/01/2017	19,100/=
29.	Excel Load Measurement Plate	Pavement Engg. Lab.	11/05/2015	1,71,635/=
30.	Bump Indicator	Pavement Engg. Lab.	26/08/2015	4,17,810/=
31.	Deep freezer type	Pavement Engg. Lab.	07/10/2015	3,37,500/=
32.	Buoyancy Balance for aggregate specific gravity and water absorption test	Pavement Engg. Lab.	04/12/2017	1,25,866/=
33.	Battery Bank with UPS	Pavement Engg. Lab.	04/12/2017	1,70,666/=
34.	Compression Testing Machine 2000 KN	Pavement Engg. Lab.	04/12/2015	6,03,845/=
35.	Accelerated aggregate Polishing machine	Pavement Engg. Lab.	04/12/2015	2,93,688/=
36.	Dynamic Shear Rheometer	Pavement Engg. Lab.	25/06/2018	25,64,100/=
37.	Asphalt Mixture Performance Tester (AMPT)	Pavement Engg. Lab.	12/07/2018	60,94,700/=

38.	Universal Testing Machine (Servo Pneumatic)	Pavement Engg. Lab.	12/07/2018	57,76,100/=
39.	Roller Compactor, MATEST Make	Pavement Engg. Lab.	12/07/2018	22,18,400/=
40.	Bitumen Mixture Mixer	Pavement Engg. Lab.	12/07/2018	6,60,800/=
41.	Sample (Beam etc) Cutting Machine	Pavement Engg. Lab.	12/07/2018	2,15,940/=
42.	Core Cutting/Drilling Machine	Pavement Engg. Lab.	12/07/2018	3,10,715/=
43.	Air Compressor	Pavement Engg. Lab.	12/07/2018	56,640/=
44.	Shear Mixer	Pavement Engg. Lab.	08/04/2019	33,750/=
45.	Portable Skid resistance tester	Pavement Engg. Lab.	04/12/2015	2,51,733/=
46.	Traffic regarding Camera	Traffic Engg. Lab.	07/10/2015	4,50,000/=
47.	Driver Testing equipment	Traffic Engg. Lab.	04/12/2017	6,57,067/=
48.	Speed Gun (for vehicle speed)	Traffic Engg. Lab.	04/12/2017	4,66 756/=
49.	LCD Projector	Traffic Engg. Lab.	04/12/2017	1,66,115,84/=
50.	Battery bank for UPS	Traffic Engg. Lab.	04/12/2017	1,70,667/=
51.	Automatic pneumatic loop based traffic counter	Traffic Engg. Lab.	04/12/2017	4,72,000/=
52.	Theodolite	Surveying Lab	17/04/2018	17,100/=
53.	Automatic Level	Surveying Lab	18/04/2018	12980/=
54.	Hydraulic Flume	Fluid Mechanics Lab.	01/02/2015	97,80,722/=
55.	Hydraulic Bank 04 No's	Fluid Mechanics lab	29/06/2017	02,72,968/=
56.	Ground Water Flow Unit	Fluid Mechanics lab	31/05/2018	2,65,650/=

Purchase of Softwares by Civil Engineering Department during the years 2016-2017, 2017 -2018 and 2018 -2019

S. No.	Name of the Software	Developer	Discipline
1	Surfer V.16	Golden Software, LLC	Surveying
2	Grapher V.13	Golden Software, LLC	
3	Context Capture	Bentley	
4	GEO5	Fine Software	Geotechnical Engg.
5	SOFiSTiK	SOFiSTiK AG	
6	PLAXIS 3D	PLAXIS	
7	GeoSuite	GeoAdvanced	
8	Staad Foundation Adv.	Bentley	
9	SigmaPlot	Systat Software Inc.	Transportation Engg. & Planning
10	TRANSYT-15	TRL Software	
11	OSCADY	TRL Software	
12	Open ROADS	Bentley	
13	PTV Vissim	PTV AG	
14	PTV VISWALK		
15	SoundPlan Noise Professional Package Software	SoundPLAN GmbH	
16	EMME4 software	INRO	

17	Dynameq		
18	AutoCAD 2017 (student version)	Autodesk	Multidisciplinary
19	Microstations	Bentley	
20	Lumen RT	Bentley	
21	ArcGIS	Esri	Water Resource Engg. / Environmental Engg. / GIS mapping
22	Water GEMS	Bentley	
23	Sewer GEMS		
24	IGIS	Scanpoint Geomatics Ltd.	
25	STAAD Pro +	Bentley	Structural Engg.
26	Advance Concrete		

Table B.7.1(e)

The laboratories are upgraded with latest equipment/softwares every year. The obsolete and non-functional equipment has been written-off and removed from the laboratories by framing individual committees which included members from other departments. The laboratories maintain proper stock registers which are verified by physical verifications conducted, again, by duly constituted committees.

7.2. ACADEMIC AUDIT AND ACTIONS TAKEN THEREOF DURING THE PERIOD OF ASSESSMENT (14)

1. Course file evaluation

Course files are prepared by faculty members before and during the subject semester. Course file contents are as per recommendations mentioned in below table. The Department Under Graduate Committee (DUGC) which was named as Department Monitoring Committee (DMC) before and upto 2017, performs audit of course files i.e. verifies the contents of the course file, lesson plan, assignments, extra material, lecture notes, etc. The comments of the committee are given as feedback to the faculty member to include the recommended material. This audit ensures the quality deliverables to the students.

Sl. No.	Contents of Course File
1.	Plan of course delivery
2.	Question papers
3.	Answer scripts
4.	Assignments and Reports of Assignments
5.	Project Reports
6.	List of Laboratory Experiments
7.	Reports of Laboratory Experiments

Table B.7.2a

2. Lectures/ Lab evaluation

The Department Under Graduate Committee (DUGC) which was named as Department Monitoring Committee (DMC) before and upto 2017, during their random observation of the lectures/lab, check delivery of course material as per the lesson plan, teaching aids used, communication skill and classroom management etc. parameters to ensure the teaching

methods of benchmarked standards are being used throughout the institute. Feedback is communicated to the faculty member/s.

3. Faculty development program (FDP)

A faculty member has to undergo faculty development program (FDP) to improve the communication skills and to improve the methods of teaching-learning. The FDPs are carried out at the institute level itself by various departments. The technical component in the teaching are improvised with the help of faculty members attending workshops, expert lectures etc. either organized at our institute or at other institute.

4. Review

Review of the faculty member is taken at the end of the semester again to compare the levels – what was at the beginning and after the various feedbacks and training received.

Action taken by the faculty members:

1. Faculty members incorporate changes/improvements suggested by the DUGC/DMC, if any gaps are found, to ensure quality deliverables.

2. Faculty members have to match the pace of their deliverables as per the students' requirements as well as they have to schedule the lecture plans in such a way that the syllabus is completed on time. To achieve this they can arrange extra lectures to cover the syllabus.

3. Regular analysis of the results of internal assessment examination of all subjects is done and concerned faculty members are guided to take necessary actions. Remedial classes are scheduled in reference to academic progress of the student.

4. The academic observation is carried out considering audit of course files, randomized checks and observations and feedback from students.

7.3. IMPROVEMENT IN PLACEMENT, HIGHER STUDIES AND ENTREPRENEURSHIP (9)

Item	CAYm1 (2019-20) 2020 Pass-out Batch	CAYm2 (2018-19) 2019 Pass-out Batch	CAYm3 (2017-18) 2018 Pass-out Batch
Total No. of Final Year Students (N)	75	109	118
No. of Students Placed in Companies or Government Sector (X)	31	34	44
No. of Students admitted to higher studies with valid qualifying scores (GATE or Equivalent State or National Level Tests, GRE, GMAT, etc.) (Y)	16	28	19
No. of students turned entrepreneur in engineering/technology (Z)	0	0	2
X+Y+Z	47	62	65
Placement Index: (X + Y + Z)/N	0.63	0.57	0.55

Table B.7.3

7.4. IMPROVEMENT IN THE QUALITY OF STUDENTS ADMITTED TO THE PROGRAM (17)

Item		CAYm1 2020 Batch Admission (2019-20)	CAY m2 2019 Batch Admission (2018-19)	CAYm3 2018 Batch Admission (2017-18)
Joint Entrance Examination, main (JEE main)	**No. of Students admitted**	173	157	128
	Opening Rank	OP-23753 OBC-50109 SC-134964 ST-111706 EWS-63524	OP-17373 OBC-38035 SC-128811 ST-81943 EWS-43514	OP-13909 OBC-45293 SC-84251 ST-96423
	Closing Rank	OP-213872 OBC-658277 SC-376433 ST-291806 EWS-149807	OP-634701 OBC-968446 SC-476413 ST-172162 EWS-280396	OP-296769 OBC-605526 SC-603553 ST-376324

Table B.7.4

CRITERION 8	First Year Academics	50

Institute Marks:

CRITERION 8	First Year Academics	43.46

8.1. First Year Student Faculty Ratio (FYSFR) M.M.: 5

Data for first year courses to calculate the FYSFR: Institute Marks: 5

In order to determine the First Year Student Faculty Ratio (FYSFR) we obtained the number of faculty member (F) contributing in first year courses considering their fractional load. The number of faculty member (F) is rounded off to nearest integer. The actual intake of students in all branches together is taken as the number of students (N). The ratio of number of faculty members (F) and the number of students (N) gives us the FYSFR. Assessment (limited to 5) is determined from the formula (5×20)/FYSFR. These calculations are tabulated below:

Year	Number of Students (actual intake, N)	Number of Faculty Members (F)	FYSFR	Assessment = (5×20)/FYSFR (Limited to Max.5)
CAY (2020-2021)	899	52	17.28	5
CAYm1(2019-2020)	778	46	16.91	5
CAYm2(2018-2019)	672	36	18	5
Average	**783**	**44**	**17.3**	**5**

8.2. Qualification of Faculty Teaching First Year Common Courses (5)

M.M.: 5

Institute Marks: 4.76

Assessment of qualification = $(5X+3Y)/RF$, X=Number of Regular Faculty with Ph.D., Y=Number of Regular Faculty with Post-graduate qualification, RF=Number of Faculty required as per SFR of 20:1, Faculty definition as defined in 5.1. Most Faculty (X) are doctorates, however, few Faculty (Y) are postgraduates. The Number of Faculty Members (RF) is determined by dividing the Number of Students (N) by 20. The numbers are shown in the table given below:

Academic Year	*X*	*Y*	*RF*	Assessment of Faculty Qualification $(5X+3Y)/RF$
CAY(2020-2021)	*30*	*22*	*45*	5.4
CAYm1(2019-2020)	*24*	*22*	*38.9*	*4.78*
CAYm2(2018-2019)	*15*	*21*	*33.6*	*4.10*
Average Assessment				**4.76**

8.3. First Year Academic Performance (10) M.M.:10
Institute Marks: 5.7

Academic Performance Index (API)*= (Mean of 1st Year Grade Point Average of all successful Students on a 10 point scale) or (Mean of the percentage of marks in First Year of all successful students/10) × (number of successful students/number of students appeared in the examination).*
Successful students are those who are permitted to proceed to the second year.

The Mean of 1st Year Grade Point Average (GPA) of all successful Students on a 10 point scale (G), is taken as average of the mean of Student Performance Index (SPI) for Semester-I and Semester-II, of all successful Students promoted to 2nd year. The backlog students have not been considered in these calculations.

Academic year	1st Year Mean GPA (G)	No. of Successful Students (S)	No. of Students Appeared (N)	API= G×(S/N)	Average API
2019-2020	7.65	637	640	7.61	**5.7**
2018-2019	7.17	375	481	5.59	
2017-2018	7.11	235	439	3.81	

8.4. Attainment of Course Outcomes of first year courses

M.M.: 10
Institute Marks: 10

8.4.1. Describe the assessment processes used to gather the data upon which the evaluation of Course Outcomes of first year is done
Assessment Processes:

There are two assessment processes:

(i) Direct Assessment Processes:
- **(a) Mid Term Exam**
- **(b) End Semester Exam**
- **(c) Practical Exam**
- **(d) Continuous Assessment (Assignments)**

(ii) Indirect Assessment Processes:
- **(a) Course Exit Survey**
- **(b) Program Level Surveys (not applicable for 1st year)**

To assess the course outcomes, direct and indirect assessment processes are used. Direct assessment consists of one internal and one end-semester examination whereas indirect assessment is obtained using course exit survey. The Internal Assessment (including assignments and one mid-term examination) contributes to 40% and End Semester Examination contributes to 60% of the overall assessment of each Course Outcome.

Overall Attainment of Program Outcomes is determined as below:

80% of the Direct Attainment

20% of the Indirect Attainment

Examination questions are designed to test the Attainment Level of the defined Course Outcomes. In general, mid-term examination (of 30 marks) is used to assess the Attainment Level for CO1 and CO2 respectively, the assignment (of 10 marks) is used to assess attainment of CO3. The questions of end-semester examination (of 60 marks) are equally distributed over all five COs of the course. However, teachers are free to use their own methods to determine the attainment of COs using different distribution of marks.

The students admitted to the first year of B.Tech. Courses are grouped in Eight Sections. The CO attainment (for all COs) for a particular course is determined separately for each section and their average is taken as the attainment of the COs for that particular course. The total marks obtained by the students (of a particular section) in each CO are combined together. The attainment level of a particular CO (in percentage) is determined by taking the ratio of the total marks obtained by the students and the total marks allocated to that CO. The percentage of marks is categorized in three groups and assigned different weightage.

Attainment Levels: (For Theory Subjects)

For Academic Year 2018-2019 & 2019-20

50% students scoring more than benchmark (50%) ---Level-1
60% students scoring more than benchmark (50%) ---Level-2
70% students scoring more than benchmark (50%) ---Level-3

For Academic Year 2017-2018

50% students scoring more than benchmark (40%) ---Level-1
60% students scoring more than benchmark (40%) ---Level-2
75% students scoring more than benchmark (40%) ---Level-3

(For Laboratory Subjects)

For Academic Year 2017-2018, 2018-2019 & 2019-20

60% students scoring more than benchmark (50%) ---Level-1
70% students scoring more than benchmark (50%) ---Level-2
80% students scoring more than benchmark (50%) ---Level-3

Course Structure of B. Tech. 1st Year (Schema till Spring 2019)

1st Semester (Common to All Branches): Autumn

S. No.	Course Type	Course Code	Course Name	Credit	L	T	P	HRS	Maximum Marks	
									Mid-term	End-term
1.	Theory	HSS-101	Communication Skills & Oral Presentation	03	3	0	0	3	30	60
2.	Theory	PHY-101	Physics – I	03	2	1	0	3	30	60
3.	Theory	CHM-101	Chemistry-I	03	2	1	0	3	30	60
4.	Theory	MTH-101	Mathematics - I	03	3	1	0	4	30	60
5.	Theory/Lab	CIV-102	Engineering Drawing	03	2	0	0	4	30	60
6.	Theory	IT-101	Computer Fundamentals and Problem-Solving Techniques	03	3	3	0	3	30	60
7.	Lab	WSP-1	Workshop Practice-I	02	0	0	4	3	40	60
8	Lab	PHY-102P	Physics Lab	01	0	0	2	3	40	60
9	Lab	CHM-101P	Chemistry Lab	01	0	0	2	3	40	60
10	Lab	IT-1023	Computer Fundamental Lab	01	0	0	2	3	40	60

2st Semester (Common to All Branches): Spring

S. No.	Course Type	Course Code	Course Name	Credit	L	T	P	HRS	Maximum Marks	
									Mid-term	End-term
1.	Theory	HSS-201	Introduction to Social Sciences	03	3	0	0	3	30	60
2.	Theory	PHY-201	Physics – II	03	2	1	0	3	30	60
3.	Theory	CHM-201	Chemistry-II	03	2	1	0	3	30	60
4.	Theory	MTH-201	Mathematics - II	03	3	1	4	3	30	60
5.	Theory	MEC-201	Machine Drawing	03	1	0	4	3	30	60
6.	Theory	CSE-201	Computer Programming	03	3	3	0	3	30	60
7.	Theory	CIV-	Strength of Materials	03	3	3	0	3	30	60
8	Lab	WSP-2	Workshop Practice-II	02	0	0	4	2	40	60
9	Lab	PHY-202P	Physics Lab	01	0	0	2	2	40	60
10	Lab	CHM-201P	Chemistry Lab	01	0	0	2	3	40	60
11	Lab	CSE-202P	CSE Lab	01	0	0	2	2	40	60

Course Structure of B. Tech. 1st Year (New Scheme from autumn 2019)

1st Semester (Group A)

Electrical / Electronics & Comm. / Computer Science / Information Technology

S. No.	Course Code	Course Title	Department Offering	Credit	Contact Hours			
					L	T	P	Total
1	EEL100	Basic Electrical Engineering	Electrical	4	3	1	0	4
2	HUL100	Basic English and Communication Skills	Humanities	3	2	1	0	3
3	ITL100	Computer Programming	Information Technology	3	2	1	0	3
4	CYL100	Engineering Chemistry	Chemistry	4	3	1	0	4
5	CIP100	Engineering Drawing	Civil	4	1	0	6	7

6	MAL100	Mathematics I	Mathematics	4	3	1	0	4
7	ELP100	Basic Electrical Engineering Laboratory	Electrical	1	0	0	2	2
8	CYP100	Chemistry Laboratory	Chemistry	1	0	0	2	2
9	ITP100	Computer Programming Laboratory	Information Technology	1	0	0	2	2
		Total		25	14	5	12	31

1st Semester (Group B)

Civil/ Mechanical / Chemical / Mett & Mat Science

S. No.	Course Code	Course Title	Department Offering	Credit	Contact Hours			
					L	T	P	Total
1	MEL100	Elements of Mechanical Engg.	Mechanical	3	2	1	0	3
2	PHL100	Engineering Physics	Physics	4	3	1	0	4
3	CIL100	Engineering Mechanics	Civil	4	3	1	0	4
4	HUL100	Basic English and Communication Skills	Humanities	3	2	1	0	3
5	CYL101	Environmental Studies	Chemistry	3	2	1	0	3
6	MAL100	Mathematics I	Mathematics	4	3	1	0	4
7	HUP100	Language Laboratory	Humanities	1	0	0	2	2
8	PHP100	Physics Laboratory	Physics	1	0	0	2	2
9	WSP100	Work shop Practice	Work shop	2	0	0	5	5
		Total		25	15	6	9	30

2nd Semester (Group A)

Electrical / Electronics & Comm. / Computer Science / Information Technology

S. No.	Course Code	Course Title	Department Offering	Credit	Contact Hours			
					L	T	P	Total
1	HUL101	Advanced English Comm. Skills & Organizational Behavior	Humanities	3	2	1	0	3
2	PHL100	Engineering Physics	Physics	4	3	1	0	4
3	CIL100	Engineering Mechanics	Civil	4	3	1	0	4
4	MEL100	Elements of Mechanical Engg.	Mechanical	3	2	1	0	3

5	CYL101	Environmental Studies	Chemistry	3	2	1	0	3
6	MAL101	Mathematics II	Mathematics	4	3	1	0	4
7	HUP100	Language Laboratory	Humanities	1	0	0	2	2
8	PHP100	Physics Laboratory	Physics	1	0	0	2	2
9	WSP100	Work shop Practice	Work shop	2	0	0	5	5
		Total		25	15	6	8	30

2nd Semester (Group B)

Civil/ Mechanical / Chemical / Mett & Mat Science

S. No.	Course Code	Course Title	Department Offering	Credit	Contact Hours			
					L	T	P	Total
1	HUL101	Advanced English Comm. Skills & Organizational Behavior	Humanities	3	2	1	0	3
2	EEL100	Basic Electrical Engineering	Electrical	4	3	1	0	4
3	ITL100	Computer Programming	Information Technology	3	2	1	0	3
4	CYL100	Engineering Chemistry	Chemistry	4	3	1	0	4
5	CIP100	Engineering Drawing	Civil	4	1	0	6	7
6	MAL101	Mathematics II	Mathematics	4	3	1	0	4
7	ELP100	Basic Electrical Engineering Laboratory	Electrical	1	0	0	2	2
8	CYP100	Chemistry Laboratory	Chemistry	1	0	0	2	2
9	ITP100	Computer Programming Laboratory	Information Tchnology	1	0	0	2	2
		Total		25	14	5	12	31

Assessment Processes (Sample)

Course Outcomes (COs) are defined for each course by the concerned teachers and approved by DUGC of the department. The Course Outcomes are displayed on notice boards and also explained to the students by the concerned teachers in the beginning of the course. The COs of each (theory and lab) courses are mapped with Program Outcomes (POs). The CO-PO mapping table for the sample course Paper Code: HSS-101 Autumn Semester (2017), 1st Semester (1st Year), B. Tech Civil Engineering; Subject: Communication Skills and Oral Presentation (HSS 101) is shown in Table

Course Articulation Matrix for the sample course HSS-101

Code	Statement	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO 12
*HSS-101.*CO1	To exhibit effective reading and writing skills.									2	3	2	
*HSS-101.*CO2	To use grammatical elements correctly.									2	2	2	
*HSS-101.*CO3	To produce project reports with efficient technical writing skills.									2	3	3	
*HSS-101.*CO4	To give effective oral presentation in English.									3	2	2	
	Average Value									**2.25**	**2.5**	**2.25**	

The syllabus based CO-PO mapping of all courses offered during first year:

The Program Articulation Matrix for the first year courses

Course Name	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Communication Skills & Oral Presentation	HSS-101									2.25	2.5	2.25	
Physics – I	PHY-101	3	3	2.75	2	2	1			1			
Chemistry-I	CHM-101	2.5	1.5			2.5	2	2.25			1.33	2	1.25
Mathematics - I	MTH-101101	2.4	1.8	2.6								1	
Engineering Drawing	CIV-102	3	3	3	3	2	2	2		3	3	2	2
Computer Fundamentals and Problem-Solving Techniques	IT-101	2.5	3	1		2							2
Workshop Practice-I	WSP-1	3	1	1		1	1	2	1	3	1	2	2
Physics Lab	PHY-102P	3	3	2.75	2	2	1			1			
Chemistry Lab-I	CHM-101P	2.5	1.5			2.5	2	2.25			1.33	2	1.25
Computer Fundamental Lab	IT-1023	2	2.5	2.75	2.5	2				1	2		
Introduction to Social Sciences	HSS-201			2			1.75	1.5	1.5	2	2	1.5	2
Physics – II	PHY-201	3	3	2.75	1.25	1				1			
Chemistry-II	CHM-201	2.25	1.75	2	1.5	1	1	2.33	1	1	2		1.75
Mathematics - II	MTH-201	2.4	1.8	2.6								1	
Machine Design	MEC-201	2.5	1	2.5	1				1.25	1			1
Computer Programming	CSE-201	2.75	2.33	2.5	3	1.75							2.5
Workshop Practice-II	WSP-2	3	1	2		1	3	2	1	3	1	2	2
Physics Lab-II	PHY-202P	3	3	2.75	2	2	1			1			
Chemistry Lab-II	CHM-201P	2.5	2	1.75			1.75	2			1.5	1.33	1.25
CSE Lab	CSE-202P	2	2.5	2.75	2.5	2				1	2		
Strength of Materials	CIV-201	3	3	1.8	1.8		2	1					
Average Attainment		**2.6**	**2.2**	**2.3**	**2.1**	**1.8**	**1.6**	**1.9**	**1.2**	**1.6**	**1.8**	**1.7**	**1.7**

The syllabus based CO-PO mapping of all courses offered as per New Scheme from (Autumn 2019)

1st Semester (Group A) Electrical / Electronics & Comm. / Computer Science / Information Technology													
S. No.	Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1	EEL100	Basic Electrical Engineering	2.66	1.6	1.5	2.5	1	1.25					2.25	1.4
2	HUL100	Basic English and Communication Skills						1			2	3	2	2
3	ITL100	Computer Programming	3	3	3		3						2	2
4	CYL100	Engineering Chemistry	2.25	2	2	1		1.5	2	1	1	2	2	2.25
5	CIP100	Engineering Drawing	3.0	3.0	3.0	3.0	2.0	2.0	2.0		3.0	3.0	2.0	2.0
6	MAL100	Mathematics I	2.4	1.8	2.6								1	
7	ELP100	Basic Electrical Engineering Laboratory	2.5	2.3		1.8		2.5	2				2.25	2.5
8	CYP100	Chemistry Laboratory	2.5	2	2.25	1		1.5	2	1	1	2	2	2.5
9	ITP100	Computer Programming Laboratory	3	3	3		3					2	2	2
10	MEL100	Elements of Mechanical Engg.	3	2	2							2		3
11	PHL100	Engineering Physics	3	3	3	2	2	2			2			
12	CIL100	Engineering Mechanics	3	2	2							2		3
13	HUL101	Advanced English Comm. Skills & Organizational Behavior						2			2	3	2	1
14	CYL101	Environmental Studies	2.75	2.5	3	0	1.75	2.75	3	0	0	2	1.5	2.25
15	MAL101	Mathematics II	2.4	1.8	2.6								1	1
16	HUP100	Language Laboratory									2	3	2	1
17	PHP100	Physics Laboratory	3	3	3	3	3	1			1			
18	WSP100	Work shop Practice	3	1	1		2	2	2	2	3	2		3
		Average	**2.76**	**2.27**	**2.43**	**2.04**	**2.22**	**1.77**	**2.17**	**1.33**	**1.89**	**2.36**	**1.85**	**2.06**

8.4.2. Record the attainment of Course Outcomes of all first year courses

The Attainment Level of Course Outcomes of first year courses is determined using the procedure explained in previous section. The calculation table for direct and indirect attainment of COs for the sample course Paper Code: HSS-101 Autumn Semester (2017), 1st Semester (1st Year), B. Tech Civil Engineering; Subject: Communication Skills and Oral Presentation (HSS 101) is shown in the table given below:

Determination of average correlated attainment of COs for the Sample Course

S. No	Course Outcome	CO attainment (Direct Assessment)	CO attainment (Indirect Assessment)	Overall 80% Direct + 20% Indirect
1	CO1	2	2.43	2.08
2	CO2	2	2.53	2.10
3	CO3	2	2.50	2.1
4	CO4	2	2.48	2.09

Direct and Indirect Attainment of COs for the considered courses in 2017-18

Course Name	Course Code	Level of Attainment	
		Direct	Indirect
Communication Skills and Oral Presentation	HSS-101	1.85	3
Physics-I	PHY-101	2.04	3
Chemistry-I	CHM-101	2.55	3
Mathematics-I	MTH-101	1.71	3
Engineering Drawing	CIV-102	1.64	3
Introduction to Social Sciences	HSS-201	2.4	3
Physics-II	PHY-201	1.54	3
Chemistry-II	CHM-201	2.68	3
Mathematics-II	MTH-201	2.0	3
Strength of Materials	CIV-201	1.91	3
Computer Fundamentals and Problem-Solving Techniques	IT-101	2.55	3
Workshop Practice-I	WSP-1	2.72	3
Physics Lab	PHY-102P	3.00	3
Chemistry Lab	CHM-101P	3.00	3
Computer Fundamental Lab	IT-1023	2.38	3
Machine Drawing	MEC-201	2.14	3
Computer Programming	Cse201	2.03	3
Workshop Practice-II	WSP-II	2.71	3
Physics Lab-II	PHY-202P	2.79	3
Chemistry Lab	CHM-201P	3.00	3
CSE Lab	CSE-202P	2.49	3

Direct and Indirect Attainment of COs for the considered courses in 2018-19

Course Name	Course Code	Level of Attainment	
		Direct	Indirect
Communication Skills and Oral Presentation	HSS-101	2.53	3
Physics-I	PHY-101	1.00	3
Chemistry-I	CHM-101	2.49	3
Mathematics-I	MTH-101	2.10	3
Engineering Drawing	CIV-102	0.54	3
Introduction to Social Sciences	HSS-201	2.22	3
Physics-II	PHY-201	1.62	3

Chemistry-II	CHM-201	2.66	3
Mathematics-II	MTH-201	2.10	3
Strength of Materials	CIV-201	1.94	3
Computer Fundamentals and Problem-Solving Techniques	IT-101	2.55	3
Workshop Practice-I	WSP-1	2.75	3
Physics Lab	PHY-102P	2.77	3
Chemistry Lab	CHM-101P	3.00	3
Computer Fundamental Lab	IT-1023	2.36	3
Machine Drawing	MEC-201	1.36	3
Computer Programming	Computer	2.22	3
Workshop Practice-II	WSP-II	2.79	3
Physics Lab-II	PHY-202P	2.70	3
Chemistry Lab	CHM-201P	2.95	3
CSE Lab	CSE-202P	2.65	3

Direct and Indirect Attainment of COs for the courses in 2019-2020

S. No.	Course Code	Course Title	Level of Attainment	
			Direct	Indirect
1	EEL100	Basic Electrical Engineering	2.30	3
2	HUL100	Basic English and Communication Skills	2.76	3
3	ITL100	Computer Programming	2.20	3
4	CYL100	Engineering Chemistry	2.87	3
5	CIP100	Engineering Drawing	2.42	3
6	MAL100	Mathematics I	1.94	3
7	ELP100	Basic Electrical Engineering Laboratory	2.60	3
8	CYP100	Chemistry Laboratory	3.00	3
9	ITP100	Computer Programming Laboratory	2.90	3
10	MEL100	Elements of Mechanical Engg.	2.50	3
11	PHL100	Engineering Physics	3.00	3
12	CIL100	Engineering Mechanics	2.41	3
13	HUL101	Advanced English Comm. Skills & Organizational Behavior	2.68	3
14	CYL101	Environmental Studies	3.00	3
15	MAL101	Mathematics II	2.67	3
16	HUP100	Language Laboratory	2.08	3
17	PHP100	Physics Laboratory	3.00	3
18	WSP100	Work shop Practice	3.00	3

8.5. Attainment of Program Outcomes from first year courses M.M.: 20
Institute Mark: 18

8.5.1A Process of computing POs attainment level from the COs of related first year courses –

Course Articulation Matrix with Correlation for the sample course HSS-101

Code	Statement	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
HSS-101.CO1	To exhibit effective reading and writing skills.									2	3	2	
HSS-101.CO2	To use grammatical elements correctly.									2	2	2	
HSS-101.CO3	To produce project reports with efficient technical writing skills.									2	3	3	
HSS-101.CO4	To give effective oral presentation in English.									3	2	2	
	Average Value									2.25	2.5	2.25	
	Correlation									3	3	3	

8.5.1. Indicate results of evaluation of each relevant PO if applicable M.M.: 10
Institute Marks: 10

8.5.1A Process of Computing POs attainment level from the COs of related Ist year courses-

All the courses offered during 1st year have strong correlation with most of the POs. The process of collection of data and their analysis has been explained in earlier sections. The syllabus based Program Articulation Matrix for the first year courses is shown in Table. The Direct and In-direct Attainment Levels of Program Outcomes are calculated by making use of the formula (CO Attainment Level×CO Correlation Level)/3and tabulated in Tables. The overall Attainment Levels of Program Outcomes are calculated by giving 80% weightage to Direct Attainment Levels of POs and 20% weightage to In-direct Attainment Level of POs, in other words, we used the formula (0.8×Direct Attainment Level of POs+0.2×In-Direct Attainment Level of POs). The overall Attainment Levels of Program Outcomes are shown in Table

Overall Attainment Levels of Program Outcomes for 1st year courses (2017-18)

Course Name	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO	PO10	PO11	PO12
Communication Skills & Oral Presentation	HSS-101									1.5	1.6	1.5	
Physics – I	PHY-101	2.02	2.02	1.8	0.89	1.71	0.68						
Chemistry-I	CHM-101	2	1.2			2.2	2	2			1	1.5	1.25
Mathematics - I	MTH-101101	1.4	1.3	1.5	0.6	0.7	0.6	0.6	0.4	0.6	0.4	0.8	0.5
Engineering Drawing	CIV-102	1.63	1.63	1.63	1.63	1.09	1.09	1.09		1.63	1.633	1.09	1.09
Computer Fundamentals and Problem-Solving Techniques	IT-101	2.23	1.09	0.37		0.85							1.73
Workshop Practice-I	WSP-1	2.70	0.90	0.90		1.80	1.80	1.80	1.80	2.70	1.80		2.70

Physics Lab	PHY-102P	2.4	2.4	2.2	1.6	1.6	0.8	0	0	0.8	0	0	0
Chemistry Lab-I	CHM-101P	2	1.6	1.4	0	0	1.4	1.6	0	0	1.2	1.064	1
Computer Fundamental Lab	IT-1023	1.62	0.94	1.14		1.79							1.59
Introduction to Social	HSS-201			0.35			1.16	0.98	0.95	0.95	0.29	0.38	0.35
Physics – II	PHY-201	1.54	1.54	1.29	0.6	0.51				0.52			
Chemistry-II	CHM-201												
Mathematics - II	MTH-201	1.87	1.53	1.82	0.56	0.76	0.4	0.6	0.4	0.6	0.4	0.84	0.54
Machine Design	MEC-201	1.650	0.373	1.788	0.548	0.88	0.4	0.6	0.9283	0.76	0.4	0.6	0.369
Computer Programming	CSE-201	1.79	1.8	1.95	1.32	1.61	0.57	0.57	0.6	0.71	0.586	0.63	1.85
Workshop Practice-II	WSP-2	2.64	0.88	0.88		1.76	1.76	1.76	1.76	2.64	1.76		2.64
Physics Lab-II	PHY-202P	2.4	2.4	2.2	1.6	1.6	0.8	0	0	0.8	0	0	0
Chemistry Lab-II	CHM-201P	2	1.6	1.4	0	0	1.4	1.6	0	0	1.2	1.06	1
CSE Lab	CSE-202P	1.84	2.21	2.15	1.33	2.03	0.58	0.58	0.57	0.95	0.62	0.64	2.12
Strength of Materials	CIV-201	2.16	2.16	1.28	1.36		1.44	0.84					
Average Attainment		**1.99**	**1.53**	**1.45**	**1.09**	**1.39**	**1.06**	**1.12**	**0.93**	**1.17**	**0.99**	**0.92**	**1.34**

Overall Attainment Levels of Program Outcomes for 1st year courses (2018-19)

Course Name	Course Code	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
Communication Skills & Oral Presentation	HSS-101									1.88	2.15	1.93	
Physics – I	PHY-101	0.98	0.98	0.82	0.43	0.8	0.33						
Chemistry-I	CHM-101	2.3	1.2			2.2	2	2			1.3	1.8	1
Mathematics - I	MTH-101101	1.5	1.4	1.5	0.8	0.9	0.7	0.6	0.4	0.6	0.4	0.8	0.4
Engineering Drawing	CIV-102	0.91	0.91	0.91	0.91	0.61	0.61	0.61		0.91	0.85	0.61	0.61
Computer Fundamentals and Problem-Solving Techniques	IT-101	2.05	1.01	0.45		0.79							1.59
Workshop Practice-I	WSP-1	2.77	0.87	0.92		1.84	1.84	1.84	1.84	2.77	1.84		2.77
Physics Lab	PHY-102P	2.4	2.4	2.2	1.6	1.6	0.8	0	0	0.8	0	0	0
Chemistry Lab-I	CHM-101P	2	1.6	1.4	0	0	1.4	1.6	0	0	1.2	1.06	1
Computer Fundamental Lab	IT-1023	1.63	0.92	1.14		1.78							1.56
Introduction to Social Sciences	HSS-201			0.35			1.08	0.89	0.95	1.04	0.355	0.39	0.36
Physics – II	PHY-201	1.61	1.61	1.39	0.71	0.54				0.54			
Chemistry-II	CHM-201	1.8	1.4	1.6	1.2	0.8	0.8	1.86	0.8	0.8	1.6	0	1.4
Mathematics - II	MTH-201	1.93	1.58	1.84	0.7	0.88	0.4	0.6	0.4	0.6	0.4	0.81	0.5
Machine Design	MEC-201	1.3	0.3	1.3	0.4	0.9	0.4	0.6	0.7	0.9	0.4	0.6	0.3
Computer Programming	CSE-201	1.74	1.89	1.97	1.29	1.67	0.57	0.56	0.57	0.71	0.57	0.61	1.72
Workshop Practice-II	WSP-2	2.75	0.92	0.92		1.83	1.83	1.83	1.83	2.75	1.83		2.75
Physics Lab-II	PHY-202P	2.4	2.4	2.2	1.6	1.6	0.8	0	0	0.8	0	0	0

Chemistry Lab-II	CHM-201P	2	1.6	1.4	0	0	1.4	1.6	0	0	1.2	1.06	1
CSE Lab	CSE-202P	1.99	2.27	2.27	1.43	2.09	0.61	0.59	0.57	0.94	0.63	0.64	2.15
Strength of Materials	CIV-201	2.19	2.19	1.3	1.37		1.45	0.85					
Average Attainment													

Overall Attainment Levels of Program Outcomes for 1st year courses (2019-20)

S. No.	Course Code	Course Title	PO1	PO2	PO3	PO4	PO5	PO6	PO7	PO8	PO9	PO10	PO11	PO12
1.	EEL100	Basic Electrical Engineering	2.11	1.35	1.20	1.30	0.28	0.65					1.14	0.99
2.	HUL100	Basic English and Communication Skills						0.9			1.54	2.66	1.33	1.11
3.	ITL100	Computer Programming	0.75	2.2	2.3		2.3						1.5	1.5
4.	CYL100	Engineering Chemistry	1.96	1.95	1.94	0.82		1.23	1.79	0.97	0.82	1.37	1.63	2.11
5.	CIP100	Engineering Drawing	2.5	2.5	2.5	2.5	2.19	1.66	1.66	2.8	2.5	2.25	1.66	1.66
6.	MAL100	Mathematics I	1.22	1.08	1.27								0.35	
7.	ELP100	Basic Electrical Engineering Laboratory	2.3	2.16		1.625		2.41	1.91				2.16	
8.	CYP100	Chemistry Laboratory	2.15	1.98	2.04	0.81		1.33	1.98	0.81	0.81	1.54	1.75	2.29
9.	ITP100	Computer Programming Laboratory	2.2	2.1	2.1		2.2					1.6	1.6	1.5
10.	MEL100	Elements of Mechanical Engg.	2.45	1.63	1.75							1.63		2.45
11.	PHL100	Engineering Physics	2.9	2.838	2.713	1.3	1.1375	1.05			1			
12.	CIL100	Engineering Mechanics	2.26	2.22	1.36	1.64		1.29	0.64			1.91		2.77
13.	CYL101	Environmental Studies	2.67	2.42	2.91	0	1.69	2.66	2.91	0	0	1.94	1.45	2.27
14.	HUP100	Language Laboratory									0.99	2.13	1.01	0.67
15.	PHP100	Physics Laboratory	3	2.975	2.75	2.125	2.025	1			1			
16.	WSP100	Work shop Practice	2.92	0.97	0.97		1.94	1.94	1.94	1.94	2.92	1.94		2.92
17.	HUL101	Advanced English Comm. Skills & Organizational Behavior						1.2			1.43	2.63	1.27	0.96
18.	MAL101	Mathematics II	2.36	1.80	2.26								0.63	0.60

8.5.2. Actions taken based on the results of evaluation of relevant POs

MM: 10

Institute marks: 08

Academic Year : CAYm1 (2019-20)			
Attainment is set to be achieved if it is 70% CO-PO mapping (Target level).			
POs	Target Level (70%)	Attainment Level	Observations
PO1: Apply the knowledge of mathematics, science, engineering fundamentals, and an engineering specialization to the solution of complex engineering problems.			
PO1	1.93	2.25	*Set target is achieved*

Action1: To organize practical classes to improve understanding of basic sciences Action2: To display animated videos on engineering fundamentals			
PO2:	Identify, formulate, review research literature, and analyze complex engineering problems reaching substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.		
PO2	1.6	2.01	*Set target is achieved*
Action1: To write review of sample papers on basic and engineering sciences Action2: To give more tutorial problems to improve understanding of subjects			
PO3:	Design solutions for complex engineering problems and design system components or processes that meet the specified needs with appropriate consideration for the public health and safety, and the cultural, societal, and environmental considerations.		
PO3	1.7	2	*Set target is achieved*
Action1: The students are encouraged to participate in social and cultural activities Action2: To provide more practice of complex engineering problems Action3: To organize visits to industry to get familiar with engineering problems and solutions			
PO4:	Use research-based knowledge and research methods including design of experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusions.		
PO4	1.43	1.35	*Set target is not achieved*
Action1: Assigned some extra problems to students and asked them to solve in tutorial class to facilitate deeper understanding of the subject. Action2: Encouraged to participate in seminars and presentations. Action3: Enhanced the visualization capabilities through pictures, prototypes and tools.			
PO5:	Create, select, and apply appropriate techniques, resources, and modern engineering and IT tools including prediction and modeling to complex engineering activities with a understanding of the limitations.		
PO5	1.55	1.72	*Set target is achieved*
Action1:To conduct virtual classes and use ICT tools in classroom teachings Action2:Students are encouraged to use simulation software to understand modeling of problems			
PO6:	Apply reasoning informed by the contextual knowledge to assess societal, health, safety, legal and cultural issues and the consequent responsibilities relevant to the professional engineering practice.		
PO6	1.24	1.44	*Set target is achieved*
Action1:Students are encouraged to participate in cultural and societal activities Action2:To motivate the students to join different activities on societal and health issues			
PO7:	Understand the impact of the professional engineering solutions in societal and environmental contexts, and demonstrate the knowledge of, and need for sustainable		

	development.		
PO7	1.52	1.83	*Set target is achieved*
Action1: Students are exposed to the concept of sustainable development			
PO8:	Apply ethical principles and commit to professional ethics and responsibilities and norms of the engineering practice.		
PO8	0.93	1.3	*Set target is achieved*
Action1: Students are motivated to understand and follow the professional ethics			
PO9:	Function effectively as an individual, and as a member or leader in diverse teams, and in multidisciplinary settings.		
PO9	1.32	1.3	*Set target is not achieved*
Action1: Students are encouraged to participate in group activities as member or leader.			
PO10:	Communicate effectively on complex engineering activities with the engineering community and with society at large, such as, being able to comprehend and write effective reports and design documentation, make effective presentations, and give and receive clear instructions.		
PO10	1.65	1.96	*Set target is achieved*
Action1: Seminars are organized and presentations are made using audio-visual tools. Action2: Students were asked write report on certain topics in science and humanities. Action3: Enhanced the visualization capabilities through pictures, prototypes and tools.			
PO11:	Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multi-disciplinary environments.		
PO11	1.29	1.34	*Set target is achieved*
Action1:Team works are organized, students participated as a member or team leader Action2:Assigned projects and presentations in the field of science and humanities			
PO12:	Recognize the need for, and have the preparation and ability to engage in independent and life-long learning in the broadest context of technological change.		
PO12	1.45	1.72	*Set target is achieved*
Action1: The students are motivated to educate themselves about changing technological environment			

CRITERION 9	STUDENT SUPPORT SYSTEMS	TOTAL MARKS:50
		MARKS CLAIMED 50

9.1 MENTORING SYSTEM TO HELP AT INDIVIDUAL LEVEL

(5)

❖ MENTORING SYSTEM

A new strategy to access and motivate students has been initiated. All faculty and students of all semesters are divided into mentor-mentee. Semester coordinator will be assigned as mentor for each class. They would look into assigned student's academic progress, discuss with tutor and other faculty about their behavior in classroom and should observe any unusual behavioral patterns and incidents.

❖ MENTORING AT NIT SRINAGAR

- Mentoring of the students is our top priority. Each teacher takes keen interest to mentor students under their charge.
- Student Welfare Cell's members are always available to heed to the problems of the students. Students are always free to approach the teachers for any kind of guidance-personal, professional and so on. Students come with a burden and special endeavors are made to see that they get relieved of the burden.
- The students visit Students Welfare Centre where a lecturer (member of student Welfare) is made available throughout the day. Teachers come to the cell in their free periods. They counsel the students on diverse issues ranging from some personal psychological to social and academic.
- A diary shall be maintained for each student where various details like Personal Information, Previous meeting details, Academic Performance, Competitive Examination Details etc are recorded. The mentors meet the students periodically and monitor their performance and their activities. Guidance regarding the lagging issues is provided. If need be occasionally a meeting with the parents will be conducted.

❖ PROFESSIONAL GUIDANCE

The departments are well equipped with knowledgeable human resources in the form of members of faculty who by keeping themselves updated of developments offer guidance to the prospective professionals in addition to the classroom teaching.

➢ Career advancement

The Training and Placement cell has been active not only in arranging campus recruitment drives, but also offering awareness and training for the students.

➢ Course work

Members of faculty handling different courses interact with students in clearing all their Concept-oriented and test-based mechanics of the respective courses. The teachers after first formal evaluation guide the students as far as student-specific gray areas are concerned.

➢ **Lab-specific**

Each of the lab sessions are handled by 2 teachers along with 2 to 3 non teaching staffs, in order to have special care for the students while experiments are being handled. A demonstrative presentation is given by the teacher concerned before every experiment. The Laboratory records are evaluated after the experiment is held. In other words, there is active involvement of the members of faculty in pre-experiment stage, at the time of experiment and after the experiment.

➢ **Efficacy of the System**

- The mentoring system developed by the Institute has been proved to be effective considering different parameters.
- The involvement of students in the academics has increased, like class work attendance, paper presentations, presentation of models in exhibitions, participation in cultural activities etc. Because the number of students allocated to each of the mentor is limited to one class, personal interaction on regular basis has been possible.

❖ **SPECIFIC SUPPORT SERVICES/FACILITIES AVAILABLE**

➢ **Support for "Back Loggers"**

Remedial classes have been initiated through a special drive for students with back logs. These classes are engaged by Students of higher semesters with outstanding performance in the given course for the students having backlog in that very particular course.

Slow learners are found out from the analysis of various assessment processes such as class test, continuous assessment test, lab viva session, interaction during the lecture delivery, and in mentoring session etc. These students are asked to discuss with the faculty in person during the extra hours such as Tutorial/Library/seminar hour/ Remedial Classes during evening stay back, in addition to the special classes conducted for those students. Slow learners are also asked to take up the retests for the respective subjects. They are also given special attention by solving the important problems in the form of additional worksheets and assignments.

➢ **Exposures of students to other institution of higher learning / corporate / business house etc.**

The students are exposed to the current trends in the industry by arranging guest lecture from the reputed institution and industries. The students are also encouraged to take up the in-plant training in the industry to get the hands-on experience about the current technology in the industries. The institute arranges for industrial visits to the students to get first hand information about the industries and their technologies.

➢ **Alumni connect**

Alumni of the Institute have been involved very actively in the process of Career advancement of the current students. Our Distinguished Alumni have been very proactive and deliver Lectures regarding student requirements of career building. Every month Alumni with

varying expertise in industry, academia and successful entrepreneurship achievements are invited to have face to face interaction and deliver lectures related to their specific areas.

- **Memorandum of Understanding (MOU's)**

MOU's with IIT Delhi and IIT Jammu have been signed for facilitating project work, Research and even earning of credits during the stay of the student at these institutes of higher learning. Facilitation of placement to be carried out at these campuses has also been agreed on. For regular internship/training of students in current niche areas, a MOU has been signed with ALTTC Ghaziabad, a BSNL concern which basically meant for imparting training to ITS candidates.

- **Skill development (Spoken English, Computer Literacy, etc.)**

The language laboratory helps to improve the communication skills of students. The students are encouraged to give seminars to improve their communication and public speaking skills. Skill development is imparted to the students through Training and placement cell as well as Language department. Many activities like soft skills, communication skills, guidelines to access online materials, multimedia-based learning, etc are carried out for the sake of students. This is being upgraded to make it state-of-the art.

Language Laboratory	Space, Number of Students	Software used	Type of Experiments	Qualityof Instruments	Guidance
1	300 Sft 30/shift	Internet support	Speaking, Listening, Reading	Good	Yes

Table: 9.1a

- **Student's grievances redressal**

Grievances should be presented in person and in writing before the Coordinator, HOD or Director. The concerned authority shall make an effort to solve the problem and redress the grievance informally but if he does not succeed in this, a grievance committee shall be formed, the composition of which shall depend on the grievance. The committee shall look in to the grievance objectively and having due regard to the rules and the institutional and academic goals, recommend appropriate action to redress the grievance.

- **Women Grievance Committee**

Complaints Cum Redressal Committee for women is headed by Prof. Rohie Naaz Mir, HOD CSE department with additional members. If any of the girl students or lady faculty/staff faces a problem related to sexual harassment, they can report to the above committee. We have not received any such complaint for the past few years.

- **Anti-ragging committee**

Anti Ragging committee headed by Dean Students Welfare, Wardens and Hostel manager is in place since long. Sign Boards have been put up specifically for this purpose all over the campus with strict warnings of not indulging in any such activity which would be

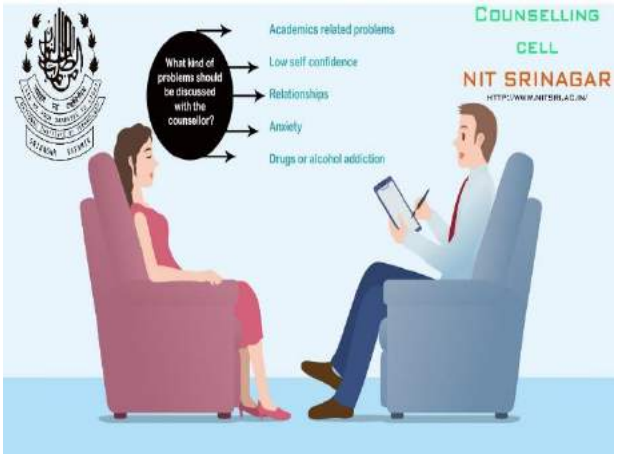
considered as Ragging. Anti ragging information leaflets are distributed to all first-year students on their first day in the Institute. Anti ragging measures are taken in the Institute campus, hostels and Institute buses.

❖ COUNSELLING CELL AT NIT SRINAGAR

1. Introduction

Counselling is a process that seeks to help you focus on and understand more clearly the issues that concern or trouble you. The counsellor's role is to offer support and understanding and listen and respond in a non-judgmental way. Counselling can also help with making decisions, choices or changes that are right for you. It helps you to understand your problem more deeply and deal with it more efficiently. The general problems associated with students are:

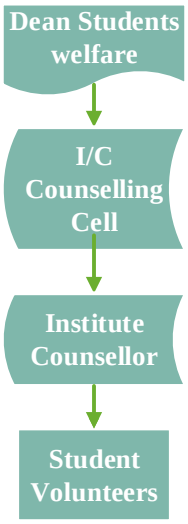
- Time management
- Low self-confidence
- Academics related problems
- Problems related to peers
- Emotional stress
- Relationships
- Family issues
- Financial problems
- Decisions regarding career
- Adjusting to the new environment
- Homesickness
- Sleep disorders
- Loneliness
- Anxiety
- Time management



According to World Health Organization, nearly one among five students will have emotional or behavioural problems. So, the Mental health and wellbeing of students require our attention. In this regard, Honorable Director Prof Rakesh Sehgal of the National Institute of Technology Srinagar has taken the initiative of providing counselling to students to make them more productive through programs of awareness on Mental health issues and professional counselling services. NIT Srinagar has a counselling cell which deals with all these issues of

the students. It works under Dean Student's welfare and has an in-charge counselling cell, institute counsellor (psychologist) and student volunteers of the cell.

2. Structure of counselling cell: -



- Dean Student's Welfare: - Prof. Abdul Liman
- In charge Counselling cell: - Dr. Neeraj Gupta
- Counsellor (psychologist): - Mr. Fairoz Malla
- Student Volunteers (List Attached- the same selected student Volunteers are continued)

The work of the in-charge counselling cell is to coordinate the activities and events of the counselling cell. NIT Srinagar has a full-time counsellor who is available 24 hours to deal with the issues of low self-confidence, emotional stress, sleep disorders, loneliness, anxiety etc. The student volunteers assist in various activities like conducting events, identifying the students under stress, counsel them regarding academic issues, time management etc.

3. Volunteers of Counselling Cell: -

Student Coordinator (Girls): - Riya Baranwal

- **Student volunteers for academics related problems** (Low self-confidence, Financial problems, Decisions regarding career, Time management).

S. No.	Name	Year of Enrollment
1	VIBHUTI CHOUDHARY	2018
2	SACHI SINGH	2017
3	RIYA BARANWAL	2017
4	JASAFA SHOWKET	2017

Table: 9.1b

- **Student volunteers for Emotional stress** (Problems related to peers, Relationships, Family Issues, Adjusting to the new environment, Homesickness, Sleep disorders, Loneliness, Anxiety)

S. No.	Name	Year of Enrollment
1	SHALINI PATHAK	2018
2	PRITI KUMARI	2017
3	ANEESA KHAN	2018
4	BABRA ABBAS	2018

Table: 9.1c

Student Coordinator (Boys): - Sahib Dawood

- **Student volunteers for** a**cademics related problems** (Low self-confidence, Financial problems, Decisions regarding career, Time management).

S. No.	Name	Year of Enrollment
1	ABRAR SHAKEEL	2017
2	SAHIB DAWOOD	2017
3	ABDUL KASHIF	2017
4	ANURAG TIWARI	2018
5	SHIVANSHU TRIPATHI	2018

Table: 9.1d

- **Student volunteers for Emotional stress** (Problems related to peers, Relationships, Family Issues, Adjusting to the new environment, Homesickness, Sleep disorders, Loneliness, Anxiety)

S. No.	Name	Year of Enrollment
1	FAISAL JABAR	2017
2	MOHAMMAD SHOAIB	2017
3	MUZAMMIL RAFIQ	2017
4	ROHIT KUMAR	2017
5	AMAN YADAV	2017

Table: 9.1e

- **Student volunteers for Drug-Related issues**

S. No.	Name	Year of Enrollment
1	NADEEM AKHTER	2018

2	DEEPAK MEENA	2018
3	ROMAN WANI	2017
4	MOHAMMAD ZUBAIR	2017
5	NAVEED MAQBOOL	2017
6	NADEEM AKRAM	2017

Table: 9.1f

4. Various activities of counselling Cell: -

a) Team of volunteers: -

The students are more comfortable discussing the problem in the same age group. So, a team of volunteers from the students has been formed. These volunteers are trained every 15 days to deal with the issues of students.

b) Workshop on "How to manage stress".

On 20th May 2019, a workshop on "How to manage stress" organized by Counselling Cell NIT Srinagar. The workshop was conducted by institute counsellor Mr. Fairoz and Mr. Hussain, mental health therapist. The session was coordinated by Dr. Neeraj Gupta, Assistant Professor, Department. of Electrical Engineering. The counsellors started with defining stress, its causes, effect on life. Various activities were conducted like relaxation exercises, free association, mindfulness and deep breathing to relieve stress. Additionally, Mr. Shankar, head of ADANI automation, shared his life experiences and motivated students towards study.

c) Team of student volunteers for the new batch of students (2019): -

To help the new batch of students to cope with stress, a team of student volunteers has been set up to deal with **Academic related issues** (Low self-confidence, Decisions regarding career,

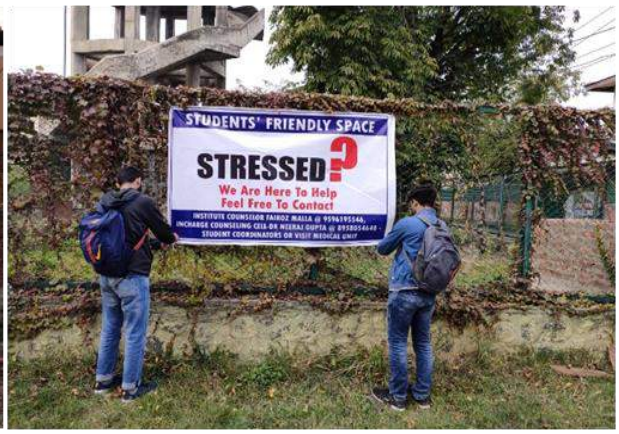
Time management), **Emotional stress** (Problems related to peers, Relationships, Family Issues, Adjusting to the new environment, Homesickness, Sleep disorders, Loneliness, Anxiety).

S. No.	Name	Year of Enrollment
1	VIBHUTI CHOUDHARY	2018
2	SACHI SINGH	2017
3	RIYA BARANWAL	2017
4	SHALINI PATHAK	2018
5	PRITI KUMARI	2017
6	SAHIB DAWOOD	2017
7	ABDUL KASHIF	2017
8	ANURAG TIWARI	2018
9	SHIVANSHU TRIPATHI	2018
10	ROHIT KUMAR	2017
11	DEEPAK MEENA	2018
12	ROMAN WANI	2017
13	MOHAMMAD ZUBAIR	2017
14	NADEEM AKRAM	2017
15	FAISAL JABBAR	2017

Table: 9.1g

d) Banners displayed on campus by Counselling cell: -

Banners with phone numbers of counsellors and student volunteers are displayed at various location on the campus so that any stress-related issues can be reported and resolved.



e) Frequent Visits to Hostel for awareness programs.

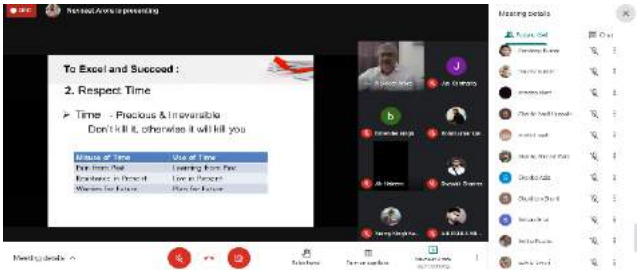
Another initiative was taken according to the instructions given by the Honorable Director to visit Hostels of the institute with the sole aim to aware students about fundamental Mental health issues and the impact of such issues on quality of life; and also, to promote open discussions on Mental health problems and positive mental wellbeing. Accordingly, visits were paid to some of the hostels and students were made aware of the mental health and stress management techniques. The counselling cell and Medical Unit is working hard to provide primary health care, awareness programs and psycho-social support to Students of the institution.

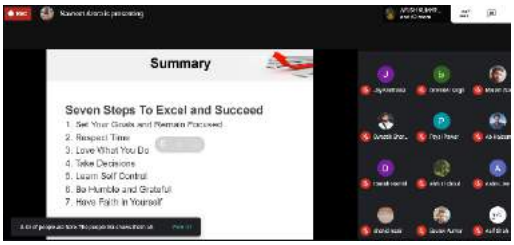
f) Motivational Talk series: -EMIT Talks-I

On 21st November 2020, The Counselling Cell of the Institute has initiated a Talk Series titled "EMIT", an acronym for "Entrepreneurs, Motivators, Innovators, Technocrats", who will be the invitee for these talks. The first invitee of the talk was Prof. (Dr.) Navneet Arora from Mechanical Engineering Department of IIT Roorkee.

The maiden session was inaugurated by the Director, Prof. (Dr.) Rakesh Sehgal. He expressed his delight at the inauguration of this event and stressed the need for such talks to keep the students motivated and enthusiastic.

The speaker, Prof. Navneet Arora, focused on the 7 steps to excel and succeed viz. Setting goals, Valuing Time, Loving the work, Decision-making, Self-control, Humility, and having faith in oneself. The informative talk came to an end with an interactive Question answer session.

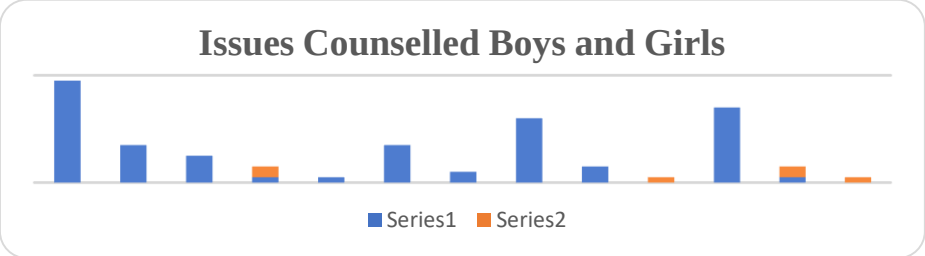


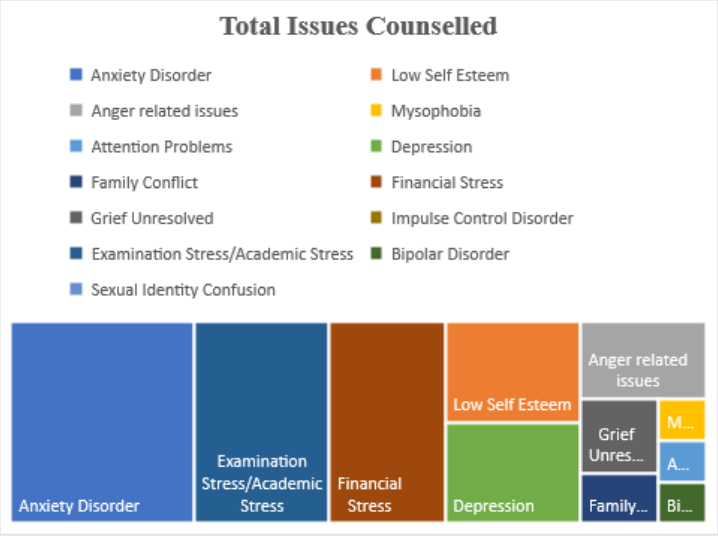


5. Number of students counselled under various heads by Counselling Cell (upto session 2019-20): -

S.NO	ISSUES COUNSELLED	NO. OF STUDENTS	
		Male	Female
1	Anxiety Disorder	19	12
2	Low Self Esteem	07	02
3	Anger related issues	05	01
4	Mysophobia	01	03
5	Attention Problems	01	0
6	Depression	07	04
7	Family Conflict	02	01
8	Financial Stress	12	09
9	Grief Unresolved	03	02
10	Impulse Control Disorder	0	01
11	Examination Stress/Academic Stress	14	09
12	Bipolar Disorder	01	03
13	Sexual Identity Confusion	0	01

Table: 9.1h





6. Measures taken for emotional well being of students during pandemic: - Tele conselling has been done for various students during pandemic.

❖ INDUSTRY – INSTITUTE INTERACTION CELL AT NIT SRINAGAR

The functions of Industry – Institute Interaction Cell of NIT Srinagar is to create adequate facilities of updating knowledge of professional engineers to meet the growing and developmental needs of the industry and to coordinate the research and developmental activities of the two systems. The cell is headed by Prof. Saad Parvez.

➢ **Center for Research and Development/ Consultancy**

- Provide technical assistance to industries and user Organizations/Departments
- Promote research and develop appropriate technology
- Promote exchange programmes between industries and the institution
- Support Short-term courses/Seminars/Workshops for effective dissemination of knowledge
- Establish testing/consultancy centres in various fields of engineering
- Extend the necessary assistance to Staff to attend National/International conferences, Seminars, Workshops etc.

Corporate social responsibility:

Local Schools have been adopted to bring their students under the direct tutelage of our institute and invite them on occasions so as to instill in them confidence and inspire them with what different branches of engineering mean to the world at large. It gives them an opportunity to visit our labs and to have ample knowledge about engineering as a choice for carrer. Our faculty and students are invited by these schools to have a strong bond of belonging and Big other relation.

9.2 FEEDBACK ANALYSIS AND REWARD / CORRECTIVE MEASURES (10) TAKEN

Feedback mechanism is a well-organized system in the institute. The system of feedback collection is being done by manual. Students can enter their feedback according to a questionnaire. HOD will analyze the feedback of each faculty and will take necessary actions.

An overview of feedback evaluation for faculty members

S.No.	Item	Response
1	Feedback collected for all courses	YES
2	Specify the feedback collection Process	One regular class hour is designated for the purpose.

3	Who collects the feedback	Faculty members in charge of Student Feedback
4	When feedback is collected	Around 12 weeks after semester commences
5	Percentage of students Participating	All students
6	Basis of reward / corrective measures	Faculty members who get a feedback below a pre-defined value are forwarded to higherauthorities for corrective actions.

Table-B-9.2a

Flowchart for Feedback Analysis Process for Faculty Members

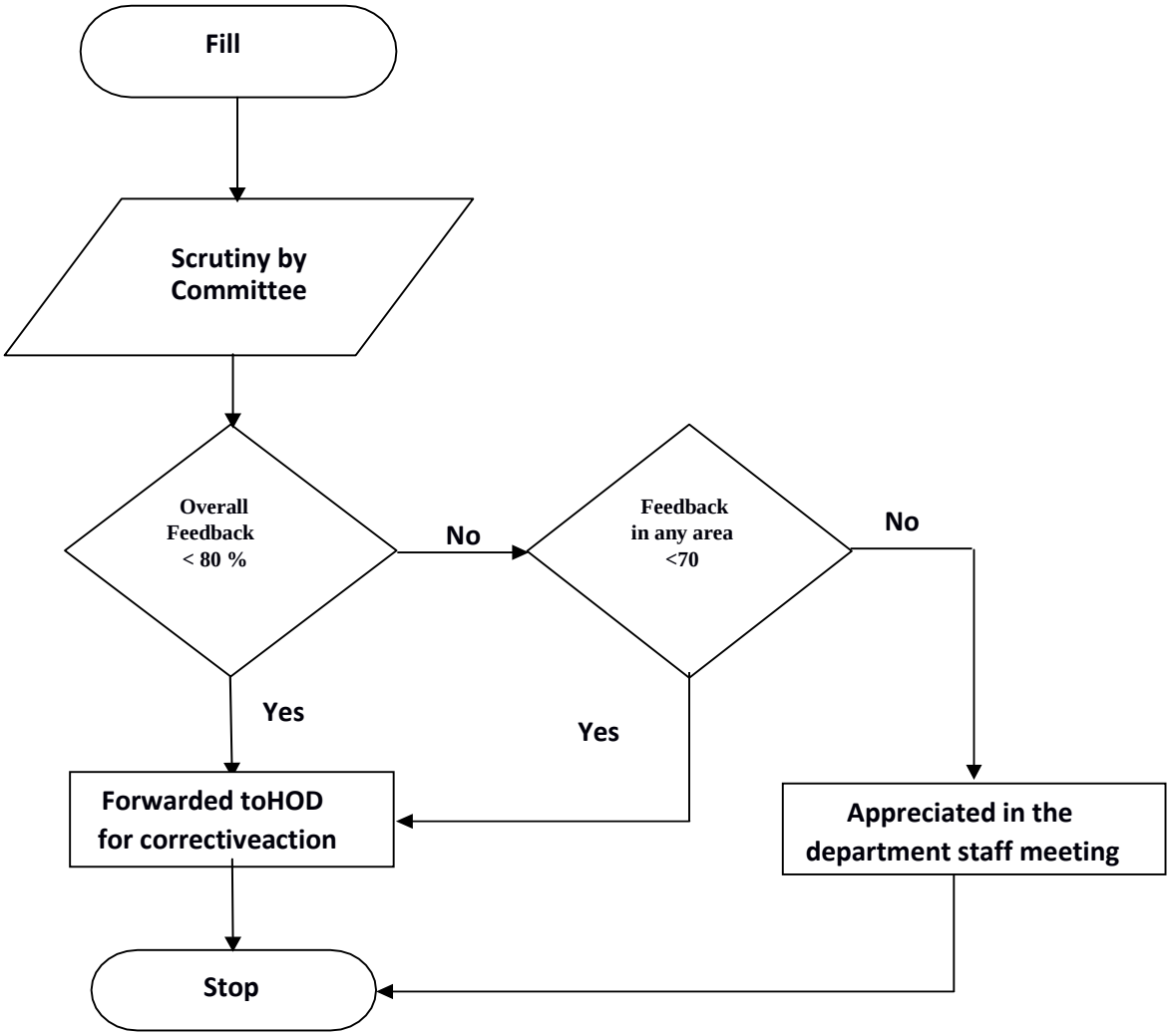


Figure-B-9.2a

Basis of reward / corrective measures, if any:

Once HOD gets the summary of feedback, HOD analyzes the feedback of each faculty and will take necessary actions. The procedure of corrective action is given in the flow chart

Flowchart for checking effectiveness of corrective action

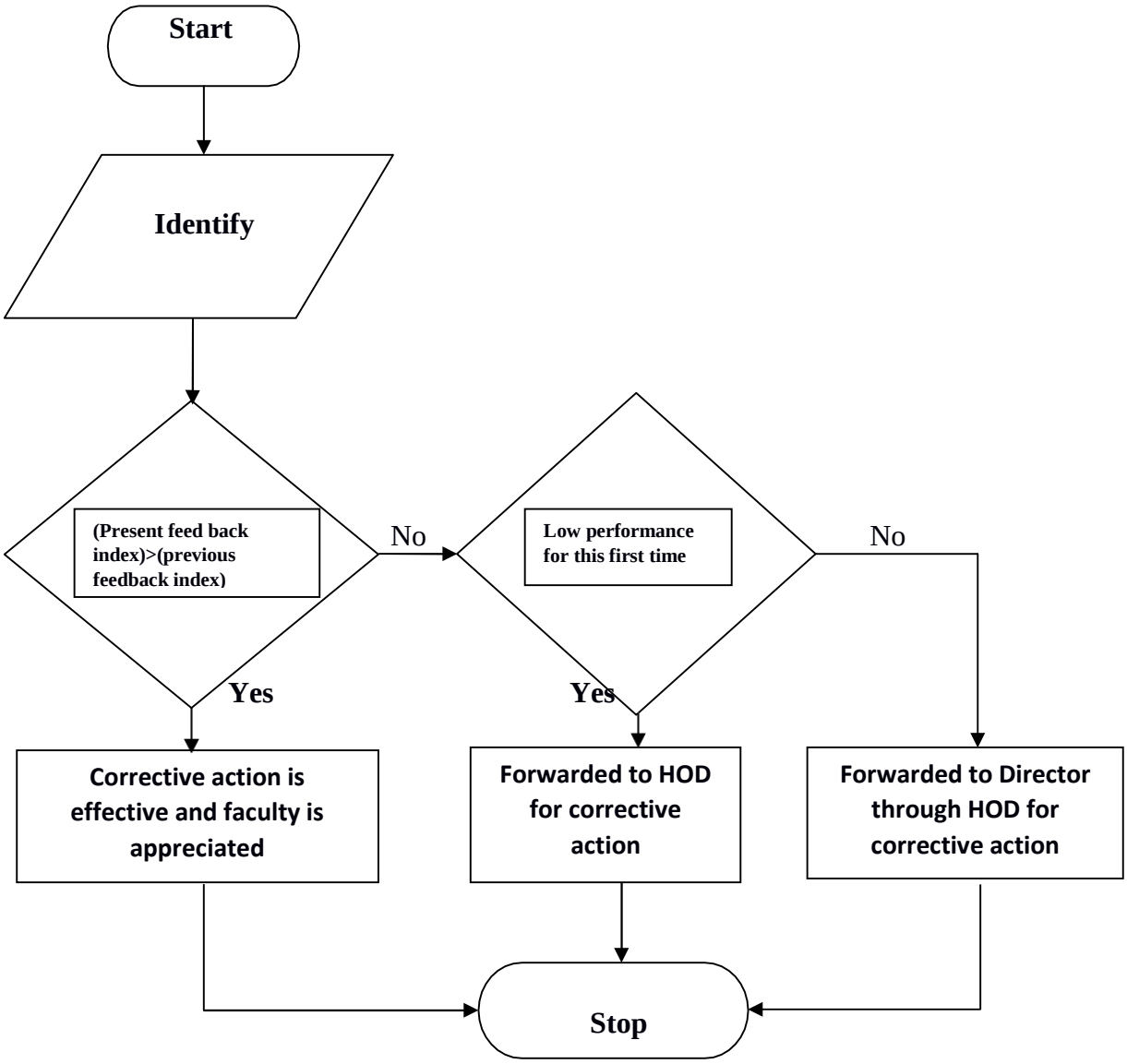


Figure-B-9.2b

Induction programs are conducted for newly joined faculty members and continuing education programme for the experienced faculties. Those teachers who have not obtained good appraisals have a detailed discussion with the HOD on how to improve the teaching. Level of feedback is taken into account while evaluating the staff for promotion.

Also, Class Committee meeting shall be conducted twice in every semester for each class. Committee members includes, Head of the Department, Class Tutor, two faculty members teaching in the respective class, 2-5 student members from the class. Students are given freedom to raise any kind of issues related to teaching learning process, facilities provided or any other relevant matter.

Feedback analysis and reward /corrective measures taken for Hostels and Messes

The hostel/mess management has taken the following corrective measures:

i. Conversion of messes from outsource to insource. It has been done to provide hygienic and quality food to the resident students.
ii. Inclusion of student representatives in Mess Management committees for receiving frequent feedback from the respective mess representatives about the quality of food/services being provided in the messes.
iii. Security personnel's have been deputed in each block/floor of the hostel to keep 24 x 7 vigil on the students to avoid any untoward incident, ragging etc.
iv. Engagement of Electricians, Carpenter & Plumber on contractual basis exclusively for hostel maintenance and repairing to redress the student problems without any delay.
v. Procurement of electrical/carpentry/plumbing/water purifier items by the management directly for speedy redressal of problems.

9.3 FEEDBACK ON FACILITIES (5)

Process of Feedback Evaluation

Institute has initiated taking feedback on facilities from the final year students. A feedback on Library facility, Training & Placement facility, Laboratory facility, general facility etc has taken from students and they are asked to give rating of the same as Excellent, Good, Average. Just like the faculty feedback, facility feedback shall also be automated. By using the feedback, the areas of improvement can be identified.

Feedback Template

Library [tick mark in the relevant cell]

Questions			
1. How often do you visit the Library?	Regularly	Occasionally	Rarely
2. Are the required number of titles in your subject available in the Library?	Excellent	Good	Average
3. Are you satisfied with the cataloguing and arrangement of books in the Library?	Excellent	Good	Average
4. Are you satisfied with the available reading space in the Library?	Excellent	Good	Average
5. Are the Library Staff co-operative and helpful?	Excellent	Good	Average

Table-B-9.3a

Common Computing Center [tick mark in the relevant cell]

1. Are you able to access Internet Centre as and when you require?	Regularly	Occasionally	Rarely
2. Are you making use of educational online resources?	Regularly	Occasionally	Rarely

3. Are there enough number of nodes available in the Internet Centre?	Excellent	Good	Average
4. Are the net centre staff co-operative and helpful?	Excellent	Good	Average

Table-B-9.3b

Training & Placement Cell [tick mark in the relevant cell]

1. Has the Training & Placement (T & P) Cell providedampleOn-campus placement opportunities?	Excellent	Good	Average
2. Has the (T&P) Cell provided sufficientOff - campus placement opportunities?	Excellent	Good	Average
3. Did you ever avail Career counseling and guidance for higher studies from T&PCell?	Excellent	Good	Average
4. If you are invited to deliver a guest lecture/a special talk/amotivational session for your juniors, will you beinterested?	Highly Acceptable	Acceptable	Likely
5. Would you like to join the Department/Institute AlumniAssociation?	Highly Acceptable	Acceptable	Likely

Table-B-9.3c

Others[tick mark in the relevant cell]

1. Are the class rooms clean?	Excellent	Good	Average
2. Are the toilets cleaned properly?	Excellent	Good	Average
3. Are you provided with enough drinkingwater?	Excellent	Good	Average
4. Are you happy with the food served inthe present canteen?	Excellent	Good	Average
5. Are theactivitiesofthestudentcounseling center helpful to you?	Excellent	Good	Average
6. Do you think that your grievances areaddressed effectively and efficiently?	Excellent	Good	Average
7. Are you satisfied with the activities of"R&D, NSS, IEEEandother professional bodies" in our Institute?	Excellent	Good	Average
8. Are you able to make use of reprography facility in the Institute?	Excellent	Good	Average
9. Are you satisfied with the prevailingscholarship programme of our Institute?	Excellent	Good	Average

Table-B-9.3d

Feedback on Lab Facilities

Title of Lab			
What was your batch size?			
Satisfied with your batch size?	Excellent	Good	Average
Experiments of lab classes conducted as per scheduleprovided?	Excellent	Good	Average
Equipment's provided sufficient?	Excellent	Good	Average
Equipment's provided in working condition?	Excellent	Good	Average
Lab consumablesprovidedof good quality?	Excellent	Good	Average
No. of experiments conducted asper University Norms?	Excellent	Good	Average
No. of experiments conducted over and above University Syllabus?	Excellent	Good	Average
Advanced/design-based experiments carried out in the lab?	Excellent	Good	Average
Lab manual provided was complete in covering the syllabusand informative?	Excellent	Good	Average
Lab assistant / technician assisting you?	Excellent	Good	Average
Lab in-charges(faculties)are helpful in completing the experiments?	Excellent	Good	Average
Opportunity provided to complete experiments partially doneexperiments and for days on whichstudents were absent.	Excellent	Good	Average

Table-B-9.3e

The identified weaker areas, with corrective action plan are submitted to the management and the same can be corrected within one academic year and then the feedback is taken from the next final year students.

Process flowchart for feedback analysis on facilities

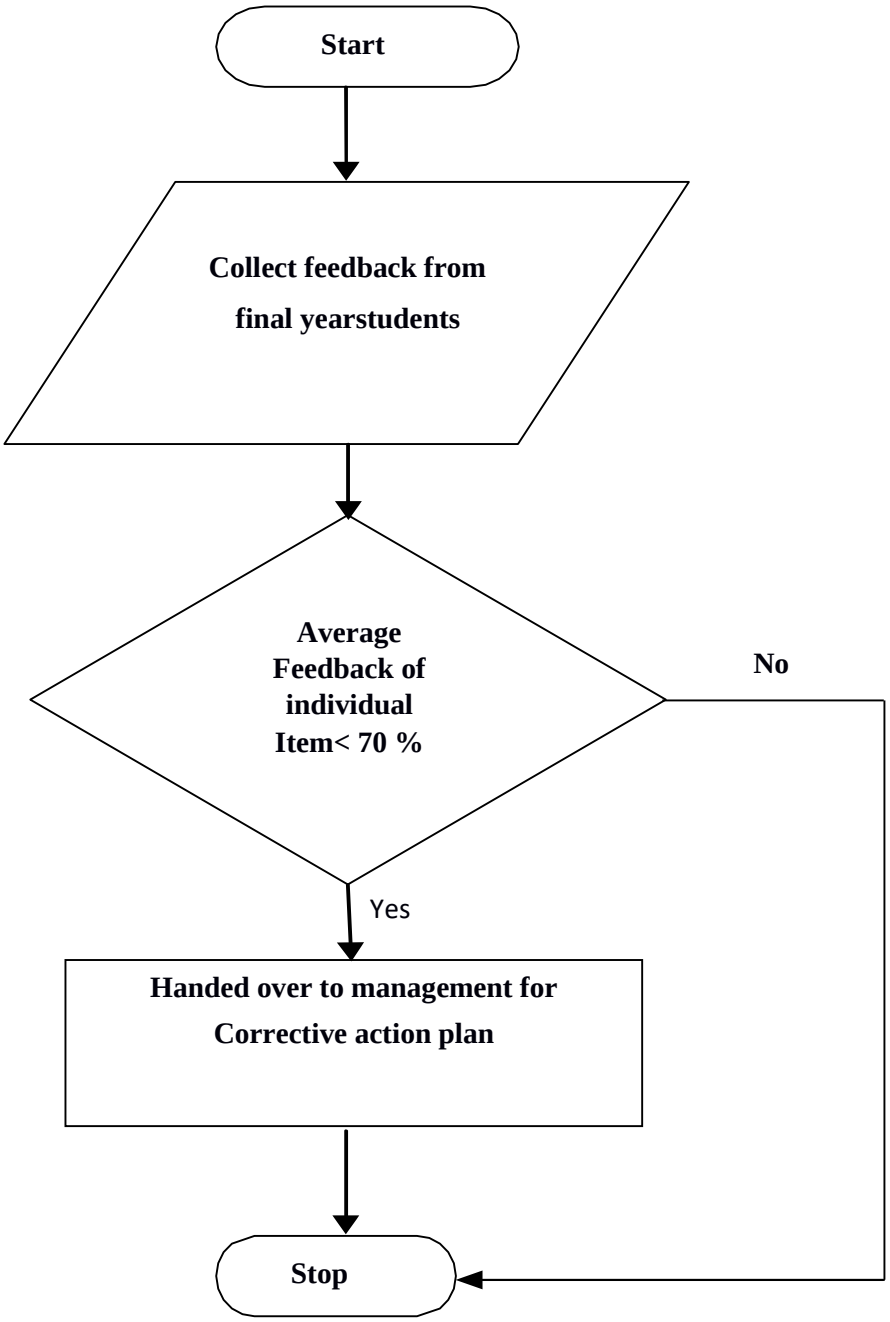


Figure-B-9.3a

Information regarding Feedback on Facilities

The Hostel Management is providing the following facilities to the resident students of the Institute. Upgradation of facilities is in process as well as in pipeline.

S. No.	Particulars	Facilities Provided/Upgraded/In Pipeline
01.	**Community Services**	Students are being facilitated with funds for community services to induce social fabric & communal harmony in them as under: i) Erection of tent in the premises of hazratbal shrine on the eve of Eid-e-Milad-un-Nabi (Commemoration of birthday of Prophet Muhammad PBUH) and facilitating the devotees with water/juice or even with tea depending upon the season. ii) Erection of tent in the premises of Chatti Padsha on the eve of Guru Gobind Singh's Birthday, Guru Hargobind Singh's Birthday etc. and facilitating the devotees with kheer, sweets etc. iii) Erection of tent in the premises of Kheer Bhawani on the eve of mela to facilitate the devotees with kheer, sweets etc
02.	**Hostel Facilities**	
	i) Water Purifiers	Water Purifiers have been installed in sufficient numbers in each block of the hostel to facilitate the student community with purified water supply.
	ii) Furniture	New furniture is been procured i.e. lockers, beds and tables to facilitate the students with requisite furniture to make their stay in the hostel comfortable.
	iii) Wifi/LAN	Each block/wing of the hostel has been connected with wifi/LAN.
	iv) Parks and Lawns	Hostel Management has developed & beautified parks and lawns so that students can have leisure during their off time. Furthermore, umbrellas have been installed in the parks to facilitate the student community.
	v) Badminton Court	Badminton court has been constructed in each hostel of the Institute.
03.	**Up gradated facility**	
	i) Laundry facility	The Hostel Management has procured commercial washing machines to facilitate the student community with washing facility. The facility will be commenced soon.

	ii)	Construction of hostels	The Institute has constructed two prefabricated hostels so that occupation of rooms could be minimized to some extent. The hostels will be allotted to the students soon.
	iii)	Modernization of Messes	Each mess of the Institute has been modernized with latest kitchen equipments i.e. rice steamers etc.
04.	**In Pipeline**		
	i)	Static Tent Structures	Erection of static tent structures work is in progress for facilitating the students with Guest Lobby, Reading Room, Library, Food Court etc.
	ii)	Water Treatment Plant	Construction of mini water treatment plant in the hostel premises.
	iii)	Mopping Scooter/Jet Cleaners etc	Procurement of mopping scooters and latest sanitation equipments to modernize the sanitation services in the Institute as well as in the hostels.
	iv)	AC	AC's will be installed in each of the hostel.
05.	**Financial Assistance**		The Institute is providing financial assistance to the needy students every year so that they can continue their studies.

Table-B-9.3f

CENTRAL FACILITIES

CENTRAL WORKSHOP

- Workshop is Central Facility of the Institute.
- The primary objective of the establishment of Central Workshop is to conduct the classes of one of the main practical oriented course **"Workshop Practice"** to fulfill the basic requirement of B. Tech course.

Main Objective

Central Workshop caters to various activities of the Institute which includes:

- Engages the classes of practical oriented course of workshop practice in 1st and2nd semesters for (All) B. Tech courses.
- Provides facility to carry out practical's in various engineering trades to Mechanical and Metallurgical students.
- Plays an important role to design, development and fabrication of project works of the students from various departments of the Institute.
- Project work related activities including fabrication for the M. Tech students and Ph. D Research Scholars of the Institute.

Extension of Workshop Facility to other Technical Instutions in the Region

The following instutions are benefitted:

- College of Engineering and Technology University of Kashmir, Hazratbal Srinagar
- Government Polytechnic for Women, Bemina Srinagar
- North campus, university of Kashmir Baramulla
- I.T.I Srinagar
- Islamic University Awantipora Kashmir
- Government Engineering College of Technology, Safapora Kashmir

Technical Aid and Fabrication to Industries

Facilitating the technical aid to the **Small-ScaleIndustries of Kashmir** Province in the shape of fabrication of various types of Tools Dies and Jigs and Fixture and Gears etc.

Infrustructure

Well established Technical Infrastructure is available which includes:
(i) Machine (ii) Equipment (iii) Tools (iv) Technical Manpower
Workshop Practice provides facilities to be students for "hands on" various practical oriented tasks through formal classes /project works. The students are introducing to process, tools and materials for accomplishing various tasks which culminate in final products.
The students are trained to acquire basic knowledge and skills about engineering materials, manufacturing practices, equipment, tools and safety precautions to be observed during manufacturing of different products. The students carry out manual operations using mostly hand tools and elementary machines in the carpentry and pattern making shop, bench work and fitting shop, welding shop, sheet metal shop, black smithy and forging shop, machine shop, foundry and casting shop etc..
The common shops and major facilities in the Central Workshop have been divided into various trades as given below: -

i. Machine Shop
ii. Sheet Metal Shop
iii. Bench Work and Fitting Shop
iv. Welding Shop
v. Foundry and Casting Shop
vi. Black Smithy and Forging Shop
vii. Carpentry and Pattern making Shop

Staff associated with Central Workshop

Office of the Central Workshop

• S.No.	• Workshop office Staff
1.	• Er. Syed Irshad Ahmad Qadri, Officer In-charge/Superintendent
2.	• Mr. Ghulam Mohammad (Tech Asst)
3.	• Mr. Muneer Ahmad (Tech)
4.	• Mr. Manzoor Ahmad (Works Asst)

Sr. No.	Workshop Section	Working Equipment/Machine	Employees (Permanent)	Employees Contractual
1.		• Kirloskar Lathe 8 No's • HMT Lathe 4 No's • Slotting Machine 1 No's • Horizontal Milling 1 No's • Vertical Milling 1 No's • Shaper 1 No's • Grinding Machine 1 No's • Tool & Cutter Grinding M/C 1 No's • Surface Grinder 1 No's • Kirloskar Lathe with tool Dynamometer 1 No's	• Firdous Ahmad Wani (Tech. Asst) • • Javeed Ahmad Ahangar(Tech.) • • Hilal Ahmad Dar(Tech.) • • Altaf Ahmad Bhat(Tech.)	• Mistry Mohammad Nadeem (Technical Assistant)
2.	**Sheet Metal Trade**	• Hand drill 1 No's • Sheet bending machine 1 No's • Hand shearing machine 1 No's • Table shear cutting machine 1 No's • Power operated shearing M/C 1 No's • Grinding machine 1 No's	• Muhammad Shabaan(Tech.) •	• Ms. Afnan Asad (Technical Assistant). • • Abdul Aziz (Helper).

3.	**Fitting Trade**	• Profile Projector 1 No's • Drilling Machine 1 No's • Arbor Press machine 1 No's	• Gh. Qadir(Tech. Asst) • Mushtaq Ahmad Shah(Tech.) • Mohammad Ramzan(Tech.)	• Dawood Ibrahim Ali • (Technical Asstt)
4.	**Smithy Trade**	• Single Beak Anvil 2 No's • Open Herth Furnace 4 No's • Lever Shear 1 No's	• Mohd. Ismail Kumar(Tech. Asst) • Bashir AhmadSheikh(Tech.)	• Sumeer Kaul (Technical Assistant)
5.	**Foundry Trade**	• None.	• Abdul MajeedAhangar (Tech. Asst) • • Ghulam Rasool Telli (Tech.)	• Zahid Shafi (Technical Asstt)
6.	**Welding Trade**	• MMA (Arc Welding) Machine 1 No's	• Zahoor Ahmad (Tech.) • • Mohammad ShafiChikla (Tech.)	• Mohd. Yousuf (Technical Assistant)
7.	**Carpentry**	• Band Saw 1 No's • Thickness Planner 1 No's • Tenon Machine 1 No's • Grinder 1 No's • Thickness Planner 1 No's	• Showkat Ahmad(Tech.) • • Noor Mohammad(Tech.) • Mohd. Yousuf(Tech.)	• MuzafarShah (Technical Assistant)

Table-B-9.3g

Transport/Automobile Facilities

The transport wing of the Central Workshop performs the essential service to the Institute. Presently the institute is having the vehicle strength of nine numbers to carry out the various academic activities of students, faculty and other official works of the institute besides to provide the facility of ambulance services round the clock (24 x 7) during the emergency to the students and staff.

The list of the vehicles performing the various activities of the institute is as under: -

Sl. No.	Name of the Vehicle with make	No of Vehicles	Drivers and cleaners in place	
			Permanent	**Contractual**
01	32-seaterBus (TATA)	02 Nos	Mr B. Bhadhur (Tech. Asst) Mr Khazir Mohammad (Tech Asst) Mr Mohd Ayoub (Driver)	Mr ShowkatAhmad (Driver) Mr Reyaz Ahmad (Driver) Mr Shabir Ahmad (Driver) MrSheraz Ahmad (Driver) Mr Mohammad Yaseen (Conductor)
02	Ambulance (Maruti)	02 Nos		
03	Staff Car (Ambassador)	01 No		
04	Mini Loader (Truck)	01 No		
05	Fortuner Car (Toyota)	01 No		
06	Innova Car (Toyota)	01 No		
07	Scorpio Car (Mahindra)	01 No		

Table-B-9.3h

MEDICAL FACILITIES

NIT Srinagar has its own dedicated Health centre & multifarious medical needs of the campus population consisting of students, staff members, faculty and members of their families are met by institute hospital. It's equipped with all the basic medical facilities and is functional 24*7 with referral and ambulance services. Presently health centre is serving the strength of more than 4000 students plus faculty and staff including their wards. It offers free of cost medical facilities. The hospital is headed by the Head Medical Officer with a team of other specialists, paramedical and supporting staff.

FACILITIES

List of facilities available at NIT Srinagar Health Centre:

Opd (allopathy)

Patients are registered at the reception and are seen on first come, first serve basis, however out of turn consultation may be provided in case of emergency and senior citizens. Patients have the right to consult any doctor. In OPD, clinical consultation is provided to patients who include history taking, clinical examination, diagnosis and providing prescriptions to patients besides advising laboratory tests in some cases. Medication is provided free of cost to the patients. Sub waiting areas are available in front of individual consultation rooms and laboratory. Public utilities like drinking water and toilet is available. Wheel chairs, trolleys and attendants are there to help very sick patients.

- 
- 

Dental facility

An experienced dental surgeon along with dental assistant provides procedures like dental extraction, scaling/cleaning, RCT, fillings, local curettage. Dental facility is functional from April 2018.

Counseling services

Full time psychological counselor who remains on call 24*7 is available for providing counseling services to the students, staff and faculty members of the institute. Institute counselor pays regular visits to different hostels for conducting awareness programs like stress management, mental health awareness, positive psychology, psychology of happiness & different breathing exercises.

Ward/ipd facility

Ward facilities for observation and management of medical problems like typhoid, acute gastroenteritis, COPD, bronchial asthma, viral fever, pneumonias etc are available. There is one ward with five beds & one isolation room for patients of communicable diseases who require complete isolation.

Physiotherapy services

Full time well experienced physiotherapist is available 24*7 to provide range of physiotherapy services and to assist the patients to recover from wide range of musculoskeletal painful disorders, sports injuries, post operative traumas, neurological disorders and all orthopedic disorders. This facility is functional since February 2018. Following facilities will be available shortly after the establishment of physiotherapy unit; TENS, Laser therapy traction unit, Ultrasound, SWD, Muscle stimulation, Interferential therapy, Matrix Therapy Etc.

Laboratory services

Trained laboratory staff is providing best services & the laboratory is functional 24*7. Painless blood withdrawal & sample collection under all aseptic conditions is done in the laboratory. Following facilities are available;

- CBC
- Lipid profile
- KFT
- LFT
- Uric Acid
- Blood sugar fasting and PP
- HbA1C
- ESR
- CRP, CCP, RF
- Serum LH, FSH, Prolactin, total testosterone
- Thyroid Function Tests
- Vitamin D levels
- HBSAG
- HIV
- HCV
- Vidal for typhoid
- Urine Routine examination

- Sample collection time for laboratory is 7am to 10 am while emergency tests like Blood sugar, platelet count, HB and blood grouping is done in emergent cases throughout OPD hours.

X-ray & ECG services

X-Ray and ECG services are available on all working days during OPD hours & in case of emergency.

Pharmacy

Free reliable quality medicines are available to beneficiaries on doctor's prescription during OPD and night hours by pharmacists.

Minor OT

Provides services for minor surgical procedures like dressing of lacerated wounds, suturing of minor lacerations and re-suturing, excision of corns and cysts under local anesthesia.

Ambulance services

24*7 patient referral and transport services are available during OPD hours as well as emergencies to the nearest super specialty hospitals.

Timings

- Registration/OPD timings- On working days 8:45 a.m to 05:15 pm.
- Laboratory series – 24*7
- Pharmacy – 24*7
- X-ray & ECG services - 8:45 am to 05:15 pm and during emergency.
- In case of emergency Medical officer, physiotherapist, counselor are available on call 24*7.

People /Staff:

S.NO	NAME OF THE OFFICIAL	DESIGNATION	PHONE NO.
01.	Dr Fayaz Bhat	Head (Hospital Services)	9419001544
02.	Dr Mehnaz Rajab	Dental Surgeon	7006563082
03.	Dr Younis	Physiotherapist	9149729529
04.	Mr Mumtaz	Sr. Lab Technician	9906046953
05.	Mr Fairoz Malla	PsyCounselor	9596195546
06.	Mr Lateef	Store Keeper	9149922458
07.	Mr Fayaz Ali	Pharmacist	9796103421
08.	Ms Gincy Paul	Staff Nurse	7780897925
09.	Mr Irfan Sidiqi	X-Ray & ECG Technician	7006428525
10.	Mr Rouf	Pharmacist	7889399568
11.	Mr Waseem Rashid	Lab Assistant	7780923252
12.	Mr Khalid	Pharmacist	9596596880
13.	Mr Nisar	Lab Technician	7006349408
14.	Ms Nazima	Dental Assistant	7006244208
15.	Mr GM Teli	Orderly	8715913281
16.	Mr Bashir Ahmad	Orderly	9796968788
17.	Mr MushtaqAhamd	Orderly	9149516758
18.	Mr Showkat	Ambulance Driver	8491967214
19.	Mr Shabir	Ambulance Driver	9622827668

Table-B-9.3i

Special camps and programs conducted:

- Workshop on stress management (June 2019)
- Influenza vaccination (October 2019)
- Mental health Workshop (October 2019)
- Quarantine facilities for staff and travelers (March 2020)
- Special counseling to people with special needs June 19
- Outreach health awareness program at Zalpora with DORAI foundation May

Sr. No.	Name of the Department	Patients Attended
1	COVID-19 Vaccination Drive	• 450 shots administrated till 08 June 2021
2	General OPD	• Students 3890 • Staff 3023
3	Lab investigations	• Biochemistry 1200 • HBA1C 40 • TSH 150 • Blood grouping 70
4	XRAY	• 534
5	ECG	• 220
6	Minor procedures	• Students 480 • Staff 680
7	Dental OPD	• 230
8	Physiotherapy	• 178

9.4 SELF-LEARNING (5)

The Institute developed an academic system which presents a curriculum which is having flexibility without prejudice to the fundamentals of any subject which are required.

Facilities given by institution for self-learning

- The curriculum offers courses major project where the topics are self selected or based on guide suggestion. The component of self learning is evaluated in these courses.
- Every student has to submit two home assignments in every course which has been evaluated for 10 marks. Some of these tasks are beyond syllabus to encourage outstanding students to develop their self learning capabilities.
- Some of the tasks in the lab courses are challenge based which has to be solved by the students on their own enhancing their skills.
- The program planned weekly time table and facilities in such a way that the students have space and time to explore and implement their ideas.
- Common Computing Center with well equipped and internet facility opened 24X7 for students.
- Digital library is provided in central library where students can access all kinds of E-journals.
- Industrial visits arranged by the Departments.
- Language lab facilities provided – This enables students to prepare to take-up the TOEFL, GRE examinations.
- The Institute encourages the students to attend Industrial training during semester breaks

Modes and Modules for Self Learning and Learning Contents beyond Syllabus:

Seminars

Seminars are taken on the recent research topics. Faculties of various departments can attend these seminars in their respective areas. This enables the faculty to get familiar with the recent researches carried out in various fields.

Department laboratories

The Institute provides well equipped laboratories for the smooth functioning of each department and the details of the same are as follows:

Departments	**Total No. of Labs.**	**Name of the Laboratory**	
Chemical Engineering	14	1	Biochemical Engineering
		2	Catalysis
		3	Computer (CAD)
		4	Energy Engineering
		5	Environmental Engineering
		6	Heat Transfer
		7	Fluid Mechanics
		8	Mass Transfer
		9	Mechanical Operations
		10	Membranee Science and Technology

		11	Process Dynamics and Control
		12	Reaction Engineering
		13	Department Workshop
		14	Project Lab
Civil Engineering	12	1	Civil Workshop
		2	Material Testing Lab I
		3	Computer Lab
		4	Geotechnical Engineering Lab
		5	Material Testing Lab II
		6	Transportation Engineering Lab
		7	Environmental Engineering Lab
		8	Project Lab
		9	CAD Lab
		10	Water Resources Lab
		11	Concrete Lab
		12	Earthquake Engg. Lab
Electronics and Communication Engineering	11	1	Analog Electronics Lab
		2	Digital Electronics Lab
		3	Advanced Characterization Lab
		4	Communication Lab
		5	Microwave & Radar Lab
		6	Image Processing Lab
		7	Embedded System Lab
		8	VLSI Lab
		9	Project Lab
		10	Bio Medical Engineering Lab
		11	Information Security Lab
Mechanical Engineering	12	1	Mechanical Workshop
		2	Machine Tool Lab & Advanced Machine Tool Lab
		3	Hydraulic Machines Lab
		4	Heat Engines Lab
		5	Fluid Mechanics Lab

		6	Heat Transfer Lab
		7	Mechanical Engineering Lab
		8	Measurements Lab
		9	Computer Lab
		10	Welding Lab
		11	Aerodynamics Lab
		12	Project Lab
Electrical Engineering	12	1	Computer Lab
		2	Electrical Machines Lab
		3	Electrical Measurements Lab
		4	Virtual Instrumentation Lab
		5	Control Systems Lab
		6	Electrical Workshop
		7	Project Laboratory
		8	Basic Electrical Engg. Lab
		9	Microprocessor Lab.
		10	Power Systems Lab
		11	Non-Conventional Energy Systems Lab
		12	DSP Lab

Table: 9.4a

9.4.1 CENTRAL LIBRARY FACILITY

The NIT Srinagar library, LIRC supports the Teaching, Research & and other related programmes of the institute. The Library has a good collection of documents that comprises of Books, Journals, Theses, Video cassettes, Learning Resources (LRs)& Compact discs in the field of Engineering, Science, Management, and Literature & Humanities.
The library has computerized data of whole of its collection using **KOHA software** and is in the process of automating all library operations.

Library Established in	1960
Library Members	4500
Number of Books	68248
Reprographic facility	Xeroxing
Data usage of the Library	70-80%

	(in terms of Books issued to faculty& students and E-resources used)
Annual Budget	INR 3,00,00,000.00(Three crores)
Timing during working days	8.45 am to12 pm
Timing on Sundays &Holidays	10am to 5pm

Table: 9.4.1a

- **Layout and Floor plan**
  - **Ground Floor: The ground floor houses the following important sections.**
    - Periodical section
    - Circulation section
    - Conference Hall
    - Acquisition Section/Processing Section
    - Stacks I
    - Assistant Librarians Room
    - Dy. Librarian's room
    - Office
    - Automation section
  - **First Floor: The first floor houses the following important sections.**
    - Textbook & Reference section
    - Reading cum browsing Hall
    - Stacks II
  - **Second Floor**
    - Back Volume Section/ ST, SC Section.

- **Library Mission:**
  - To promote the technical knowledge
  - Generation and application of knowledge & resources
  - Effective dissemination of knowledge.
  - Library automation and networking for remote access of online electronic resources.
  - Improve the library resources.
  - Enhance the student experience.
  - Build the digital research environment.
  - Provide convenient and customized access to information Library Resources

- **Library Resources:**

The library has a wide range of resources on engineering, sciences, humanities & Social Sciences.

Collection	Size (number)
Books	68248
Bound volumes of journals	10070
Video cassettes	496
Learning Resources	36
Compact discs	650
Books in Text book section	10037
Books in stacks section	58211
Books in SC, ST section	9898

Table:9.4.1b

Year	Number of New Titles Added
2016-2017	1193
2017-2018	24
2018-2019	7447
2019-2020	2249

Table:9.4.1.c

9.4.2 QUALITY OF LEARNING RESOURCES (10)

E-Library (Electronic/On-line resources/e-resource)

E-library provides collaborative search of all type of e-resources/on-line resources such as e-journals and books

- **E-Books**

Central library procured different type of e-books, online books for students and faculty via IP range in the campus. The different departments can also be access various type of e-books such as text books and reference books in the electronic form.

- **Wiley**

Subjects Covered	URL	Total cost

Civil Engineering & Construction, Electronics &Electrical Engg, Computer Science &IT, Chemistry &Chemical Engg, Physics, Maths&Statistics&Mechanical Engineering.	onlinelibrary.wiley.com Year 2016&2017 No of Titles 829	$88,694.00

Table:9.4.2a

- **Springer Nature**

Subjects Covered	URL	Total Cost
Chemistry & Materials Science, Computer Science, Engineering, Mathematics &Statisticscs, Physics &Astronomy	link.springer.com/openurl?genre=book&isbn=978-1-4471-6807-2 Year 2016 No. Of Titles 3298	€52,759.20

Table:9.4.2b

- **Elsevier**

Subjects Covered	URL	Total Cost
Chemical Engineering, Chemistry ,Engineering, Materials Science, Mathematics,Physics& Astronomy, Computer Science	sciencedirect.com Year 2016 No. Of Titles 493	$102136.00

Table:9.4.2c

- **Pearson**

Subjects Covered	URL	Total Cost
Chemistry, Civil Engineering, Computer Science & IT, Electronic Telecommunication, Mathematics, Mechanical Engineering, Physics	lib.myilibrary.com Year 2014-2017 No. Of Titles 312	INR 15,64,059.00 (Fifteen lac sixty four thousand and fifty nine)

Table:9.4.2d

- **E-Journals**

  - **E-Resources are accessible to our Institute through eShodhSindhu (eSS)**

E-resources	E-resources Subscription Period
ACM Digital Library	January2020 toDecember2021
ASCE Journals	January2020 toDecember2021
ASME Journals Online	January2020 toDecember2021
Economic & Political Weekly	April 2021 to March 2022

Institute for Studies in Industrial Development	April 2021 to March 2022
JGatePlus (JCCC)	January2020 to December 2021
Oxford University Press	April 2020 to March 2022
Springer Link 1700 Collection+ Nature Journals	April 2021 to March 2022
Web of Science Lease Access	January2020 to December2021

Table:9.4.2e

- **NDL e Resources**

1. World E-Book Library Available through NDLI (National Digital Library of India)
2. South Asia Archives (SAA), National Licensing (perpetual)

- **URKUND Plagiarism software** National Licensing

Back Files of Science Direct Journals from M/S **Elsevier** on the following subjects are now available from **Vol.1, Issue1**up to the year **1994.**

Subjects Covered	Year	URL	Total Cost
Engineering &Technology	Pre 1995	sciencedirect.com	**$1,93,874.00**
Materials Science	,,	,,	
Chemical Engineering	,,	,,	
Computer Science	,,	,,	
Inorganic Chemistry	,,	,,	
Organic Chemistry	,,	,,	
Mathematics	,,	,,	
Business Management Accounting	,,	,,	

Table:9.4.2f

E-Resources subscribed by the Institute (2019-2020)

Subjects Covered	URL	Total Cost
Science Direct (8 subject collection) Jan 2020- Dec 2020	www.sciencedirect.com/	USD 172,882.44
IEEE/IET Electronic Library (IEL) online Jan 2019-Dec. 2018	http://ieeexplore.ieee.org/	INR 35,66,238.76 (Thirty five lac sixty six thousand two hundred thirty eight)
SCOPUS Jan 2020- Dec 2020	www.elsevier.com	USD 23,575.00
TURNITIN (Plagiarism software)		INR 7,37,007.00

		(Seven lac Thirtyseven Thousand & Seven)

Table:9.4.2g

- **BIS &ASTM Standards on our IP range.**

Subjects Covered	URL	Total Cost
BIS	http://standards.bsb.co.in/	INR 12,48,345.60 (Twelve lac Fortyeight Thousand Three Hundred &Forty Five)
ASTM	http://compass.astm.org	INR 7,44,420.44 (Seven lac Fortyfour Thousand Four Hundred & Twenty)

Table:9.4.2h

SERVICES

- **Membership**

  All the students, faculty members, research scholars & administrative staff can register themselves for the membership of the library. The membership form is available at the circulation counter and the same is required to be attested by the Head of the Department/Section

The number of books borrowed by users is as follows:

Category	Number of Books	Duration
Faculty	10	30 days
Research Scholar	05	15 days
Student	03	15 days
Supporting Staff	02	15 days

Table:9.4.2i

- **Text Book & Reference Section**

  The textbook and reference section remains open from 8.45 a.m.to 9.30p.m. on all working days and from 10.a.m. to 4.00 p.m. on weekdays & holidays. The books available in this section can be consulted in the library only.

- **Stacks section**

  The books available here are meant to be issued to the faculty, students, research scholars and other readers as per the criteria given in the library rules.

- **Video Library**

  The library has collection of video cassettes, CDs, & LRs.

- **Photo copying facility**

  The photocopying facility is provided to all students and faculty at subsidized rates.

- **Search**

  OPAC (Online public access catalogue), Science Direct, E-Resources, Video library

- **RFID facility**

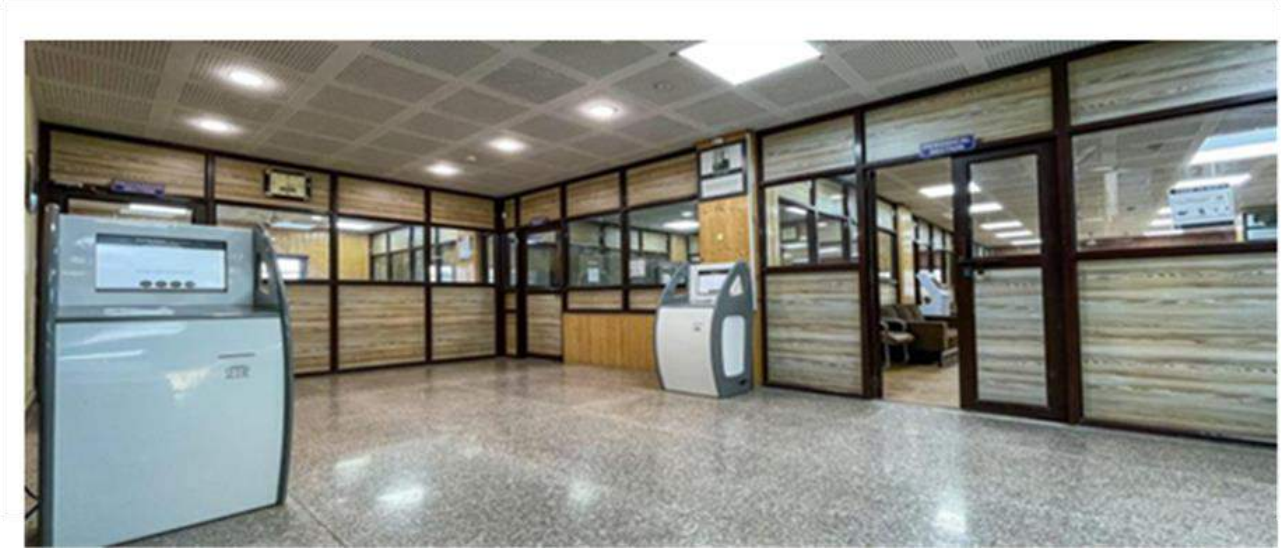
- Library and Information Resource Centre is currently being remodelled into a smart library. All the supporting Hardware (OPAC Kiosk's, Book Check-in/Check-Out Kiosks, Server's, Intra- Net, Networked Thermal Printers, Smart Staff Stations) and Software (Koha Server, Windows Server, Linux Server, RFID server) is already up and running. The library is also equipped with a wireless security gate that can alert the staff of any unauthorized checkouts whereas 2 high density data servers are running 24*7 in the library.

- **Lib website :** The library provides the updates to the patrons via the library webpage https://nitsri.ac.in/Department/Deptindex.aspx?page=a&ItemID=io&nDeptID=ck
- **Library programs/activities:** User awareness webinars and workshops are continuously organised by LIRC.

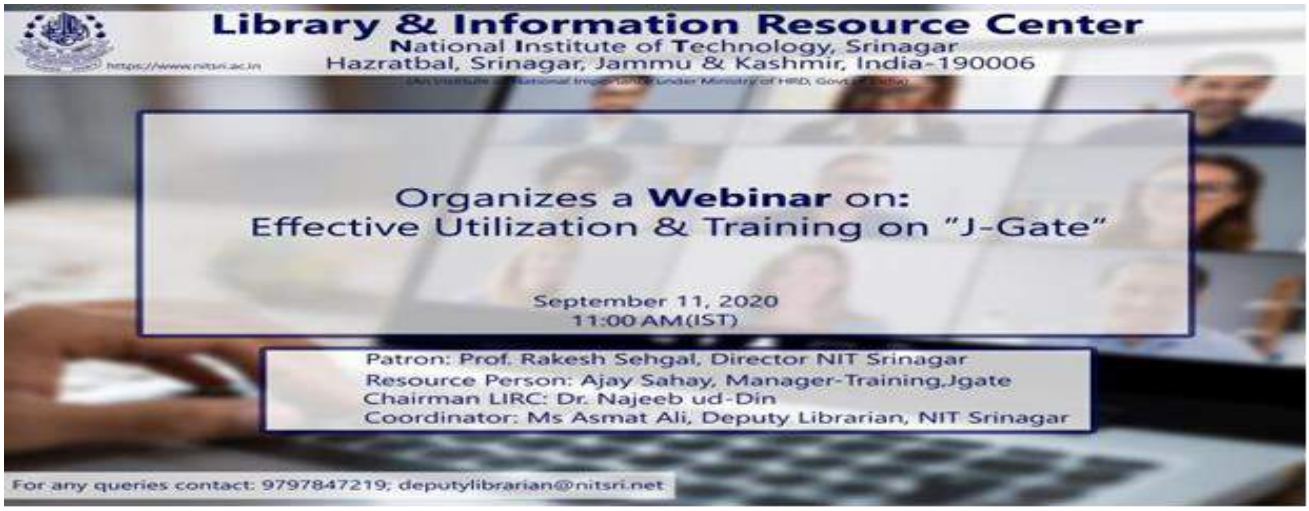
- **Our Team**

Ms. Asmat Ali	Deputy Librarian M 9797847219, Deputylibrarian@nitsri.net
Technical Asstt. (SG)	Mrs Saymee
Technical Asstt	Mrs Tahira
Technical Asstt	Mr. M Y Rather
Assistant (SG)	Mrs.Dilshada
Assistant (SG)	Mrs.Neelofar
Jr. Lib assistant	MrShabir Ahmad Sheikh
Orderly	Mr.Noor Mohammad
Contractual	Six

Table:9.4.2j




Library & Information Resource Center
National Institute of Technology, Srinagar
Hazratbal, Srinagar, Jammu & Kashmir, India-190006
(An institute of National Importance under Ministry of HRD, Govt of India)
https://www.nitsri.ac.in
IEEE
Advancing Technology for Humanity
Organizes a Webinar on:
Unlock your research potential with IEEE Xplore
November 12, 2020
3:30 – 4:30 pm (IST)
Registration Link: http://BIT.LY/REGIEEENOV12
Meeting Link - https://TINYURL.COM/IEEENOV12
Patron: Prof. Rakesh Sehgal, Director NIT Srinagar
Chairman LIRC: Prof. Aijaz Ahmad Zargar
Speaker: Ranbir S Sedhey, IEEE Client Services Manager
Convener: Ms Asmat Ali, Deputy Librarian, NIT Srinagar



Library Committee

Sl. No.	Members of the Library Committee	Department	Responsibility
1.	Prof.Ajaz Ahmed Zargar	Electronics and Communication	Chairman Library Committee
2.	Ms. Asmat Ali	Library	Deputy Librarian
3.	Dr. M Zubair Ansari	Physics	Member
4.	Dr. S. A. Shah	Chemistry	Member
5.	Dr. Ranjeet Kumar Rout	Computer Science and Engineering	Member
6.	Dr. Irfan SamadWani	Metallurgical & Materials Engineering	Member
7.	Dr. M S Charoo	Mechanical Engineering	Member
8.	Dr. Malik Perveez	Chemical Engineering	Member
9.	Dr M AdilBazaz	Electrical engineering	Member
10.	Prof. Nayaz Ahmad	Mathematics	Member

11.	Dr. Prince Ahmad	Physics	Member
12.	Mr. Janibul Bashir	IT	Member
13.	Prof Mir Mukhtar		Member

Table:9.4.2k

NPTEL

The National Programme on Technology Enhanced Learning (NPTEL), a project funded by MHRD, provides e-learning through online web and video courses in engineering, Sciences, Technology, Management and Humanities. This is a joint initiative by seven IITs and IISc Bangalore. Other selected premier institutions also act as Associate Partner Institutions.

Industrial Visits

All the departments of the institution provide facilities for industrial visit. The students identify reputed industries from their discipline and are approved by the Director through the head of the department. The prior permission is obtained from the industry to visit it. The students are accompanied by minimum of two faculty members. During the curriculum two one day visits and a 3 to 5 days visit are organized.

9.5 CAREER GUIDANCE, TRAINING, PLACEMENT (10)

The objective of the placement cell is to mould the students to cope with the changing demands of the corporate world and place them in reputed companies based on the expected job profiles of each student

Placement activities

The Placement and Training department monitors the employment opportunities, cater to enhance employability of students and arrange on and off campus interviews. Our Campus recruitment program starts right from the penultimate semester. It's a policy of the Placement department not to patronize companies bend on doing Education & Training activities to attract the students in the name of recruitment against payment.

The placement department does not encourage the students, those who are placed through campus selection in a company to attend the further campus interviews so as to provide a chance for other students to get placed. The students aspiring for higher studies are encouraged to undergo GATE/CAT exams.

Functioning of placement cell

National Institute of Technology Srinagar (NIT Srinagar) lays emphasis on the placement of the students by training and preparing the students to face the real life situation after graduation. An exclusive Placement & Training department under the guidance of an eminent professor collects the data of the graduating students and maintains a comprehensive database for ready reference.

The Institute provides an environment for comprehensive and harmonious development of the personality. We have regular communicative English Program incorporated in the curriculum. Further, resource persons and professionals from the field of communication and interpersonal skills are invited to equip our students with necessary soft skills required to face the interviews in today's competitive world. Such training exposure enhances the students' employability. Goal setting Time Management and Prioritization are the Key points that are implanted in the Young minds.

Institute also provides need-based programs on software relevant to industry such as VLSI, Embedded Technology, Auto/Electrical CAD, Pro/E, JAVA, J2 EE, just to mention a few.

Placement Details

Academic Year	Branch	Batch Size	Placement	Higher Studies	Entrepreneur in engineering/technology	Placement Percentage
CAY (Current Assessment Year) (2019-20)	ECE	44	16	7	-	52
	MECH	54	20	5	-	46
	CIVIL	75	31	16	-	63
	CHEM	34	10	5	-	44
	ELE	48	13	16	-	60
CAYm1 (2018-19)	ECE	72	39	10	2	71
	MECH	72	32	12	-	61
	CIVIL	109	34	8	-	57
	CHEM	59	19	4	-	42
	ELE	73	34	19	-	63
CAYm2 (2017-18)	ECE	74	33	8	2	58
	MECH	75	27	4	1	42
	CIVIL	118	44	19	2	55
	CHEM	62	18	8	-	41
	ELE	73	32	13	2	65

Table-B-9.5a

List of Companies Visited The Campus

Placement details for the year 2019-20, batch 2016-20 passing out in 2020	
S.no.	**Name of the company**
01	Avanti Learning
02	Vedantu Innovations
03	GreyB
04	CEAT Tyres
05	Sagacious Research
06	Tata Project
07	Secon
08	Amdocs(Off Campus)
09	Maruti Suzuki
10	L&T Limited
11	Bansal Classes

12	Remote State
13	L&T Construction
14	Alstom (PPO,Off Campus)
15	Wipro Turbo
16	Capgemini
17	Tally Solutions
18	CGI
19	Policy Bazaar
20	Vedanta
21	ZS Associates [Consultancy]
22	Blogvault
23	OYO
24	Brillio
25	Eagle View[Off Campus]
26	Byjus
27	Infosys Power Programmer
28	Eagle View
29	Clarico
30	Optum
31	Samsung R&D
32	Rajdeep Infotech
33	Wheelseye
34	Increff
35	Cogoport[Off Campus]
36	GAIL [PSU]
37	Lowe's Services
38	OIL India

Table-B-9.5b

Placement details for the year 2018-19, batch 2015-19 passing out in 2019	
S.no.	**Name of the company**
01	Fourkites India Pvt Ltd.
02	Medlife
03	Nutanix
04	Teksystem
05	Grey B
06	Resonance
07	Wipro Turbo
08	L & T Construction
09	Amdocs
10	Nextscm Solution Pvt. Ltd
11	Zs Associates
12	Avanti Learning
13	Infosys(power Programmer)
14	JIO Financial Services
15	Persistent System
16	Saggezza
17	Mahindra Comviva
18	Vedanta

19	Sagacious Research
20	Kpit Technologies
21	Tata Power
22	Virtussa Polaris
23	Cummins
24	Greaves Cotton
25	SKF
26	Escorts
27	Gail India
28	BYJUS
29	ESSAR STEEL INDIA
30	Infosys
31	IKARUS(Intern)
32	Cogoport
33	NHIDCL
34	Gammon Pvt Ltd
35	JSW
36	JCB
37	HLC Asia
38	Anglo Eastren
39	JIO Infocom Pvt Ltd
40	Wheelseye Technologies Pvt Ltd
41	Stellarix
42	Blogvault (Intern)
43	BYJU's
44	Mind Tree

Table-B-9.5c

Placement details for the year 2017-18, batch 2014-18 passing out in 2018	
S.no.	**Name Of Company**
1	Adobe Systems
2	Sheroes
3	Nucleus
4	Lg Soft
5	Samsung (R&D)
6	Hpcl
7	Artic Invent
8	Blogvault (Intem)
9	Adverb(Internship)
10	Infosys
11	Tata Projects
12	Ibm
13	Rankwatch
14	Lnt Infotech
15	Sagacious Research
16	Jcb
17	Kec

18	Kpit
19	Johnson Controls
20	Resonance
21	Virtusa
22	Cummins
23	L&T Contruction
24	Tat Power
25	Gray B
26	Afcon Infrastructre
27	Tek Systems
28	Persistent Systems
29	Tata Motors
30	Reliance JIO
31	Wipro
32	Zs Associates
33	Vedanta
34	Envestnet Yodlee
35	Oil India
36	Iocl
37	Gail

Table-B-9.5d

Activities from Student Welfare Cell for Career Guidance and Counseling

Career Guidance and Counselling is a comprehensive, developmental program designed to assist students in making and implementing informed educational and occupational choices. Career guidance and counselling program develops an individual's competencies in self-knowledge, educational and occupational exploration, and career planning.

Objectives

- To create awareness among the students for their futureprofession.
- To provide guidance to the students on various options available in the courses of theirstudy
- To provide information to the students on the scope and relevance of any area irrespective of their field ofinterest.
- To provide guidance to develop positive attitude and behaviour in order to meet challenges of life to make ithealthier.
- Resource persons from different fields deliver talks about career options to students and teachers and staff of the Institute through guidance and career counselling seminars and workshops.
- Activities of student Welfare Cell include Career Guidance and Counselling. The faculty also participates in personal counselling:
- To help students to chalk out academic roadmaps forthemselves.
- To enable students to integrate themselves with themilieu.
- To acquaint them with various career options throughseminars.
- To address problems related to stress, anxiety, examination phobia, peer pressure and adjustment to changedenvironment.

- To help students, Periodic reports are shared with parents whenever necessary. Aptitude tests have been carried out to see the inclination of the students. Students were made to undergo this test and they had much to avail themselves ofit.

Effective services for career guidance including counseling for higher studies Training details for students:

S.No.	Course/activity	Status of The course	Source of the Resources
1	Technical English & Communication skills	Curricular	In house
2	Professional Ethics	Curricular	In house
3	Aptitude	Co-academic	Both internal and external
4	Campus Recruitment Training	Co-academic	Both internal and external
5	Workshops	Co-academic	External
6	EventspecificProgrammes like GATE coaching	Co-academic	In house

Table-B-9.5e

Provisions for improving Placements

- **Offering more elective subjects** in order to offer a wider perspective for the students to choose from. On other hand, the students would get an opportunity to have exposure to the emergingtechnologies.
- Some of the students may even come to a clear understanding that such sub- areas exist in their area of activity such they would visualize their career in thoseareas.
- **Projects** are introduced in order encourage positive compartmentalization of learning and to offer simulated industrialoperations.
- In addition to the above, teachers offer counselling individually or in small groups.
- Separate Placement & Training Cell ismaintained.
  Coordinators from various streams are appointed to assist and supervise relations with various industries.

Industrial Training

The fundamental objective of Industrial Training is to prepare students for future employment in their chosen engineering discipline. Industrial Training enhances the academic material studied at University by allowing students to practice what they have learned and to develop key professional attributes. Industrial training should provide an opportunity for studentsto:

- Experience the discipline of working in a professional engineeringorganization
- Develop understanding of the functioning and organization of abusiness
- Interact with other professional and non-professionalgroups
- Apply engineering methods such as design and problemsolving

- Develop technical, interpersonal and communication skills, both oral and written Industrial training also gives employers an opportunity to assess future employees.A demonstrated commitment and ability to take responsibility, make sound decisions, and apply technical skills will be highly regarded. Industrial training gives students an opportunity to evaluate future employers as well as enabling informed decisions about the discipline and career paths to follow.

Final Year (2020 Passing Out Batch):

- We are in regular touch with the companies which have done recruitment from our college last year, the companies are also supporting and no offer has been revoked till now and has informed all the companies individually through mail regarding the rescheduled academic calendar.

For prefinal years (2021 Passing Out Batch) :

1) Organized a Pre Placement Assessment Test in Partnership with First Naukri.
2) Internship/ Training Opportunities: Automation Edge, Krayonz, Teksystem, Juspay, Edvizo, MCKINLEY & Rice , Mckinsey & USA, Internshala, Mission ED , HIEE (Paid Virtual Training), Phoenix Global, Vedantu, Edvizo
3) Online Test of TCS Coding Ninjas
4) Several Companies have started approaching for recruitment of 2021 Passing Out Batch: (Amdocs, Capgemini, Lowes, Optum, Odessa, Eaton, Mckinley & Rice, Teksystem)
5) Online Coding Classes by Career Launcher

Training & Placement Officer
Dr. Obbu Chandra Sekhar
Head Training & Placement Department
NIT Srinagar
Mobile: 9440343273
Email-id: obbuchandra@nitsri.net
placements@nitsri.ac.in

Infrastructure and Facilities available in the placement cell:
- Number of interview rooms: 2
- Number of GD rooms:1
- Number of chambers for HR personnel: 2
- Number of guest rooms for HR personnel:6

Members of Placement Cell:
- Full-time Officers: 1 (1 TPO)
- Full-time Trainers: 2 (Soft skills & PersonalityDevelopment)
- Student Volunteers attached to placement cell:32

9.6 Entrepreneurship Cell (5)

Innovation, Incubation and Entrepreneurship Development Centre (IIEDC)

IIED centre is headed by Prof. Saad Parvez. The Centre aims to nurture and inspire the young entrepreneurial brains of the Institute as well as the region to peruse innovations, start-ups and entrepreneurship by creating a vibrant and conducive ecosystem in the region. We aim to empower Startups to grow through innovations & design in order to provide a fulcrum to the economic augmentation and employment opportunities.

The incubation centre is facilitating and nurturing the growth and development of innovators and start-ups through hand-holding, providing the right mentorship, developing and testing prototypes and offering other technical, financial and managerial services.

The centre provides a strong institutional framework in place for effective implementation, monitoring and evaluation of our objectives. It is continuously in a process of creation of start-up endeavours with disruptive value addition in various thrust areas like technology development, agriculture including horticulture, renewable energy, handicraft, electronic system design, manufacturing, IT-enabled and other services etc.

ABOUT THE ACTIVITIES:

IIED Centre NIT Srinagar is a community comprising a bunch of students working in partnership with academic researchers, Innovators, Idea generators and industry entrepreneurs to instigate breakthroughs. (***Fusing the uncommon, taking risks, thinking big)***

Following cells/clubs constitute the centre activities

1. Entrepreneurship Development Cell (EDC)

EDC Cell enhances an existing potential or asset through the process of learning and

application of entrepreneurship dynamics. The cell polishes the entrepreneurial skills into a student needed to establish his/her ideas and vision into reality.

2. Innovation Cell (IC)

Innovation Cell initiates a program and participates in activities creative in nature to transform ideas into solutions. It bridges the gap between research and education with industry. During each engagement companies, educators, experts and students collaborate on real-world problems in order to deliver real-world solutions.

3. Grass Root Innovation Design Studio (GRIDS)

At GRIDS, the grassroots innovations from non-technical innovators are taken into the incubation phase for leveraging into holistic and interdisciplinary nature of design to cut across research and move projects from research to development.

4. Institute Industry Interaction Cell (IIIC)

III Cell bring industry thought leaders with college experts to seed innovative thinking and to enable collaboration in technology, products, services, and business models.

5. Skill Development Club (SDC)

Skill Development Club is trying hard to develop the dynamic skill requirements of students by organizing skill development programmes and workshops to increase the employability of students to bridge the gap between education and industry. The main motive of the club is to recognise the team's potential and to adapt to the changing circumstances.

6. TOD FOD JOD Club (TFJ)

TFJ is a initiative program which is aimed at improving **(IQ)** innovation quotient of students. Our esteemed alumnus Mr. **Vikas Chawda,** founder and CEO of **Quantum Leap,** conducted the workshop session of TFJ's and initiated the process of TFJ to enhance creativity among young minds.

Benefits for the students

1. Become a leader- manage a student organization, illustrate abilities in planning, logistics, marketing, and advertising, create visibility for futureemployers.
2. Build a network- make contacts with entrepreneurs, professionals and academics who can help with recommendations, network and start a venture withpeers.
3. Initiate innovative activities- invite business leaders to campus, plan new and exciting events for students to kick-start learning about new industries and different aspects of businessplanning.

Functions of the Entrepreneurship Cell:

- To inculcate a culture of innovation-driven entrepreneurship through studentprojects.
- To organize Entrepreneurship Awareness Camps, Entrepreneurship Development Programmes, Faculty Development Programmes and Skill Development Programmes in theInstitute/institution.

- To arrange interaction with entrepreneurs and create a mentorship scheme for student entrepreneurs.
- To facilitate the creation of an entrepreneur's club in each department to foster a culture of entrepreneurship amongstudents
- To disseminate knowledge and insights in entrepreneurial theory and practise through lectures activities andworkshops.
- Build knowledge and skills to translate ideas into opportunities while they are on campus.
- Be motivated to start theirown companies after graduation or after a few years of gaining industryexperience.
- Be inspired to consider entrepreneurship as a possible careeroption

MAJOR PROJECTS UNDERTAKEN BY IIED CENTRE

1. **Project of National importance (value 2.5 million Rs.)**

   - Govt of India, Department of Rural Development & Panchayati Raj, sponsored Time & Motion Study (TMS) project, under progress in three regions of Jammu, Kashmir & Ladakh to determine the standard time of MGNREGA workers for wage determination process and propose Innovative tools and process for accomplishing the MGNREGA activities.

2. **Innovative Project having social impact successfully completed (2017-2018)**

   - Designed and developed NIF Sponsored project titled “Value Addition in Wood Fired Bukhari” under Grass-root innovation design studio (GRIDS) which is under commercialisation and marketing stage.

Fig. 9.6.1 Innovative Project having a social impact

Achievements of IIED Centre, NIT Srinagar

1. **Smart India Hackathon (SIH) 2019:** NIT Srinagar students participated in SIH 2019 organised by MHRD's Innovation Cell. Students of NIT Srinagar received Second Runner up prize worth Rs. 50,000 at VelTech Chennai.

Fig. 9.6.2 Students working for making prototype at SIH-2019

Fig. 9.6.3 Students of NIT Srinagar awarded Prize of Rs. 50,000

2. Since the last three years Centre is participating in the Meeting of National Innovation clubs at Rashtrapati Bhavan and presenting innovative projects.

Fig. 9.6.4 Students at Rashtrapati Bhawan

3. To unleash the young creative minds the centre conducted a number of workshops on TOD-FOD-JOD for school children

Fig. 9.6.5. TOD, FOD, JOD, Skill Development program at Schools

4. Idea Challenge 2018

Fig. 9.6.6 Idea Challenge 2018

Few successful Innovative Project & Startups

- **Yuwa Innovators** Food Grain Washer and Water Purifier Machine

Fig. 9.6.7 Food Grain Washer and Water Purifier Machine

MSME Ministry approves BI at NIT Srinagar

- The proposal submitted by the institute for its recognition as Host Institute for implementation of the scheme "Support for Entrepreneurial and Managerial Development of MSMEs through Incubator" has been considered & approved during the Meeting of PMAC held on 20/12/2019 at New Delhi.
- The centre recently received the approval of Rs. 1 crore from MSME, J&K, for setting the Incubation Centre at NIT Srinagar.
- The centre recently received the approval of Rs. 15 lac each for two ideas from MSME, J&K, for incubating ideas.

INNOVATION, INCUBATION AND ENTREPRENEURSHIP DEVELOPMENT CENTER

List of activities undertaken by IIED Centre during the year 2017, 2018 and 2019

Sl. No.	Date	Name of Event	Organized By	No. of Attendee	Co-ordinator/s faculty/students
01	April 3, 2017	Seminar on "Emerging trends in Android based mobile app"	Mr. Abhishek Kumar, Senior Corporate Technical Trainer (IBM Experts)	118	HEAD, IIED Centre

02	April 15-16, 2017	Two day's workshop on Robotics	Utkranti, eDC Team, IIT Delhi	78	HEAD, IIED Center
03	April 29-30, 2017	Two day's Workshop on "PLC & SCADA"	CETPA Infotech. Pvt. Ltd.	63	Vaibhav Mishra ShrishtiHooda Suryansh Mishra
04	May 6-7, 2017	Two day's workshop cum National Championship on Internet of things	TechieNestPvt. Ltd. And IIT Hyderabad	82	HEAD, IIED Centre
05	June 10, 2017	Interaction session with Kashmir's Entrepreneurs	Founder of KashBook, Co-Founder of Captivating Kashmir and INSPIRE award winner Zufa Iqbal	97	Rahul Kumar Shriyansh
06	Sep 6-7, 2017	"Youth Entrepreneurship in conflict areas" Symposium in Srinagar, J&K	CHINAR International in association with South Asia Network of Impact Masters and IIED Center, NIT Srinagar	27	HEAD, IIED Centre
07	Oct 2, 2017 (MEGA EVENT)	IDEA CHALLENGE 2017 – "The Future World"	IIED Centre	1000+	IIEDC Team 9with prize money worth 30,000 distributed to winners)
08	Oct 2, 2017	Swach Bharat Abhiyan	Srinagar Municipal Corporation	43	Shriyansh
09	Oct 2, 2017	Orientation Session of Batch 2016 & Batch 2017	IIED Centre	600+	IIEDC Team
10	Oct 5, 2017	Orientation program of "The Better You"	STARTUP KASHMIR	134	Abhishek Gourav Rahul Kumar Shriyansh
11	Oct 29, 2017	One day seminar on "Importance of international certification in Design, Automation and IT industries"	CETPA Infotech. Pvt. Ltd.	540+	Shriyansh Rahul Kumar
12	Nov 2, 2017	Interaction Session with "Prof. Anil Kumar Gupta",	Central University of Kashmir	18	Rahul Kumar

		Founder of Honey Bee Network.			
13	Nov 9, 2017	Catalysing a cultural shift in youth entrepreneurship	EDP Cell on National Entrepreneurship Day	88	Nishant Sharma ManikLamba
14	March 19, 2018	Festival of Innovation and entrepreneurship, 2018			
14	October 9, 2018	Idea Challenge 2018	IIEDC	115	IIEDC members
15	July 2019	Smart India Hackathon (SIH)	MHRD	6	IIEDC
16	Oct 2020	Finance of startups"	IIEDC	-	IIEDC
17	November, 2020	Online Freshmen Orientation	IIEDC	-	IIEDC
18	November 2021	Panel Discussion Event	IIEDC	-	IIEDC
19	November, 2020	Idea Pitching Competition	IIEDC	-	IIEDC

Apart from the above, the IIED centre is working for the establishment of state of the art Incubation centre for which DPR is being prepared with help of consultants.Successfully handed over an innovative project titled as "Value addition in a room warmer, Bukhari" to NIF which was commercialised and handed over to a local firm for production.

THE CONCEPT OF IDEA BANK

(Given by IIED Centre and is being implemented in differentschools andinstitutions of the valley)

5-3-2016

A bank is a facility where people invest their money to get higher value of their investments. The banking process is interrelated to the general economic system of a nation. Billions of people invest in different schemes to obtain benefit in different ways. Innovation involves improving the way of producing goods or services. Often it involves creating better or efficient technology or a value addition in a product, process, procedure or method. Innovation may be the result of Research & Development. But innovation could also be a

'brainwave' – A Eureka moment where someone has a good idea to improve working practices. Idea generation is the creative process used in order to figure out solutions to difficult challenges.Idea generation is a natural process which flashes in the mind and is generated through some mechanism. This mechanism could be a long continuous effort towards solving a problem. It could also be a whim, contemplation, intuition, or perception which may arise because of knowledge, experience or a hunch. Every individual in his life generate ideas to resolve a problem or feels that his idea if applied or processed might provide a solution when known solutions are unavailable. His idea may or may not mature or may vanish from his mind. Converting ideas into accomplishments is a tedious process and requires the application of certain resources, knowledge and processes. There are many situations in which some brilliant idea that might have made a difference, fade and vanish away because of the lack of the right approach in protecting and storing it. Idea bank is a concept that provides a platform where the ideas of individuals are deposited and stored. The processing of these ideas can be carried in incubation centres nearest to such banks leading to its logical conclusion. It is a structured methodology which can help individuals to process their idea to obtain the solution for their problem. The banks initially collect ideas. These ideas are taken to the second phase where they are further filtered and relevant ideas are allowed to enter the next stage. In the third stage, the relevant experts process these ideas and add value to it. This stage may define the material requirements, technology to be used, bill of materials, drawing, processes, methods etc., whatever is relevant for the idea. This is the major stage that enables to develop a prototype or defines a new process or method.

Idea banks need to be established in:

1. Primary and secondary level Schools.

2. All other educational institutions including Institutes, universities, technical and non-technical institutions, training centres industries, service and manufacturing units.

Idea banks need to coordinate at different levels to share and develop ideas, a mechanism of which could be developed.

INVITATION LECTURE BY AN EMINENT PROFESSOR

Date: 20-**05-2016**

Professor K.L. Chopra, eminent Scientist, academician and ex- Director IIT Kharagpur, visited NIT Srinagar and delivered an expert lecture on the topic, **"NURTURING INNOVATION & ENTREPRENEURSHIP IN ACADEMIA" on 24th May, 2016 (Tuesday) at 4.00 p.m.,** in the institutes HI-TECH room.

The lecture was very informative and thought provoking and was appreciated by one and all.

Finance of startups

Fig. 9.6.8 Finance of startups

IIEDC, NIT Srinagar organized an online speaker session on the topic "Finance of startups" on 1st November 2020, 3 pm IST. The session was hosted by Tajamul Ashraf and coordinated by Ayush Kumar. The session was graced by the presence of eminent speaker Dr Fouzia Jan, who is an expert in financial management. She presented her ideas on various fundamental topics of finance like funding, equity dilution, revenue models, pricing models, investment etc. She helped enthusiastic young students in understanding the complex dimension of the aforementioned topic. The session ended with a Q&A session in which students raised various interesting questions.Overall, the session was quite informative and interesting and it fascinated students about the financial management.

Fig. 9.6.9 Finance of startups

Fig. 9.6.10 Panel Discussion

PANEL DISCUSSION was conducted on 26th November 2021 hosted by NIT SRINAGAR. As the name conveys its a discussion carried by three prominent speakers on respective topics. The topics of discussion were:

1)"pros and cons of choosing jobs"
2)"pros and cons of going for higher studies"
3)"pros and cons of becoming entrepreneur"

The primary aim of this event is to bring in speakers from different areas of expertise.we collected details from linkedin and mailed them to invite them to the speaking session.This event is conducted to eliminate the dilemma of every student of choosing between jobs,

pursuing entrepreneurship and continuing with higher studies. Every coin has two sides. Every student needs proper counselling to decide their future journey.It was an interactive session where students from NIT SRINAGAR and outside got an opportunity to explore all the possible options. The panellist talked about how to choose between entrepreneurship, higher studies and jobs. We have learned about inherent qualities of entrepreneur and what kind of thinking turns you into entrepreneur.

Idea Pitching Competition

Fig. 9.6.11 Idea Pitching Competition

Pitching is one of the most important aspects, while one is are starting a startup. You may need to pitch your startup to your customers or your investors. It is a skill that an entrepreneur should master. You should always practice what you have learned and competing against each other helps everyone learn more about pitching.

Pitching basically means giving a presentation of a business idea to potential investors. In the field of entrepreneurship, knowing how to pitch your idea is very important to understand. For this very reason, J&K's biggest Idea pitching competition was held by IIEDC, NIT Srinagar on 30th November, 2020. Entries were invited from students of the valley to give a PowerPoint presentation explaining their business idea.

9.7 Co-Curricular And Extra-Curricular Activities (10)

- Students are encouraged to participate in extracurricular activities.
- Music and Hobbies clubs are functioning very effectively.
- All the departments have their own technical societies which organise technical seminars, quizzes and other competitions in the departments to give a thrust to the development of the academic potential of the students.

- NSS units have also been rendering valuable service by inculcating the habits of social and national responsibilities amongst the students.
- A technical fest called 'Techvaganza' is conducted every year.
- Our students participate in cultural activities outside the campus also.

9.7.1 Sports and Games Facilities

Adequate provisions for extra-curricular activities are available in the institute. At present, facilities are available for Badminton, Volley-Ball, Football, Cricket, Basketball, Kho-Kho, Kabaddi, Athletics and other Indoor Games.

Details of Faculty/ Staff in Charge for Sports and Games

Name	Designation	Department
Dr. Manoj Kumar	Coordinator Sports and Student Activities	Physical Education
Ms. K. A. Mir	SAS Officer	Physical Education

Table-B-9.7a

Faculty Profile for Physical Education

1. Name: Dr. Manoj Kumar
Email: manojkumar@nitsri.net
2. Name: Ms. K. A. Mir
Email: kowsaralimir@gmail.com

Inter-Semester Sports Meet: The Institute organizes the biannual sports meet in every academic year, known as Inter-Semester Sports Meet. Inter-Semester Sports Meet provides an excellent platform for the students to exhibit their sports and game capabilities. Various events like Badminton, Volley-Ball, Football, Cricket, Basketball, Kho-Kho, Kabaddi, Chess, Carrom, Hockey, Table tennis and Athletics 100-meter, 200-meter400-meter, 800-meter race, high jump, long jump, shot put, etc are conducted.

Figure-B-9.7.1Inter-Semester Sports Meet

Sports and Games Facilities

S.no.	Name of the event	Area	Mode of game
1	Table Tennis	8 standard tables	Indoor
2	Basketball	38 m x 18m(2)	Outdoor
3	Volley ball	40 m x 25 m (3)	Outdoor
4	Carom	game boards (10)	Indoor
5	Badminton courts	7 courts	Outdoor
6	Football	110 m x 70 m	Outdoor
7	Chess	game boards (20)	Indoor
8	Gymnasium (Boys)	25 m x 15 m (Fitness Equipments)	Indoor
9	Gymnasium (Girls)	13 m x 7 m	Indoor
10	Cricket	Hard Pitch	Outdoor

Table-B-9.7b

Sports Events Conducted/ participated/ in and outside NIT Srinagar from 1st January 2015 upto 31st April 2018

S.No.	Sports Event/s	Place and month where played/ conducted	Prizes/ Awards/ Positions
1.	All India Inter NIT Cricket(Boys)/ Swimming (Boys & Girls) Tournaments	NIT Rourkela (January 2017)	5th place in Cricket
2.	Coaching Camp for Boys & Girls in Chess & Table Tennis	NIT Srinagar (March 2017)	All the students of NIT Participated
3.	All India Inter NIT Table tennis(Boys/Girls) and Chess (Boys & Girls) Tournaments at NIT Srinagar	NIT Srinagar (April 2017)	Winner T.T (boys) Chess Runner up (girls) And T.T (girls) 2nd runner up
4.	IST State Championship of Cricket (Boys), Football (Boys) and Basketball (Boys).	Jammu University (April 2017)	Runner up Basketball 4th place in cricket
5.	Summer State Basketball League.	Indoor Stadium 2017	Runner up
6.	Inter-Semester Spring Tournament in all Games (Boys & Girls)	NIT Srinagar (May 2017)	All the students of NIT Participated

7.	Yoga day	NIT Srinagar (June 2017)	All the students of NIT Participated
8.	Open Badminton Tournament (Boys)	NIT Srinagar (August-September 2017)	All the students of NIT Participated
9.	Inter-Semester Autumn Tournament in all Games (Boys & Girls)	NIT Srinagar (September 2017)	All the students of NIT Participated
10.	Club Activities	NIT Srinagar (September 2017)	All the students of NIT Participated
11.	RashtriyaEktaDiwas	NIT Srinagar (October 2017)	All the students of NIT Participated
12.	Open (Tennis Ball Cricket/Cosco Cricket Tournament	NIT Srinagar (October 2017)	All the students of NIT Participated
13.	Cricket Tournament with Government Dental Institute Srinagar	NIT Srinagar (November 2017)	Winner
14.	All India Inter NIT Kabaddi (Boys)	NIT Surathkal (January 2018)	Participation
15.	All India Inter NIT Badminton (Boys/Girls) and Basketball (Boys) Tournaments at NIT Warangal	NIT Warangal (January 2018)	4^{th} place in basketball 5^{th} place in badminton
16.	2nd State Championship of Cricket (Boys), Football (Boys) Badminton (Boys) and Table tennis (Boys).	Jammu University (April 2018)	Winner in Table tennis 3^{rd} place in badminton 3^{rd} place in cricket
17.	Inter-Semester Spring Tournament in all Games (Boys & Girls)	NIT Srinagar (April 2019)	All the students of NIT Participated
18.	International Yoga day	NIT Srinagar (21 June 2019)	All the students of NIT Participated
19.	Ranneeti (Running Events)	IIT Mandi (October 2019)	5000m Gold Medal 1500m Silver Medal 800m Silver Medal
20.	All India Inter NIT Athletic Meet (Boys/Girls)	NIT Rourkela January 2020	5000m Gold Medal 1500m Bronze Medal

Table-B-9.7c

Figure-B-9.7.2 Additional Student Activities Held During the Past Three Years

S. No.	Particulars	Year
1.	Yoga Day	2017 - 2020
2.	Cleanliness Drive (Swachh Bharat Abhiyan)	
3.	Alumni Meet	
4.	Fresher's Day/Orientation Programme	
5.	Farewell	
6.	Induction Programme	
7.	Stress Management	
8.	Passport Mela	
9.	Musical Concert (Ustad Kamal Sabri)	
10.	Techvaganza	
11.	Fit India freedom run	
12.	Hindi Diwas	

Table-B-9.7d

Figure-B-9.7.3 Techvaganza 2019

Figure-B-9.7.4 Music club

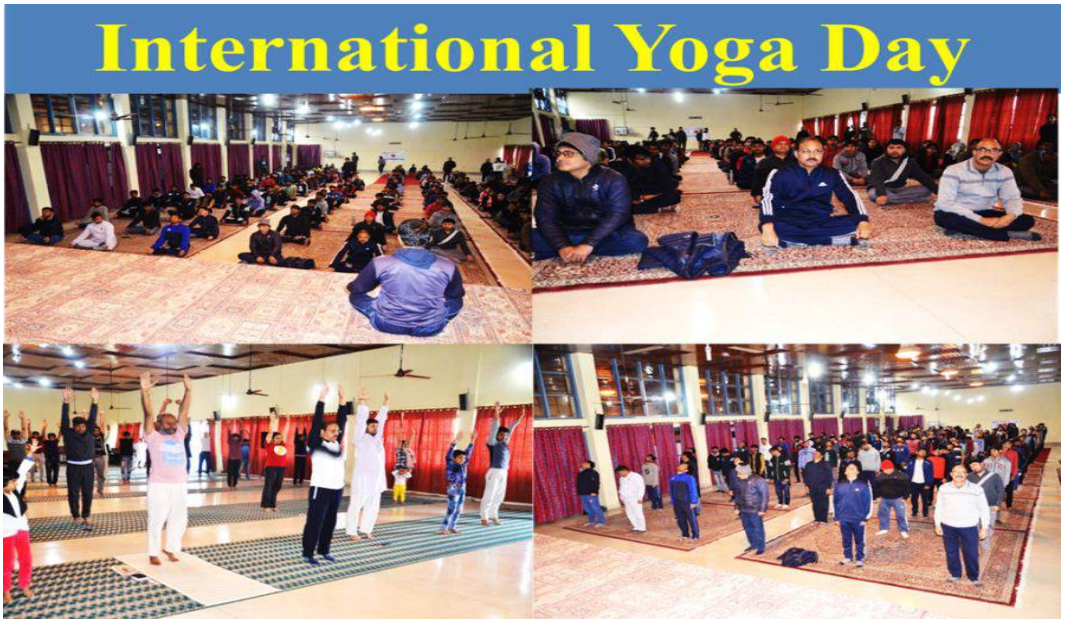


Figure-B-9.7.5 International Yoga Day

Figure-B-9.7.6 Fit India 2020

Figure-B-9.7.7 Fit India Freedom run 2020

Figure-B-9.7.8Swachh Bharat Diwas-2020

Figure-B-9.7.9 Hindi Diwas-2020

The Hindi Cell along with the Counselling Cell of the Institute has organized the competitions on the occasion of Hindi Diwas, 2020 (On 14th Sept 2020).

The following categories were there:

1. Essay-Writing competition. Students have allowed writing the essay in Hindi or Urdu in about 1000 words.
2. Poetry Recitation/Storytelling competition.

The contests have conducted live over Google Meet.

Criterion 10	Governance, Institutional Support and Financial Recourses	120

10.1. Organization, Governance and Transparency (55)

10.1.1. State the Vision & Mission of the Institute (5)

VISION OF THE INSTITUTE

To establish a unique identity of a pioneer technical Institute by developing a high-quality technical manpower and technological resources that aim at economic and social development of the nation as a whole and the region in particular keeping in view the global challenges.

MISSION OF THE INSTITUTE

M1. To create a strong and transformative technical educational environment in which fresh ideas, moral principles, research and excellence nurture with international standards.

M2. To prepare technically educated and broadly talented engineers, future innovators and entrepreneurs, graduates with understanding of the needs and problems of the industry, the society, the state and the nation.

M3. To inculcate the highest degree of confidence, professionalism, academic excellence and engineering ethics in budding engineer

10.1.2 Availability of Institutional Strategic Plan and its Effective Implementation and Monitoring (25)

The institute has prepared Vision Document for 15 years up-to 2025. The said document is placed as **Annexure-I.**

10.1.3 Governing body, administrative setup, functions of various bodies, service rules procedures, recruitment and promotional policies (10)

10.1.3.1. BOARD OF GOVERNORS:

Chairman	Nominated under Section 17(15) of the First Statutes of NIT Act 2007	Prof. Rakesh Sehgal Director National Institute of Technology Srinagar, Hazratbal, Kashmir-190006
Ex-Officio	Nomination under Section 11 of NIT Act, 2007 (29 of 2007) Clause (b)	Prof. Rakesh Sehgal Director National Institute of Technology Srinagar, Hazratbal, Kashmir-190006
Two persons not below the rank of the Joint Secretary to the Government of India to be nominated by the Central Government from amongst persons dealing with technical education and finance	(c)	Joint Secretary (NITs & DL), Ministry of Human Resource Development, Department of Secondary & Higher Education, Government of India, New Delhi
	(c)	Joint Secretary & FA, Ministry of Human Resource Development, Department of Secondary & Higher, Government of India, New Delhi
Two persons to be nominated by the Government of the State in which the Institute is situated, from amongst persons, who, in the opinion of that Government, are technologists or industrialists of repute	(d)	Commissioner Secretary, Higher & Technical Education Dept., Government of Jammu and Kashmir, Civil Secretariat, Srinagar / Jammu
	(d)	Awaited
Two persons, at least one of whom shall be a woman, having special knowledge or practical experience in respect of education, engineering or science to be nominated by the Council	(e)	Dr. Prema Ram Chandran Director, Nutrition Foundation of India, Delhi
	(e)	Awaited
One Professor and one Assistant Professor or a Lecturer of the Institute to be nominated by the Senate	(f)	Prof. Mohammad Farooq Wani Professor, Mechanical Engineering Department, National Institute of Technology Srinagar
	(f)	Dr. Mohammad Shafi Charoo Associate Professor, Mechanical Engineering Department, NIT Srinagar
The director of the IIT in whose zone the institute is located, or his nominee, not below the rank of a Professor.	(g)	Prof. Manoj Singh Gaur Director, IIT Jammu
Member-Secretary	Section 18 Clause (2)	Dr. S. K. Bukhari Registrar, National Institute of Technology Srinagar.

10.1.3.2. FINANCE COMMITTEE:

Chairman		Prof. Rakesh Sehgal Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006
Members: Two persons nominated by the Central Government	1 2	Joint Secretary (NITs & DL), Ministry of Human Resource Development, Department of Secondary & Higher Education, Government of India, New Delhi Joint Secretary & FA, Ministry of Human Resource Development, Department of Secondary & Higher, Government of India, New Delhi.
Two persons nominated by the BOG from amongst its members	1 2	Prof. Mohammad Farooq Wani, Professor, Mechanical Engineering Department, National Institute of Technology Srinagar. Dr. Mohammad Shafi Charoo Associate Professor, Mechanical Engineering Department, NIT Srinagar
Director **(Ex-officio)**		Prof. Rakesh Sehgal Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006
Member Secretary **(Ex-officio)**		Dr. S. K. Bukhari, Registrar, National Institute of Technology Srinagar

10.1.3.3. SENATE:

The Director, ex-officio, who shall be the Chairman of the Senate	Prof. Rakesh Sehgal Director, National Institute of Technology, Hazratbal, Srinagar-190006	Chairman
Three persons, one of whom shall be a woman, not being employees of the Institute, to be nominated by the Chairperson in consultation with the Director, from amongst educationists of repute, one each from the field of science, engineering and humanities;	Prof. Mehraj-ud-Din Vice-Chancellor, Central University of Kashmir, Srinagar (J&K)	Member
	Prof. S. K. Koul Professor, Centre for Applied Research in Electronics (CARE), Indian Institute of Technology, Hauz Khas, New Delhi.	Member
	Prof. Azra Nahid Kamili Dean Biological Sciences & HOD, Environmental Sciences, University of Kashmir	Member
One person to be nominated from the Industry	Mr. Deepak Bhasin B-134, NarainaVihar, New Delhi.	Member
Institute alumnus	Er. Mufti Musharib Gul General Manager, BSNL Srinagar	Special Invitee
The Professors appointed or recognized as such by the Institute for the purpose of imparting instructions in the Institute.		Members
Such other members of the staff as may be laid down in the statutes.		Members
Registrar	Dr. S. K. Bukhari Registrar, National Institute of Technology Srinagar	Secretary

10.1.3.4. BUILDING AND WORKS COMMITTEE:

Chairman		Prof. Rakesh Sehgal, Director, National Institute of Technology Srinagar Hazratbal, Srinagar-190006
Members: Nominated by MHRD and IFD New Delhi	1 2	Director **OR** Deputy Secretary (NITs), MHRD, Department of Secondary & Higher Education, Government of India, New Delhi Director **OR** Deputy Secretary (Finance), Integrated Finance Division (IFD) MHRD, Government of India, New Delhi – 110 001
One person nominated by the Board of Governors		Mr. Fayaz A. Khan, Chief Town Planner, Kashmir
Dean, Planning & Development		Prof. B. A. Mir, Dean, Planning & Development, NIT Srinagar
Nominee of the CPWD / State PWD		Superintendent Engineer (Civil), Jammu Central Circle, Landoi Bridge, Satwari Jammu SE (Electrical), Special Invitee Chandigarh Central Electrical Circle-II, CPWD Chandigarh Executive Engineer (Civil), Special Invitee CPWD, Srinagar Executive Engineer, Electric Division 4th, J&K Government, PDD Srinagar
Secretary		Dr. S. K. Bukhari Registrar, National Institute of Technology Srinagar

10.1.3.5. Function and responsibilities of key bodies:

The functions of key bodies are depicted in table below:

Bodies	Functions and Responsibilities
Board of Governors	❖ The Board shall be responsible for the general superintendence, direction and control of the affairs of the Institute. ❖ Take decision on questions of policy relating to the administration and working of the Institute ❖ Institute courses of study at the Institute ❖ Make statutes ❖ Institute and appoint persons to academic as well as other posts in the Institute ❖ Consider and modify or cancel ordinances ❖ Consider and pass resolutions on the annual report, the annual accounts and the budget estimates of the Institute for the next financial year as it thinks fit and submit them to the Council together with a statement of its development plans ❖ Exercise such other posers and perform such other duties as may be conferred or imposed upon it by this act or the statutes ❖ The Board shall have the power to appoint such committees, as it considers necessary for the exercise of its powers and the performance of its duties under this Act.
Finance Committee	❖ Examine and scrutinize the annual budget of the Institute prepared by the Director and make recommendations to the Board ❖ Give its views and make its recommendations on any financial proposals or issues affecting the Institute to the Board either on the initiative of the Board or of the Director or on its own motion
Building and Works Committee	❖ The Building and Works Committee shall under the directions of the Board carry on construction of all major works after the necessary administrative approval and expenditure sanction from the Board. ❖ Have the power to give the necessary administrative approval and expenditure sanction for minor works and works pertaining to repair and maintenance, within the approved budgetary provision of the Institute and the Board will define the minor work and minor repair and maintenance in terms of quantum or expenditure. ❖ Cause to prepare estimates of cost of buildings and other capital works, minor works, repairs, maintenance and the like. the Building and Works Committee shall approve the cost estimates for minor works, minor repairs and maintenance. ❖ Be responsible for making technical scrutiny of the design, estimates and specifications of the material as may be considered necessary. ❖ Be responsible for enlistment of suitable contractors and acceptance of tenders and shall have the power to give directions for departmental works where necessary duly recommended by the Dean (P&D) of the Institute. ❖ Have the power to settle rates not covered by tender and settle claims and disputes with contractors. ❖ In the opinion of the Chairman of the Building and Works Committee, any emergency has arisen which requires immediate action to be taken, he shall take such action and report the same to the Building and Works Committee and the Board at their next meeting. ❖ Shall also perform such function and exercise such powers as may be entrusted by the board from time to time.
	❖ Frame and revise curricula and syllabi for the courses of studies for the various Departments and Centres. ❖ Make arrangements for the conduct of examinations, appointment of examiners, moderators, tabulators and other matters relating to the examinations.

Senate	❖ Declare the results of the examinations or to appoint committees or Officers to do so and to make recommendations to the Board regarding conferment or grant of degrees, diplomas and other academic distinctions or titles. ❖ Appoint Advisory Committees or Expert Committees or both for the Departments or Centres of the Institute to make recommendations on academic matters connected with the working of the Departments or Centres. ❖ Appoint Committees from amongst the members of the Senate, other Teachers of the Institute an expert from outside to advice on such specific and important academic matters as may be referred to any such committee by the Senate. ❖ Consider the recommendations of the Advisory Committees attached to various Departments or Centres and that of Expert and other Committees and take such action (including the making of recommendations to the Board) as warranted by each case. ❖ Make periodical review of the activities of the Departments or Centres and take appropriate action (including the making of recommendations to the Board). ❖ Supervise the working of the Library of the Institute. ❖ Promote research and academic development or activity within the Institute and seek reports on such research or academic development or activity from the persons engaged therein. ❖ Provide for the inspection of the classrooms, laboratories, library and the Residential Hostels. ❖ Plan co-curricular activities of the students of the Institute. ❖ Award stipends, scholarships, medals and prizes and make other awards in accordance with such conditions as may be attached to the awards. ❖ Make recommendations to the Board to disseminate knowledge through distance learning mode to various parts of the State or country or abroad and in the cases of signing of agreement with the foreign agency, agreement may be signed with approval of the ministry. ❖ Make recommendations to the Board to disseminate knowledge through distance learning mode to various parts of the State or country or abroad. ❖ Invite up to two student representatives during discussion of general nature not involving policy or disciplinary matter in the Senate meetings.

10.1.3.6. Frequency, Participations details of External Members and Attendance of Board of Governors, Finance Committee, Building and Works Committee and Senate:

S. No.	Date of meetings	Academic Year	No. of participants (external members)	Total No. of participants
Board of Governors:				
1	06-03-2021	2020-21	05	09
2	18-01-2021	2020-21	04	09
3	28-09-2020	2019-20	04	09
4	07-07-2020	2019-20	05	10
5	29-06-2020	2019-20	05	11
6	14-03-2020	2019-20	04	08
7	21-12-2019	2019-20	04	08
8	19-10-2019	2019-20	03	08
9	28-06-2019	2019-20	04	08
10	28-05-2019	2019-20	05	09
11	14-12-2018	2018-19	04	08
12	29-09-2018	2018-19	03	07
13	14-03-2018	2017-18	02	06
14	21-11-2017	2017-18	03	07
15	19-06-2017	2017-18	03	07
Finance Committee:				
1	18-01-2021	2020-21	04	06
2	28-09-2020	2019-20	03	06
3	07-07-2020	2019-20	02	05
4	21-12-2019	2019-20	02	06
5	19-10-2019	2019-20	02	07
6	28-06-2019	2019-20	02	06
7	28-05-2019	2019-20	02	06
8	14-03-2019	2019-20	02	06
9	14-12-2018	2018-19	02	06
10	29-09-2018	2018-19	02	05
11	14-03-2018	2017-18	02	05
12	21-11-2017	2017-18	02	05
Building and Works Committee:				
1	20-12-2019	2019-20	03	06
2	27-05-2019	2019-20	06	10
3	28-09-2018	2018-19	05	09
4	01-11-2017	2017-18	05	10
Senate:				
1	20-10-2020	2019-20	04	45
2	14-01-2020	2019-20	02	38
3	29-04-2019	2019-20	03	48
4	08-08-2018	2018-19	05	47
5	27-12-2017	2017-18	01	42

10.1.3.7. Minutes of the meetings and action taken reports:

10.1.3.7.1. Minutes of the 102nd meeting of Board of Governors
National Institute of Technology Srinagar, Hazratbal, J&K
Held on December 21, 2019 at 12.30 p.m. at C-15, Panchsheel Enclave, Near Chirag Delhi Flyover, New Delhi

The following were present:

1	Prof. Rakesh Sehgal, Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006	Director / Chairman
2	Shri Madan Mohan Additional Director General, NITs, MHRD, Department of Higher Education, Government of India, New Delhi	Member
3	Mr. Talat Parvez, Commissioner / Secretary to Govt., Department of Higher Education, Government of Jammu and Kashmir, Civil Secretariat, Srinagar	Member
4	Mr. D. K. Singh, Deputy Secretary, Integrated Finance Division (IFD), MHRD, Department of Higher Education, Government of India, New Delhi	Member
5	Prof. Manoj Singh Gaur, Director, Indian Institute of Technology Jammu, J &K	Member
6	Prof. Mohammad Farooq Wani, Professor, Mechanical Engineering Department, National Institute of Technology Srinagar	Member
7	Dr. Mohammad Shafi Charoo, Associate Professor, Mechanical Engineering Department, NIT Srinagar	Member
8	Dr. Syed Kaiser Bukhari, Registrar, National Institute of Technology Srinagar	Secretary

Prof. A. Goswami, Professor & Twinning Coordinator, Mentor Institute, IIT Kharagpur did not attend the meeting:

Minutes of the 101th meeting of Board of Governors

National Institute of Technology Srinagar, Hazratbal, J&K
Held on October 19, 2019 at 12.00 noon. at C-15, Panchsheel Enclave, Near Chirag Dili Flyover, New Delhi.

The following were present:

1	Prof. Rakesh Sehgal, Director, National Institute of Technology Srinagar, Hazratbal, Kashmir	Director/Chairman
2	Smt. Darshana Momaya Dabral IAS JS & FA, Ministry of Human Resource Development, Department of Higher Education, Government of India, New Delhi	Member
3	Shri Madan Mohan, Additional Director General NITs, Department of Higher Education, Ministry of Human Resource Development, Government of India, New Delhi.	Member
4	Mr. Talat Parvez, Commissioner / Secretary to Govt., Department of Higher Education, Government of Jammu and Kashmir, Civil Secretariat, Srinagar	Member
5	Prof. Mohammad Farooq Wani, Professor, Mechanical Engineering Department, National Institute of Technology Srinagar.	Member
6	Prof. M. A. Lone, Civil Engg. Department, NIT Srinagar (Chairman DPC)	Special Invitee
7	Dr. Mohammad Shafi Charoo, Associate Professor, Mechanical Engineering Department, NIT Srinagar	Member
8	Dr. Syed Kaiser Bukhari, Registrar, National Institute of Technology Srinagar	Secretary
The following members did not attend the meeting:		
1	Prof. Manoj Singh Gaur, Director, Indian Institute of Technology Jammu, J&K	
2	Prof. A. Goswami, Professor & Twinning Coordinator, Mentor Institute, IIT Kharagpur	

10.1.3.7.2. Minutes of the 100th meeting of Board of Governors

National Institute of Technology Srinagar, Hazratbal, J&K
Held on June 28, 2019 at 12.00 noon.At C-15, Panchsheel Enclave, Near Chirag Dili Flyover, New Delhi.

The following were present:

1	Prof. Rakesh Sehgal, Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006	Director/Chairman
2	Smt. Darshana Momaya Dabral IAS JS & FA, Ministry of Human Resource Development, Department of Higher Education, Government of India, New Delhi	Member
3	Mr. Talat Parvez, Commissioner / Secretary to Govt., Department of Higher Education, Government of Jammu and Kashmir, Civil Secretariat, Srinagar.	Member
4	Mr. A. K. Singh, Under Secretary NITs, Department of Higher Education, Ministry of Human Resource Development, Government of India, New Delhi.	Member
5	Prof. Manoj Singh Gaur, Director, Indian Institute of Technology Jammu, Jammu. **(Participated in the meeting through Skype)**	Member
6	Prof. Mohammad Farooq Wani, Professor, Mechanical Engineering Department, National Institute of Technology Srinagar.	Member
7	Dr. Mohammad Shafi Charoo, Associate Professor, Mechanical Engineering Department, NIT Srinagar	Member
8	Dr. S. K. Bukhari, Registrar, National Institute of Technology Srinagar.	Secretary
Prof. A. Goswami, Professor & Twinning Coordinator, Mentor Institute, IIT Kharagpur, a special Invitee member, did not attend the meeting.		

10.1.3.7.3. Minutes of the 99th meeting of Board of Governors

National Institute of Technology Srinagar, Hazratbal, J&K
Held on May 28, 2019 at 12.30 p.m. at C-15, Panchsheel Enclave,
Near ChiragDili Flyover, New Delhi.

The following were present:

1	Prof. Rakesh Sehgal, Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006	Director / Chairman
2	Mr. D. K. Singh, Deputy Secretary, IFD, Ministry of Human Resource Development, Department of Higher Education, Government of India, New Delhi	Member
3	Mr. A. K. Singh, Under Secretary NITs, Department of Higher Education, Ministry of Human Resource Development, Government of India, New Delhi	Member
4	Prof. Manoj Singh Gaur, Director, Indian Institute of Technology Jammu, J & K	Member
5	Dr. Prema Rama Chandran, Director, Nutrition Foundation of India, C-13, Qutab Institutional Area, New Delhi	Member
6	Mr. Talat Parvez, Commissioner / Secretary to Govt., Department of Higher Education, Government of Jammu and Kashmir, Civil Secretariat, Srinagar	Member
7	Prof. Mohammad Farooq Wani, Professor, Mechanical Engineering Department, National Institute of Technology Srinagar	Member
8	Dr. Mohammad Shafi Charoo, Associate Professor, Mechanical Engineering Department, NIT Srinagar	Member
9	Dr. S. K. Bukhari, Registrar, National Institute of Technology Srinagar.	Secretary

10.1.3.7.4. Minutes of the 98th meeting of Board of Governors

National Institute of Technology Srinagar, Hazratbal, J&K
Held on December 14, 2018 at 03.30 p.m. at C-15, Panchsheel Enclave, Near ChiragDili Flyover, New Delhi.

The following were present:

1	Prof. Rakesh Sehgal, Director, National Institute of Technology Srinagar, Hazratbal, kashmir-190006	Director / Chairman
2	Mr. Madan Mohan, Deputy Director General, MHRD, Department of Secondary & Higher Education, Government of India, New Delhi	Member
3	Mr. Anil Kumar Director, Integrated Finance Division, MHRD, Department of Secondary & Higher Education, Government of India, New Delhi	Member
4	Prof. Manoj Singh Gaur, Director, Indian Institute of Technology Jammu, J &K	Member
5	Dr. Prema Ramachandran, Director, Nutrition Foundation of India, C-13, Qutab Institutional Area, New Delhi 110016.	Member
6	Prof. Mohammad Farooq Wani, Professor, Mechanical Engineering Department, National Institute of Technology Srinagar.	Member
7	Dr. Mohammad Shafi Charoo Associate Professor, Mechanical Engineering Department, NIT Srinagar	Member
8	Dr. Nisar Ahmad Mir, Registrar, National Institute of Technology Srinagar.	Secretary

Ms. Sarita Chauhan, IAS Commissioner / Secretary to Govt., Department of Higher Education, Government of Jammu and Kashmir, Civil Secretariat, Jammu could not attend the meeting.

10.1.3.7.5. Minutes of the 97th meeting of Board of Governors

National Institute of Technology Srinagar, Hazratbal, J&K
Held on September 29, 2018 at 03.00 p.m. in the Committee Room of the National Institute of Technology Srinagar, J&K

The following were present:

1	Prof. Rakesh Sehgal, Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006	Director / Chairman
2	Ms. Sarita Chauhan, IAS Commissioner / Secretary to Government, Higher Education Department, Government of J&K, Civil Secretariat, Srinagar	Member
3	Mr. Anil Kumar, Director, IFD, MHRD, Department of Higher Education, Government of India, New Delhi	Member
4	Mr. A. K. Singh, Under Secretary, MHRD, Department of Higher Education, Government of India, New Delhi	Member
5	Prof. Mohammad Farooq Wani Mechanical Engineering Department, National Institute of Technology Srinagar	Member
6	Dr. Mohammad Shafi Charoo Assistant Professor, Mechanical Engineering Department, NIT Srinagar	Member
7	Dr. Nisar Ahmad Mir, Registrar, National Institute of Technology Srinagar	Secretary

The following members could not attend the meeting:

1	Dr. Prema Ramachandran, Director, Nutrition Foundation of India, C-13, Qutab Institutional Area, New Delhi 110016, India
2	Mr. Sheikh Zubair Aslam, Hassan Sons Group, Srinagar Kashmir

However comments were received from Mr. A. K. Singh, Under Secretary, MHRD, Department of Higher Education, Government of India, New Delhi vide F.No.16-7/2017-TS.III dated 28-09-2018. These were circulated among the members before the deliberations of the agenda. These comments were taken into account while taking the decisions.

10.1.3.7.7. Minutes of the 96th meeting of Board of Governors
National Institute of Technology Srinagar, Hazratbal, J&K
Held on March 14, 2018 at 12.00 p.m. at NIT Transit House, Safdarjung Enclave, New Delhi

The following were present:

1	Prof. Rakesh Sehgal, Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006	Chairman
2	Smr. Drshana M. Dabral, JS & FA, MHRD, Department of Secondary & Higher Education, Government of India, New Delhi	Member
3	Shri K. Rajan, Under Secretary, MHRD, Department of Secondary & Higher Education, Government of India, New Delhi	Member
4	Prof. Rajinder Ambardar, Metallurgical & Materials Engineering Department, National Institute of Technology Srinagar.	Member
5	Dr. Mohammad Hanief, Assistant Professor, Mechanical Engineering Department, NIT Srinagar	Member
6	Dr. Nisar Ahmad Mir, Registrar, National Institute of Technology Srinagar	Secretary

The following members could not attend the meeting:

1	Dr.Prema Ramachandran, Director, Nutrition Foundation of India, C-13, Qutab Institutional Area, New Delhi 110016, India
2	Dr. Asgar Hassan Samoon, Commissioner Secretary, Department of Higher Education, Government of Jammu and Kashmir, Civil Secretariat, Jammu.
3	Mr. Sheikh Zubair Aslam, Hassan Sons Group, Srinagar Kashmir

10.1.3.7.8. Minutes of the 95th meeting of Board of Governors

National Institute of Technology Srinagar, Hazratbal, J&K
Held on November 21, 2017 at 02.00 p.m. at NIT Transit House, Safdarjung Enclave, New Delhi.

The following were present:

1	Dr. M. J. Zarabi, (Chairman, Board of Governors, NIT Srinagar), C/o. C-28, Pamposh Enclave, Greater Kailash Part-1, New Delhi-110048	Chairman
2	Prof. Rakesh Sehgal, Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-190006	Ex-Officio
3	Shri. A. K. Singh Under Secretary (NITs), Ministry of Human Resource Development, Department of Secondary & Higher Education, Government of India, New Delhi	Member
4	Shri. D. K. Singh, Under Secretary (IFD), MHRD, Department of Secondary & Higher Education, Government of India, New Delhi	Member
5	Dr.Prema Ramachandran, Director, Nutrition Foundation of India C-13, Qutab Institutional Area New Delhi 110016, India	Member
6	Dr. Rajinder Ambardar, Professor, Metallurgical & Materials Engineering Department, National Institute of Technology Srinagar.	Member
7	Dr. G. M. Rather, Professor, Electronics & Communication Engineering Department, National Institute of Technology Srinagar.	Special Invitee
8	Prof. M. S. Mir, Registrar, National Institute of Technology Srinagar.	Secretary

The following members could not attend the meeting:

1	Dr. Asgar Hassan Samoon, Commissioner Secretary, Department of Higher Education, Government of Jammu and Kashmir, Civil Secretariat, Jammu.
2	Mr. Sheikh Zubair Aslam, Hassan Sons Group, Srinagar Kashmir
3	Dr. Mohammad Hanief, Assistant Professor, Mechanical Engineering Department, NIT Srinagar

The Chairman Board of Governors (BOG) started the deliberations by welcoming the members to this 95th BOG meeting, especially Director, Prof. R. Sehgal who has recently been selected as Director NIT Srinagar and has joined on 09-11-2017. The Chairman BOG hoped that his tenure would take the institute to new heights.

10.1.3.7.9. Minutes of the 94th meeting of Board of Governors

National Institute of Technology Srinagar, Hazratbal, J&K
Held on June 19, 2017 at 03.30 p.m. at NIT Transit House, Safdarjung Enclave, New Delhi.

The following were present:

1	Dr. M. J. Zarabi, (Chairman, Board of Governors, NIT Srinagar), C/o. C-28, Pamposh Enclave, Greater Kailash Part-1, New Delhi-110048	**Chairman**
2	Prof. A. R. Dar, Director, National Institute of Technology Srinagar, Hazratbal, Kashmir	**Ex-Officio**
3	Mr. K. Rajan, Under Secretary, Technical Education (NITs) Represented on behalf of Joint Secretary (NITs & DL), MHRD, Department of Secondary & Higher Education, Government of India, New Delhi	Member
4	Mr. D. K. Singh, Under Secretary (IFD), Smt. Darshana Momaya Dabral, Represented on behalf of Joint Secretary & FA, Ministry of Human Resource Development, Department of Secondary & Higher Education, Government of India, New Delhi.	Member
5	Dr. Prema Ramachandran, Director, Nutrition Foundation of India C-13, Qutab Institutional Area New Delhi 110016, India	Member
6	Prof. Rajinder Ambardar, Metallurgical & Materials Engineering Department, National Institute of Technology Srinagar.	Member

The following members could not attend the meeting:

1	Dr. Asgar Samoon, Commissioner Secretary, Department of Higher Education, Government of Jammu and Kashmir, Civil Secretariat, Srinagar.
2	Mr. Shiekh Zubair Aslam, Hassan Sons Group, Srinagar Kashmir
3	Prof. Fayaz Ahmad Mir, Registrar, National Institute of Technology Srinagar.

10.1.4 Decentralisation in working and grievance redressal mechanism (5)

10.1.4. (A) Organizational Structure

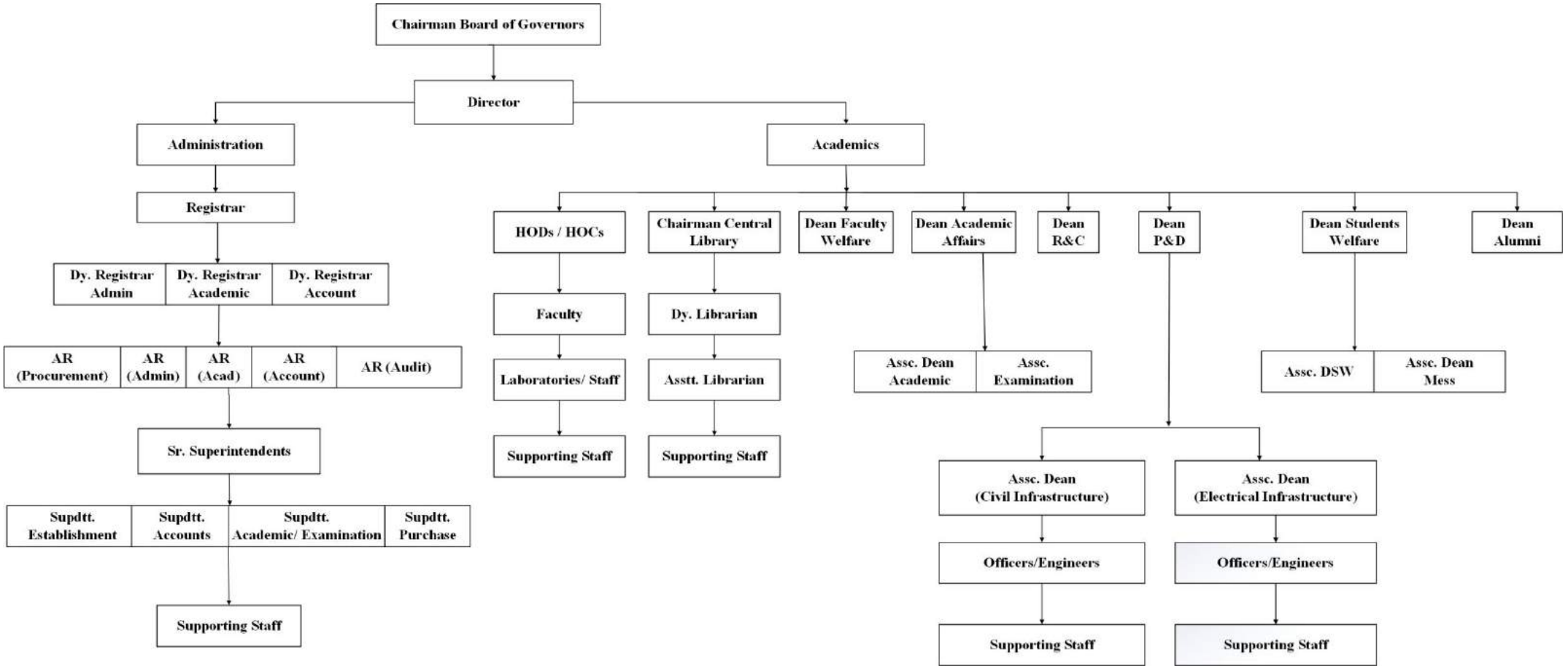


Figure B.10.1.4

Decentralization in Working: Faculty Development is delegated to the Dean Faculty Welfare:

- Students' Academic Activities and Examination is being looked after by Dean Academic Affairs who further is assisted by Associate Dean Academics and Associate Dean Examination.
- Developmental works of the Institute is being looked by Dean Planning & Development who is being assisted by Associate Dean.
- Training and Placement is delegated to Dean Alumni and International Affairs.
- The Students Activities, Hostels, Security is being looked after by Dean Students Welfare.
- Research and Consultancy of the Institute is being looked after by Dean Research and Consultancy.
- Office Administration and other matters are being looked after by Registrar.
- The Departments and Centres are being looked after by Heads of Departments and Heads of Centres.

All the above arrangements report to the Director of Institute in their day- to-day official activities and assignments.

10.1.4 B. Mechanism and Composition of Grievance Redressal system.

The Institute receives grievance both online and off line. The online grievances are addressed through online mode after obtaining the relevant information for concerned quarters. The offline grievances are also responded through surface mail to the aggrieved parties.

Further for grievance Redressal of teaching and non-Teaching staff committees are constituted to look into the complaints/ grievances from the aggrieved. The report of the grievance committee is forwarded to the Director for further necessary action and the corrective measures are taken. Following Grievance Committees have been constituted:

1. **Grievance Committees:**

- **For Faculty**

Prof. S. A. Lone	Chairman
Dr M Haneif	Member
Dr Shabir Ah. Sofi	Member
Dr Jaya Shrivastava	Member
Mr. Mohd Ashraf Sofi	Member Secretary

- **For Non-Faculty**

Prof. A. M. Shah Professor Kashmir University	Chairman
Prof. A. A. Zargar Professor Electrical Engg. Deptt.	Member
Prof. G. M. Rather Professor ECE Department	Convener

- **For Students**

Dr. Abdul Liman	Chairman
Dr. Neyaz Ahmad Sheikh	Member
Dr. Atiqur Rehman	Member
Dr. M. A. Rather	Member

Er. Tanveer Rasool	Member

2. For Anti-Ragging Committee

Dr. Abdul Liman	Chairman
Dr. Neyaz Ahmad Sheikh	Member
Dr. Atiqur Rehman	Member
Dr. M. A. Rather	Member
Er. Tanveer Rasool	Member
Concerned HOD	Member
Medical Officer	Member
Dy. Registrar (Academics)	Member
Asstt. Security Officer	Member
Two Students Representatives	Member

3. The Internal Complaints Committee under the provisions of "The Sexual Harassment of Women at work place (Prevention, Prohibition and Redressal) Act 2013 is constituted as under for our Institute:

Prof. Roohie Naaz	Chairperson
Prof. CSE Department	
Prof. A.H. Bhat	Member
Prof. Electrical Engineering	
Dr. A. Rehman	Member
Materials and Metallurgical Engg. Deptt.	
Dr. Hamida Chisti	Member
Associate Professor Chemistry	
Adv. Humaira Shafi	External Member
Mrs. Nazia Nazir	Member Secretary
DR Accounts	

4. SC/ST/PWD/OBC/ Cell Committee

Dr M Y Shah	Chairperson
Dr Shrikant Maktedar	Member
Dr Ravi Bhushan	Member
Dr. Kurella Swamy	Member
Dr Chilaka Ranga	External Member
Dr Farhad Illahi Baksh	Member Secretary

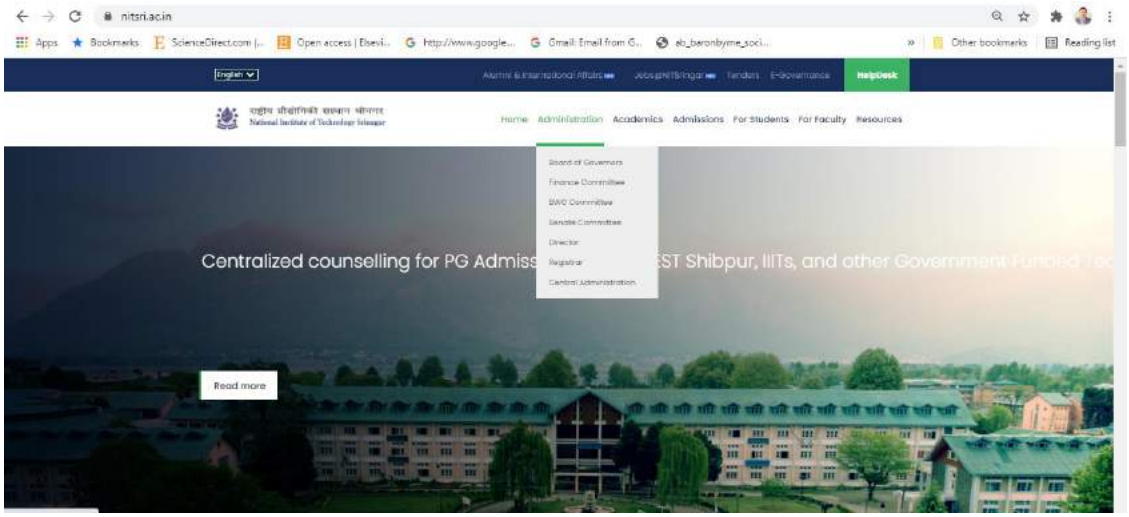
10.1.5 Delegation of financial powers (5)

The Accounts of the Institute are in the name of Director. He is empowered to sanction the requisite amount of money/ proposes upto Rs. 25.00 Lacs beyond this amount the proposal needs to be approved by Chairman BOG. The financial Cheques /transactions are jointly signed by Director and the Registrar.

Further, the HOD's/HOC's are delegated to spend Rs. 15,000/- for purchase of consumables and repairs for smooth running of the departments/centres.

10.1.6 Transparency and availability of correct/ambiguous information in public domain (5)

The Institute has a dynamic website and all the relevant information is placed on the Institute Website www.nitsri.ac.in for the information of Public.



10.2 Budget Allocation, Utilization and Public Accounting at Institute level. (15)
10.2.1. (A) Quantum of Budget Allocation for Three Years (Rs. in Rupees**) (5)**

Table B.10.2.1

Financial Year 2019-20

Total Income 1,44,84,79,807.00				**Actual Expenditure 1,22,57,00,000.00**			**Total No of students**
Fee	Govt.	Grants	Other Sources. 1.Interest on investment 2.Misc.Income	Recurring Expenditure including Salary	Non-Recurring Expenditure	Special Project/Any other	Expenditure per student
14,70,11,344.00	0	1,21,69,00,000.00	8,45,68,463.00	97,42,00,000.00	25,15,00,000.00	0	**4,71,423.00**

Financial Year 2018-19

Total Income 2,12,89,38,557.00				**Actual Expenditure 1,49,76,40,049.00**			**Total No of students**
Fee	Govt.	Grants	Other Sources. 1.Interest on investment 2.Misc.Income	Recurring Expenditure including Salary	Non-Recurring Expenditure	Special Project/Any other	Expenditure per student
13,49,81,363.00	0	1,91,59,00,000.00	7,80,57,194.00	1,02,64,35,768.00	47,12,04,281.00	0	**5,69,228.45**

Financial Year 2017-18

Total Income 1,58,21,25,490.00				**Actual Expenditure 1,61,71,95,384.00**			**Total No of students**
Fee	Govt.	Grants	Other Sources 1.Interest on investment 2.Misc.Income	Recurring Expenditure including Salary	Non-Recurring Expenditure	Special Project/Any other	Expenditure per student
17,35,67,108.00	0	1,30,90,00,000.00	9,95,58,382.00	84,27,47,542.00	77,44,47,842.00	0	**6,06,827.53**

10.2.2 Utilization of Allocated Funds (5)

A. Budget utilization for three years (Rs. in crores):

Table B.10.2.2

Financial Year	Budget (INR)	Expenditure (INR)	Percentage of Utilization
2019-20	121.69 crores	122.57 crores	100.72%
2018-19	191.59 crores	149.76 crores	78.16%
2017-18	130.90 crores	147.14 crores	112.40%

The Funds allocated have been well utilized for:

- Developing lab facilities.
- Additional labs were setup.
- New equipments were added to different labs.
- Library and Internet facilities were improved.
- Maintenance of workshop and lab equipments.
- Training programs for faculty members and non-teaching staffs.
- Extracurricular activities of students.

Table B.10.2.2a

Items	BUDGETED IN 2019-20 (INR)	EXPENSES IN 2019-20 (INR)	BUDGETED IN 2018-19 (INR)	EXPENSES IN 2018-19 (INR)	BUDGETED IN 2017-18 (INR)	EXPENSES IN 2017-18 (INR)
Infrastructure Build up	800.00 Lacs	795.00 Lacs	2000 Lacs	1791.69 Lacs	5750 Lacs	6105.83 Lacs
Library	300.00 Lacs	275.00 Lacs	300.00 Lacs	425.13 Lacs	335.00 Lacs	325.00 Lacs
Laboratory equipment	1415.00 Lacs	1445.00 Lacs	2824.00 Lacs	2492.22 Lacs	980.00 Lacs	977.78 Lacs
Lab consumable	33.50 Lacs	33.83 Lacs	80.00 Lacs	60.00 Lacs	70.00 Lacs	69.03 Lacs
Teaching and Non Teaching Salary	8739.00 Lacs	6976.06 Lacs	5562.00 Lacs	4319.86 Lacs	4180.00 Lacs	4358.69 Lacs
Maintenance And Spares	45.00 Lacs	30.29 Lacs	230.00 Lacs	105.00 Lacs	240.00 Lacs	35.72 Lacs
R&D			--	--	---	---
Training and Travel	60.00 Lacs	52.43 Lacs	65.00 Lacs	35.00 Lacs	60.00 Lacs	24.33 Lacs
Misc. Expenses*	1200.00 Lacs	955.89 Lacs	1350.00 Lacs	1165.00 Lacs	1225.00	975.00
Computer Software			280.00 Lacs	255.40 Lacs	250.00 Lacs	245.00 Lacs
Total	**12,592.50 Lacs**	**10,563.50 Lacs**	**12,691 Lacs**	**10,649.3 Lacs**	**13,090 Lacs**	**13,116.38 Lacs**

10.2.3. Availability of Audited Statements on the Institute Website. (5)

A. Availability of Audited Statement on website

The Audited statements for the last three years are available on the Institute Website www.nitsri.ac.in.

10.3 Programme specific Budget Allocation, Utilization (30)

10.3.1. (A) Quantum of Budget Allocation for Three Years (Rs. in Lacs):

Table B.10.3.1a

Financial Year	Departments	Budget (INR)			Expenditure (INR)		
		Non-Recurring	Recurring	Total Budget	Non-Recurring	Recurring	Actual Budget
2019-20	Civil Engg. Deptt.	150.00	18.00	168.00	110.00	18.00	128.00
	Chemistry Deptt.	50.00	3.50	53.50	30.00	2.10	32.10
	Computer Science & Engg.	150.00	4.50	154.50	85.00	4.70	89.70
	Chemical Engg. Deptt.	150.00	7.00	157.00	95.00	6.0	101.00
	Electrical Engg. Deptt.	150.00	8.00	158.00	85.00	6.00	91.00
	Electronics &Comm.Engg.	150.00	7.00	157.00	70.00	4.50	74.50
	Humanities Deptt.	10.00	0.50	10.05	8.00	0.50	8.50
	Information Technology	150.00	4.50	154.50	45.00	4.25	49.25
	Mechanical Engg. Deptt.	150.00	13.00	163.00	120.00	8.48	128.48
	Mett. & Materials	150.00	6.00	156.00	45.00	5.75	50.75
	Mathematics Deptt.	50.00	0.50	50.50	40.00	0.50	40.50
	Physics Deptt.	50.00	3.00	53.00	25.00	3.05	28.05
	Total			1435.05	Total		821.83
2018-19	Civil Engg. Deptt.	20	10	30.00	11	2	13.00
	Chemistry Deptt.	3	1	4.00	1.5	0.5	02.00
	Computer Science & Engg.	12	2	14.00	4.2	1.8	06.00

	Chemical Engg. Deptt.	12	2	14.00	4.5	1.5	06.00
	Electrical Engg. Deptt.	14	4	18.00	6.0	2	08.00
	Electronics &Comm.Engg.	14	4	18.00	6	2.39	08.39
	Humanities Deptt.	1.5	0.5	02.00	0.75	0.25	01.00
	Information Technology	12	2	14.00	4	2	06.00
	Mechanical Engg. Deptt.	20	6	26.00	8.76	3.34	12.00
	Mett. & Materials	12	2	14.00	4.75	1.25	06.00
	Mathematics Deptt.	1.5	0.5	02.00	0.65	0.35	01.00
	Physics Deptt.	2.75	1.25	04.00	1.5	0.5	02.00
	Total			**160.00**	**Total**		**71.39**
2017-18	**Civil Engg. Deptt.**	18	6	24.00	12	4	16.00
	Chemistry Deptt.	3	1	04.00	1.5	0.5	02.00
	Computer Science & Engg.	10	2	12.00	8	2	10.00
	Chemical Engg. Deptt.	9.5	2.5	12.00	8.5	1.5	10.00
	Electrical Engg. Deptt.	13	3	16.00	8.5	3.5	12.00
	Electronics &Comm.Engg.	13.5	2.5	16.00	8	4	12.00
	Humanities Deptt.	1.5	0.5	02.00	0.75	0.25	01.00
	Information Technology	9	3	12.00	6	2	08.00
	Mechanical Engg. Deptt.	19	5	24.00	11	4.55	15.55
	Mett. & Materials	9.5	2.5	12.00	5.5	2.5	08.00
	Mathematics Deptt.	1.25	0.75	02.00	0.75	0.25	01.00
	Physics Deptt.	2.75	1.25	04.00	1.5	0.5	02.00
	Total			**140.00**			**97.55**

10.3. Program Specific Budget Allocation, Utilization (Rs. in Lacs): (30)

Table B.10.3.1b

Items	Budgeted 2019-20	Expenses 2019-20	Budgeted 2018-19	Expenses 2018-19	Budgeted 2017-18	Expenses 2017-18
Laboratory equipment	150.00	120.00	15.00	7.50	14.00	8.50
Computer Software			--	--	2.00	--
Lab consumable	5.00	3.48	5.00	2.50	4.00	3.50
Maintenance & Spares	8.00	5.00	4.00	2.00	4.00	3.55
R&D			---	--	--	--
Training and Travel				---	--	--
Misc. Expenses*			2.00	---	--	--
Total	**163.00**	**128.48**	**26.00**	**12.00**	**24.00**	**15.55**
Items	**Budgeted 2019-20**	**Expenses 2019-20**	**Budgeted 2018-19**	**Expenses 2018-19**	**Budgeted 2017-18**	**Expenses 2017-18**
Laboratory equipment	150.00	110.00	18.00	07.00	13.00	09.00
Computer Software			--	--	--	--
Lab consumable	10.00	12.00	10.00	05.00	09.00	05.50
Maintenance & Spares	8.00	6.00	02.00	01.00	02.00	01.50
R&D			---	--	--	--
Training and Travel			--	---	--	--
Misc. Expenses*			---	---	--	--
Total	**168.00**	**128.00**	**30**	**13**	**24**	**16**
Items	**Budgeted 2019-20**	**Expenses 2019-20**	**Budgeted 2018-19**	**Expenses 2018-19**	**Budgeted 2017-18**	**Expenses 2017-18**
Laboratory equipment	150.00	85.00	10.00	03.00	09.00	6.50
Computer Software			04.00	03.00	3.50	2.00
Lab consumable	4.00	3.50	03.00	01.50	2.50	1.50
Maintenance & Spares	5.00	3.50	01.00	0.50	1.00	2.00
R&D			---	--	--	--

Training and Travel			--	---	--	--
Misc. Expenses*			---	---	--	--
Total	**159.00**	**91.00**	**18**	**8**	**16**	**12**
Items	**Budgeted 2019-20**	**Expenses 2019-20**	**Budgeted 2018-19**	**Expenses 2018-19**	**Budgeted 2017-18**	**Expenses 2017-18**
Laboratory equipment	150.00	95.00	6.00	3.00	7.00	6.00
Computer Software			3.50	1.75	---	--
Lab consumable	3.00	3.50	2.50	0.75	3.50	2.50
Maintenance & Spares	4.00	2.50	2.00	0.50	1.50	1.50
R&D			---	--	--	--
Training and Travel			--	---	--	--
Misc. Expenses*			---	---	--	--
Total	**157.00**	**101.00**	**14**	**6**	**12**	**10**
Items	**Budgeted 2019-20**	**Expenses 2019-20**	**Budgeted 2018-19**	**Expenses 2018-19**	**Budgeted 2017-18**	**Expenses 2017-18**
Laboratory equipment	150.00	70.00	10.00	5.39	10.00	7.50
Computer Software			4.00	---	4.00	3.25
Lab consumable	4.00	2.80	3.50	1.75	2.00	1.25
Maintenance & Spares	3.00	1.70	0.50	1.25	--	--
R&D			---	--	--	--
Training and Travel			--	---	--	--
Misc. Expenses*			---	---	--	--
Total	**157.00**	**74.50**	**18.00**	**8.39**	**16.00**	**12.00**
Items	**Budgeted 2019-20**	**Expenses 2019-20**	**Budgeted 2018-19**	**Expenses 2018-19**	**Budgeted 2017-18**	**Expenses 2017-18**
Laboratory equipment	150.00	85.00	9.00	3.70	8.00	7.00
Computer Software			3.00	2.30	2.50	2.00
Lab consumable	1.50	2.00	1.25	--	1.50	0.50
Maintenance & Spares	3.00	2.70	0.75	--	--	0.50
R&D			---	--	--	--

Training and Travel			--	---	--	--
Misc. Expenses*			---	---	--	--
Total	**154.50**	**89.70**	**14.00**	**6.00**	**12.00**	**10.00**
Items	**Budgeted 2019-20**	**Expenses 2019-20**	**Budgeted 2018-19**	**Expenses 2018-19**	**Budgeted 2017-18**	**Expenses 2017-18**
Laboratory equipment	150.00	45.00	8.00	3.70	7.00	7.00
Computer Software			4.00	2.30	3.50	2.00
Lab consumable	1.50	1.75	1.25	--	1.50	0.50
Maintenance & Spares	3.00	2.50	0.75	--	--	0.50
R&D			---	--	--	--
Training and Travel			--	---	--	--
Misc. Expenses*			---	---	--	--
Total	**154.50**	**49.25**	**14.00**	**6.00**	**12.00**	**8.00**
Items	**Budgeted 2019-20**	**Expenses 2019-20**	**Budgeted 2018-19**	**Expenses 2018-19**	**Budgeted 2017-18**	**Expenses 2017-18**
Laboratory equipment	150.00	45.00	8.00	3.70	7.00	5.00
Computer Software			2.00	--	--	--
Lab consumable	3.00	2.95	2.25	2.30	3.50	1.50
Maintenance & Spares	3.00	2.80	1.75	--	1.50	1.50
R&D			---	--	--	--
Training and Travel			--	---	--	--
Misc. Expenses*			---	---	--	--
Total	**156.00**	**50.75**	**14.00**	**6.00**	**12.00**	**8.00**

Items	**Budgeted 2019-20**	**Expenses 2019-20**	**Budgeted 2018-19**	**Expenses 2018-19**	**Budgeted 2017-18**	**Expenses 2017-18**
Laboratory equipment	50.00	25.00	2.25	0.50	1.25	--
Computer Software			--	--	--	--
Lab consumable	1.00	1.75	1.00	0.50	2.00	0.50

Maintenance & Spares	2.00	2.50	0.75	--	0.75	0.50
R&D			---	--	--	--
Training and Travel			--	---	--	--
Misc. Expenses*			---	---	--	--
Total	**53.00**	**28.05**	**4.00**	**1.00**	**4.00**	**1.00**
Items	**Budgeted 2019-20**	**Expenses 2019-20**	**Budgeted 2018-19**	**Expenses 2018-19**	**Budgeted 2017-18**	**Expenses 2017-18**
Laboratory equipment	50.00	30.00	2.25	1.50	1.25	1.00
Computer Software			--	--	--	--
Lab consumable	1.50	0.60	1.00	0.50	2.00	0.50
Maintenance & Spares	2.00	1.50	0.75	--	0.75	0.50
R&D			---	--	--	--
Training and Travel			--	---	--	--
Misc. Expenses*			---	---	--	--
Total			**4.00**	**2.00**	**4.00**	**2.00**
Items	**Budgeted 2019-20**	**Expenses 2019-20**	**Budgeted 2018-19**	**Expenses 2018-19**	**Budgeted 2017-18**	**Expenses 2017-18**
Laboratory equipment	50.00	40.00	--	--	1.50	0.75
Computer Software			1.50	0.75	--	--
Lab consumable	0.50	0.50	--	--	--	--
Maintenance & Spares	2.00		0.50	0.25	0.50	0.25
R&D			---	--	--	--
Training and Travel			--	---	--	--
Misc. Expenses*			---	---	--	--
Total	**52.50**	**40.50**	**2.00**	**1.00**	**2.00**	**1.00**
Items	**Budgeted 2019-20**	**Expenses 2019-20**	**Budgeted 2018-19**	**Expenses 2018-19**	**Budgeted 2017-18**	**Expenses 2017-18**
Laboratory equipment	10.00	8.00	1.50	--	1.50	0.75
Computer Software			--	0.75	--	--
Lab consumable	0.50	0.50	--	--	--	--

Maintenance & Spares	2.00		0.50	0.25	0.50	0.25
R&D			---	--	--	--
Training and Travel			--	---	--	--
Misc. Expenses*			---	---	--	--
Total	**12.50**	**8.50**	**2.00**	**1.00**	**2.00**	**1.00**

10.3.1.(B) Adequacy of budget allocation (10)

- As per the requirement of Institute New Labs were established and New Equipment's and accessories had to be procured.
- New Facilities were introduced for extension programmes of R&C Wing.
- Existing labs were upgraded and improved for ambience and facilities.
- Purchase of New Software's and Renewal of Software already exists.
- Purchase of E-Resources, E-Books and E-Journals.
- Faculty members were encouraged to attend faculty development programmes.
- Trainings programmes for non-faculty staff were held for upgradation of soft skill.

10.3.2. Utilization of Allocated Funds (Rs. in crores) (20):

Table B.10.3.2

Financial Year	Budget (INR)	Expenditure (INR)	Percentage of Utilization
2019-20	121.69 crores	122.70 crores	100.70%
2018-19	191.59 crores	149.76 crores	78.16%
2017-18	130.90 crores	147.14 crores	112.40%

The funds allocated have been well utilized for:

- Developing of lab facilities and upgradation of existing facilities.
- Purchase of equipment's for different labs
- Library resources and internet facilities
- Workshop maintenance and lab consumables.
- Training of faculty and non-faculty.

10.4. Library and Internet (20)

The NIT Srinagar library, LIRC supports the Teaching, Research & and other related programmes of the institute. The library has a good collection of documents that comprises of Books,
Journals, Theses, Video cassettes, Learning Resources (LRs)& Compact discs in the field of Engineering, Science, Management, and Literature & Humanities.
The library has computerized data of whole of its collection using **KOHA software** and is in the process of automating all library operations.

Table B. 10.4

Library Established in	1960
Library Members	4000
Number of Books	68248
Reprographic facility	Xeroxing
Data usage of the library	70-80% (in terms of Books issued to faculty& students and E-resources used)
Annual Budget	3crore
Timing during working days	8.45 am to12 pm
Timing on Sundays &Holidays	10am to 5pm

- **Layout and Floor plan**
    - **Ground Floor: The ground floor houses the following important sections.**
        - Periodical section
        - Circulation section

- Conference Hall
- Acquisition Section/Processing Section
- Stacks I
- Assistant Librarians Room
- Dy. Librarian's room
- Office
- Automation section

- **First Floor: The first floor houses the following important sections.**
  - Textbook & Reference section
  - Reading cum browsing Hall
  - Stacks II

- **Second Floor**
  - Back Volume Section/ ST, SC Section

- **Library Mission:**
  - To promote the technical knowledge
  - Generation and application of knowledge & resources
  - Effective dissemination of knowledge.
  - Library automation and networking for remote access of online electronic resources.
  - Improve the library resources.
  - Enhance the student experience.
  - Build the digital research environment.
  - Provide convenient and customized access to information Library Resources

- **Library Resources:**

The library has a wide range of resources on engineering, sciences, humanities & Social Sciences.

Table B.10.4b

Collection	**Size (number)**
Books	68248
Bound volumes of journals	10070
Video cassettes	496
Learning Resources	36
Compact discs	650
Books in Text book section	10037
Books in stacks section	58211
Books in SC, ST section	9898

Table B.10.4c

Year	Number of New Titles Added
2017-2018	164
2018-2019	7447
2019-2020	2249

10.4.1. Quality of Learning Resources (10)

E-Library (Electronic/On-line resources/e-resource)

E-library provides collaborative search of all type of e-resources/on-line resources such as e-journals and books

- **E-Books**

Central library procured different type of e-books, online books for students and faculty via IP range in the campus. The different departments can also be access various type of e-books such as text books and reference books in the electronic form.

- **Wiley**

Table B.10.4.1a

Subjects Covered	URL	Total cost
Civil Engineering & Construction, Electronics &Electrical Engg, Computer Science &IT, Chemistry &Chemical Engg, Physics, Maths & Statistics &Mechanical Engineering.	onlinelibrary.wiley.com Year 2016 &2017 No Of Titles 829	$88,694

- **Springer Nature**

Table B.10.4.1b

Subjects Covered	URL	Total Cost
Chemistry & Materials Science, Computer Science, Engineering, Mathematics &Statisticscs, Physics &Astronomy	link.springer.com/openurl?genre=book&isbn=978-1-4471-6807-2 Year 2016 No. Of Titles 3298	€52,759.20

- **Elsevier**

Table B.10.4.1c

Subjects Covered	URL	Total Cost
Chemical Engineering, Chemistry, Engineering, Materials Science, Mathematics, Physics& Astronomy, Computer Science	sciencedirect.com Year 2016 No. Of Titles 493	$102136

- **Pearson**

Table B.10.4.1d

Subjects Covered	URL	Total Cost
Chemistry, Civil Engineering, Computer Science & IT, Electronic Telecommunication, Mathematics, Mechanical Engineering, Physics	lib.myilibrary.com Year 2014-2017 No. Of Titles 312	INR 15.64059

- **E-Journals**

  - **E-Resources are accessible to our Institute through eShodhSindhu (eSS)**

Table B.10.4.1e

E-resources	E-resources Subscription Period
ACM Digital Library	January2020 toDecember2021
ASCE Journals	January2020 toDecember2021
ASME Journals Online	January2020 toDecember2021
Economic & Political Weekly	April 2021 to March 2022
Institute for Studies in Industrial Development	April 2021 to March 2022
JGatePlus(JCCC)	January2020 to December 2021
Oxford University Press	April 2020 to March 2022
Springer Link 1700 Collection+ Nature Journals	April 2021 to March 2022
Web of Science Lease Access	January2020 to December2021

- **<u>NDL e Resources</u>**

3. World E-Book Library Available through NDLI (National Digital Library of India)

4. South Asia Archives (SAA), National Licensing (perpetual)

- **URKUND Plagiarism software** National Licensing

Back Files of Science Direct Journals from M/S **Elsevier** on the following subjects are now available from **Vol.1, Issue1**up to the year **1994.**

Table B.10.4.1f

Subjects Covered	Year	URL	Total Cost
Engineering &Technology	Pre 1995	sciencedirect.com	**$1,93,874**
Materials Science	,,	,,	
Chemical Engineering	,,	,,	
Computer Science	,,	,,	
Inorganic Chemistry	,,	,,	
Organic Chemistry	,,	,,	
Mathematics	,,	,,	
Business Management Accounting	,,	,,	

E-Resources subscribed by the Institute (2019-2020)

Table B.10.4.1g

Subjects Covered	URL	Total Cost
Science Direct (8 subject collection) Jan 2020- Dec 2020	www.sciencedirect.com/	USD 86,441.22
IEEE/IET Electronic Library (IEL) online Jan 2019-Dec. 2018	http://ieeexplore.ieee.org/	INR 18,97,693.10
SCOPUS Jan 2020- Dec 2020	www.elsevier.com	USD 11,787.50
TURNITIN (Plagiarism software)		INR 7,000,00

- **BIS &ASTM Standards on our IP range.**

Table B.10.4.1h

Subjects Covered	URL	Total Cost
BIS	http://standards.bsb.co.in/	INR 12,48,345.60 (for 3 Years)
ASTM	http://compass.astm.org	INR 7,44,420.44

SERVICES

- **Membership**

  All the students, faculty members, research scholars & administrative staff can register themselves for the membership of the library. The membership form is available at the circulation counter and the same is required to be attested by the Head of the Department/Section.

The number of books borrowed by users is as follows:

Category	Number of Books	Duration
Faculty	10	30 days
Research Scholar	05	15 days
Student	03	15 days
Supporting Staff	02	15 days

Table B.10.4.1i

- **Text Book & Reference Section**

The textbook and reference section remains open from 8.45 a.m.to 9.30p.m. on all working days and from 10.a.m. to 4.00 p.m. on weekdays & holidays. The books available in this section can be consulted in the library only.

- **Stacks section**

The books available here are meant to be issued to the faculty, students, research scholars and other readers as per the criteria given in the library rules.

- **Video Library**

The library has collection of video cassettes, CDs, & LRs.

- **Photo copying facility**

The photocopying facility is provided to all students and faculty at subsidized rates.

- **Search**

OPAC (Online public access catalogue), Science Direct, E-Resources, Video library

- **RFID facility**

- Library and Information Resource Centre is currently being remodelled into a smart library. All the supporting Hardware (OPAC Kiosk's, Book Check-in/Check-Out Kiosks, Server's, Intra- Net, Networked Thermal Printers, Smart Staff Stations) and Software (Koha Server, Windows Server, Linux Server, RFID server) is already up and running.The library is also equipped with a wireless security gate that can alert the staff of any unauthorized checkouts whereas 2 high density data servers are running 24*7 in the library.

- **Lib website:** The library provides the updates to the patrons via the library webpage https://nitsri.ac.in/Department/Deptindex.aspx?page=a&ItemID=io&nDeptID=ck

- **Library programs/activities:**User awareness webinars and workshops are continuously organised by LIRC.

➢ **Our Team**

Ms.Asmat Ali	Deputy Librarian M 9797847219, Deputylibrarian@nitsri.net
Technical Asstt. (SG)	Mrs Saymee
Technical Asstt	Mrs Tahira
Technical Asstt	Mr. M Y Rather
Assistant(SG)	Mrs.Dilshada
Assistant(SG)	Mrs.Neelofar
Jr. Lib assistant	MrShabir Ahmad Sheikh
Orderly	Mr.Noor Mohammad
Contractual	Six

Table B.10.4.1j

Library committee

Sl. No.	Members of the Library Committee	Department	Responsibility
14.	Prof.Ajaz Ahmed Zargar	Electronics and Communication	Chairman Library Committee
15.	Ms. Asmat Ali	Library	Deputy Librarian
16.	Dr. M. Zubair Ansari	Physics	Member
17.	Dr. S. A. Shah	Chemistry	Member
18.	Dr. Ranjeet Kumar Rout	Computer Science and Engineering	Member
19.	Dr. IrfanSamadWani	Metallurgical & Materials Engineering	Member
20.	Dr. M S Charoo	Mechanical Engineering	Member
21.	Dr. Malik Perveez	Chemical Engineering	Member
22.	Dr M AdilBazaz	Electrical engineering	Member
23.	Prof.Nayaz Ahmad	Mathematics	Member
24.	Dr. Prince Ahmad	Physics	Member
25.	Mr. Janibul Bashir	IT	Member
26.	Prof Mir Mukhtar		Member

Table B.10.4.1k

10.4.2 Internet (10)

Claimed 10

- **Internet Connection Details**

Name of the Internet Provider	NIC NKN; BSNL
Available Bandwidth	NIC NKN :1 GBPS (1:1) & BSNL: 250 Mbps
Wi-Fi Availability	YES
Internet access in labs classrooms library and offices of all departments	YES
SECURITY ARRANGEMENT	YES, HARDWARE FIREWALL

Table B.10.4.2a

- **Wi-Fi Details**

NIT Srinagar is a Wi-Fi enabled campus with its access controlled by hardware Firewall installed in Computer Service Centre and Wi-Fi access points in various departments including both Boys and Girls hostels.

Device	Department	Coverage
Cisco Access Points	Computer Service Centre(3)	50 Meters radius without obstructions
Dlink Access Points	Direction Office (2)	50 Meters radius without obstructions
Dlink Access Points	CSE Staff Room (1)	50 Meters radius without obstructions
Dlink Access Points	Training & Placement Cell (4)	50 Meters radius without obstructions
Cisco Access Points	IT Building(3)	50 Meters radius without obstructions
Dlink Access Points	Humanities Department (1)	50 Meters radius without obstructions
Dlink Access Points	Physics Department (1)	50 Meters radius without obstructions
Dlink Access Points	Medical Unit (1)	50 Meters radius without obstructions
Cisco Access Points	Guest House (2)	50 Meters radius without obstructions
Dlink Access Points	Boys Hostels (92) Girls Hostels (15)	50 Meters radius without obstructions
Dlink Access Points	Campus Wi-fi (Outdoor) (130)	50 Meters radius without obstructions
Cisco Access Points	CSE Building (6)	50 Meters radius without obstructions
Cisco Access Points	Admin Building (04)	50 Meters radius without obstructions
Cisco Access Points	Civil, Electrical, Physics, Chemistry &Mathematics Building (18)	50 Meters radius without obstructions
Cisco Access Points	EM&R (1)	50 Meters radius without obstructions
Cisco Access Points	PG Block	50 Meters radius without obstructions
Cisco Access Points	Girls Hostel (3)	50 Meters radius without obstructions
Cisco Access Points	Chemistry Department (2)	50 Meters radius without obstructions

Cisco Access Points	MMED Department (1)	50 Meters radius without obstructions
Cisco Access Points	Old E&C Building (1)	50 Meters radius without obstructions

Table B.10.4.2b

- **Security Details**

S.No	Device	Function
1	Sophos Firewall XG750 Full Guard Plus (Hardware)	Security Controller
2	Quick Heal (Seqrite) Antivirus Endpoint Software 17.00 (64-bit)	Anti-Virus

Table B.10.4.2c