

ANNUAL REPORT 2019-20



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National Institute of Technology Srinagar (J&K)



May, 2021.

 $\ensuremath{\mathbb{C}}$ National Institute of Technology Srinagar .

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Report prepared by Mohamad Hazik. Translated to Hindi by Dr. Ravi Bhushan, Dr. H.S Pali & Dr. Shashikant Kumar

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60th ANNUAL REPORT (2019-20)



Director's Report

60th Issue

t gives me immense pleasure to present the 60th Annual Report of the National Institute of Technology Srinagar (J&K) for the year 2019-20. The Institute right from its beginnings as Regional Engineering College Srinagar, back in 1960, has nurtured the rich traditions of pursuing excellence and has continually re-invented itself in terms of Academic Programmes and Research. The Institute has, over the decades, emerged as a premier Centre for Technical Education in the region. The Students at



NIT Srinagar are exposed to challenging, research-based academics along with carrying out a host of sports, cultural and organizational activities on its vibrant campus. The Institute has a legacy of distinguished alumni who have made their alma-mater proud through their achievements and contributions in diverse fields, and our engagements with them are steadily growing.

NIT Srinagar has boasts of 8 established Engineering Departments which offer Bachelor of Technology Programmes in all eight disciplines; along with an offering of 10, Masters of Technology, Degree Programmes. NIT Srinagar also has 4 Allied Departments which in turn offer both Master's Degree Programmes as well as Research Programmes.

The Faculty at NIT Srinagar are actively involved in the research activities and have presented papers on varied research areas. Faculty members regularly attend and conduct National & International Conferences/Seminars, Workshops, Expert Lectures. Apart from these activities, many R&D sponsored projects are also in progress at the Institute.

NIT Srinagar has been at the forefront for rendering support & services to other sister Institutions & has continued to offer expertise & consultancy services to various government & other organizations. The Institute under Unnat Bharat Abhiyan has adopted five villages for the transforming them in model villages. NIT Srinagar has till date donated 80 computers to the schools of these villages for establishing computer labs for imparting computer knowledge to the teachers and students of these primary and middle schools.

NIT Srinagar recognizes the importance of Trainings and Job Placements at the culmination of an Academic Programme; and as such, has an established Department for Training & Placement for the same. The T&P strives to bring in National & Multinational companies for placement of students of the Institute. More than 44 reputed Companies visited the Campus for placement during the year 2019-2020. A good number of students have been placed through Campus Selection.

I would like to place on record the outstanding work done by the faculty and the staff members of the Institute in strengthening teaching, research and outreach programmes. The success of the Institute in diverse area is due to these efforts. I record my appreciation for the team under the overall supervision of Dr. S. K. Bukhari, Registrar of the Institute for compilation of the Annual Report for the year 2019-20.

At the end, I place on record my sincere gratitude to Ministry of Human Resource Development, Department of Higher Education, Government of India, Members of the BOG/FC/Senate & most of all the students of this Institute for their efforts, co-operation & support

Prof. (Dr) Rakesh Sehgal Director

National Institute of Technology Srinagar

Annual Report 2019-2020

60th Issue

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- Elevated to NIT in 2003
- More than 2600 Students on rolls
- 8 Engineering Departments
- 4 Applied Sciences Departments
- 5 Centers



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60th Annual Report

1.0. Introduction

The National Institute of Technology Srinagar (formerly Regional Engineering College), was established in July of 1960, by a joint venture between the Government of India & the erstwhile State Government of J&K during the Second (Five Year) Plan. It was among the first batch of 8 such Institutes that were set up across the country. The other seven Institutes were located at Allahabad, Bhopal, Durgapur, Jamshedpur, Nagpur, Surathkal & Warangal.

The Institute initially functioned at the historical Chinar garden of Naseem Bagh, Srinagar;

The National Institute of Technology Srinagar adjacent to the campus of the University of (formerly Regional Engineering College), was established in July of 1960, by a joint venture between the Government of India & the erst-1966 & has functioned here ever since.

The Institute was elevated in the year 2003, to function as one of the 30 National Institutes of Technology across the country & was granted with 'Deemed to be University' status by the Ministry of Human Resource Development (MHRD), Government of India & University Grants Commission (UGC).

Objectives

- To provide the best educational infrastructure for imparting high class education in science & technology & a creative
 atmosphere for inter-disciplinary research both by the students & the faculty.
- To enhance the quality of teaching by strengthening the teachers professional • capabilities to meet the growing educational aspirations of students.
- To upgrade the syllabus & re-frame the course curriculum periodically in order to produce creative & capable engineers who meet effectively the growing job requirements.
- To inculcate amongst the students the highest standards of honesty, accountability, moral integrity, tolerance for diversity, & respect for ethnic & religious differ-

ences so as to make them good human beings.

- To develop amongst the students a strong personal commitment, as a member of the engineering professional, towards social outreach activities.
- To produce engineers having ethics of engineering profession, complete confidence in decision making & a good social outlook in all their activities so that they perform their duty to the best satisfaction of the organization & to the society.
- To maintain global standards in studentfaculty ratio, scientific research output, research publications in technical journals of repute, & placement of students.

Vision

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

Mission

- To create a strong & transformative technical educational environment in which fresh ideas, moral principles, research & excellence nurture with international standards.
- To prepare technically educated & broadly talented engineers, future innovators & entrepreneur graduates with understanding of the needs & problems of the industry, society, state & the nation.
- To produce engineers who possess the highest degree of confidence, professionalism, academic excellence & engineering ethics.

The National Institute of Technology Srinagar was established in July of 1960 as Regional

Engineering College

Historical Background

while State Government of J&K during the boys & 300 girl students. Second (Five Year) Plan. It was among the first batch of 8 such Institutes that were set up across the country. The other seven Institutes were located at Allahabad, Bhopal, Durgapur, Jamshedpur, Nagpur, Surathkal & Warangal.

The Institute initially functioned at the historical Chinar garden of Naseem Bagh, Srinagar; adjacent to the campus of the University of Kashmir on the North side. The Institute eventually shifted to its present campus in the year lance, Guest House, Students Activity Centre, 1966 & has functioned here ever since.

The Institute was elevated in the year 2003, to function as one of the 30 National Institutes of Technology across the country & was granted with 'Deemed to be University' status by the Ministry of Human Resource Development (MHRD), Government of India & University Grants Commission (UGC).

decades & has continued to produce professionals & academicians of repute despite the period of turmoil & post the infrastructural damage it had to bear during the 2014 deluge. The Institute through its output at various levels has gained a reputation of a premier technical education Institute of the region.

The National Institute of Technology Srinagar NIT Srinagar is a residential Institute with ac-(formerly Regional Engineering College), was commodation facility in Hostels & Staffestablished in July of 1960, by a joint venture Quarters. There are eight Boys & two Girls between the Government of India & the erst- hostel which have a capacity of around 2000

> Besides running the B.Tech. Program the Institute also offers M.Tech. program in many streams. In addition to that a large number of students are registered for M.Phil. & Ph.D. Programmes in different disciplines.

> Facilities & amenities are available at the Institution such as NSS, Bank, Shopping Arcade, Recreational Centre, Dispensary with Ambu-Gymnasium, Internet Centre, Fax Services, Generator, Bus Facility.

The Institution has an Industry Interaction cell which was established in 1989 with the aim to remain at the fore-front on the Scientific & Technological development & to share its experience with industries in utilizing. Man-power & other resources are available at the Institute effectively with the assistance of the participat-The Institute has proved its mettle over the ing industries. The Institute has one of the best technical libraries in I&K State. It has a collection of over 60,000 books on Engineering Science & humanities & about 6,000 bound volumes/Journals, both foreign & Indian. It has online repository comprising of e-books, access to journals like Springer Nature, Elsevier, Wiley and Pearson. Additionally the Library facilitates access to various e-journals & NDL e -resources.

Campus

The Institute is located at Hazratbal in Srinagar, two girls hostels which accommodate about the summer capital of J&K. The campus is 2000 boys & 300 girls with separate mess facilispread over 67 acres on the banks of world- ty for each hostel. famous Dal Lake set against the beautiful Zabarwan Mountain range. The Institute is flanked Almost all necessary facilities & amenities are by the much revered Sufi Shrine oh Hazratbal available in the campus which includes Cafeteon its North.

tion facility for students & staff in hostels & net facility, Bus facility, Centralized Library etc. Residential Quarters. There are eight boys &

ria, Shops, Bank, Medical Unit with ambulances, Guest House, Students Activity Centre, Gym-The Institute is residential with accommoda- nasium, Computer Services Centre with inter-

How to Get Here

The campus is 10 Kilometers from the City Centre, Lal Chowk (Red Square). It's a further 22 Kilometers from the Sheikh UI Alam International Airport, Srinagar. The Nearest Railway Station of Nowgam is at a distance of about 18 kilometers from the Institute Campus. The campus is located on National Highway to Ladakh. The campus is also connected with the winter capital, Jammu & the national capital, Delhi by National Highway 44 which snakes through picturesque high mountain passes. The distance till Jammu can be covered in about 7-8 hours by private cabs.



Administration

"To give real service, you must add something which cannot be bought or measured with money"

National Institute of Technology Srinagar (J&K) Director is assisted in the day-to-day affairs of control of Ministry of Human Resource Devel- the Departments & Centers along with various The Institute functions under the overall guid- Committees in addition to BOG, responsible Director is the academic & executive head of the Institute, include: the Institute. He is also the Ex-Officio member of the Board of Governors & is responsible for maintaining proper administration & discipline & imparting instructions for smooth functioning & overall development of the Institute.

is an autonomous Institute under the direct the Institute by the Registrar, Deans, Heads of opment (MHRD), Government of India (GOI). committees & other officers. The Important ance & control of Board of Governors (BOG). for advising in respect of the various matters of

— Sir M. Visvesvaraya

Committees at NIT Srinagar	
The Senate	For Academic Affairs
Finance Committee (FC)	For Financial Matters
Building Works Committee (BWC)	For Developmental

NIT Council

I.	Minister of Human Resource Development,	Chairman
	Government of India.	
2	Secretary, Department of Secondary & Higher Education, Ministry of HRD, Government of India.	Member
3	Chairpersons, of all Board of Governors of National Institutes of Technology.	Members
4	Directors, of all the National Institutes of Technology	Members
5	Chairman, University Grant Commission.	Member
6	Director General, Council of Scientific & Industrial Research, Government of India.	Member
7	Secretary, Department of Biotechnology, Government of India.	Member
8	Secretary, Atomic Energy, Government of India.	Member
9	Secretary, Department of Information Technology, Government of India.	Member
10	Secretary, Department of Space, Government of India.	Member
П	Chairman, All India Council of Technical Education.	Member
12	Three members of Parliament, Of whom two shall be chosen by the House of the People and one by the Council of States	Members
	(Provided that the office of member of the Council shall not disqualify its holder for being chosen as or for being, a member of either House of Parliament)	
13	Three to Five persons (at least one of whom shall be a woman) having special knowledge or experience in respect of education, industry, sci- ence or technology nominated by the Visitor,	Members
14	Two Secretaries of Higher / Technical Education from states where NITs are located (by rotation).	Members
15	Financial Adviser, Ministry of Human Resource Development, Government of India.	Member
16	Joint Secretary, (Technical Education), Joint Educational Adviser (Technical Education), Ministry of Human Resource Development Government of India.	Member- Secretary

Board of Governors

Chairman	Nomination* (a)	Prof. Rakesh Sehgal Director, NIT Srinagar (J&K)
Ex-Officio	(b)	Prof. Rakesh Sehgal Director, National Institute of Technology Srinaga Hazratbal, Kashmir-190006
Two persons not below the rank of the Joint Secretary to the Govern- ment of India to be nominated by the Central Government from amongst persons dealing with tech-	(c)	Joint Secretary (NITs & DL), Ministry of Human Resource Develop- ment, Department of Secondary & Higher Edu cation, Government of India, New Delhi
nical education and finance	(c)	Joint Secretary & FA, Ministry of Human Resource Develop- ment, Department of Secondary & Higher, Go ernment 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 opin- ion of that Government, are tech- nologists or industrialists of repute	(d)	Mr. Talat Parvez, Commissioner Secretary, Higher & Technical Education Dept. Government of Jammu and Kashmir, Civil Secretariat, Srinagar / Jammu.
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	(e)	
One Professor and one Assistant Professor or a Lecturer of the Insti- tute to be nominated by the Senate	(f)	Prof. M. F. Wani, Mechanical Engineering Department, National Institute of Technology Srinaga
	(f)	Dr. M. S. Charoo, Associate Professor, Mechanical Engineering Department, NI Srinagar
	(f)	Prof. Manog Singh Gaur, Director, IIT Jammu
Member-Secretary	Section 18 Clause (2)	Dr. S. K. Bukhari, Registrar, NIT Srinagar.

*Nominations Under Section 11 of NIT Act, 2007 (29 of 2007)

The Senate

Chairman	I	Prof. Rakesh Sehgal Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-
Three persons, one of whom shall be a woman, not being employees of the Insti- tute to be nominated by the Chairperson in consultation with the Director, from	I	Prof. Mehraj-ud-Din, Vice-Chancellor, Central University of Kashmir,
amongst educationists of repute, one each from the field of Science, Engineering and Humanities	2	Prof. S. K. Koul, Professor, Centre for Applied Research in Electron- ics (CARE), Indian Institute of Technology, Hauz Khas, New Delhi.
	3	Prof. Azra Nahid Kamili, Dean, Biological Sciences & HOD, Environmental Sciences, University of Kashmir
One person to be nominated from the Industry	I	Mr. Deepak Bhasin, B-134, Naraina Vihar,
Institute alumnus	I	Er. Mufti Musharib Gul General Manager,
The Professors appointed or recog- nized as such by the Institute for the pur- pose of imparting instructions in the Insti-	I	All Professors
Such other members of the staff as may be laid down in the Statutes	I	All Deans, HoDs, Associate Deans, Con- troller of Examination, Co-ordinator 1 st & 2 nd Semester, Chairman Library Commit- tee, Librarian and DPE.
Secretary	I	Dr. S. K. Bukhari, Registrar, NIT Srinagar (From 29-01-2019)

Building & Works Committee

Chairman	I	Prof. Rakesh Sehgal Director, National Institute of Technology Srinagar, Hazratbal, Kashmir-
Members: Nominated by MHRD and IFD New Delhi	I	Director OR Deputy Secretary (NITs), MHRD, Department of Secondary & Higher Education,
	2	Representative of Integrated Finance Division (IFD)
One person nominated by the Board of Governors	I	Mr. Fayaz A Khan, Chief Town Planner Kashmir
Dean, Planning & Development		Prof. Javed Ahmad Bhat, Civil Engineering Department,
Nominee of the CPWD / State PWD	I	Superintendent Engineer (Civil), CPWD, Chandigarh.
	2	Prof. Bashir Ahmad Mir, <i>(Special Invitee)</i> Associate Dean, P&D, NIT Srinagar
	3	Shri Rajiv Sao, (Special Invitee) Superintendent Engineer, CPVVD Chandigarh
	4	Executive Engineer (Civil), CPWD, Srinagar.
	5	Er. Hilal Ahmad, Executive Engineer, Electric Division 4th Srinagar.
Secretary	I	Dr. S. K. Bukhari, Registrar, NIT Srinagar

Finance Committee

Chairman	I	Prof. Rakesh Sehgal Director, National Institute of Technology Srinagar, Hazratbal, Kashmir- 190006
Members: Two persons nominated by the Central Government	I	Joint Secretary (NITs & DL), Ministry of Human Resource Develop- ment, Department of Secondary & Higher Edu- cation, Government of India, New Delhi
	2	Joint Secretary & FA, Ministry of Human Resource Develop- ment, Department of Secondary & Higher, Gov- ernment of India, New Delhi.
Two persons nominated by the BOG from amongst its members	I	Prof. M. F. Wani, Mechanical Engineering Department, National Institute of Technology Srinagar
	2	Dr. M. S. Charoo, Associate Professor, Mechanical Engineering Department, NIT Srinagar
Director (Ex-officio)	I	Prof. Rakesh Sehgal Director, NIT Srinagar (J&K)
Secretary	I	Dr. S. K. Bukhari, Registrar, NIT Srinagar.

The meetings of the above statutory committees were conducted as detailed below:

Name of Statutory Committee	Date of the meeting
Senate	1. 29-04-2019
	2. 14-01-2020
Building Works Committee	1. 27-05-2019
	2. 20-12-2019
Finance Committee	1. 28-05-2019
	2. 28-06-2019
	3. 19-10-2019
	4. 21-12-2019
Board of Governors	1. 28-05-2019
	2. 28-06-2019
	3. 19-10-2019
	4. 21-12-2019

2.0 Academics

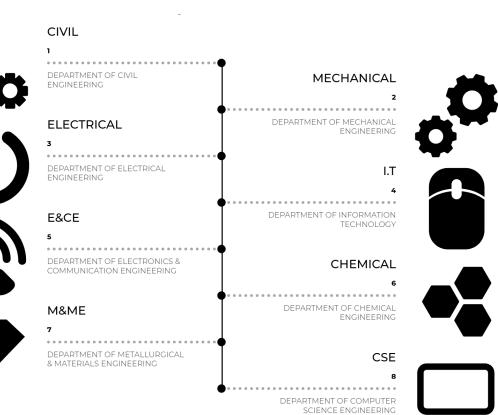
grammes comprising of (08) B.Tech. Pro- departments. grammes in eight disciplines of engineering; (10) M.Tech.. Programmes in 05 Engineering Depart- The Institute has eight Engineering Departments, ments,

The Institute offers M.Phil. programme in Sciences & HSS departments along with Ph.D. Pro-

The Institute offers various academic Pro- grammes in all the engineering, science & HSS

four Allied Departments & Five Centres. These are:

Engineering Departments





Allied Departments



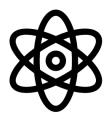
MATHEMATICS

1

DEPARTMENT OF MATHEMATICS



2 DEPARTMENT OF PHYSICS



Å

CHEMISTRY

DEPARTMENT OF CHEMISTRY

H&SS

4

DEPARTMENT OF HUMANITIES & SOCIAL SCIENCES



Centres at NIT Srinagar

1

WRMC

WATER RESOURCES MANAGEMENT CENTER



2

CSC COMPUTER SERVICES CENTRE

CRFC S CENTRAL RESEARCH FACILITIES CENTRE

3

FACILITIES CENTRE

4

IIED

INNOVATION, INCUBATION & ENTREPRENEURSHIP...



5

LIRC

LIBRARY & INFORMATION RESOURCE CENTRE



Education System

- The Institute offers 4 Year, full time Bachelor of Technology degree courses in 8 Engineering disciplines.
- Master of Technology Degree Courses are offered on both full time & part- time basis in 5 Engineering disciplines
- A Two Year Masters in Science Degree
 Course is offered in Applied Physics.
- Doctor of Philosophy (Ph.D.) degree is
 awarded by the Faculty of Engineering in all branches of engineering available in the
 Institute.
- Master of Philosophy & Doctor of Philosophy is awarded by the faculty of Allied
 Sciences' & Humanities & Social Science Department.
- The Institute also offers Post Doctoral Programmes at its various Engineering Departments
- The Academic Session is divided into two semesters, an Autumn semester (August– December) & a Spring semester (March– July).
- The Semester system is enforced at both under-graduate (U.G.) & post graduate (P.G.) levels.
- The Senate approves the academic calendar consisting of schedule of activities for the whole year including dates for registration, semester examinations, inter-

semester breaks, sports activities, annual day etc.

- Medium of instructions & examination for all courses including writing of dissertations of B.Tech. /M.Tech. /M.Phil. & Ph.D. thesis is British English.
- 05 days week period with at least 90 working days in each semester.
- Week days used for E.C.A. & other such activities.
- Credit based continuous Assessment System with one midterm & one major examination in each semester.
- Compulsory Practical training & visits to the work sites both at graduate & post graduate levels

"One man's

"magic" is another

man's engineering.

"Supernatural" is a

null word. - Robert

A. Heinlein

Courses Offered

B.Tech. Degree Programme

The 4 Year full time Bachelor of Technology degree courses are offered in:

- **Chemical Engineering**
- Civil Engineering,
- Computer Science Engineering,
- Electrical Engineering, .
- Electronics & Communication Engineering
- Information Technology
- Mechanical Engineering
- Metallurgical & Materials Engineering

M.Tech. Degree Programme

The Institute offers both Full time & Part Time Master of Technology degree courses in:

- Structural Engineering
- Water Resources Engineering
- Geotechnical Engineering •
- **Transportation Planning & Engineering** .
- Communication & Information Technology •
- **Micro Electronics**
- Mechanical System Design
- Industrial Tribology & Maintenance Management
- Electric Power & Energy System
- Chemical Engineering

The duration of a M.Tech. Course is of two years (four semesters) for full time students & 3 years for those admitted under part-time. Part time enrolment is given only to sponsored candidates.



M.Sc. Degree Programme

M. Phil Programme

The Institute offers both Full time & Part Time The Institute offers a 2 Year Master of Science Master of Philosophy degree courses at following Postgraduate degree course at its Physics dedepartments:

- **Mathematics**
- **Physics**
- Chemistry
- Humanities & Social Sciences

Ph.D. Programme

Applied Physics

partment in

The Doctoral Degree Programmes are being offered in all the Engineering & Allied Departments. These Programmes are offered on both full-time & part-time basis. About 150 research fellowships have been sanctioned with Scholarships at the rate as approved by MHRD from time to time. Currently, there are more that 450 Scholars pursuing research at NIT Srinagar

Post Doctoral Programme

The Post Doctoral Programmes are being offered at the various Engineering Departments.

Admissions

Undergraduate Courses

As per the policy of Government of India for NITs, admission to U.G. Programmes is made on the basis of the merit in National Level Test The M.Tech. Program is of two years spread Joint Entrance Examination (JEE) Mains, conducted by Central Board of Secondary Education (CBSE) New Delhi.

50% of sanctioned Intake of 672 seats for of the M.Tech. Programmes. B.Tech. is filled from domicile candidates of J&K State & 50% from candidates of other M. Phil / Ph.D. States, purely based on the merit/ranking in JEE Main Examination through a centralized online counseling system devised by the CSAB/ JOSAA. In addition the Institute also has a sanctioned intake of 53 seats for students under DASA program.

Post-graduate courses

The admission for Post graduate courses is made through CCMT based on GATE scores. However, admissions through a written test & Gate Score for sponsored candidates on full

Students

The student strength of the Institute is around 2627 (B.Tech/M.Tech/M.Sc./Ph.D.). The Institute has been able to attract the students from all parts of the Country. Students of NIT Srinagar in addition to doing well in academics, also take part in other co-curricular & extra-curricular activities as well with lot of enthusiasm. The students actively participate in the Institute affairs. The welfare of students is one of the major priorities of the Institute. For this purpose Students' welfare wing works towards the holistic development of the students.

time & part-time basis is also available for inservice candidates interested in seeking admission in Post graduate Programmes.

(four semesters) & a total number of 60 credits are required to be earned for its award. The coverage of various courses, labs, seminars, field work, dissertation etc is an essential part

The Selection of candidate for M. Phil/ Ph.D. Program is made through an Entrance test followed by viva voce examination conducted by the concerned Departmental Research Committee (DRC). The candidates with satisfactory performance are selected for M. Phil/ Ph.D. Program.

Examination & **Evaluation**

.All under graduate, post graduate & M.Phil./ Ph.D. Examinations, of the Institute are conducted centrally by the Examination Section of the Institute. The medium of examination for all examinations including dissertations & thesis is British English.

The performance of a student is evaluated in terms of two indices viz: the Semester Grade Point Average (SGPA) for a semester & Cumulative Grade Point Average (CGPA) which is the Grade point index for all the completed Semesters at any point of time. The Semester Grade Point Average (SGPA) is calculated on the basis of grades obtained in all courses in a semester & Cumulative Grade Point Average (CGPA) is calculated on the basis of pass grade in all completed semesters.

For each course, a grade is awarded on

"All religions, arts and sciences are branches of the same tree"— Albert Einstein

Examination & Evaluation (contd)

the basis of two written examinations in the case of theory papers i.e. Mid-term & Major Examinations with weight-age of 30 & 60 marks, respectively. 10 marks are reserved for class performance & attendance of the student in the course. The paper setting & evaluation is done by the concerned Faculty Members of the respective Departments in the Common Evaluation Centre of the Institute. The award rolls are being uploaded on the ERP Portal by the concerned faculty member under the supervision of DUGC. Mid-Term examination answer scripts are returned to students & major answer scripts are shown to them before submission of grades to the DUGC.

B.Tech. students are required to submit a project report of their project at the end of the 8th semester, which starts in 7th semester. It is to be submitted in the form of a bound thesis. The Heads of the Departments constitute a Project Evaluation Board (PEB) which assesses each individual project of the students. The evaluation is done in the following manner:-

The Project Evaluation Board comprises of:-

- Head of the Department concerned
- One senior most faculty member of the concerned department
- Supervisor concerned &
- One expert from any other sister Department of the Institute for B.Tech.

In case of M.Tech. the expert is from outside the Institute, nominated by Director from an approved panel.

SUPERVISOR	
Based on the work done by the student during the tenure of the Project)	40 %
EVALUATION BOARD	
20% For Project Re- port Contents & Quality	60 %
40 % For Presentation & viva voce	

Academic Statistics (for 2019-2020)

Sanctioned 92+3 (DASA) 157+10 (DASA)	Admissions
	76
157+10 (DASA)	
	147
73+7 (DASA)	74
98+7 (DASA)	90
97+7 (DASA)	95
73+7 (DASA)	72
97+9 (DASA)	93
91+3 (DASA)	68
	73+7 (DASA) 97+9 (DASA)

	M.Tech. COURSES			
"Failure is the	Discipline	Sanctioned Intake	Admissions Undertaken	
opportunity to	Water Resources Engineering (Civil Engineering Department)	18	15	
begin again more	Structural Engineering (Civil Engineering Department)	30	25	
intelligently."—	Communication & Information Technology (Electronics & Communications Engineering)	30	15	
Henry Ford	Micro Electronics	19	12	
	Mechanical System Design (Mechanical Engineering)	30	16	
	Industrial Tribology & Maintenance Management	31	3	
	Electric Power & Energy System	31	22	
	Transportation Engineering	21	14	
	Geo-Tech Engineering	20	13	
	Chemical Engineering	22	I.	

M.S	Sc. PHYSICS	
Discipline	Sanctioned	Admissions
	Intake	Undertaken
M.Sc. Physics	31	24

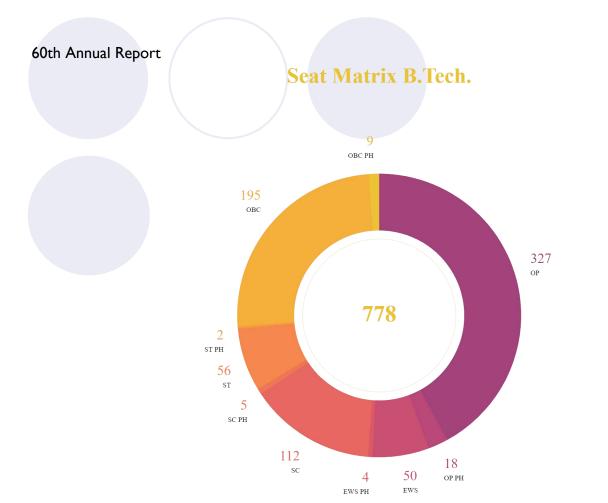
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Ph.D. Programmes total Sanctioned Intake capacity per year is 187.

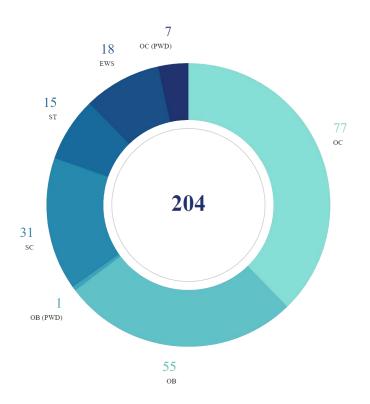
B.Tech. Seat Matrix

Other S	tates	Student	t Quot	a							
Branch	OP	ОРРН	EWS	EWSPH	SC	SCPH	ST	STPH	OBC	OB-	TO-
CSE	16	I.	3	0	5	0	3	0	9	0	37
п	16	I.	3	0	5	0	2	0	9	0	36
Civil	34	2	5	0	11	I.	6	0	19	T	79
Mech.	20	I.	2	I.	7	I.	4	0	12	T	49
Elect.	21	I.	3	I.	6	0	4	0	12	T	49
E&C	20	I.	3	I.	7	0	5	0	П	T	49
Chem.	20	I.	3	0	7	0	3	0	12	0	46
MMED	19	I.	3	0	7	0	4	0	П	0	45
Total	166	9	25	3	55	2	31	0	95	4	390

Home S	itate	Student	Quota	ı							
Branch	OP	ОРРН	EWS	EWSPH	SC	SCPH	ST	STPH	OBC	OB- CPH	TO- TAL
CSE	16	I.	3	0	5	0	T	0	10	0	36
іт	16	I.	2	0	6	0	2	0	10	0	37
Civil	32	2	5	I.	10	I.	6	0	20	I.	78
Mech.	19	I.	2	0	7	I.	3	0	14	T	48
Elect.	19	I.	4	0	7	I.	3	I.	12	I	49
E&C	21	I.	3	0	7	0	4	0	П	T	48
Chem.	19	I.	3	0	8	0	2	I.	П	T	46
MMED	19	I.	3	0	7	0	4	0	12	0	46
Total	161	9	25	I.	57	3	25	2	100	5	388



Seat Matrix M.Tech.



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Programme	00	OB	SC	ST	EWS	OC (PWD)	OB (PVD)	SC (PWD)	ST (PWD)	EWS (PWD)	TOTAL
Mechanical System Design (MSD)	6	7	4	2	2	-	0	0	0	0	25
Industrial Tribology & Maintenance Management (IT & MM)	0	9	4	2	2	-	-	0	0	0	26
Structural Engineering (SE)	6	7	4	2	2	_	0	0	0	0	25
Water Resource Engineering (WRE)	2	4	2	-	-	0	0	0	0	0	13
Transportation Engineering & Planning (TE & P)	6	4	7	-	2	_	0	0	0	0	16
Geo-Technical Engineering (GE)	9	4	2	_	2	0	0	0	0	0	15
Communication & Information Technology (C&IT)	6	7	4	2	2	-	0	0	0	0	25
Micro-Electronics (ME)	9	4	2	_	_	0	0	0	0	0	4
Electrical Power & Energy System (EP & ES)	01	۲	4	2	2	-	0	0	0	0	26
Chemical Engineering (CH)	7	S	m	_	2	_	0	0	0	0	61
Total	77	55	31	15	18	7	-	0	0	0	204

M. Sc Seat Matrix

Program	OP	EWS	SC	ST	SPONSERED	OBC	PwD	TOTAL
M.Sc.Physics	17	2	I	0	0	3	I	24

Ph.D. Admissions

Program	Adm.	Program	Adm.
Chemical Engineering	16	Information Technology	3
Civil Engineering	29	Mechanical Engineering	38
Computer Science Engineering	12	Mathematics	8
Electrical Engineering	21	Physics	13
Metallurgical & Materials Engineering	8	Chemistry	
Electronics & Communication Engineering	22	Humanities & Social Sciences	3

B.Tech. Enrollments (Category wise)

B.Tech. E	nrollment	s (Categor	y wise)			Year		2019
Batch	OP	EWS	SC	ST	OBC	DASA	PwD	Total
Civil	53	12	22	П	45	0	4	147
ELE	32	9	13	8	27	0	I.	90
ECE	43	10	15	8	18	0	I.	95
Chem.	40	7	13	5	10	0	I.	76
Mech.	45	4	16	7	20	0	I.	93
M&ME	33	3	12	10	10	0	0	68
C . S c.	31	6	10	4	21	0	2	74
I.T.	32	7	9	4	17	0	3	72
Total	309	58	110	57	168	0	13	715

M.Tech. Enrollments (Category wise)

Program	OP	SC/ST	Spon- sored	OBC	EWS	PWD	Total
					Year		2019
Water Resource Engineering	07	0/02	04	0	02	0	15
Mechanical System Design	10	0/01	01	02	02	0	16
Structural Engineering	09	04/01	01	07	02	01	25
Industrial Tribology & Maintenance Management	01	0/0	01	01	0	0	03
Communication Information Technology	13	01/0	0	0	0	01	15
Electric Power & Energy System	П	01/02	0	02	06	0	22
Transportation Engineering	07	0/01	0	04	02	0	14
Geo-Tech	06	0/01	0	04	02	0	13
Micro Electronics	10	02/0	0	0	0	0	12
Chemical Engineering	01	0/0	0	0	0	0	01
TOTAL	75	08/08	7	20	16	2	136

Year on Year Statistics

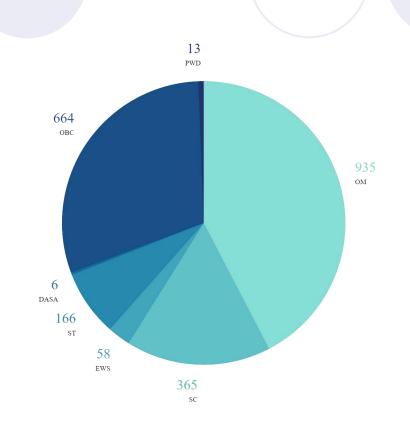
Batch	CIV	IL	ELI	E	ECI	E	CHE	М.	MEC	:н.	M&N	1E	CSE		IT	
Year	Μ	F	М	F	М	F	М	F	м	F	М	F	М	F	Μ	F
2014	109	09	61	12	64	09	54	П	74	01	56	10	50	08	48	08
2015	96	14	60	13	58	13	56	06	74	-	41	10	59	01	48	0
2016	64	14	50	04	35	09	31	06	55	-	21	04	48	03	32	0
2017	95	П	60	07	56	П	46	П	71	01	12	02	53	07	43	I
2018	112	20	66	12	64	13	60	9	72	П	50	8	52	13	52	I
2019	123	24	75	15	76	19	63	13	79	14	56	12	60	14	57	I

Batch	W	RE	M	SD	SE		IT8	MM	СІТ		EPa	&ES	TE		GT	E	ME		CE		MSo	: P
Year	м	F	Μ	F	м	F	Μ	F	Μ	F	Μ	F	Μ	F	м	F	м	F	м	F	М	F
2016	09	01	13	05	19	03	12	07	13	02	14	06	16	01	13	01	05	04	3	-	06	01
2017	06	06	13	0	22	02	П	07	П	0	16	01	13	01	П	03	04	05	04	0	П	25
2018	6	2	12	0	19	0	П	0	6	3	19	2	12	T	12	I.	7	T	I.	T	3	2
2019	13	02	14	02	25	0	09	06	02	01	21	01	13	1	п	2	ш	1	1	0	18	6

Batch	CIV	ΊL	EL	E	EC	E	CHI	EM.	MEG	CH.	M&	ME	CSE		IT	
Year	м	F	М	F	М	F	м	F	м	F	Μ	F	Μ	F	Μ	F
2014	-	01	-	-	01	-	-	-	03	-	-	-	-	-	-	-
2015	06	03	09	03 3	02	-	15	-	-	-	02	01	15	03	-	-
2016	03	04	01	-	02	02	09	01	I.	-	01	01	08	02	-	-
2017	04	14	13	07	06	05	17	03	01	0	02	01	37	09	-	-
2018	4	3	7	3	2	3	10	2	6	0	4	0	10	2	4	I
2019	12	9	18	3	8	4	37	1	Ш	5	6	2	27	2	2	1

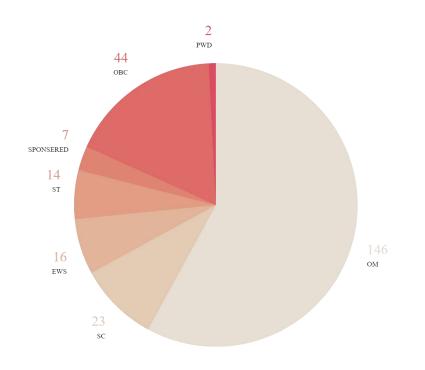
Batch	PHYS	CS	CHE	MISTRY	MATH	IS	HSS	
Year	м	F	М	F	Μ	F	м	F
2014	01	-	-	02	-	-	-	-
2015	05	01	06	01	02	-	02	-
2016	01	-	04	-	-	-	-	-
2017	09	03	08	02	0	0	0	0
2018	9	0	8	I.	0	0	0	0
2019	13	0	9	2	8	0	2	1 I I

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Student Strength in Undergraduate Programmes

Student Strength in Postgraduate Programmes



Ph.D. Degrees awarded during the period

S. N o.	Regd No	Scholar	Department	Date	Supervisor
1	2013-Ph.D- FOE-16	Mohd Junaid Mir	Mechanical	20-03-2019	Dr. M.F Wani
2	2013-Ph.D- Spring-FOE-07	Ms.Abida Yousuf Waza	Electronics & Communications Engineering	25-03-2019	Dr. Najeeb-u-Din
3	2013-Ph.D- FOE-21	Ms.Suman	Electronics & Communications Engineering	25-03-2019	Dr. G. M. Rather
4	2012-Ph.D- FOE-12	Junaid Hassan Masoodi	Mechanical	08-05-2019	Dr. G. A. Harmain
5	2013-Ph.D- FOE-19	Ms.Arjumand Rasool	Mechanical	08-05-2019	Dr. Adnan Qayoom
6	2013-Ph.D- FOE-09	Ufaith Hussain Qadiri	Mechanical	23-05-2019	Dr. M. M. Wani
7	2015-Ph.D- FOE-Autumn- 25	M.Jebran Khan	Mechanical	24-06-2019	Prof. M. F. Wani Prof. Rajat Gupta
8	2013-Ph.D- FOE- 02	Zahid Nabi Dar	Electrical	24-06-2019	Dr. M. D. Mufti
9	2015-Ph.D- FOS-Autumn- 02	Ishfaq Ahmad Malik	Mathematics	22-07-2019	Dr. Tanweer Jalal
10	2013-Ph.D- FOE-06	Ms.Farkhanda Ana	Electronics & Communications Engineering	15-11-2019 RD on28.11.2019	Dr. Najeeb-u-Din
П	Ph.DFOS- 01/14	Ms.Romaisa Latif	Chemistry	15-11-2019 RD on 03.12.2019	Dr. J. A. Banday Dr. K.A. Bhat Dr. S. Chandra
12	2015-Ph.D- FOE-Autumn- 01	Sahil Sholla	CSE	15-11-19 R/NO. 02-12-2019	Dr. Roohie Naaz Dr. M.A Chishti

M.Sc Degrees awarded during the period

Branch	Student Name	Registration Number	Enrollment Number
Physics	Iftesha Najnin	2017NITSGR0336	2017MSPH001
Physics	Moon Jyoti Kauta	2017NITSGR0461	2017MSPH002
Physics	Manoj Kumar	2017NITSGR0479	2017MSPH003

Academic Calendar 2019-2020

		SPRING-2019				
S . No.	Activity		Date			
			From	То		
		Registration & Commencement of Cla	asses			
1.	Registration for B. Tech 8	^h Semester	18-02-2019	20-02-2019		
	Commencement of classes	20-02-2019				
	Registration with late fee (Upto 25-02-20)19			
	Registration for all other s	emesters	27-02-2019	01-03-2019		
	Commencement of classes	01-03-2019	01-03-2019			
	(Except B. Tech 8 th S	emester)				
	Registration with late fee (@ Rs. 400/- per day (8 th Semester)	Upto 05-03-20)19		
2.	Mid-Term Examinations		18-04-2019	18-04-2019		
3.	Techvaganza		27-04-2019 &2	27-04-2019 & 28-04-2019		
4.	Advertisement for admissi	Last week of N	Last week of May			
	M. Tech (sponsored of	category)				
	Ph. D					
		End-Term Examinations				
5.	B. Tech 8 th Semester		From 23-05-2	019		
	B. Tech Project viva-voce		10-06-2019 1	3-06-2019		
	B. Tech. 2nd,4 th &6 th ; M.Te	ch/M.Sc. 2nd & 4th semesters and Ph.D.	From 20-06-20	019		
6.	Supplementary Examination		From 04-07-20	019		
7.	Special Supplementary Exa	minations for 8 th Semester	From 16-07-20	019		
8.	Summer Break		04-07-2019	28-07-2019		

S. No.	Activity	Date			
		From	То		
1.	Commencement of Classes	16-10-2019 &	21-10-2019		
2.	(7 th & all other semesters) Orientation Day	05-11-2019 (2:30 pm)		
3.	Registration for Supplementary Examination (Even Semester-All Courses)	02-11-2019	07-11-2019		
4.	Registration for Supplementary Examination (Odd Semester-All Courses)	25-11-2019	30-11-2019		
5.	End Semester Examination	I 6 th Decembe	16 th December 2019		
6.	Practical Exam	tion of Major	To be conducted after comple- tion of Major examination by respective Departments.		
7.	Supplementary Examination (Even Semester-All Courses).	01-01-2020	15-01-2020		
	End of Semester	I	1		
8.	New Academic Calendar-Year 2020				

3.0 Academic Departments at NIT Srinagar

The detailed report of all 8 Engineering departments and 4 Allied Departments functional at NIT Srinagar are given as under:



"Go for civil engineering, because civil engineering is the branch of engineering which teaches you the most about managing people. Managing people is a skill which is very, very useful and applies almost regardless of what you do." -Sir John Harvey Jones

3.1 Department Of Civil Engineering

tute (then REC Srinagar) in 1960. Over the cializations of Civil Engineering. years, since then, the Department has progressed with a considerable development in its infrastructure, both in terms of its faculty & 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 & the International levels.

leading to the Bachelors Degree in Civil Engi- lems neering & two-year courses leading to Master's degree in four major specializations of civil engineering (viz., Water Resources Engineering, Structural Engineering, Geotechnical

Vision

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

The department of Civil Engineering is the Engineering, & Transportation Engineering & largest & one of the pioneering departments of Planning. The Department, in addition to Un-National Institute of Technology Srinagar. It der-graduate & Post-Graduate Programmes is was established at the inception of the Insti- offering Doctoral Programmes in all the spe-

The Department is known for its reputed & well qualified faculty having experience in diverse fields. The faculty is supported by experienced technical staff & well-equipped laboratories. The faculty strives its level best in imparting the latest technical knowledge to the students & conducting the high quality of research. The faculty also offers technical advice The Department offers a four-year course on the live & challenging civil engineering probto various Governments, semigovernment & the Private organizations.

Mission

- To promote academic growth in the field of Civil Engineering by offering state-of the-art undergraduate & postgraduate programmes.
- To develop graduates to compete at the global level.
- To inculcate higher moral & ethical values among the students to become competent Civil Engineers with overall leadership qualities.
- To provide knowledge base & consultancy services in all areas of Civil Engineering for industry

Faculty

Head of Department	Prof. Manzoor A Ahangar
Professor	Prof. Abdul Rashid Dar
Professor	Prof. M. Akbar Lone
Professor	Prof. Abdul Qayoom Dar
Professor	Prof. Manzoor A Ahangar
Professor	Prof. Javid Ahmad Bhat
Professor	Prof. M Shafi Mir
Professor	Prof. Bashir A Mir
Professor	Prof. Manzoor A Tantray
Associate Professor	Er. Fayaz Ahmed Mir
Associate Professor	Dr. Javaid A Naqash
Associate Professor	Er. Danish Ahmad
Associate Professor	Er. Aijaz A Masoodi
Associate Professor	Dr. S Kaiser Bukhari
Associate Professor	Dr. Jan Mohammad Banday
Associate Professor	Dr. M. Yousuf Shah
Associate Professor	Mrs. Rubina Rashid Mir
Assistant Professor	Dr. Shakeel A Waseem
Assistant Professor	Dr. Fayaz Ahmad Sofi
Assistant Professor	Dr. Abdullah Ahmad
Teachers Trainee	Er. Falak Zahoor
Lecturer on Contract	Er. Ahmar Malik
Lecturer on Contract	Er. Amer Iliyas Rather
Lecturer on Contract	Er. Asif Farooq
Lecturer on Contract	Er. Ishfaq Amin
Lecturer on Contract	Er. Manzoor Ahmad Allie
Lecturer on Contract	Er. Sualiheen Ahmad Pirzada
Lecturer on Contract	Er. Syed Rayid Andrabi
Lecturer on Contract	Er. Bushra Mushtaq
Lecturer on Contract	Er. Faiza Manzoor
Lecturer on Contract	Er. Hafsa Farooq
Lecturer on Contract	Er. Naiyara Khan

HoD Civil Engineering ofessor Manzoor A Ahangar

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
I	Dr. B. A. Mir	Wani, K.M.N.S., Mir, B.A.		Transportation Infra- structure Geotechnology	2020
2	Dr. M. A, Tantray	Shahmir, N.G., Tantray, M.A.	A promising light weight future material – Translucent concrete		2019
3	Dr. A. R. Dar	Dar, A.R.	Advanced performance of fly ash co-mixtured self-compacting con- crete		2019
4	Dr. B. A. Mir	Wani, K.M.N.S., Mir, B.A.	An Experimental Study on the Bio- cementation and Bio- clogging Effect of Bac- teria in Improving Weak Dredged Soils	Geotechnical and Geo- logical Engineering	2020
5	Dr. A. R. Dar	Dar, M.A., Subramani an, N., Dar, A.R., (), Lim, J.B.P., Atif, M.	Behaviour of partly stiffened cold-formed steel built-up beams: Experimental investiga- tion and numerical validation		2019
6	Dr. Ab- dullah Ahmad	Ahmad, A., Rastogi, R.	Calibrating HCM mod- el for roundabout en- try capacity under heterogeneous traffic		2019
7	Dr. M. A. Ahangar	Akhter, M., Ahanger, M.A.	Climate modelling using ANN	International Journal of Hydrology Science and Technology	2019
8	Dr. M. S. Mir	Illahi, U., Mir, M.S.			2020
9	Dr. A.Q. Dar	Tabbussum, R., Dar, A.Q.	Comparison of fuzzy inference algorithms for stream flow predic- tion	Neural Computing and Applications	2020

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
10	Dr. A. R. Dar	Dar, M.A., Subramani an, N., Dar, A.R., (), Fayaz, S., Mir, M.S.	Comparison of various shear connectors for improved structural performance in CFS concrete composite slabs	Engineering Structures	2020
П	Dr. M. A, Tantray	Tantray, M.A.	on the effect of dis-	International Journal of Innovative Technology and Exploring Engineer- ing	2019
12	Dr. B. A. Mir	Wani, K.M.N.S., Mir, B.A.	Biological Cementation	International Journal of Geosynthetics and Ground Engineering	2020
13	Dr. J. A. Naqash	Nisar, N., Bhat, J.A.	Corrosion inhibition of mild steel in IM HCI and 0.5m TCA by wa- termelon rind extract	Journal of Corrosion Science and Engineering	2020
14	Dr. M. A, Tantray	Gulzar, S.M., Mir, F.U.H., Rafiqui, M., Tantray, M.A.	-	Environment, Develop- ment and Sustainability	2020
15	Dr. M.Y. shah	Dar, L.A., Shah, M.Y.	Deep-Seated Slope Stability Analysis and Development of Sim- plistic FOS Evaluation Models for Stone Col- umn-Supported Em- bankments	Transportation Infra- structure Geotechnology	2020
16	Dr. M. A. Lone	Rather, N.A., Lone, M.A., Dar, A.Q.		International Journal of Geotechnical Engineering	2019
17	Dr. M. A. Lone	Rather, N.A., Lone, M.A., Dar, A.Q., (), Mir, B.H., Dar, B.A.		International Journal of Hydrology Science and Technology	

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
18	Dr. M. S. Mir	Illahi, U., Mir, M.S.	Development of indi- ces for sustainability of transportation systems: A review of state-of- the-art	Ecological Indicators	2020
19	Dr. M. S. Mir	Badveeti, A., Mir, M.S.	Development of pedes- trian safety index mod- el at mid-block cross- ings for urban roads in developing countries using multiple linear regression		2019
20	Dr. J.A. Naqash	Reddy, P.N., Naqash, J.A.	ical properties of con-	International Journal of Innovative Technology and Exploring Engineer- ing	2019
21	Dr. A. R. Dar	Dar, M.A., Subramani an, N., Rather, A.I., (), Anbarasu, M., Roy, K.	Effect of angle stiffen- ers on the flexural strength and stiffness of cold-formed steel beams		2019
22	Dr. B. A. Mir	Wani, K.M.N.S., Mir, B.A.	Effect of Biological Cementation on the Mechanical Behaviour of Dredged Soils with Emphasis on Micro- structural Analysis		2019
23	Dr. M. S. Mir	Shah, P.M., Mir, M.S.	Effect of kaolinite clay/ SBS on rheological performance of asphalt binder	Innovative Infrastructure Solutions	2020
24	Dr. B. A. Mir	Wani, K.M.N.S., Mir, B.A.		Transportation Infra- structure Geotechnology	2020
25	Dr. M. A, Tantray	Gull, I., Tantray, M.A.		International Journal of Microstructure and Ma- terials Properties	2020

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
26	Dr. J.A. Naqash	Gul, M., Qasab, R.A., Naqash, J.A., (), Yaqoob, K., Bhat, M.A.	Effect of temperature on the rate of gain of strength of concrete	International Journal of Engineering and Ad- vanced Technology	2019
27	Dr. J.A. Naqash	Reddy, P.N., Naqash, J.A.	Effectiveness of poly- carboxylate ether on early strength develop- ment of alccofine con- crete	Pollack Periodica	2020
28	Dr. A. R. Dar	Dar, M.A., Subramani an, N., Atif, M., (), Anbarasu, M., Lim, J.B.P.	Efficient cross-sectional profiling of built up CFS beams for im- proved flexural perfor- mance		2020
29	Dr. M. S. Mir	Din, I.M.U., Mir, M.S.		International Journal of Pavement Research and Technology	2020
30	Dr. M.Y. shah	Sheikh, I.R., Shah, M.Y.	Experimental Investiga- tion on the Reuse of Reclaimed Asphalt Pavement over Weak Subgrade	Transportation Infra- structure Geotechnology	2020
31	Dr. B. A. Mir	Mir, B.A., Majid, B.	thetic reinforced two	16th Asian Regional Conference on Soil Me- chanics and Geotechnical Engineering, ARC 2019	2020
32	Dr. M.Y. shah	Sheikh, I.R., Shah, M.Y.		International Journal of Pavement Research and Technology	2020
33	Dr. J.A. Naqash	Reddy, P.N., Naqash, J.A.		International Journal of Engineering, Transactions B: Applications	2019

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
34	Dr. A. R. Dar	Adil Dar, M., Subramanian, N., Dar, D.A., (), Lim, J.B.P., Mahjoubi, S.	Flexural Strength of cold-formed steel built- up composite beams with rectangular com- pression flanges		2020
35	Dr. S. K. Bukhari	Yousuf, M., Bukhari, S.K.	Impact of geological and environmental complexities over in- frastructure develop- ment in Kashmir Hima- laya	Disaster Advances	2019
36	Dr. A. R. Dar	Simran, S., Dar, A.R., Kumar, R., Adil Dar, M., Raju, J.	Improved performance of coal bottom ash co- mixtured concrete	IOP Conference Series: Materials Science and Engineering	2019
37	Dr. A. R. Dar	Dar, A.R.	Incremental effect of saccharum officinarum addition on strength characteristics of geo- polymer composite specimens		2019
38	Dr. A. R. Dar	Dar, A.R.	Influence of cold tem- perature on perfor- mance of concrete in J&K - Comparison studies		2019
39	Dr. M. S. Mir	Bhat, F.S., Mir, M.S.	Investigating the effects of nano Al2O3 on high and intermediate tem- perature performance properties of asphalt binder	Road Materials and Pave- ment Design	2020
40	Dr. M. A. Lone	Mir, B.H., Lone, M.A., Bhat, J.A.	Laboratory investiga- tion for development of local scour depth model for varying shapes of obstruction		2019
41	Dr. B. A. Mir	Mir, B.A.	Laboratory study on the effect of plastic waste additive on shear strength of marginal soil		2020

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
42	Dr. M. S. Mir	Mohi Ud Din, I., Mir, M.S.	Laboratory study on the use of copper slag and RAP in WMA pavements	Innovative Infrastructure Solutions	2020
43	Dr. M. A, Tantray	Shahmir, N.G., Tantray, M.A.	Life cycle cost analysis of translucent concrete	International Journal of Innovative Technology and Exploring Engineer- ing	2019
44	Dr. S. K. Bukhari	Bukhari, S.K.	Magnetic susceptibili- ties and fault surface anomalies. The study of land magnetic data & interpretations.	International Journal of Recent Technology and Engineering	2019
45	Dr. M. A, Tantray	Cholker, A.K., Tantray, M.A.	Mechanical and durabil- ity properties of self- compacting concrete reinforced with carbon fibers	International Journal of Recent Technology and Engineering	2019
46	Dr. B. A. Mir	Mir, B.A., Sridharan, A.	Mechanical behaviour of fly-ash-treated ex- pansive soil	Proceedings of the Insti- tution of Civil Engineers: Ground Improvement	2019
47	Dr. M. A, Tantray	Cholker, A.K., Tantray, M.A.	Micro carbon fiber based concrete as a strain-damage sensing material	Materials Today: Pro- ceedings	2019
48	Dr. B. A. Mir	Wani, K.M.N.S., Mir, B.A.	Microbial geo- technology in ground improvement tech- niques: a comprehen- sive review	Innovative Infrastructure Solutions	2020
49	Dr. M. S. Mir	Illahi, U., Mir, M.S.	Modeling sustainable mobility using fuzzy logic: an application to selected indian states	Lecture Notes in Electri- cal Engineering	2020
50	Dr. M. A. Ahangar	Altaf, Y., Ahangar, M., Fahimuddin, M.	Modelling snowmelt runoff in Lidder River Basin using coupled model	International Journal of River Basin Management	2020
51	Dr. A. R. Dar	Dar, A.R.	Non-destructive evalu- ation of a steel plate subjected to mechani- cal damage	IOP Conference Series: Materials Science and Engineering	2019

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
52	Dr. F.A. Sofi	Sofi, F.A., Steelman, J.S.	Nonlinear flexural distribution behavior and ultimate system capacity of skewed steel girder bridges	Engineering Structures	2019
53	Dr. A. R. Dar	Dar, M.A., Subramani an, N., Pande, S., Dar, A.R., Raju, J.	Performance evaluation of different strengthen- ing measures for exte- rior RC beam-column joints under opening moments		2020
54	Dr. M. S. Mir	Bhat, F.S., Mir, M.S.	Performance evaluation of nanosilica-modified asphalt binder	Innovative Infrastructure Solutions	2019
55	Dr. M. A, Tantray	Tantray, M.A.	Performance of beam- column joint using steel fibers	International Journal of Innovative Technology and Exploring Engineer- ing	2019
56	Dr. S. K. Bukhari	Bukhari, S.K.	Potential alkali silica reactivity of aggregates from different sources of Kashmir and mitiga- tion measures thereof	Asian Journal of Civil Engineering	2019
57	Dr. J.A. Naqash	Reddy, P.N., Naqash, J.A.	Properties of concrete modified with ultra-fine slag	Karbala International Journal of Modern Sci- ence	2019
58	Dr. A.Q. Dar	Rasool, T., Dar, A.Q., Wani, M.A.	Quantification of Spa- tial Variability of Soil Physical Properties in a Lesser Himalayan Sub- Basin of India	Eurasian Soil Science	2020
59	Dr. J.A. Naqash	Mudasir, P., Naqash, J.A.	Refinement of con- crete characteristic properties with multi walled carbon nano tubes	International Journal on Emerging Technologies	2020
60	Dr. M. A. Lone	Lone, M.A.	River vishav contribu- tion to 2014 devastat- ing floods of kashmir (India)	International Journal of Recent Technology and Engineering	2019
61	Dr. A. R. Dar	Dar, A.R.	Role of Supplemental Cementitious Materials on the Strength Char- acteristics of Green- Concrete Specimens	IOP Conference Series: Materials Science and Engineering	2019
62	Dr. A. R. Dar	Dar, A.R.	Seismic safety assess- ment of masonry build- ings through rapid visual screening-Case studies	Disaster Advances	2019

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
63	Dr. M. A. Lone	Mir, B.H., Lone, M.A., Rather, N.A.	Significance of Shape Factor of Obstacle on Local Scour	Iranian Journal of Science and Technology - Trans- actions of Civil Engineer- ing	2019
64	Dr. B. A. Mir	Samala, H.R., Mir, B.A.	Some studies on mi- crostructural behav- iour and unconfined compressive strength of soft soil treated with SiO2 nanoparticles	Innovative Infrastructure Solutions	2020
65	Dr. S. K. Bukhari	Bukhari, S.K.	Spatio-temporal land use/land cover dynam- ics in ningli watershed of jehlum catchment in kashmir valley, north western himalaya using remote sensing & gis	International Journal of Innovative Technology and Exploring Engineer- ing	2019
66	Dr. B. A. Mir	Wani, K.M.N.S., Mir, B.A.	Stabilization of Weak Dredged Soils by Em- ploying Waste Boulder Crusher Dust: A La- boratory Study	Geotechnical and Geo- logical Engineering	2020
67	Dr. M. A, Tantray	Cholker, A.K., Tantray, M.A.	Strain and Damage Sensing Property of Self-compacting Con- crete Reinforced with Carbon Fibers	International Journal of Engineering, Transactions B: Applications	2019
68	Dr. M. A, Tantray	Cholker, A.K., Tantray, M.A.	Strain-sensing charac- teristics of self- consolidating concrete with micro-carbon fibre	Australian Journal of Civil Engineering	2020
69	Dr. J.A. Naqash	Reddy, P.N., Naqash, J.A.	Strength prediction of high early strength concrete by artificial intelligence	International Journal of Engineering and Ad- vanced Technology	2019
70	Dr. A. R. Dar	Adil Dar, M., Subramanian, N., Dar, A.R., (), Atif, M., Syed, S.	Strengthening of capac- ity deficient RC beams - An experimental approach	Structural Engineering and Mechanics	2019

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
71	Dr. A. R. Dar	Adil Dar, M., Subramanian, N., Dar, A.R., (), Haseeb, M., Tahoor, M.	Structural efficiency of various strengthening schemes for cold- formed steel beams: Effect of global imper- fections	Steel and Composite Structures	2019
72	Dr. M. S. Mir	Mohi Ud Din, I., Mir, M.S.	Study of warm mix asphalt using reclaimed asphalt pavement and copper slag: A review	Canadian Journal of Civil Engineering	2020
73	Prof. F. A. Mir	Farooq, A., Mir, F.A.	Subgrade stabilization using non- biodegradable waste material	Lecture Notes in Civil Engineering	2020
74	Dr. M. S. Mir	Illahi, U., Mir, M.S.	Sustainable Transporta- tion Attainment Index: multivariate analysis of indicators with an ap- plication to selected states and National Capital Territory (NCT) of India	Environment, Develop- ment and Sustainability	2020
75	Dr. M. A. Lone	Rather, N.A., Lone, M.A., Dar, A.Q., Mir, B.H.	The influence of parti- cle shape and gradation parameters on the permeability of filter media	International Journal of Hydrology Science and Technology	2020
76	Dr. M. A. Lone	Mohsin, S., Lone, M.A.	Trend analysis of refer- ence evapotranspira- tion and identification of responsible factors in the Jhelum River Basin, Western Hima- layas	Modeling Earth Systems and Environment	2020
77	Dr. B. A. Mir	Wani, K.M.N.S., Mir, B.A.	Unconfined Compres- sive Strength Testing of Bio-cemented Weak Soils: A Comparative Upscale Laboratory Testing	Arabian Journal for Science and Engineering	2020
78	Dr. S.R. shah	Gull, S., Shah, S.R.	Watershed models for assessment of hydro- logical behavior of the catchments: A compar- ative study	Water Practice and Technology	2020

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S . No.	Scholar	Supervisor(s)	Status of Degree
I	Nadeem Gulzar	Dr. M. A. Tantray	Degree Awarded in 2020
2	Owais Ahmad Bhat	Dr. Mohammad Akbar Lone, Dr. Ravi Kumar (CS)	Submitted
3	Vaseem Ahmad Shahnaz	Dr. Manzoor Ahmad Ahanger	Ongoing
4	lftekar Gull	Prof. M. A. Tantary	Submitted
5	Maqbool Yousuf	Prof. S. K. Bukhari	Ongoing
6	Ayaz Mohmood Dar	Prof. S. K. Bukhari	Ongoing
7	Syeedah Raazia	Prof. A. Q. Dar	Ongoing
8	Tabasum Rasool	Prof. A. Q. Dar (S) Prof. M. A. Wani (CS)	Ongoing
9	Nahida Nisar	Prof. J. A. Bhat	Ongoing
10	Towseef Ahmed Gilani	Prof. M. S. Mir	Ongoing
П	Ameer Ullah Ganai	Prof. M. Y. Shah (S) Prof. B. A. Mir (CS)	Ongoing
12	Muzamil Ahmad Rafiqi	Prof. M. A. Lone (S) Prof. M. A. Tantary (CS)	Ongoing
13	Ishtiyaq Ahmad Rather	Prof. A. Q. Dar	Ongoing
14	Mehboob UI Hassan Chowdhary	Dr Jhon Mohammad Banday	Ongoing
15	Sheikh Asim	Dr. Abdul Rashid Dar, Dr Javaid Ahmad Bhat (CS)	Ongoing
16	Jasir Mushtaq Kaloo	Prof. A. Q. Dar(S) DR. Naveed Ahsan (CS)	Ongoing
17	Cholker Arvind Kumar	Prof. M. A. Tantary	Submitted
18	Panga Narasimha Reddy	Prof. J. A. Naqash	Ongoing
19	Badveeti Adinarayana	Prof. M. S. Mir	Ongoing
20	Aliya Naseer	Dr. M. A. Tantary	Ongoing
21	Kh Mohammad Najmu Saquib Wani	Dr. B. A. Mir	Ongoing
22	Mir Basar Suhaib	Prof. M. A. Tantary	Ongoing
23	Shakeel Ahmad Rather	Prof. J. A. Bhat	Ongoing
24.	Sakiba Nabi	Dr. M. A. Ahangar (S) Dr. A. Q. Dar (CS)	Ongoing
25	Ruhhee Tabbussum	Dr. A. Q. Dar	Ongoing
26	Saika Manzoor	Dr. M. A. Ahangar	Ongoing
27	Mohd Ayoub Malik	Dr. A. Q. Dar	Ongoing
28	Sheikh Umar	Dr. M. A. Lone (S) Prof. N. K. Goel (CS)	Ongoing
29	Peerzada Mudasir Hussain Dewani	Dr. Javaid Ahmad Naqash	Ongoing
30	Mohd Zakir	Dr. Javaid Ahmad Naqash, Dr Fayaz Ahmad Sofi (CS)	Ongoing

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Scholar	Supervisor(s)	Status of Degree
31	Syed Mohsin Shabir	Dr. Mohammad Akbar Lone	Ongoing
32	lftikhar Hussain Beigh	Dr. S. K. Bukhari	Ongoing
33	Ishfaq Mohi Ud Din	Dr. M. S. Mir	Ongoing
34	Faheem Sadiq Bhat	Dr. M. S. Mir	Ongoing
35	Ishfaq Rashid Sheikh	Dr. M. Y. Shah	Ongoing
36	Aamer Majid Bhat	Dr. M. A. Ahangar, Prof. Pranab Mohapatra (CS)	Ongoing
37	Aamir Hassan	Dr. J. A. Bhat	Ongoing
38	Asif Akbar	DR. J. A. Bhat (S) Dr. B. A. Mir (CS)	Ongoing
39	Manan Hashim	Dr. M. A. Tantary	Ongoing
40	Zubair Rashid	Dr. M. A. Tantary(S) Dr. S. J. Iqbal(CS)	Ongoing
41	S Hari Prasad Reddy	Dr. B. A. Mir	Ongoing
42	Mohmad Ashraf Ganaie	Dr. S. K. Bukhari	Ongoing
43	Aanisa Gani	Dr. J. M. Banday	Ongoing
44	Tariq Ahmad Sheikh	Dr Jhon Mohammad Banday, Dr. M Ahmad Hussain (CS)	Ongoing
45	Peerzada Mosir Shah	Dr Mohammad Shafi Mir	Ongoing
46	Junaid Ahmad Dar	Dr. A. Q. Dar	Ongoing
47	Bilal Ahmad Malik	Dr. Mohammad Yousuf Shah, Dr. V. A. Sawant (CS)	Ongoing
48	Rehab Jan	Dr. M. A. Lone	Ongoing
49	Sabreena Mohammad	Dr. B. A. Mir	Ongoing
50	Taroob Bashir Naqash	Dr. Manzoor Ahmad Ahanger	Ongoing
51	Nadeem Gul	Dr. B. A. Mir	Ongoing
52	Mehlath Shah	Dr. M. A. Lone	Ongoing
53	Ubaid Illahi	Dr. M. S. Mir	Ongoing
54	Mohd Asif	Dr. M. S. Mir	Ongoing
55	Azeem Bashir	Dr. Manzoor Ahmad Ahanger	Ongoing
56	Showkat Ahmad Kumar	Dr Javaid Ahmad Bhat, Dr Fayaz Ahmad Sofi (CS)	Ongoing
57	Suehail Aijaz Shah	Dr Jhon Mohammad Banday Dr Manzoor A Tantray (CS)	Ongoing
58	Aabid Hussain Bhat	Prof. J. A. Naqash	Ongoing
59	Mohsin Farooq	Dr S R Shah	Ongoing
61	Kifayat Ramzan	Prof. M. Y. Shah	Ongoing
62	Bilal Ahmed Malik	Prof. M. A. Lone	Ongoing
63	Sana Fayaz	Prof. M. Y. Shah	Ongoing

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Scholar	Supervisor(s)	Status of Degree	
64	Rufaidah Shah	Prof. B. A. Mir	Ongoing	
65	Mohammad Asif Naiko	Dr S R Shah	Ongoing	
66	Dar Sarvat Gull	Prof> S. R. Shah	Ongoing	
67	Arfaat Bashir	Prof. S. R. Shah	Ongoing	
68	Lateef Ahmad Dar	Prof. M. Y. Shah	Ongoing	
70	Mohammad Aasif Khaja	Prof. S. R. Shah	Ongoing	
71	Tawseef Rasool Haji	Prof. B. A. Mir	Ongoing	
72	Aasif Ibni Ahad	Dr S Kaiser Bukhari	Ongoing	
73	Zeeshan Mushtaq	Dr. S. A WaseeM (S) Prof. A. R. Dar (CS)	Ongoing	
74	Taran Jandyal	Dr. M. Y. Shah	Ongoing	
75	Abdul Hanan Bashir Zargar	Dr. M. Y. Shah	Ongoing	
76	Muneeb Farooq	Dr. M. Y. Shah	Ongoing	
77	Tanveer Habib	Dr. S. A. Waseem(S) Dr. F. A. Sofi (CS)	Ongoing	
78	Zahid Hussain Rather	Dr. S. A. Waseem	Ongoing	
79	Basit Mohi Ud Din Dar	Dr. F. A. Sofi	Ongoing	
80	Sumit Rajak	Dr. F.A. Sofi (S) Dr. S. A. Waseem(CS)	Ongoing	
81	Tazim Ameen	Dr. Abdullah Ahmad	Ongoing	
82	Mohd Aaqib	Dr. M. Y. Shah	Ongoing	
83	Vaqas Hussain Sheikh	Dr. Fayaz Ahmad Sofi, Dr Javaid Ahmad Bhat (CS)	Ongoing	
84	Suhail Ahmad Ahangar	Dr. Shakeel Ahmad Waseem, Dr Javaid Ahmad Bhat (CS)	Ongoing	
85	Gowhar Aziz	Dr. Abdullah Ahmad	Ongoing	
86	Asrar Ahmad Rather	Dr S Kaiser Bukhari	Ongoing	
87	Imran Ahmed	Dr. M. Y. Shah	Ongoing	
88	Farah Amin	Dr Shagufta Rasool Shah	Ongoing	
89	Jasim Nisar	Dr Mohammad Shafi Mir	Ongoing	
90	Aslam Aziz Chechi	Dr. Fayaz Ahmad Sofi, Dr Abdul Rashid Dar (CS)	Ongoing	
91	Mohd Iqbal Mirza	Dr. Bashir Ahmad Mir	Ongoing	
92	Faizan Tahir Bahadur	Dr Shagufta Rasool Shah	Ongoing	
93	Anzar Hamid Mir	Dr. Abdullah Ahmad	Ongoing	
94	Sharief Manzoor	Dr. Shakeel Ahmad Waseem	Ongoing	
95	Waseem Ahmad Dhobi	Dr. Abdullah Ahmad	Ongoing	
96	Waseem Ghani	Dr Shagufta Rasool Shah	Ongoing	
97	Javaid Iqbal	Dr. F. A. Sofi	Ongoing	D- 40
98	Mehvish Hameed	Dr. Manzoor Ahmad Ahanger	Ongoing	Page 43
99	Shahid UI Islam	Dr. S. A. Waseem	Ongoing	

Testing & Consultancy services rendered by the department.

S. No.	Title of the Project	Investigator(s)	Consultancy rendered to (name of the agency)	Amount Earned (in INR)
I	Design Mix for M50	Dr. J.A.Naqash	Subodh Kumar Ex-Engg. Civil Officer Commanding	50000.00
2	Design Mix for M20 & M30 Testing of Corse & Fine Aggregate	Dr.A.A.Masoodi	M/S Magray Pratibha (JV) Mr Altaf Ahmad Mageery JK Pvt Engineer (LTD)	55000.00
3	Design Mix for M20 & M30 Testing of Corse & Fine Aggregate	Dr.F.A.Sofi	M/S Magray Pratibha (JV) Mr Altaf Ahmad Mageery JK Pvt Engineer (LTD)	60000.00
4	Testing of Bricks	Dr.M.A.Tantray	M/s Techno Fab Engineering Ltd	12000.00
5	Re-bound Test	Dr.Shakeel Ah- mmad Waseem & Dr.F.A.Sofi	M/s Techno Fab Engineering Ltd	100000.00
6	Testing of Steel Samples	Dr.A.A.Masoodi	Ex-Engineer PWD R&B Divi- sion Kulgam	64000.00
7	Testing of Cubes	Dr.J.A.Bhat	AEE R&B Sub-Division Bud- gam	1500.00
8	Testing of Steel Samples	Dr.A.R.Dar	AEE R&B Sub-Division An- nantnag	20000.00
9	Testing of Cement Concrete Cubes	Dr.M.A.Tantray	Assistant Ex-Engineer Civil Engg- Sub Division Bandipora	3000.00
10	Testing of Steel Samples	Dr.F.A.Sofi	Kankan Railway Coopeation Ltd	39000.00
П	Testing of Cement	Dr.Shakeel Ah- mmad Waseem	Power Grid Cooperation of India Limited. Dy Manager St. Works Insha Khan	8000.00
12	Testing of Cement	Dr.A.A.Masoodi	Ex-Engineer PMGSY JKRR- DA Division Pulwama	8000.00
13	Testing of Tiles	Dr. J.A.Naqash	M/S RCC Infratech Private Ltd	6000.00
14	Testing of Steel Samples	Dr. J.A.Naqash	Tarmach Roads & Roof Builderss	20000.00
15	Testing of Steel Samples	Dr.Shakeel Ah- mmad Waseem	Nodal Officer(JTFRP)PIU Superindenting Engineer Drainage Circle SMC Sgr	50000.00
16	Testing for Corse & Fine Aggregate & Test- ing of Steel Samples	Dr.Shakeel Ah- mmad Waseem	AEE PWD(R&B) SubDivision Bijbehara	160000.00
17	Testing of Cement	Dr. J.A.Naqash	AEE PWD(R&B) Sub Divi- sion Bijbehara	8000.00
18	Testing of Steel Samples	Dr.Shakeel Ah- mmad Waseem	Ex-Engineer (R&B) Division Kulgam	33000.00

Testing & Consultancy services rendered by the department.

S. No.	Title of the Project	Investigator(s)	Consultancy rendered to (name of the agency)	Amount Earned (in INR)
19	Testing of Cement	Dr.A.A.Masoodi	Technical Officer Director General of Police Persions Department J&K Sgr	8000.00
20	Design of Mix Desin M25	Dr. J.A.Naqash	Ex-Engineer Transmission Line Const. Div-I Bemina Sinagar	25000.00
21	Testing of Cement Concrete Cubes	Dr.A.R.Dar	Ex-Engineer R&B Div Sopoor	3000.00
22	Testing of Sand Samples	Dr.Shakeel Ah- mmad Waseem	Dy Superintendent of Police (NK) Anti C B Sgr Kmr	15000.00
23	Testing of Cement Concrete Cubes	Dr.J.A.Bhat	Assistant Ex-Engineer R&B Sub Division Budgam	1500.00
24	Testing of Hollow Blocks	Dr.M.A.Tantray	Assistant Ex-Engineer Cen- tral Sub Division CPWD Srinagar	10000.00
25	Testing of Steel	Dr.Shakeel Ah- mmad Waseem	Ex-Engineer Transmission Line Const. Div-I Bemina Sinagar	10000.00
26	Testing of Bricks	Dr.Shakeel Ah- mmad Waseem	Superintendent Engineer System Operations Circle - II PDD Sgr	12000.00
27	Testing of Tiles	Dr.A.A.Masoodi	M/S Mohmmed Younis Khan Govt. Contractor	6000.00
28	Design of Mix Desin M25 & M35	Dr.M.A.Tantray	AEE Sub Division 2nd TLCD Bemina	60000.00
29	Testing of Wooden Sample	Dr.J.A.Naqash	M/S WPIL Limited	48240.00
30	Testing of Wooden Sample	Dr.J.A.Naqash	M/S WPIL Limited	20000.00
31	Testing of Stone Chips 10mm & Testing of Sand and Bricks	Dr.Shakeel Ah- mmad Waseem	M/S Techno Electric and Engg Co- operation	46000.00
32	Design of Mix Desin M20 & M30	Dr.Shakeel Ah- mmad Waseem	M/S Magray-OASIS(JV)	100000.00
33	Testing of Cement Concrete Cubes	Dr.J.A.Bhat	M/S S.A. Constructions Con- tractor & Engineers	1500.00
34	Design of Mix Desin M25 & Testing of Bricks	Dr.F.A.Sofi	Superintendent Engineer OM&C - II PDD Sgr	37000.00

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Testing & Consultancy Services

Testing & Consultancy services rendered by the department.

S. No.	Title of the Project	Investigator(s)	Consultancy rendered to (name of the agency)	Amount Earned (in INR)
35	Design of Mix Desin M25 & Testing of Steel Samples	Dr.A.A.Masoodi	Assistant Ex-Engineer PWD (R&B) Sub Division Bijbehara C/O Tarmach Roads & Roof Builders	83000.00
36	Testing of Steel Samples	Dr.J.A.Naqash	Assistant Ex-Engineer R&B- PWD Sub Division Pampore Kashmir Steel	30000.00
37	Testing of Cement Concrete Cubes	Dr.M.A.Tantray	Assistant Ex-Engineer Civil Quality Control SKIMS	1500.00
38	Testing of Fine & Corse Aggregate & Design Mix for M30	Dr.M.A.Tantray	M/S Ghulam Hassan	100000.00
39	Testing ofCement Con- crete Cube	A.a.Masoodi	M/S Techno Electric and Engineering Co Ltd	1500.00
40	Testing ofCement Con- crete Cube	Dr.J.A.Bhat	M/S S.A Construction & Engineering'	1500.00
41	Testing ofCement Con- crete Cube	Dr.J.A.Bhat	M/S S.A Construction & Engineering	1500.00
42	Testing ofCement Con- crete Cube	Dr.J.A.Bhat	M/S Vijai Electricals Ltd	1500.00
43	Testing of Cement Concrete Cube	Dr.J.A.Bhat	Executive Engineer R&B PWD Sub Division Pulwama	1500.00
44	Testing of Bricks	Dr.J.A.Bhat	Assistant Executive Engineer R&B PWD Sub Division Pul- wama	6000.00
45	Testing Vet Design - Mobile Tower	Dr.M.A.Tantray	M/S Green Channel Builders Engineers & Contractors	20000.00
46	Testing of Interlocking Tiles	Dr. N.A Naqash	lock Development Officer Singhpora	6000.00
47	Testing of Cement Concrete Cube	Dr. Shakeel Waseem	Operation Officer HPCL Ltd	3000.00
48	Testing of Coarse & Fine Aggregate	Er. A. A. Masoodi	REC Transmission Project Company Ltd	60000.00
49	Testing of G. I. Wire	Dr. Ja A. Naqash	Asst. Executive Engineer Sub Div Gurez	5000.00
50	Testing of Structural Steel	Dr. Fayaz Ahmad Sofi	M/S VASU Contractors Pvt Ltd	16000.00

Testing & Consultancy services rendered by the department.

S. No.	Title of the Project	Investigator(s)	Consultancy rendered to (name of the agency)	Amount Earned (in INR)
51	Testing of Round Bar Steel	Dr. Fayaz Ahmad Sofi	Ex- Engineer Cont Div I J&K State Industrial Division Haft Chinar	74000.00
52	Design Mix M30	Dr. Fayaz Ahmad Sofi	Ex- Engineer Cont Div I J&K State Industrial Division Haft Chinar	
53	Testing of Concrete Block	Dr. Fayaz Ahmad Sofi	Ex- Engineer Cont Div I J&K State Industrial Division Haft Chinar	24000.00
54	Testing of Tiles	Dr. Ja A. Naqash	Block Development Officer Wagoora	6000.00
55	Testing of Steel Sample	Er. A. A. Masoodi	Ex- Engg. PWD(R&B) Const Div - II Sgr	36000.00
56	Testing of Steel Sample	Dr. Ja A. Naqash	Dy. General Manager Unit I JKPCC Ltd Sgr.	19008
57	Testing of FRG Dunage	Dr Shakeel Waseem	M/S Arundeep Singh Mag Garrission Engg.	18000.00
58	Testing of G. I. Pipes	Dr. A. R. Dar	Asst. Ex. Engg. Sub Division 2nd Water Supply Master- Plan Division Soura Sgr.	250000.00
59	Proof checking of design of major Bridge 2-Lane at Km 8.188 on NH- 444, Srinagar- Shopian- Qazigund, Gadoora Bridge	Dr.J.A.Bhat	Executive Engineer, R&B Project Circle Division 1st, Srinagar	125000.00
60	Design of Building	Dr.J.A.Bhat	Garrison Engineer, Air Force Station, Srinagar	125000.00
61	Design of Building	Dr Shakeel Waseem	Garrison Engineer, Air Force Station, Srinagar	125000.00
62	Design of Bridge	Dr. Fayaz Ahmad Sofi	Ex. Engineer, PMGSY, Ra- jouri	200000.00
63	Soil testing carried out on soil samples for construction of roads in Jammu & Kashmir.	Prof. B. A. Mir (O/ C), Prof. F. A. Mir Prof. M. Y. Shah (Team work)	Chief Engineer, PMGSY, Jammu & Kashmir NIT/Civil/ GT/2019/23 Dt: 16/04/2019 NIT/Civil/GT/2019/24 Dt: 03/06/2019 NIT/Civil/GT/2019/27 Dt: 02/08/2019 NIT/Civil/GT/2019/32 Dt: 27/12/2019 NIT/Civil/GT/2019/33 Dt: 27/12/2019	112500.00

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Testing & Consultancy services rendered by the department.

S. No.	Title of the Project	Investigator(s)	Consultancy rendered to (name of the agency)	Amount Earned (in INR)
64	Investigation on the bearing capacity using Plate load test for build- ing construction.	Prof. B. A. Mir (O/ C), Prof. F. A. Mir Prof. M. Y. Shah (Team work)	M/S Power Grid Corpora- tion of India Ltd., Nowshera Srinagar NIT/Civil/GT/2019/28 Dt: 28/10/2019	70000.00
65	Soil testing report for upgradation of Roads	Prof. B. A. Mir (O/ C), Prof. F. A. Mir Prof. M. Y. Shah (Team work)	EE (Civil) CCO for Com- mander, Offg Officer Com- manding 109 Road Constr Coy (GREF) Pin: 930109 C/ O 56 APO No.: 2084/QCC/192/E2; Dated: 06/03/2020	537200.00
66	Soil Investigation for building construction.	Prof. B. A. Mir (O/ C), Prof. F. A. Mir Prof. M. Y. Shah (Team work)	M/S Assistant Executive Engi- neer Rehabilitation Sub Divi- sion LAWDA Srinagar NIT/Civil/GT/2019/31 Dt: 11/12/2019 NIT/Civil/GT/2020/36 Dt: 17/02/2020 NIT/Civil/GT/2020/39 Dt: 09/07/2020	127000.00
67	Soil testing for upgrada- tion of road from L045 Bonyan to Kutibal Stage Upackage No JK02-97	Prof. B. A. Mir (O/ C), Prof. F. A. Mir Prof. M. Y. Shah (Team work)	Executive Engineer PMGSY (JKRRDA) Division Budgam, J&K EE/PMGSY/3222-24; Dated: 04/02/2020	151000.00
68	Investigation on quarry samples to be used as GSB for construction of road.	Prof. B. A. Mir (O/ C), Prof. F. A. Mir Prof. M. Y. Shah (Team work)	M/S Prince Construction Harnag Anantnag Kashmir. NIT/Civil/GT/2020/38 Dt: 09/07/2020	10500.00
69	Road Material Testing	Prof. M.S. Mir	Mr. Hem Raj, IDSE, Project Director PIU Srina- gar, National Highway Authority of India, Ministry of Road Transport and Highways. Ref. No. PD/ SGR/14047/2019/Toll Plaza/26; dated 15-07-2019 and Ref. No. PD/ SGR/14047/2019/Toll Plaza/29; dated 25-07-2019	315000.00

Testing & Consultancy services rendered by the department.

S. No.	Title of the Project	Investigator(s)	Consultancy rendered to (name of the agency)	Amount Earned (in INR)
70	Road Material Testing	Prof. M.S. Mir	Dy Chief Engineer Sangaldan, Katra Dharam Section of USBRL Project AFCONS Camp Sangaldan, Distt Ram- ban J&K- 182144 (Konkan Railway Corporation Ltd) Ref. No. KR/JK/DYCE/ SANG/AFCONS/2019/52; dated 25-01-2019	35000.00
71	Road Material Testing	Prof. M.S. Mir	AEE R&B Sub Division Tre- hgam Ref. No. 353-54/SDT; dated 21-06-2019	20000.00
72	Road Material Testing	Prof. M.S. Mir	AEE (R&B), N.H.Way Sub Division Baramulla Ref. No. 289; dated 29-06- 2019	20000.00
73	Road Material Testing	Prof. M.S. Mir	D. S. Romana, Capt AGE B/R -I, GE 864 EWS C/O 56APO Ref. No. 810/CWEK-22/2018 -19/07/BR-I; dated 06-5-2019	17500.00
74	Road Material Testing	Prof. M.S. Mir	Executive Engineer, Mughal Road Division Buffliaz/ Skt (Poonch) Ref. No. MRD/B/2019- 20/1527-32; dated 02-07- 2019	80000.00
75	Road Material Testing	Prof. M.S. Mir	Executive Engineer, Mughal Road Division Shopian Ref. No. MRDS/312-13; dat- ed 29-06-2019	40000.00
76	Road Material Testing	Prof. M.S. Mir	Executive Engineer, R&B Division Sopore Ref. No. 3286-87; dated 17- 06-2019	20000.00
77	Road Material Testing	Prof. M.S. Mir	AEE Mughal Road Sub Divi- sion I&II Buffliaz/ Skt	20000.00
78	Road Material Testing	Prof. M.S. Mir	M/S Mir Infrastructure Build- ers Lasjan Sgr Ref. No. MIR/HO/80-83; dated 17-07-2019	40000.00
79	Road Material Testing	Prof. M.S. Mir	JK Const. Co. Ref. No. JKCC/OM/AN/114; dated 30-07-2019	17500.00
80	Road Material Testing	Prof. M.S. Mir	Executive Engineer, PMGSY (JKRRDA) Division Baram- ulla Ref. No. PMGSY-Bla 647-48; dated 22-07-2019	40000.00

Purchase(s) Made

Purchases made by the department during the period.

S.No	Name of the equipment/Item	Quantity	Date of Pur- chase	Amount of Pur- chase
I	Experimental Models including Shake Table	I	21/12/2019	4,46,197.50
2	100 Ton Compression Load Cell	1	22/12/2019	78,750.00
3	10 Ton Load Cell	1	23/12/2019	52,500.00
4	Data Logger for Shake Table along with accelerometer	I.	24/12/2019	4,20,000.00
5	LVDT 100 mm	6	25/12/2019	1,89,000.00
6	Manual Hydraulic Jack 25 Ton	1	26/12/2019	94,500.00
7	Automatic Hydraulic Jack 25 ton	1	27/12/2019	2,83,052.00
8	Channel Acquisition System for Load Cell	T	28/12/2019	4,50,000.00
9	Cells & LVD 8 Channels	T	29/12/2019	22,500.00
10	Deflection of Curved Beam Member Apparatus	I.	22/03/2019	18,750.00
11	Portal Frame Apparatus	1	23/03/2019	23,250.00
12	Deflection of Truss Apparatus	T	24/03/2019	24,750.00
13	Unsymmetrical Bending Apparatus	T	25/03/2019	29,250.00
14	Elastically Coupled Beam Apparatus	T	26/03/2019	18,750.00
15	Redundant Joint Apparatus	1	27/03/2019	18,750.00
16	Two Hinged Arch Apparatus	1	28/03/2019	24,750.00
17	Column Buckling Load Apparatus	1	29/03/2019	17,250.00
18	Max-Well Reciprocal Theorem Apparatus	1	30/03/2019	20,250.00
19	Brookfield Viscometer	1	06/02/2020	12,31,650.00
20	Pressure Ageing Vessel	1	06/02/2020	20,70,060.00
21	Sound Level Meter	02	25/07/2019	9,00,000.00
22	Noise Dosimeter	02	25/07/2019	5,99,999.32
23	Gas Analyser	1	25/07/2019	1,71,100.00
24	Fabrication of experimental steel tank (TEQIPIII)	01	28/11/2019	62,064.00
25	Moisture tins	100	28/12/2019	Rs. 4,809.00
26	Acrylic tubes and rings	18	07/01/2020	Rs. 13,650.00
27	Fabrication of water jacket for large scale DST, metal plates, hand auger and mould for Ph.D. work.	N.A	20/01/2020	Rs. 11,526.00
28	Weighing balance (10 kg)	01	26/02/2020	Rs. 3,000.00
29	Weighing balance (1 kg)	01	26/02/2020	Rs. 6,200.00

Patents

Patents held by the department during the period.

S. No.	Patent Title	Inventors	Status	Details
1.	Title of Invention: Modified Low Cost Solar Water Purifier	Er. Danish Ahmed	Published	Patent Office Journal Issue 12/2020 pp. 35, Dated 20- 03-2020
2.	Title of Invention: Low Cost Gas Vent for LPG Heaters	Er. Danish Ahmed	Published	Patent Office Journal Issue 12/2020 pp. 45, Dated 20- 03-2020

Laboratories

S. No.	Name of Lab	S. No.	Name of Lab
01	Structural Engineering Laboratory	09	Advanced Geotechnical Laboratory
02	Strength of Materials Laboratory	10	Rock Mechanics Laboratory
03	Concrete Laboratory	11	Pavement Engineering Laboratory
04	Structural Dynamics Laboratory	12	Traffic Engineering Laboratory
05	Fluid Mechanics/ Hydraulics Laboratory	13	Advanced Asphalt Facility Laboratory
06	Geotechnical Laboratory-I	14	CAD Laboratory
07	Geotechnical Laboratory-II	15	Surveying Laboratory
08	Geotechnical Computational Laboratory	16	Geology Laboratory

"There is nothing I

than getting young

people interested in

science and engineering,

for a better tomorrow,

Nye

for all humankind." - Bill

believe more strongly

3.2 Department Of Mechanical Engineering

leaders in the dynamic world of industry.

Mechanical Engineering department is, perhaps, the most versatile in terms of the range of specializations of its faculty members. We have

Vision

To nurture Mechanical Engineers with a passion for professional excellence, who are ready to take on global challenges & serve the society with high human values.

Established in 1963, The Department of Me- faculty members who specialize in Haptics & chanical Engineering offers a unique opportuni- MEMS on one end to High-temperature Tribolty in terms providing first-class pedagogy & ogy, Manufacturing Strategies & Quality Conworld class facilities for conducting cutting- trol on the other. The traditional areas of Meedge research. Being one of the oldest depart- chanical Engineering such as Machine Design, ments of NIT Srinagar, the department has Fluid Mechanics & Thermal Sciences are also evolved into one of the finest in terms of well-represented. The department has a very teaching curriculum & methodology supported strong group working in the area of Friction, by a well-organised & adequately funded re- Lubrication & Wear, with state-of-the-art research program. We have a very well- search facilities & equipment. Our academic established B.Tech. program complemented by curriculum has improved considerably with the two M.Tech. Programmes in Mechanical Sys- passage of time. Regular Board of Studies tem Design & Industrial Tribology & Mainte- meetings are conducted to remove any inadnance Management. The masters" students are vertent deficiencies. Periodic feedback is taken admitted on the basis of a valid GATE score, & from the students to improve the quality of the some additional seats are reserved for merito- education imparted. Feedback is also taken rious sponsored candidates. The Research from the visiting companies during the place-Scholars (PhD) are admitted to the department ment season to orient the curriculum towards every year on the basis of a rigorous examina- the needs of the Industry. Specialized courses tion conducted by the department. The curric- are floated to cater to the needs of the PhD ulum is designed to cater to the needs & aspi- scholars, preparing them for subsequent rerations of the industry, & our top class faculty search. We strive to produce engineering gradensures that the students acquire the necessary uates of high quality who are team players, technical & decision making skills to be the accountable, resourceful & above all, technically competent.



Mission

- To provide facilities & infrastructure for academic excellence in the field of Mechanical Engineering.
- To inculcate in the students a passion for understanding professionalism, ethics, safety, & sustainability, & enable them to contribute to the society.
- To nurture creativity of the students & encourage them to come up with innovative solutions to real life problems.
- To prepare the student for lifelong learning with global perspective.

Faculty

Head of Department	Prof. Babar Ahmed
Professor	Prof. M Farooq Wani
Professor	Prof. Gh Ashraful Harmain
Professor	Prof. Nazir A. Sheikh
Professor	Prof. Adnan Qayoom
Professor	Prof. M. Marouf Wani
Associate Professor	Dr. Mohammad Hanief
Associate Professor	Dr. M Shafi Charoo
Associate Professor	Dr. Saad Parvez
Associate Professor	Dr. Sheikh Shahid Saleem
Associate Professor	Dr. Anjana Kak
Assistant Professor	Dr. Mohammad Mursaleen
Assistant Professor	Dr. Majid Hamid Koul
Assistant Professor	Dr. Mukund Dutt Sharma
Assistant Professor	Dr. Noor Zaman Khan
Assistant Professor	Dr. M Mohsin Khan
Assistant Professor	Dr. Harveer S Pali
Assistant Professor	Dr. Abhijit Dey
Assistant Professor	Dr. Manoj Kumar
Trainee Teacher	Mr. Ved Prakash Sharma
Lecturer (on contract)	Dr. Shuhaib Mushtaq
Lecturer (on contract)	Dr. Kaleem Najar
Lecturer (on contract)	Ms Neelam Jahan Majeed
Lecturer (on contract)	Mr. Aman Hira
Lecturer (on contract)	Mr M.W. Bhat
Lecturer (on contract)	Ms. Zakia Hussain

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published
I	Dr. M.F Wani	Ajay S Kalyanwat, Soumya Sarkar, Mita Biswas, Rupa Halder, Siddhartha Bandyopadhyay	Spark plasma-sintered MoSi 2-reinforced Y- α - SiAION ceramics: mechanical and high temperature tribological properties	Journal of the Australian Ceram- ic Society
2	Dr. M.F Wani	Amine Charfi, Ismail Dhaou, Mohamed Kharrat, Maher Dammak	Tribological Characterization of Compo- sites Based on Si3N4 Ceramics	International Conference on Advances in Me- chanical Engineer- ing and Mechanics
3	Dr. M.F Wani	Syed Danish Fayaz	Evaluating scuffing failure in dry sliding conditions of monolayer chromium piston ring/bulk grey cast iron liner interface	Tribology Online
4	Dr. M.F Wani	S Mushtaq, M Nadeem, KA Najar, M Mursaleen	A study on friction and wear characteristics of Fe–Cu–Sn alloy with MoS_2 as solid lubricant under dry conditions	Sādhanā
5	Dr. M.F Wani	Syed Danish Fayaz	Tribological behavior of chrome- deposited SAE9254 grade steel top com- pression piston ring under lubrication starvation and mild extreme pressure lubrication	International Jour- nal of Engine Re- search
6	Dr. M.F Wani	Summera Banday M Junaid Mir, Bisma Parveez	Adhesion Property of Self-Iubricating Si/ MoS ₂ Nanocoating at Nano-scale Level	IOP Conference Series: Materials Science and Engi- neering
7	Dr. M.F Wani	SIA Qadri, GA Harmain	Assessment of machinability of super alloy inconel 718 using aluminium oxide and mixed oxide ceramic cutting tools	IOP Conference Series: Materials Science and Engi- neering
8	Dr. M.F Wani	Jagtar Singh, Sum- mera Banday, Chan- dra Shekhar, Gurtej Singh	Nano scratch and Nanoindentation: An Approach to Understand the Tribological Behaviour of Max Phase Material Ti2AIC	IOP Conference Series: Materials Science and Engi- neering
9	Dr. M.F Wani	Rakesh Sehgal, Qurat-Ul-Ain	Analyzing structural and tribological char- acteristics of different materials at micro- and nano-level using molecular dynamics simulations: An overview	IOP Conference Series: Materials Science and Engi- neering
10	Dr. M.F Wani	Deepak Kumar, Basant Lal, Jibin T Philip, Basil Ku- riachen	Dry sliding wear behaviour of Ti–6Al–4V pin against SS316L disc in vacuum condi- tion at high temperature	Tribology- Materials, Surfac- es & Interfaces
П	Dr. M.F Wani	Jagadeesh K Mannekote, Satish V Kailas, Vinod Kumar	Tribological Properties of Some Fatty Acids	Journal of Physics: Conference Se- ries

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published
12	Dr. M.F Wani	M Jebran Khan, Himanshu Gandotra, S Shahid Saleem	Effect of material hardness, counter-face hardness and load on the tribological properties of virgin and glass filled PTFE using Taguchi Approach	Journal of Physics: Conference Se- ries
13	Dr. M.F Wani	M Junaid Mir, Sum- mera Banday, Bisma Parveez	Influence of cutting fluid conditions on tool wear and surface roughness in hard turning AISI-D2 Steel using mixed ceram- ic tools	Journal of Physics: Conference Se- ries
14	Dr. M.F Wani	Md Firdos Ali, Sum- mera Banday, Bisma Parveez, M Junaid Mir, S Mushtaq	Tribological Characterization of Cu-Ni Metal Matrix Composites Using MoS2 Nano-Iubricant	Journal of Physics: Conference Se- ries
15	Dr. M.F Wani	M Junaid Mir, Sum- mera Banday, Bisma Parveez	Influence of cutting fluid conditions on tool wear and surface roughness in hard turning AISI-D2 Steel using mixed ceram- ic tools	Journal of Physics: Conference Se- ries
16	Dr. M.F Wani	G Khajuria, S Mush- taq, Rakesh Sehgal	Optimization of the effect of indentation Load and dwell Time on Micro hardness values using Fuzzy logic predictive model	Journal of Physics: Conference Se- ries
17	Dr. M.F Wani	Sanjay Kumar, Rakesh Sehgal, S Mushtaq	Friction and Wear Properties of Si3N4/ TiC Ceramic Composite under Nano Lubrication	Journal of Physics: Conference Se- ries
18	Dr. M.F Wani	M Jebran Khan, Rajat Gupta	Friction and wear characterization of graphite/Polytetrafluoroethylene compo- sites against stainless steel: A comparative investigation under different environ- ments	Journal of Physics: Conference Se- ries
19	Dr. M.F Wani	SIA Qadri, GA Har- main	A study on effect of tool tip temperature on wear of ceramic cutting tools	Journal of Physics: Conference Se- ries
20	Dr. M.F Wani	Bisma Parveez, Md firdos Ali, Summera Banday, M Junaid Mir, S Mushtaq	Tribological Characterization of Iron Based Ceramic Reinforced Self-Iubricating Material	Journal of Physics: Conference Se- ries
21	Dr. M.F Wani	M Jebran, Rajat Gupta	Tribological performance evaluation of polytetrafluoroethylene composites un- der dry sliding and aqueous environments using taguchi approach and grey relational analysis: Effect	Polymer Compo- sites
22	Dr. M.F Wani	Shahid Manzoor,S Shahid Saleem	Effect of load on the friction and wear behaviour of silicon nitride and silicon nitride titanium carbide ceramic compo- site	Materials Today: Proceedings

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published
23	Dr. M.F Wani	SIA Qadri, GA Harmain	An experimental study on investigation of machining of nickel based super alloy 718	Materials Today: Proceedings
24	Dr. M.F Wani	Umair Ashraf, S Shahid Saleem,M Jebran Khan	Effect of load on the tribo-performance of 23-8N valve steel against GGG-60 seat material	Materials Today: Proceedings
25	Dr. M.F Wani	Omar Hussain, Babar Ahmad, Sha- hid Saleem, M Jebran Khan	Effect of counter-face material on the tribological characteristics of UHMW polyethylene under synovial fluid lubrica- tion	Materials Today: Proceedings
26	Dr. G. A. Harmain	F.A Najar	Influence on temperature profile in an oil film in thrust bearings using an embedded cooling circuitry beneath the pad surface: An experimental investigation	Proceedings of the Institution of Mechanical Engi- neers, Part J: Jour- nal of Engineering Tribology
27	Dr. G. A. Harmain	Ishfaq Amin Maekai	Effect of sediment concentration and par- ticle size on erosion behavior of forged stainless steel	Materials Today: Proceedings
28	Dr. G. A. Harmain	Mohit Goswami, Sunil Goyal, Abhay Kumar, SK Albert	Effect of Triaxial State of Stress on Tensile Behavior of Modified 9Cr-1Mo Steel	Journal of Materi- als Engineering and Performance
29	Dr. G. A. Harmain	Showkat Ahmad Kanth, Aazim Shafi Lone, Azher Jameel	Modeling of embedded and edge cracks in steel alloys by XFEM	Materials Today: Proceedings
30	Dr. G. A. Harmain	Aazim Shafi Lone, Showkat Ahmad Kanth, Azher Jameel	XFEM modeling of frictional contact be- tween elliptical inclusions and solid bodies	Materials Today: Proceedings
31	Dr. G. A. Harmain	Ishfaq Amin Maekai	Experimental and numerical investigation on the influence of rotational speed and particle size on wear of hydro turbine steel	Materials Today: Proceedings
32	Dr. G. A. Harmain	Mubashir Bashir, R Kannan, R Sandhya	Low Cyclic Fatigue Behavior of Alloy 625 at Ambient and Elevated Temperatures	Structural Integri- ty Assessment (Book)
33	Dr. G. A. Harmain	Rukhsana Mehdi, Aritra Sarkar, A Nagesha, R Sandhya	High Cycle Fatigue Behaviour of a 10 wt% Cr Steel at Ambient and Elevated Tem- peratures	Structural Integri- ty Assessment (Book)
34	Dr. G. A. Harmain	Azher Jameel	A coupled FE-IGA technique for modeling fatigue crack growth in engineering materials	Mechanics of Advanced Materi- als and Structures

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published
35	Dr. G. A. Harmain	Anuranjan Kumar, Kanwer Singh Arora, Rajneesh Kumar Gup- ta	Investigation on interface morphology and joint configuration of dissimilar sheet thickness FSSW of marine grade AI alloy	Journal of the Brazilian Society of Mechanical Sciences and Engineering
36	Dr. G. A. Harmain	Azher Jameel G. A. Harmain	Fatigue crack growth analysis of cracked specimens by the coupled finite element- element free Galerkin method	Mechanics of Advanced Materi- als and Structures
37	Dr. G. A. Harmain	SIA Qadri,MF Wani	A study on effect of tool tip temperature on wear of ceramic cutting tools	Journal of Physics: Conference Se- ries
38	Dr. G. A. Harmain	Azher Jameel	Extended Iso-Geometric Analysis for modeling Three Dimensional Cracks	Mechanics of Advanced Materi- als and Structures
39	Dr. G. A. Harmain	Irshad Qadri	Assessment of machinability of super alloy inconel 718 using Aluminum oxide and mixed oxide ceramic cutting tools	IOP Conference series: Materials Science and Engi- neering
40	Dr. G. A. Harmain	M. F. Wani, S I A Qadri	An Experimental Study on Investigation of Machining of nickel based Super Alloy 718	Materials Today Proceedings
41	Dr. G. A. Harmain	Azher Jameel, Show- kat Ahmad Kanth, Aazim Shafi Lone	Elasto Plastic Crack Growth by XFEM: A Review	Materials Today Proceedings
42	Dr. G. A. Harmain	Aazim Shafi Lone, Showkat Ahmad Kanth, Azher Jameel	A state of art review on the modeling of Contact type Nonlinearities by Extended Finite Element method	Materials Today Proceedings
43	Dr. G. A. Harmain	Abhishek Kumar, Aritra Sarkar, A Nagesha	Generation of HCF-creep interaction diagram in Alloy 617M at 973 K	International Journal of Fatigue
44	Dr. Nazir Ahmad Sheikh	Kaleem Ahmad Najar, Shah Aarif UI Islam	Surface Engineering of Tungsten Carbide Tool Material by Nano and Microcrystal- line Diamond Coatings	Surface Engineer- ing of Modern Materials (BOOK)
45	Dr. Nazir Ahmad Sheikh	Kaleem Ahmad Najar., M Mursaleen Butt, Shuhaib Mush- taq, MA Shah	Engineered Synthetic Diamond Film as a Protective Layer for Tribological and Machining Applications: A Review	Journal of Bio-and Tribo-Corrosion
46	Dr. M. Marouf Wani	S Naresh Kumar Red- dy	Engine performance and emission studies by application of antioxidant as additive in biodiesel diesel blends	AIP Conference Proceedings
47	Dr. M. Marouf Wani	Ufaith Qadri	Computational Investigation on Single Cylinder Spark Ignition Engine Using Gas- oline-propane in Dual Fuel Mode	International Journal of Heat and Technology

Publications

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published
48	Dr. Babar Ahmad	Diyan ul Imaan, Fasil Qayoom Mi	Fabrication and characterization of poly (vinyl alcohol) – graphene nanoplatelets (GNPs) proton exchange membrane for direct methanol fuel cells	Materials Today: Proceedings
49	Dr. Babar Ahmad	Hannan Gada, Deepa Mudgal, Saad Parvez	Investigation of high temperature corro- sion resistance of Ni25Cr coated and bare 347H SS in actual husk fired boiler atmosphere	Engineering Fail- ure Analysis
50	Dr. Babar Ahmad	Omar Hussain, Sheikh Shahid Saleem	Friction and wear performance evaluation of UHMWPE using Taguchi based grey approach: A study on the influence of load and bio-serum lubrication	Materials Chemis- try and Physics
51	Dr. Babar Ahmad	Suhail Ganiny, Majid H Koul	Stability Analysis of a Dual-Rate Haptics Controller Using Discrete-Time Root- Locus Method	4th International and 19th National Conference on Machines and Mechanisms (iNaCoMM 2019) IIT Mandi
52	Dr. Babar Ahmad	Omar Hussain, Shahid Saleem	Implant materials for knee and hip joint replacement: A review from the tribologi- cal perspective	IOP Conference Series: Materials Science and Engi- neering
53	Dr. Babar Ahmad	Hannan Gada, Deepa Mudgal	Experimental Evaluation of High Temper- ature Corrosion Performance of 75Ni25Cr Coated and Bare 347H SS in Air and Simulated Husk Fired Boiler Envi- ronment	Journal of Physics: Conference Series
54	Dr. Babar Ahmad	Suhail Ganiny, Majid H Koul	Stability Analysis of Dual-rate Haptics Controller Using Two Control Architec- tures	Journal of Physics: Conference Series
55	Dr. Babar Ahmad	Diyan ul Imaan, Fasil Qayoom Mir	Preparation and characterization of a novel nano-size titanium oxide-PVA (TiO2-PVA) composite ion exchange membrane	Journal of Physics: Conference Series
56	Dr. Babar Ahmad	Omar Hussain, Babar Ahmad, Sha- hid Saleem, M Jebran Khan	Effect of counter-face material on the tribological characteristics of UHMW polyethylene under synovial fluid lubrica- tion	Materials Today: Proceedings
57	Dr. Adnan Qayoom	Masrat Bashir, Sheikh Shahid Saleem	Influence of lignocellulosic banana fiber on the thermal stability of brake pad material	IOP Conference Series: Materials Science and Engi- neering

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published
58	Dr. Adnan Qayoom	Ayaz Ahmed, Fasil Qayoom Mir	Investigation of the thermal behavior of the natural insulation materials for low temperature regions	Journal of Build- ing Engineering
59	Dr. Adnan Qayoom	Mukhtar Ahmad	Investigation of Impingement of Double Orifice Synthetic Jet for Heat and Fluid Flow Characteristics in Quiscent Flow.	Pertanika Journal of Science & Technology
60	Dr. Adnan Qayoom	A Malik	Influence of the Excitation Frequency and Orifice Geometry on the Fluid Flow and Heat Transfer Characteristics of Synthetic Jet Actuators	Fluid Dynamics
61	Dr. Adnan Qayoom	Masrat Bashir, Shahid Saleem	Analysis of frictional heating and thermal expansion in a disc brake using COMSOL	Journal of Phys- ics: Conference Series
62	Dr. Adnan Qayoom	Ovais Gulzar, Rajat Gupta	Experimental study on stability and rheo- logical behaviour of hybrid Al2O3-TiO2 Therminol-55 nanofluids for concentrating solar collectors	Powder Technol- ogy
63	Dr. Sheikh Shahid Saleem	Omar Hussain, Babar Ahmad	Friction and wear performance evaluation of UHMWPE using Taguchi based grey approach: A study on the influence of load and bio-serum lubrication	Materials Chem- istry and Physics
64	Dr. Sheikh Shahid Saleem	Masrat Bashir, Adnan Qayoom	Influence of lignocellulosic banana fiber on the thermal stability of brake pad material	IOP Conference Series: Materials Science and Engi- neering
65	Dr. Sheikh Shahid Saleem	M Jebran Khan, Himanshu Gandotra, M.F. Wani	Effect of material hardness, counter-face hardness and load on the tribological properties of virgin and glass filled PTFE using Taguchi Approach	Journal of Phys- ics: Conference Series
66	Dr. Sheikh Shahid Saleem		Nano-lubrication: Effect of nano-additives on the tribological properties of lubricants. A critical review	First International Conference on Materials Science and Manufactur- ing Technology (ICMSMT 2019), Coimbatore, Tamil Nadu
67	Dr. Sheikh Shahid Saleem		A Noise Prediction Model for Indian Traf- fic Conditions	Lambert Academ- ic Publishing; 978- 613-9-47591-9
68	Dr. Sheikh Shahid Saleem	Umair Ashraf	A Tribological Study of I. C. Engine Exhaust Valve	Lambert Academ- ic Publishing; 978- 620-0-00505-2;

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published
69	Dr. Sheikh Shahid Saleem	Masrat Bashir	Brake Pad Tribology	Lambert Academ- ic Publishing; 978- 620-0-00674-5
70	Dr. Sheikh Shahid Saleem	Omar Hussain, Ba- bar Ahmad	Implant materials for knee and hip joint replacement: A review from the tribolog- ical perspective	IOP Conference Series: Materials Science and Engi- neering
71	Dr. Sheikh Shahid Saleem	Masrat Bashir, Adnan Qayoom	Analysis of frictional heating and thermal expansion in a disc brake using COMSOL	Journal of Physics: Conference Se- ries
72	Dr. Sheikh Shahid Saleem	Omar Hussain, Ba- bar Ahmad, M.F.Wani, M Jebran Khan	Effect of counter-face material on the tribological characteristics of UHMVV polyethylene under synovial fluid lubrica- tion	Materials Today: Proceedings
73	Dr. Sheikh Shahid Saleem	Shahid Manzoor,M.F Wani	Effect of load on the friction and wear behaviour of silicon nitride and silicon nitride titanium carbide ceramic compo- site	Materials Today: Proceedings
74	Dr. Sheikh Shahid Saleem	Umair Ashraf, M.F.Wani,M Jebran Khan	Effect of load on the tribo-performance of 23-8N valve steel against GGG-60 seat material	Materials Today: Proceedings
75	Dr.Saad Parvez	Hannan Gada, Deepa Mudgal, Ba- bar Ahmad	Investigation of high temperature corro- sion resistance of Ni25Cr coated and bare 347H SS in actual husk fired boiler atmosphere	Engineering Fail- ure Analysis
76	Dr. M. Hanief	MS Charoo	Improving the tribological characteristics of a lubricating oil by nano sized additives	Materials Today: Proceedings
77	Dr. M. S. Charoo	M. Hanief	Improving the tribological characteristics of a lubricating oil by nano sized additives	Materials Today: Proceedings
78	Dr. M. S. Charoo	Pranav Dev Srivyas	Effect of Load on the Tribological Prop- erties of Eutectic Al-Si Reinforced n- Al2O3 under Dry Sliding Conditions	Advances in Tri- bology
79	Dr. M. S. Charoo	Wani Khalid Shafi	Rheological properties of hazelnut oil mixed with zirconium-dioxide nanoparticles	Materials Today: Proceedings
80	Dr. M. S. Charoo	Pranav Dev Srivyas	Tribological characterization of hybrid aluminum composite under boundary lubricating sliding conditions	Materials Today: Proceedings
81	Dr. M. S. Charoo	Pranav Dev Srivyas	Friction and wear reduction properties of GNP nano-particles as nano-additive for Al-Si+ Al2O3 composite/Chromium plated steel tribopair	Jurnal Tribologi

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published
82	Dr. M. S. Charoo	Pranav Dev Srivyas	Effect of load on the friction and wear properties of aluminum hybrid composite/ chromium plated chrome steel tribopair under boundary lubrication conditions	Materials Today: Proceedings
83	Dr. M. S. Charoo	Pranav Dev Srivyas	Effect of Load, Sintering Temperature and Reinforcement Concentration on Al-Si/γ- Al2O3/GNP Self-Lubricating Hybrid Com- posite.	Tribology in In- dustry
84	Dr. M. S. Charoo	Pranav Dev Srivyas	Effect of Sintering Temperature and Rein- forcement Concentration on the Tribolog- ical Behaviors of Hybrid Aluminum Matrix Nano Composite.	Tribology in In- dustry
85	Dr. M. S. Charoo	Pranav Dev Srivyas	Effect of load on the tribological behavior of self-lubricating hybrid aluminum compo- site under dry sliding conditions	Materi- als Research Ex- press
86	Dr. M. S. Charoo	AH Mir	Friction and wear characteristics of poly- etheretherketone (PEEK): A review	IOP Conference Series: Materials Science and Engi- neering
87	Dr. M. S. Charoo	Wani Khalid Shafi	Experimental study on rheological proper- ties of vegetable oils mixed with titanium dioxide nanoparticles	Journal of the Brazilian Society of Mechanical Sciences and Engi- neering
88	Dr. M. S. Charoo	Pranav Dev Srivyas	Fabrication and micro-hardness properties of nano-Al2O3 reinforced aluminium metal matrix composite by field-assisted sintering technique/spark plasma sintering pro- cessing route	International Jour- nal of Rapid Manu- facturing
89	Dr. M. S. Charoo	Pranav Dev Srivyas	Effect of Lubricants Additive: Use and Ben- efit	Materials Today: Proceedings
90	Dr. M. S. Charoo	Shariq Ahmad Bhat	Effect of Additives on the Tribological Properties of Various Greases-A Review	Materials Today: Proceedings
91	Dr. M. S. Charoo	Shariq Ahmad Bhat	Bio-Tribological Study of Synovial Fluid in the Orthopedic Implants	Advances in Inter- disciplinary Engi- neering(BOOK)
92	Dr. M. S. Charoo	Pranav Dev Srivyas	Graphene: An Effective Lubricant for Tribological Applications	Advances in Engi- neering Design (BOOK)

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published
93	Dr. Mo- hammad Mursaleen	S Mushtaq, M Nadeem, KA Najar, M.F Wani	A study on friction and wear characteristics of Fe–Cu–Sn alloy with MoS_2 as solid lubricant under dry conditions	Sādhanā
94	Dr. Mo- hammad Mursaleen	Kaleem Ahmad Najar,, Nazir Ahmad Sheikh, Shuhaib Mushtaq, MA Shah	Engineered Synthetic Diamond Film as a Protective Layer for Tribological and Machining Applications: A Review	Journal of Bio-and Tribo-Corrosion
95	. Moham- mad Mur- saleen	MA Reshi	Study of the failure of condenser tube in water cooled centrifugal chiller	Journal of Physics: Conference Se- ries
96	Dr. Majid Hameed Koul	Suhail Khosa,Babar Ahmad	Stability Analysis of a Dual-Rate Haptics Controller Using Discrete-Time Root- Locus Method	4th International and 19th National Conference on Machines and Mechanisms (iNaCoMM 2019) IIT Mandi
97	Dr. Majid Hameed Koul	Suhail Khosa, Babar Ahmad	Stability Analysis of Dual-rate Haptics Controller Using Two Control Architec- tures	Journal of Physics: Conference Se- ries
98	Dr. Mukund Dutt Shar- ma	Narender Panwar, Amit Chauhan, Harveer Singh Pali	Fabrication of Aluminum 6061 Red-mud Composite using Stir Casting and Micro Structure Observation	Materials Today: Proceedings
99	Dr. Mukund Dutt Shar- ma	CS Jawalkar, Suman Kant, Narender Panwar, Harveer Singh Pali	Effect of Particle Size Variation of Bagasse Ash on Mechanical Properties of Alumini- um Hybrid Metal Matrix Composites	
100	Dr. Noor Zaman Khan	Talhah Shamshad Ali Ansari, Arshad Noor Siddiquee, Zahid A Khan	Selection of E-learning websites using a novel Proximity Indexed Value (PIV) MCDM method	Journal of Com- puters in Educa- tion
101	Dr. Noor Zaman Khan	Mohammad Owais Qidwai, Mohammad Muzaffarul Hasan, Urfi Khan	Optimization of heat transfer effects in radial fin microchannel heat sink	Energy Sources, Part A: Recovery, Utilization, and Environmental Effects
102	Dr. Noor Zaman Khan	Arshad Noor Sid- diquee, Sunil Pan- dey, Mustufa Haider Abidi, Abdulrahman Al-Ahmari, Namrata Gangil	Microstructural characterization and in- process traverse force during friction stir welding of austenitic stainless steel	Proceedings of the Institution of Mechanical Engi- neers, Part C: Journal of Me- chanical Engineer- ing Science
103	Dr. Noor Zaman Khan	Rajesh Attri, Ashish- pal, Arshad Noor Siddiquee, Zahid A Khan	ISM-MICMAC approach for evaluating the critical success factors of 5S imple- mentation in manufacturing organisations	International Journal of Busi- ness Excellence

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published
104	Dr. Noor Zaman Khan	Dhruv Bajaj, Arshad Noor Siddiquee, Zahid A Khan, Mustufa Haider Abidi, Usama Umer, Hisham Alkhalefah	Investigation on Effect of Strain Rate and Heat Generation on Traverse Force in FSW of Dissimilar Aerospace Grade Alu- minium Alloys	Materials
105	Dr. Noor Zaman Khan	Suha K Shihab, Ra- jesh Attri, Arshad Noor Siddiquee, Zahid A Khan	Prioritization of lower back pain risk fac- tors among industrial workers using the best–worst method	International Jour- nal of Occupation- al Safety and Ergo- nomics
106	Dr. Mo- hammad Mohsin Khan	Mohammad Mohsin Khan, Gajendra Dixit	Evaluation of Microstructure, Mechanical, Thermal and Erosive Wear Behavior of Aluminum-Based Composites	Silicon
107	Dr. Mo- hammad Mohsin Khan	Ambreen Nisar, Shipra Bajpai, Kan- tesh Balani	Processing, microstructure and mechanical properties of HfB2-ZrB2-SiC composites: Effect of B4C and carbon nanotube rein- forcements	International Jour- nal of Refractory Metals and Hard Materials
108	Dr. Mo- hammad Mohsin Khan	Ambreen Nisar, Kantesh Balani	Enhanced thermo-mechanical damage tol- erance of functionally graded ZrB2-20SiC ceramic reinforced with carbon nanotubes	Ceramics Interna- tional
109	Dr. Harveer Singh Pali	V Saxena	Structural and magnetic analysis of electro- magnetic suspension spring	IOP Conference Series: Materials Science and Engi- neering
110	Dr. Harveer Singh Pali	Narender Panwar, Amit Chauhan, Mukund Dutt Shar- ma	Fabrication of Aluminum 6061 Red-mud Composite using Stir Casting and Micro Structure Observation	Materials Today: Proceedings
ш	Dr. Harveer Singh Pali	CS Jawalkar, Suman Kant, Narender Panwar, Mukund Dutt Sharma	Effect of Particle Size Variation of Bagasse Ash on Mechanical Properties of Alumini- um Hybrid Metal Matrix Composites	Materials Today: Proceedings
112	Dr. Harveer Singh Pali	S Raghu, TG Ma- matha, Rina Sharma, JR Vimal, Vinod Kumar	A comparative study of circularity of arte- fact detecting circle using CMM and form tester with different filters	Materials Today: Proceedings

Publications

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published
112	Dr. Harveer Singh Pali	S Raghu, TG Ma- matha, Rina Shar- ma, JR Vimal, Vinod Kumar	A comparative study of circularity of arte- fact detecting circle using CMM and form tester with different filters	Materials Today: Proceedings
113	Dr. Harveer Singh Pali	Vipul Saxena, Prem Shanker Yadav	Effect of magnetic abrasive machining pro- cess parameters on internal surface finish	Materials Today: Proceedings
114	Dr. Harveer Singh Pali	Naveen Kumar, Ankit Sonthalia	Next-Generation Biofuels—Opportunities and Challenges	Innovations in Sustainable Ener- gy and Cleaner Environment
115	Dr. Harveer Singh Pali		Effect of Mast Modification in Ingress Prob- lem in Gas Turbine of Naval Ship	Journal of Physics: Conference Se- ries
116	Dr. Harveer Singh Pali	Prem Shanker Yarav,Naveen Ku- mar	Effect of Higher Injection Pressure on Bio- diesel for Spray Formation	SAE Technical Paper
117	Dr. Harveer Singh Pali		Experimental Investigations of Storage Stability of Kusum Biodiesel	Journal of Biofu- els
118	Dr. Manoj Kumar	Neeraj Mehla, Avadhesh Yadav	Annual Performance Evaluation of Evacuat- ed Tube Solar Air Collector with Phase Change Material	Journal of Solar Energy Engineer- ing
119	Dr. Abhijit Dey	Pawan Kumar, Manvendra Tiwari, Mamookho Eliza- beth Makhatha, Bipin Bihari Ver- ma4	Effect of Rate of Loading on Jute Fibre- Reinforced Polymer Composite	Transactions of the Indian Insti- tute of Metals

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Faculty Member	Program Attended	Institute Where Attended	Date
Ι.	Prof. Babar Ahmad	7th International Con- ference on Hydrogen Energy, ANM, 2019	University of Aveiro, Aveiro-Portugal	17-19, July, 2019
2.	Prof. M. F. Wani	International Tribology Conference	Sendai, Japan	26 th September 2019
3.	Prof. M. F. Wani	IndiaTrib 2019	IISC Bangalore	1 st Dec 2019
4.	Prof. G.A. Harmain	International Confer- ence on Contemporary issues in Engineering, Agriculture, Applied Science & Humanities	Department of Metallur- gical and Materials Engi- neering, NIT Srinagar, J&K and Krishi Sanskrit, New Delhi	22nd to 23rd June 2019
5.	Prof. G.A. Harmain	Fifth International Con- ference on Nanotech- nology for Better living	SKUAST Shalimar Srina- gar (jointly organized by NIT Srinagar and IIT Kharagpur)	17-11 April 2019
6.	Prof. G.A. Harmain	International Confer- ence on Materials Sci- ence and Manufactur- ing Technology 2019	Hotel Alfot, Coimbatore, Tamil Nadu	12-13 April 2019
7.	Prof. G.A. Harmain	Non Local Mechanics Approaches for Model- ing Localized Defor- mations (NMAMLD 2020)	IIT Hyderabad	19 th to 21 st Feb, 2020
8.	Dr. Sheikh Shahid Saleem	Workshop on Public Procurement under GFR 2017 & GeM	Indian Habitat Centre Delhi	12/06/2019 TO 14/06/2019
9.	Dr. Sheikh Shahid Saleem	Workshop on National Public Procure- ment Conclave 2019	Indian Habitat Centre Delhi	05/12/2019 TO 06/12/2019
10.	Dr. Mukund Dutt Sharma	6 th Intl. Conf. on Pro- duction and Industrial Engineering.	NIT Jalandhar (Pb.) India.	June 8-10, 2019.
Π.	Dr. Noor Zaman Khan	Digital Transformation In Teaching Learning Process on Features of Smartboard, Pedagogy strategies to use smartboards	IIT Bombay, Mumbai	16/03/2020 to 30/03/2020
12.	Dr. Noor Zaman Khan	IIC Innovation Ambas- sador Training Series on Pre-Incubations & Incubation Manage- ment	Lovely Professional University, Jalandhar, Punjab	16/01/2020 to 17/01/2020

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Faculty Member	Program Attended	Institute Where Attended	Date
13	Dr. Noor Zaman Khan	8th International Sym- posium on Fusion of Science and Technolo- gy (ISFT-2020)	J C Bose YMCA Farida- bad (HR), India	06/01/2020 to 10/01/2020
14	Dr. Noor Zaman Khan	Regional Orientation Session on IIC 2.0 and ARIIA 2020	Punjab Engineering Col- lege, Chandigarh	19/7/2019
15	Dr. Noor Zaman Khan	2nd International Indo Tunisian Symposium on "Tribology for Sustain- ability"	National Institution of Technology, Srinagar	17/06/2019 to 21/06/2019
16	Dr. Noor Zaman Khan	FDP on Outcome based education	National Institution of Technology, Srinagar	18/05/2019 to 22/05/2019
17	Dr. Noor Zaman Khan	FDP on Pedagogy	National Institution of Technology, Srinagar	01/04/2019 to 05/04/2019
18	Dr. Moham- mad Mohsin Khan	FDP on Pedagogy	National Institution of Technology, Srinagar	01/04/2019 to 05/04/2019
19	Dr. Moham- mad Mohsin Khan	Outcome based educa- tion	National Institution of Technology, Srinagar	18/05/2019 to 22/05/2019
20	Dr. Moham- mad Mohsin Khan	2nd International Indo Tunisian Symposium on "Tribology for Sustain- ability"	National Institution of Technology, Srinagar	17/06/2019 to 21/06/2019
21	Dr. Moham- mad Mohsin Khan	STC on Introduction to MATLAB, PSCAD and LaTeX for Re- searchers"	National Institution of Technology, Srinagar	24/06/2019 to 28/06/2019
22	Dr. Moham- mad Mohsin Khan	STC on Renewable Energy in Science, Engi- neering & Technology	National Institution of Technology, Srinagar	01/07/2019 to 05/07/2019
23	Dr. Moham- mad Mohsin Khan	STC on Advance Mate- rial Processing and Characterization	National Institution of Technology, Srinagar	22/07/2019 to 26/07/2019
24	Dr. Moham- mad Mohsin Khan	8th International Sym- posium on Fusion of Science and Technolo- gy (ISFT-2020),	J C Bose YMCA Farida- bad (HR), India	06/01/2020 to 10/01/2020
25	Dr. Harveer Singh Pali	FDP on Pedagogy	National Institution of Technology, Srinagar	01/04/2019 to 05/04/2019
26	Dr. Harveer Singh Pali	ICCEMME-2019	G L BAJAJ Greater Noida	03/05/2020 to 05/05/2020

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Faculty Member	Program Attended	Institute Where Attended	Date
27	Dr. Harveer Singh Pali	Outcome based educa- tion	National Institution of Technology, Srinagar	18/05/2019 to 22/05/2019
28	Dr. Harveer Singh Pali	2nd International Indo Tunisian Symposium on "Tribology for Sustain- ability"	National Institution of Technology, Srinagar	17/06/2019 to 21/06/2019
29	Dr. Harveer Singh Pali	STC on Introduction to MATLAB, PSCAD and LaTeX for Re- searchers"	National Institution of Technology, Srinagar	24/06/2019 to 28/06/2019
30	Dr. Harveer Singh Pali	STC on Renewable Energy in Science, Engi- neering & Technology	National Institution of Technology, Srinagar	01/07/2019 to 05/07/2019
31	Dr. Harveer Singh Pali	STC on Advance Mate- rial Processing and Characterization	National Institution of Technology, Srinagar	22/07/2019 to 26/07/2019
32	Dr. Harveer Singh Pali	8th International Sym- posium on Fusion of Science and Technolo- gy (ISFT-2020),	J C Bose YMCA Farida- bad (HR), India	06/01/2020 to 10/01/2020

Program(s) Conducted

Conferences, Courses, Trainings conducted by the faculty during the period:

S.No	Name of the Co-Ordinator	Name of the pro- gram Conducted	Sponsoring Agency	Dates when Conducted
I	Dr. H. S. Pali Dr. Mukund Dutt Sharma Dr. M. Mohsin Khan Dr. Noor Zaman Khan Dr. G. A Harmain (Convener FDP)	One-week Faculty Development Pro- gram on "Outcome Based Education"	TEQIP III	18 May 2019 to 22 May 2019
2	Dr. Noor Zaman Khan Dr. Manoj Kumar Dr. Abhijit Dey Dr. Mukund Dutt Sharma	One-week Short Term Course on "Advanced Materials Processing and Char- acterization"	TEQIP III (Twinning activity)	22 July 2019 to 26 July 2019
3	Prof. MF Wani, Dr. Mukund Dutt Sharma	Faculty Development Programme on "Pedagogy"	TEQIP III	I st April 2019 to 5th April 2019

Program(s) Conducted

S.No	Name of the Co-Ordinator	Name of the pro- gram Conducted	Sponsoring Agency	Dates when Conducted
4	Dr. M. Hanief	Short-Term Course on "Pinch Technolo- gy: A heat exchanger Network Analysis Tool".	TEQIP III	29th July 2019 to 2nd August, 2019
5	Prof M F Wani Dr. Sheikh Shahid Saleem Dr. Mukund Dutt Sharma Dr. Abhijit Dey	2nd International Indo-Tunisian Sympo- sium on "Tribology for Sustainability"	DST (GOI) and TEQIP-III (NIT Srinagar)	17-21 June 2019
6	Dr. Abhijit Dey Dr. M. Mohsin Khan	Lectures on "The Fascinating of World Materials"	TEQIP III	27-28, May 2019
7	Dr. Abhijit Dey	Lectures on "NanoPhysics".	TEQIP III	6-04-2019 to 8- 04-2019
8	Dr. Abhijit Dey	Lectures on "Computer Program- ming	TEQIP III	17-05-2019 to 19 -05-2019
9	Dr. Mukund Dutt Sharma	Future of Engineering Systems and Technol- ogies	FIST, New Delhi and GL Bajaj Institute of Technology	21/12/2019 to 22/12/2019
10	Dr. Harveer Singh Pali	MATLAB, PSCAD and LaTeX	National Insti- tute of Tech- nology Srinagar	24/06/2019 TO 28/06/2019
П	Dr. Harveer Singh Pali Dr. Manoj Kumar	Renewable Energy in Science, Engineering & Technology	National Insti- tute of Tech- nology Srinagar	01/07/2019 TO 05/07/2019
12	Dr. Harveer Singh Pali	8th International Symposium on Fusion of Science and Tech- nology (ISFT-2020),	J C Bose YMCA Farida- bad (HR), India	06/01/2020 to 10/01/2020
13	Prof. M. F.Wani	53rd Annual conven- tion along with Inter- national Conference on Digital Democracy	NIT Srinagar	16 th -18 th Jan 2020

Conferences, Courses, Trainings conducted by the faculty during the period:

Sponsored Projects

S . No.	Name of the Program	Investigator	Amount (in INR)	Sponsoring Agency (if any)
I	Low Cost Scrap Crusher for Local Junk Yards	Dr. M. Hanief Dr. M. S. Charoo	1,00,000.00	TEQIP III
2	Tribological Sustainable Investigation of Hazelnut oil mixed Metal Oxide Nanoparticles	Dr. M. S. Charoo Prof. M.F. Wani	1,00,000.00	TEQIP III
3	Bio-Gas Generation from Kitchen Waste of Hostel Mess	Dr. Harveer Singh Pali Dr. M. Hanief	1,00,000.00	TEQIP III
4	Design and Construction of Seismically Safe Low Cost Housing using Inno- vative Materials and Tech- niques	Prof. M.F. Wani	10,00,000.00	TEQIP III
5	Self Lubricating Metal Matrix Nanocomposites: Physical, Mechanical and Tribological Properties	Prof. M.F. Wani	13,00,000.00	NPIU

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Scholar	Supervisor(s)	Status of Degree
1.	Dr. Junaid Hassan. Masoodi	Prof (Dr.) G. Harmain	Awarded (08-05-2019)
2.	Dr. Syed Irshad Ahmad Qadri	Prof (Dr.) G. Harmain Prof (Dr.) M. F. Wani	Awarded 09-03-2020
3.	Dr. S Banday	Prof M F Wani	Awarded 2020
4.	Dr. Junaid Mir	Prof M F Wani	Awarded 2019
5.	J Khan	Prof M F Wani Dr. Rajat Gupta	Awarded 2019
6	Himanshu Shekhar Gupta	Prof M F Wani Prof Rakesh Sehgal	Ongoing
7	Sanjay Jaswal	Prof M F Wani Dr M D Sharma	Ongoing
8	Sohaib Ahmad Sirwal	Prof. Babar Ahmad	Ongoing
9	Mohammad Kamran	Prof. Adnan Qayoum	Ongoing
10	Amir Yousuf Bhat	Prof. Adnan Qayoum	Ongoing

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S . No.	Scholar	Supervisor(s)	Status of Degree
П	Gowhar Shafi Bhat	Prof. Adnan Qayoum	Ongoing
12	Mohammad Dilawar	Prof. Adnan Qayoum	Ongoing
13	Turali Narayan	Dr. Shahid Saleem	Ongoing
14	Umair Ashraf	Dr. Shahid Saleem	Ongoing
15	Ilyas Ahmad N Shah	Dr. Shahid Saleem	Ongoing
16	Firdous Ahmed	Dr. Saad Parvez	Ongoing
17	Sumit Kumar	Dr. M S Charoo	Ongoing
18	Avinash	Dr. Mohammad Mursaleen	Ongoing
19	Ashish Kumar Singh	Dr. Harveer Singh Pali	Ongoing
20	Amit Kumar	Dr. Harveer Singh Pali	Ongoing
21	Mohammad Mujtaba Ahmad	Dr. Harveer Singh Pali	Ongoing
22	Mohammad Tabrez	Dr. Mohammad Mohsin Khan	Ongoing
23	Irfan Hajam	Dr. Mohammad Mohsin Khan	Ongoing
24	Akash Dwivedi	Dr. Mohammad Mohsin Khan	Ongoing
25	Annayath Maqbool	Dr. Noor Zaman Khan	Ongoing
26	Fayaz Ahmad Mir	Dr. Noor Zaman Khan Dr. Saad Parvez	Ongoing
27	Sheikh Shahid UI Islam	Dr. Noor Zaman Khan Dr. Mohammad Mohsin Khan	Ongoing
28	Mohit Teacher	Dr. Noor Zaman Khan	Ongoing
29	Tariq Ahmad	Dr. Noor Zaman Khan Prof. Babar Ahmad	Ongoing
30	Ashish	Dr. Mukund Dutt Sharma	March 2020
31	Safoora Shabbir	Dr. Mukund Dutt Sharma	March 2020
32	Mushtaq Ahmad Rather	Prof. M M Wani	May 2020

Purchase(s) Made

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Purchases made by the department during the period.

S.No	Name of the equipment/Item	Quantity	Date of Pur- chase	Amount of Pur- chase
I	Sony VPLSW 631C Projector 3100 IM WXGA, HOMI, LAN, USB Type A/B 16W 5PCR Auto calibration	01	30-04-2019	1,03,500.00
2	Online UPS 6KVA Emmerson with 16 No. Of Exide power safe Batteries 26AH	01	30-04-2019	1,36,000.00
3	Lego Minstorm EV3-Core set 45544	05	08-04-2019	2,18,300.00
4	Lego Transformer 10V DC 45517	05	08-04-2019	I 7,700.00
5	Noise Test Chamber	01	22-04-2019	2,48,390.00
6	Acoustics Module single user CPU Locked licence CAD import module sin- gle user locked licence	01	13-05-2019	1,15,640.00
7	Platinum Catalyst sheet Platinum ruthenium catalyst sheet Vulcan- Carbon sheet for MEA Coating spray	01	31-05-2009	2,49,997.00
8	Engine Tribotestor with Tribo Corrosion purchased under TEQIP III	01	21-06-2019	74,91,564.00

Patents

Patents held by the department during the period.

S . No.	Patent Title	Inventors	Status	Details
Ι.	System and Method for Extraction of Sweet Compounds from Natural Ste- via.	Puja Das, Dr. M Israr, A R Jamader, B R Acharya, Dr. R K Rout, Dr. Harveer Singh Pali	Applied	202011005968

Laboratories Available

Laboratory facilities available at the department

S. No.	Name of the Lab	S. No.	Name of the Lab
I	Dynamics Lab	11	I.C. Engine Lab
2	Heat Transfer Lab	12	Steam Lab
3	Industrial Engineering Lab	13	Materials Testing Lab
4	Fluid Mechanics Lab	14	Turbine Erosion Testing Lab
5	Mechatronics Lab	15	Tribology Lab
6	Advanced Computation Lab	16	Fuel Cell Lab
7	Energy Research Lab	17	Turbulence Research Lab
8	Mechanics of Materials Lab	18	Advanced Thin Film Lubrication Lab
9	Production Engineering Lab	19	Universal Tribometer
10	CAD Lab	20	Sintering Furnace

3.3. Department Of Electrical Engineering

now 53 years old. For many years, the Depart- 10 years. It compromises of analysis yearly ment offered courses in both Electrical Engi- achievements for all previous years. This asneering. In 1984, the Department was bifurcat- achievements/ progress on annual basis. ed into two Departments viz Electrical Engineering & Electronics & Communications Engi- To complete more result-oriented tasks, the neering. The history since then has been one committee carried out thorough discussions in of continuous expansion & modernization. The order to understand the gaps in the present Department has contributed & is contributing scenario ad the desirable future of the departin several ways to the growth of Electrical ment as well as institute. Engineering, technology & industry in the Country.

Ever since its establishment, the department of electrical engineering has produced scientists and technocrats of high caliber. In order to ascertain these achievements, a committee was established in the supervision of Head of department, to develop vision, mission and pro-

The Department of Electrical Engineering is gram educational objectives for a span of next neering & Electronics & Communications Engi- sessment is used for interdepartmental

"If you want

to find the

secrets of the

universe, think

— Nikola Tesla

in terms of energy,

frequency and vibration."

Mission

needs.

To create technocrats by imparting quality education to meet industrial and societal

- To provide a cordial environment that attracts and develops talent for excellence in research, innovation and leadership.
- To inspire students to become responsible citizens and inculcate value based, socially committed professional ethics to cause of holistic development.
- To enable sustainable and cost-effective innovations, showcasing the importance of green energy technology with a focus on energy efficiency.
- M5. To bridge the gap between academia and industries by framing appropriate curricula and syllabi.



Vision

The department of Electrical Engineering aims to be a frontrunner in producing globally competent technocrats who can set a benchmark in innovation and research to contribute in nation building by making a demonstrable environmental, social and economic impact.

Faculty

Head of	
Department	Prof. Abdul Hamid Bhat
Professor	Prof. Aijaz Ah Zargar
Professor	Prof. Mufti Miraj-Ud-Din
Professor	Prof. Shameem A Lone
Associate Professor	Dr. Sh Javed Iqbal
Associate Professor	Dr. M Abid Bazaz
Associate Professor	Dr. Chandrasekhar Obbu
ssistant Professor	Dr. Chilaka Ranga
ssistant Professor	Dr. Jagtap Kushal M Rao
ssistant Professor	Dr. Neeraj Gupta
ssistant Professor	Dr. Ravi Bhushan
ssistant Professor	Dr. Asadur Rahman
ssistant Professor	Dr. Farhad Ilahi Bakhsh
rainee Teacher	Ms. Tabish Nazir Mir
ecturer (on contract)	Mr. Aquib Ali Abass
ecturer (on contract)	Mr. Muneeb ul Bashir
ecturer (on contract)	Ms. Shifali Ashraf

HoD Electrical Engineering Professor

Abdul Hamid Bhat

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
1.	Dr. M D Mufti	Hailiya Ahsan	Comprehensive Power System Stability Im- provement with ROCOF Controlled SMES	Hailiya Ahsan	2020/1/20
2.	Dr. M D Mufti	Hailiya Ahsan	Modeling and Control of a Generalized Ener- gy Storage Device for Stabilizing Frequency and Voltage Oscilla-	2019 9th International Conference on Power and Energy Systems (ICPES)	2019
3.	Prof. Aijaz Ahmad	Viqar Yousuf,	tions Unit Template Based Control Design for Alleviation and Analysis of SSR in Power Sys- tem Using STATCOM	International Journal of Electric Power Compo- nents and Systems	March, 2020
4.	Prof. Aijaz Ahmad	Viqar Yousuf	Neural network based control design to ex- tenuate sub- synchronous resonance	International Journal of Power and Energy Sys- tems	March 2020
5.	Prof. Aijaz Ahmad	Deepak Sharma, Abdul Hamid Bhat	Neural Network Based Three-Phase NPC Rectifier for DC Bus Capacitor Voltage Balancing Under Per- turbed Mains Supply Conditions	International Journal of Power Electronics	2019
6.	Prof. Aijaz Ahmad	ViqarYousuf	Analysis and UTDQ Control Design for Alleviation of Subsyn- chronous Resonance Using STATCOM	2019 9th IEEE Interna- tional Conference on Power and Energy Sys- tems (ICPES), Perth, Australia.	Dec 2019
7.	Prof.Aijaz Ahmad	MukulChanakya, Ikhlaq Hussein	Robust Least Mean Logarithmic Square Control of Multifunc- tional PV Battery Grid Tied System	2019 9th IEEE Interna- tional Conference on Power and Energy Sys- tems (ICPES), Perth, Australia	Dec 2019
8.	Prof.Aijaz Ahmad	Masood	Improved Adaptive Control Algorithm of a Grid-Connected PMSG -Based Wind Energy Conversion System	International Conference on Electrical & Electron- ics Engineering ICEEE 2020	Feb. 2020

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
9.	Prof.Aijaz Ahmad	Maood	Impact of Renewable Energy Integration in a Distribution System	Jamia Teacher's Associa- tion Multidisciplinary International Conference JTACON 2020	Feb. 2020
10.	Dr. Abdul Hamid Bhat	Tabish Nazir Mir, Bhim Singh	Predictive Speed Esti- mation for Encoderless Control of an Induc- tion Motor Fed by Delta Sigma Modulated Matrix Converter	2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020)	2020/1/2
Π.	Dr. Abdul Hamid Bhat	Anupam Kumar, Pramod Agarwal	Reduced rule based fuzzy logic controlled dual active bridge con- verter with optimum operating range for bidirectional energy transfer in batteries	International Journal of Fuzzy Computation and Modelling	2020
12.	Dr. Abdul Hamid Bhat	Shubhendra Pratap Singh	Design and perfor- mance evaluation of self-supported dynamic voltage restorer for mitigating various pow- er quality problems	International Journal of Power Electronics	2020
13.	Dr. Abdul Hamid Bhat	Tabish Nazir Mir, Bhim Singh	Improvised multi- objective model pre- dictive control of ma- trix converter using fuzzy logic and space vectors for switching decisions	IET Power Electronics	2019/11/15
14.	Dr. Abdul Hamid Bhat	Tabish Nazir Mir, Bhim Singh	Predictive Delta Sigma Modulation for Three- Phase to Three-Phase Matrix Converters	IEEE Transactions on Power Electronics	2019/4/11
15.	Dr. Sheikh Javed Iqbal	Faisal Jamsheed	Design of an Adaptive Power System Stabi- lizer using Robust Sys- tem-Response Predic- tion	2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020)	2020/1/2
16.	Sheikh Javed Iqbal	Muhammad Rafiq Mufti, Humaira Afzal, S Sarwar	Semi analytical solu- tions for fractional order singular partial differential equations with variable coeffi- cients	AIP Conference Pro- ceedings	2019/7/24

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
17.	Dr. M. A. Bazaz	Satyavir Singh, Shahkar Ahmad Nahvi	Simulating swing dy- namics of a power system model using nonlinear model order reduction	COMPEL - The interna- tional journal for compu- tation and mathematics in electrical and elec- tronic engineering	24/10/2019
18.	Dr. M. A. Bazaz	Satyavir Singh, Shahkar Ahmad Nahvi	Computationally Effi- cient Scheme for Simu- lation of Ring Oscilla- tor Model	Advances in Intelligent Systems and Computing	I 4/03/2020
19.	Dr. M. A. Bazaz	Hadhiq Khan, Shahkar Ahmad Nahvi	Adaptive Multi- Resolution Framework for Fast Simulation of Power Electronic Cir- cuits	IET Circuit Devices & Systems	20/03/2020
20.	Dr. M. A. Bazaz	Hadhiq Khan, Shahkar Ahmad Nahvi	Adaptive multi- resolution framework for fast simulation of power electronic cir- cuits	IET Circuits, Devices & Systems	2020/2/7
21.	Dr. M. A. Bazaz	Satyavir Singh, Shahkar Ahmad Nahvi	Reduced-Order Mod- eling of Transient Pow- er Grid Network with Improved Basis POD	Advances in Computa- tional Intelligence and Communication Tech- nology	2020
22.	Dr. M. A. Bazaz	Shoeb Hussain	Modified SVPWM tech- nique for a sensorless controlled induction motor drive using neu- ral network observer and predictive control- ler	International Journal of Advanced Intelligence Paradigms	2020
23.	Dr. M. A. Bazaz	Satyavir Singh, Shahkar Ahmad Nahvi	Computationally Effi- cient Scheme for Simu- lation of Ring Oscilla- tor Model	Ambient Communica- tions and Computer Systems	2020
24.	Dr. M. A. Bazaz	Suhail Ahmad Suhail, Shoeb Hussain	Active Disturbance Rejection Control Applied to a DC Mo- tor for Position Con- trol	Proceedings of ICETIT 2019	2020
25.	Dr. M. A. Bazaz	Satyavir Singh, Shahkar Ahmad Nahvi	Reduced Order Model- ing of Large Power Grid Model with POD- DEIM	Journal of Physics: Con- ference Series	2020

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
26.	Dr. M. A. Bazaz	Danish Rafiq	A comprehensive scheme for fast simula- tion of Burgers' equa- tion	2019 Sixth Indian Con- trol Conference (ICC)	2019/12/18
27.	Dr. M. A. Bazaz	Suhail Ahmad Suhail, Shoeb Hussain	Altitude and Attitude Control of a Quadcop- ter Using Linear Active Disturbance Rejection Control	2019 International Con- ference on Computing, Power and Communica- tion Technologies (GUCON)	2019/9/27
28.	Dr. M. A. Bazaz	Danish Rafiq	Model Order Reduc- tion of Non-Linear Transmission Lines Using Non-Linear Mo- ment Matching	2019 International Con- ference on Computing, Power and Communica- tion Technologies (GUCON)	2019/9/27
29.	Dr. M. A. Bazaz	Satyavir Singh, Shahkar Ahmad Nahvi	Simulating swing dy- namics of a power system model using nonlinear model order reduction	COMPEL-The interna- tional journal for compu- tation and mathematics in electrical and elec- tronic engineering	2019/9/6
30.	Dr. M. A. Bazaz	Hadhiq Khan, Shahkar Ahmad Nahvi	A Framework for Fast Simulation of Power Electronic Circuits	2019 International Aege- an Conference on Elec- trical Machines and Pow- er Electronics (ACEMP) & 2019 International Conference on Optimi- zation of Electrical and Electronic Equipment (OPTIM)	2019/8/27
31.	Dr. Obbu Chan- drsekhar	Mohamed Ra- heem Ahmed, N Narsimlu, Uday Deshpande, Vasant G Sathe, Md Shareefuddin	The effect of the addi- tion of CaF2 and PbF2 on boro-tellurite glass- es doped with chromi- um ions	Materials Research Ex- press	2020/1/8
32.	Dr. Obbu Chan- drsekhar	Y Suri Babu	Battery Assisted, PSO- BFOA based Single Stage PV Inverter fed Five Phase Induction Motor Drive for Green Boat Applications	Intelligent Systems, Technologies and Appli- cations	2020
33.	Dr. Obbu Chan- drsekhar	Sheik Ahammed, M Narasimha Chary, Md Shareefuddin	The role of sodium fluoride on CdO- B ₂ O ₃ glasses doped with chromium ions	Applied Physics A	2019/12/1

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
34.	Dr. Obbu Chan- drsekhar	G Venkateswara Rao, B Srikantha Chary, AV Lalitha Phani, Vasanth G Sathe, N Narsimlu, Md Shareefuddin	Raman study on lead halo borate glasses: Effect of PbO as modi- fier	AIP Conference Pro- ceedings	2019/10/29
35.	Dr. Obbu Chan- drsekhar	S Vedavyas, G Ramadevudu, M Narasimha Chary	EPR and Optical ab- sorption studies of PbO-CdO-TeO2- B2O3–CuO glasses	i-Manager's Journal on Material Science	2019/10/1
36.	Dr. Obbu Chan- drsekhar	LN Sastry Na- gavarapu, Ara- vind Raj	Homelessness in men- tal illness: Opportuni- ties & prospects in the Indian context	Asian journal of psychia- try	2019/10/1
37.	Dr. Obbu Chan- drsekhar	Chandra Sekhar	Implementation of zero current switch turn- ON based buck-boost- buck type rectifier for low power applications	International Journal of Electronics	2019/8/3
38.	Dr. Obbu Chan- drsekhar	N Narsimlu, G Ramadevudu, M Narasimha Chary	Effect of Lead Bromide on Vanadium Ions in Lead Borate Glasses for Applications in Modern Optical Devic- es	i-Manager's Journal on Material Science	2019/4/1
39.	Dr.Asadur Rahman	L. C. Saikia, Y. Sharma	AGC of Hybrid Solar- Hydro-Thermal System with GWO Based Conventional Second- ary Controllers	Springer 1st International conference on Emerging Global Trends in Engi- neering and Technology EGTET -2020, ADBU	07/03/2019
40.	Dr.Neeraj Gupta	N. Daratha, I. Agustian, D. Suryadi, A. Suan- di,	Book Name: Advances in Interdisciplinary Engineering. Lecture Notes in Mechanical Engineering. Springer, Singapore Book Chapter: Devel- opment of Low-Cost Wind Power Estima- tion System in Enggano Island Indonesia	Springer	June 2019

Publications

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
42.	Dr.Farhad Ilahi Bakhsh	J. A. Lone	Design and Analysis of Cascaded H Bridge Nine-Level Inverter in Typhoon HIL	IOP Conference Series: Materials Science and Engineering	01/2020
43.	Dr.Farhad Ilahi Bakhsh	R. M. Qureshi, A. Kumar	Real Time Analysis of VFT for Asynchronous Power Flow Control using Typhoon HIL	International Conference on "Power Electronics, Control and Automation	17/11/2019
44.	Dr.Farhad Ilahi Bakhsh	Md. Tabrez, P.K. Sadhu, Atif Iqbal	A Review of Three Phase to Seven Phase Converter Transform- er	International Conference on Computing, Power and Communication Technologies (GUCON)	28/10/2019
45.	Dr. Ravi Bhushan	Kalyan Chatter- jee	Book Chapter: Study of mathematical model- ling and small-signal stability of a wind- driven DFIG-based system using different types of control Approach.	WORLD SCIENTIFIC Publishing, Europe Ltd., London, UK	In Press
46.	Dr. Chil- aka Ranga	A Kumar, R Chandel	Influence of electrical and thermal ageing on the mineral insulating oil performance for power transformer	Insight-Non-Destructive Testing and Condition Monitoring	2020/4/1
47.	Dr. Chil- aka Ranga	T. Manoj	applications Performance Evalua- tion of Thermally Stressed Solid Dielec- trics for Transformers	2020 IEEE 9th Power India International Con- ference (PIICON)	2020/06

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Faculty Member	Program Attended	Institute Where Attended	Date
1.	Dr. M. A. Bazaz	Sixth Indian Control Conference (ICC)	Indian Institute of Tech- nology (IIT), Hyderabad.	18/10/2019 to 20/10/2019
2.	Dr. M. A. Bazaz	International Confer- ence on Computing, Power and Communi- cation Technologies (GUCON)	Galgotias University, Greater Noida, UP.	27/9/2019 to 29/09/2019
3.	Dr. M. A. Bazaz	2019 International Aegean Conference on Electrical Machines and Power Electronics (ACEMP) & 2019 Inter- national Conference on Optimization of Electrical and Electron- ic Equipment (OPTIM)	Istanbul, Turkey.	27/08/2019 to 29/08/2019
4.	Dr. Ravi Bhu- shan	Five days FDP on "Pedagogy"	NIT Srinagar (Under TEQIP-III)	01/04/2019 to 05/04/2019
5.	Dr. Ravi Bhu- shan	Five days FDP on "Outcome Based Edu- cation (OBE)"	NIT Srinagar (Under TEQIP-III)	18/05/2019 to 22/05/2019
6.	Dr. Ravi Bhu- shan	Five days STC on "Renewable Energy in Science, Engineering & Technology-2019 (RESET-2019)"	NIT Srinagar (Under TEQIP-III)	01/07/2019 to 05/07/2019
7.	Dr. Ravi Bhu- shan	Two Week Course on Digital Transformation In Teaching Learning Process	IIT Bombay, NPIU, TE- QIP-III (Through Online Mode)	16/03/2020 to 30/03/2020
8.	Prof.Aijaz Ahmad	9th International Con- ference on Power and Energy Systems (ICPES).	Murdoch University, Perth, Australia	10/12/2019 to 13/12/2019
9.	Dr.Neeraj Gupta	Pedagogy	NIT Srinagar	01/04/2019 to 05/04/2019
10.	Dr.Neeraj Gupta	FDP on Outcome based education	Department of Mechani- cal Engineering, NIT Srinagar.	18/05/2019 to 22/05/2019
Π.	Dr.Neeraj Gupta	Future of Engineering Systems and Technolo- gies- FEST- 2020 as conference Chair	G. L. Bajaj Institute of technology greater Noida	21/12/2019 to 22/12/2019
12.	Dr.Farhadllahi Bakhsh	8th International Sym- posium on Fusion of Science & Technology (ISFT-2020),	J.C Bose University Of Science And Technolo- gy,YMCA,Faridabad (NCR), India.	06/01/2020 to 10/01/2020

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Faculty Member	Program Attended	Institute Where Attended	Date
13.	Dr.Farhadllahi Bakhsh	2nd International Con- ference on Energy System, Drives & Au- tomations (ESDA- 2019)	Kolkata, West Bengal, India	28/12/2019 to 29/12/2019
14.	Dr.Farhadllahi Bakhsh	International Confer- ence on Power Elec- tronics, Control and Automation	JamiaMilliaIslamia, New Delhi, India	6/ /20 9 to 7/ /20 9
15.	Dr.Farhadllahi Bakhsh	National Conference on Computational and Characterization Tech- niques in Engineering & Sciences (CCTES-19)	REC Ambedkar Nagar, U.P., India	06/10/2019 to 07/10/2019
16.	Dr.Asadur Rahman	2 nd International Con- ference on Energy System, Drives & Au- tomations ESDA-2019	Applied Computer Tech- nology, Kolkata, West Bengal, India	28/12/2019 to 29/12/2019
17.	Dr.Asadur Rahman	Springer 1 st Interna- tional conference on Emerging Global Trends in Engineering and Technology EG- TET -2020, ADBU	Assam Don Bosco Uni- versity, Guwahati, As- sam, India	06/03/2020 to 07/03/2020
18	Dr. Chilaka Ranga	Five days FDP on "Outcome Based Edu- cation (OBE)"	NIT Srinagar (Under TEQIP-III)	18/05/2019 to 22/05/2019
19	Dr. Chilaka Ranga	Five days STC on "Renewable Energy in Science, Engineering & Technology-2019 (RESET-2019)"	NIT Srinagar (Under TEQIP-III)	01/07/2019 to 05/07/2019

Program(s) Conducted

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Name of the Program	Date When Conducted	Coordinator (s)	Sponsoring Agency (if any)
I	Dr. M. A. Bazaz	Scientific and Technical Doc- umentation using LaTeX	TEQIP-III, NIT Srinagar.	08/06/2019 to 09/06/2019

Program(s) Conducted

Conferences, Courses, Trainings conducted by the faculty during the period:

S.No	Name of the Co-Ordinator	Name of the pro- gram Conducted	Sponsoring Agency	Dates when Conducted
2.	Dr. Ravi Bhushan; Dr.Neeraj Gupta; Prof. A. H. Bhat	One week STC on "Introduction to MATLAB, PSCAD and LaTexfor Re- searchers"	TEQIP-III	24/06/2019 to 28/06/2019
3.	Prof.Aijaz Ahmad	International Confer- ence on Nanotech- nology for Better Living	TEQIP, DRDO, DST	07/04/2019 to 11/04/2019
4.	Prof.Aijaz Ahmad; Dr. K. Jagtap	Workshop on Intro- duction and Basics of Programming skills using MATLAB and PYTHON	TEQIP-III	27/05/2019 to 31/05/2019
5.	Dr.Farhadllahi Bakhsh and Dr.Asadur Rahman	One week Short Term Course on "Renewable Energy in Science, Engineering & Technology – 2019 (RESET - 2019)"	TEQIP-III National Pro- ject Implemen- tation Unit	01/07/2019 to 05/07/2019
6.	Dr.AsadurRahman (Convener)	One Week Work- shop on "Power Elec- tronics: Applications in Renewable Energy Systems"	TEQIP-III, NIT Srinagar	22/04/2019 to 26/04/2019
7.	Dr.Asadur Rahman (Coordinator)	One week Short Term Course on "Renewable Energy in Science, Engineering & Technology - 2019 (RESET-2019)"	TEQIP-III, NIT Srinagar	01/07/2019 to 05/07/2019

Sponsored Project(s)

S. No.	Name of the Program	Investigator	Amount (in INR)	Sponsoring Agency (if any)
Ι.	Model Order Reduction for Simulation Accelera- tion in Power Electronics	Dr. M. A. Bazaz	Central Power Re- search Institute, Bangalore, India.	Rs. 7,02,000.00
2.	Resource assessment and policy for renewable ener- gy resources like wind and solar in the state of Jammu and Kashmir	Dr.Neeraj Gupta	TEQIP-III	Rs. 1,00,000.00
3.	Application of Variable Frequency Transformer for Integration of Solar Photo-voltaic and Wind Energy Systems using Ty- phoon HIL	Dr.Farhad Ilahi Bakhsh	QUARBZ INFO SYSTEMS, India and Typhoon HIL GmbH, Switzerland	Rs. 05,20,000.00

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Scholar	Supervisor(s)	Status of Degree
1.	Satyavir Singh	Dr. M. A. Bazaz, (S) Dr. S. A. Nahvi (CS)	Thesis defended
2.	Hadhiq Khan	Dr. M. A. Bazaz, (S) Dr. S. A. Nahvi (CS)	Synopsis conducted
3.	Zahid Nabi Dar	Prof. M.D.Mufti	Ph.D awarded
4.	Hailiya Ahsan	Prof. M.D.Mufti	Ongoing
5.	Asima Syed	Prof. M.D.Mufti	Ongoing
6.	Abdul Waheed Kumar	Prof. M.D.Mufti	Ongoing
7.	Basit Mustaq	Prof. M.D.Mufti	Ongoing
8.	Nasir Rehman	Prof. M.D.Mufti	Ongoing
9.	Zahid Nabi Dar	Prof. M.D.Mufti	Ongoing
10.	Abid Hussain Lone	Prof. M.D.Mufti	Ongoing
П.	Azad Hamza Lone	Prof. M.D.Mufti	Ongoing
12.	Faizan Hasan Hajam	Prof. M.D.Mufti	Ongoing
13.	Meenakshi Rastogi	Prof. Aijaz Ahmad (S) Prof. A. H. Bhat (CS)	Ongoing
14.	Mukul Chankaya	Prof. Aijaz Ahmad (S) Dr. Ikhlaq Hussain (CS)	Ongoing
15.	Viqar Yousuf	Prof. Aijaz Ahmad	Ongoing
16.	G. Madhu mohan	Prof. Aijaz Ahmad	Ongoing
17.	Masood Ibn Nazir	Prof. Aijaz Ahmad (S) Dr. Ikhlaq Hussain (CS)	Ongoing
18.	Keerti Rawal	Prof. Aijaz Ahmad	Ongoing
19.	Shubendra Pratap Singh	Prof. A. H. Bhat	Ongoing
20.	Anupam Kumar	Prof. A. H. Bhat (S) Prof. Pramod Agarwal (CS)	Ongoing
21.	Humaira Altaf	Prof. A. H. Bhat	Ongoing
22.	Amit Kumar	Prof. A. H. Bhat (S) Prof. Pramod Agarwal (CS)	Ongoing
23.	Faisal Jamsheed	Prof. A. H. Bhat	Ongoing
24.	Naira Jeelani	Prof. A. H. Bhat	Ongoing
25.	Bilal Ahmad Mattoo	Prof. A. H. Bhat	Ongoing
26.	Gazala Rashid	Prof. S.A. Lone (S) Prof. M.D.Mufti (CS)	Ongoing

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Scholar	Supervisor(s)	Status of Degree
27.	Zahid Afzal Thokar	Prof. S.A. Lone	Ongoing
28.	Masiha Aijaz	Prof. S.A. Lone	Ongoing
29.	Sheikh Suhail Mohammad	Dr. Sheikh Javed Iqbal	Ongoing
30.	Baziga Yousuf	Dr. Sheikh Javed Iqbal	Ongoing
31.	Bisma Hamid	Dr. Sheikh Javed Iqbal	Ongoing
32.	Raja Owais	Dr. Sheikh Javed Iqbal	Ongoing
33.	Fahat Samoon	Dr. Sheikh Javed Iqbal	Ongoing
34.	Danish Rafiq	Dr. M. A. Bazaz	Ongoing
35.	Suhail Ahmad	Dr. M. A. Bazaz, (S) Dr.Shoeb Hussain (CS)	Ongoing
36.	Junaid Farooq	Dr. M. A. Bazaz	Ongoing
37.	PeerzadaShoaib	Dr. M. A. Bazaz	Ongoing
38.	Mr. Chandan Kumar	Dr. S. A. Lone (S) Dr. Ravi Bhushan (CS)	Ongoing
39.	Mr. Aadil Hussain Ganai	Dr. Ravi Bhushan	Ongoing
40.	Mr. Pritam Kumar Nirala	Dr. Ravi Bhushan	Ongoing
41.	Sheikh Safiullah	Prof. S. A. Lone & Dr. Asadur Rahman	Ongoing
42.	Zahid Farooq	Prof. S. A. Lone & Dr. Asadur Rahman	Ongoing
43.	Parvaiz Ahmad Ahangar	Prof. S. A. Lone	Ongoing
44.	Khurshid Haq	Dr. O.C. Shekhar	Ongoing
45.	Aabid Sheikh	Dr. Farhad Ilahi Bakhsh	Ongoing
46.	Saira Manzoor	Dr. Farhad Ilahi Bakhsh	Ongoing
47.	Karan Singh Joshal	Dr. Neeraj Gupta	Ongoing
48.	Umar Abdur Raafe	Dr. Neeraj Gupta	Ongoing
49.	Teruvai Manoj	Dr. Chilaka Ranga	Ongoing

Purchase(s) Made

Purchases made by the department during the period.

S.No	Name of the equipment/Item	Quantity	Date of Pur- chase	Amount of Pur- chase
T	Fluke Clamp Meter	I	06-02-2020	3,999.00
2	Understanding Network Theorems Nvis	5	06-02-2020	52,925.00
3	Digital Clamp Meter	3	11-03-2020	11,895.00
4	True RmsMultimeter	6	19-03-2020	46,260.00
5	Computer Workstation	2	30-01-2020	4,80,000.00
6	Power Quality Analyzer	I.	06-03-2020	2,98,949.00
7	Insulation Resistance Tester	3	26-06-2019	21,600.00
8	Fluke 101 Digital Multimeter	3	03-01-2020	8,990.00
9	Fluke 117 True RmsDigitalmultimeter	3	02-12-2019	12,499.00
10	True Rms Clamp Meter	I	22-01-2020	7,472.99
11	Multiple Dc PowerSupply, ABB	2	18-12-2019	24,998.00
12	Digital Signal Oscilloscope	I.	19-03-2020	1,81,900.00
13	Three Phase Wattmeter	I.	28-02-2020	9,995.00

Patents

Patents held by the department during the period.

S. No.	Patent Title	Inventors	Status	Details
1.	A smart exerciser cycler	Vikas Kumar, Neeraj Gupta, Ambrish Maurya, Rohit Sharma	Applied For	Application no: - 202011003039, Reference no:- E-2/178/2020/ DEL, 23-01- 2020.

Laboratories Available

Laboratory facilities available at the department

S. No.	Name of the Lab	S . No.	Name of the Lab
1	Basic Electrical Engineering	6	Electrical Machines Lab
2	Control Systems Lab	7	Microprocessor and DSP Lab
3	Electric Measurement Lab	8	Computation Lab
4	Power Systems Lab	9	High Voltage Engineering Lab
5	Power Electronics Lab	10	Virtual Instrumentation Lab

Achievements

- IEEE Student Chapter is established by Dr. Farhad Ilahi Bakhsh. This chapter gives an opportunity to all the students of the Institute to build their academic career, offering programs, activities, and professional networking opportunities that can create critical skills outside of the classroom.
- Student club is started by Dr. Asadur Rahman. It maintains and improves the healthy atmosphere among the students.
- Dr. Ravi Bhushan started an Annual Departmental Newsletter containing information of the different departmental activities. This newsletter may expand the overall branding among the students inside and outside campus that are interested in what's happening at the department
- Dr. Kushal M. Jagtap started Electrical Students Club in order to develop hardware projects and innovation in the area of electrical engineering.
- For the betterment of the students, Remedial Classes have been stated in the department. Dr. Chilaka Ranga and Dr. Ravi Bhushan are the Co-ordinates of the Remedial Classes.
- Dr. Ravi Bhushan delivered an expert lecture for one week workshop on "Power Electronics: Applications in Renewable Energy Systems" 2019 at NIT Srinagar, organized by EE Department under TEQIP-III from 22nd – 26th April.
- Dr. Ravi Bhushan delivered an expert lecture for one week STC on "Introduction to MATLAB, PSACD and LaTex for Researchers" 2019 at NIT
 Srinagar, organized by EE Department under TEQIP-III from 24th – 28th June, 2019.
- Dr. Ravi Bhushan being a judge in FACE OFF- THE DEBATE on topic "Whether technology is taking world towards a

safer zone or a disastrous zone" organized by IEEE Student Branch, NIT Srinagar on dated 24th Nov., 2019.

- Dr. Neeraj Gupta delivered an expert lecture for one week STC on "Introduction to MATLAB, PSACD and LaTex for Researchers" 2019 at NIT Srinagar, organized by EE Department under TEQIP-III from 24th – 28th June, 2019.
- Dr.Farhadllahi BakhshDelivered Expert Lectures on Smart Grid Applications using Typhoon HIL & Introduction to Variable Frequency Transformer on 20th February, 2020 and on Application of VFT in Smart Grid using Typhoon HIL on 21st February, 2020 during the STC on HIL Simulation for Smart Grid Applications organized by the Electrical Engineering Department, NITTTR, Chandigarh during 17-21 February 2020.
- Dr.Farhadllahi Bakhsh delivered the Keynote Address in the "International Conference on Recent Advances in Engineering & Science" organized by University Polytechnic, AMU, Aligarh during 11-12 January, 2020.
- Dr.Farhadllahi Bakhsh delivered a Talk on "Simulation of Variable Frequency Transformer" in five day workshop on the topic "Typhoon's HIL Hardware-inthe-Loop Simulation Technology in Electrical Engineering" Organized by Institute of Entrepreneurship Development, UP in Technical Collaboration with Quarbz Info Systems, Kanpur & Typhoon HIL GmbH, Switzerland held on 9-13 Jan., 2020 at IEDUP, Lucknow, India.
- Dr.Asadur Rahman Delivered 'Invited Talk' on topic "Impact of Solar energy on Energy sector" during Technical Seminar on 52nd Engineers day celebration 2019, Organized by Institution of Engineers (India), UALC at NEC, Coal India Ltd. On 15/09/2019

3.4 Department Of Information Technology

The Department of Information Technology as a world-class leader in IT education & rewas established in 2007, offering four year undergraduate program (B.Tech) in Information Technology. This undergraduate program is of 4 years duration with the first year spread over two semesters which is common to all the branches. The intake capacity of the department was 40 in 2007 & then subsequently increased to 60 in 2011. The Department offers a broad curriculum including: Database Management, Software Engineering, Management of Information Systems, Data Mining, Computer Graphics, Advanced Internet Technology, Computer Networks, Operating System, Data Structures & Algorithms as the main courses & other courses in collaboration with the other departments of the Institute at the undergraduate level.

search. IT sector is in a period of bloom in terms of growth & opportunity. In the current ever evolving industrial scenario contents delivered to the students are regularly updated by the faculty members who have themselves are well acquainted with path breaking research & innovations in the present technology-oriented world.



"Technology is best when it brings people together." --Matt Mullenweg,

The Department of Information Technology embodies the Institute's tradition of excellence

Vision

To attain global recognition in Information Technology education and research by producing "Creators of Innovative Technology".

Mission

- To provide state-of-the-art research facilities to generate knowledge and develop technologies in the thrust areas of Information Technology.
- To participate in the design and development process in the Research and Development establishment and industry.
- To collaborate with world-class organizations to strengthen industryacademia relationships for mutual benefit.
- To develop IT professionals imbibed with high moral and ethical values.

Faculty

Head of	Mrs. Arooj Nissar &
Department	Prof. GM Rather
Assistant Professor	Dr. Shabir Ahmad Sofi
Assistant Professor	Mrs. Arooj Nissar
Trainee Teacher	Dr. Janibul Bashir
Trainee Teacher	Ms. Iqra Altaf Gillani
Lecturer (on contract)	Ms. Usma Bhat
Lecturer (on contract)	Ms. Ifra Bilal
Lecturer (on contract)	Mr. Aafaq
Lecturer (on contract)	Mr. Khursheed
Lecturer (on contract)	Dr. Saba Mushtaq
Lecturer (on contract)	Ms. Aiman Farooq
Lecturer (on contract)	Ms. Zarka Basheer

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
1.	Dr. Shabir Ahmad Sofi	Shahid Sultan Hajam, Zahoor Ahmad Najar	Delay Minimization by Offloading in Fog Com- puting	IEEE International Con- ference on Communica- tion and Electronics Systems (July 2019)	20/02/2020

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Faculty Member	Program Attended	Institute Where Attended	Date
1.	Dr. Janibul Bashir	International symposi- um on network on	NYU New York USA	17/10/2019 to 18/10/2019
2.	Dr. Janibul Bashir	Faculty Development Programme on Out-	NIT Srinagar	18/05/2020 to 22/05/2020
3.	Ms. Iqra Altaf Gillani	Faculty Development Programme on Out-	NIT Srinagar	18/05/2019 to 22/05/2019
4.	Ms. Iqra Altaf Gillani	IEEE International Con- ference on Advanced Networks and Tele- communications Sys-	BITS Pilani, Goa - Cam- pus, Goa	16/12/2019 to 19/12/2019
5.	Ms. Iqra Altaf Gillani	Workshop: Impact of Emerging Standards, 5G and Beyond, and Machine Learning on Connected Vehicles	BITS Pilani, Goa - Cam- pus, Goa	16/12/2019
6.	Ms. Iqra Altaf Gillani	5th DST UKIERI Inter- national Workshop on "Towards Intelligent Communication Net-	BITS Pilani, Goa - Cam- pus, Goa	18/12/2019

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Faculty Member	Program Attended	Institute Where Attended	Date
7.	Dr. Saba Mushtaq	TEQIP III Sponsored one week short term course on biomedical signal and image pro-	NIT Srinagar	29/07/2019 to 2/08/2019
8.	Ms. Arooj Nissar	Faculty Development Programme on Out- come-Based Education	NIT Srinagar	18/05/2019 to 22/05/2019
9.	Ms. Arooj Nissar	TEQIP III Sponsored one week short term course on biomedical signal and image pro-	NIT Srinagar	29/07/2019 to 2/08/2019
10.	Dr. Shabir A. Sofi	Faculty Development Programme on "Cyber Security"	NITTTR Chandigarh, India	16/09/2019 to 20/09/2019
11.	Dr. Shabir A. Sofi	Workshop on "3D Computer Vision"	IIIT Hyderabad, India	21/02/2020 to 23/02/2020

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Scholar	Supervisor(s)	Status of Degree
I.	Nadeem Yousuf Khanday	Dr. Shabir A. Sofi	Ongoing
2	Shahid Sultan Hajam	Dr. Shabir A. Sofi	Ongoing
3	Kalimullah Lone	Dr. Shabir A. Sofi	Ongoing
4	Jahangeer Ali	Dr. Shabir A. Sofi	Ongoing
5	Raveesa Akhter	Dr. Shabir A. Sofi	Ongoing
6	Khursheed Ahmad Bhat	Dr. Shabir A. Sofi	Ongoing
7	lqra Jan	Dr. Shabir A. Sofi	Ongoing
8	Sheikh Moeen ul Haque	Dr. Shabir A. Sofi	Ongoing

Purchase(s) Made

Purchases made by the department during the period.

S.No	Name of the equipment/Item	Quantity	Date of Pur- chase	Amount of Pur- chase
I.	Sharp Digital Xerox Machine	1	04/04/2019	I,48,900
2	All in One PC"S Dell	55	02/05/2019	53,48,860
3	USB PC interfacing unit	1	09/05/2019	16,100
4	Digital oscillosope	1	09/05/2019	32,310
5	Bluetooth Trainer	I.	09/05/2019	I 7,800
6	Accelerometer Trainer	1	09/05/2019	15,000
7	Arduino UNO	2	09/05/2019	4,300
8	Arduino 101	2	09/05/2019	8,000
9	Genuion UNO Rev3	2	09/05/2019	1,150
10	Arduion Yun	2	09/05/2019	11,250
11	Arduion MKR1000	2	09/05/2019	8,200
12	Arduion Ethernet shield	4	09/05/2019	10,000
13	Arduion GSM Shield	4	09/05/2019	26,040
14	Handheld 8051 USB Prog	2	09/05/2019	5,600
15	AVR MC Devel. Board	2	09/05/2019	17,700
16	Smart Devices	1	09/05/2019	7,875
17	AVR Butterfly Evaluation Board	3	09/05/2019	14,175
18	Raspberry pi 3MB SBC	2	09/05/2019	22,100
19	Raspberry pi 3 board 10 GB,	3	09/05/2019	33,150
20	IOT Development system	4	25/10/2019	75,600
21	aironet 2702i controller	2	25/10/2019	1,44,900
22	Smart Interactive Kiosk	1	25/10/2019	5,04,000
23	Wireless Sensor Network	1	25/10/2019	5,04,000
24	Sony VPL CH-370 Multi Projector	1	18/01/2020	1,01,999
25	Microtek 10 KVA UPS	3	13/02/2020	9,44,358

Patents

Patents held by the department during the period.

S . No.	Patent Title	Inventors	Status	Details
I.	Process and System for Using Unused Optical Power in Photonic On-Chip Networks	Dr. Janibul Bashir	Filed	202011006878

Laboratories Available

Laboratory facilities available at the department

S. No.	Name of the Lab
T	Computer Vision and Image Processing lab
2	Data mining & Analytics lab
3	Data Communication and Computer Networks lab
4	Artificial Intelligence and Machine learning lab
5	Programming lab
6	Embedded IoT lab
7	Security lab

Achievements

- Dr. Shabir A. Sofi gave an invited Expert
 Lecture on topic "Applications of Internet of Things" in an FDP/In-house training programme on "Sensor Network, Internet of Things, Internet of Everything" at Maulana Azad Urdu University
 Gachibowli, Hyderabad, India, 25 Nov. 08 Dec. 2019
- Dr. Shabir A. Sofi gave an invited Expert lecture on topic "Role of ICT in Conflict Zone" in a Faculty Development Programme on Information Communication Technology & Modern Education: The Way Forward, organized by Higher Education Department, Jammu and Kashmir, at SPMR College Canal Road Jammu, India on March 3, 2020
- Two final year students Shish Pal (IT-243/16) and Edgar Monis (IT-34/16) attended ACM ICPC Regionals Amritapuri, Dec 2019.
- Final year student Shish Pal (IT-243/16) presented a paper based on his internship work titled as 'Recognizing Low Quality Vehicle License Plates using Image based Sequence Recognition' at 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT) 2019, at IIT Kanpur, 6-8 July 2019.
- Third year student Qazi Fatima (2017BITE008) participated in Art Competition held at ISI, Kolkata (Jan 2020) and won first prize.

60th Annual Report 3.5 Department Of Electronics & Communication Engineering

The Department of Electronics & Communication Engineering was established in the year 1984.The department conducts a four (04) years under-graduate academic program leading to the award of B.Tech. Degree in Electronics & Communication Engineering. In addition, the department started M.Tech. program in Communication & Information Technology in the year 2004.

Opportunity to do project work over a span of two semesters is provided to the students of B.Tech. to utilize their knowledge in several areas of Electronics, Communication & Computer Engineering. The students work either on design & fabrication of equipment of innovative nature or on other specific & relevant research topics as decided in consultation with the project advisor.



"Not only is it important to ask questions and find the answers, as a scientist I felt obligated to communicate with the world what we were

learning."

- Stephen Hawking,

Vision

To contribute to nation and the world by developing a high quality human and technological resource through excellence in the field of Electronics and Communication Engineering and research.

Mission

- To generate new knowledge by engaging in cutting edge research.
- To impart quality teaching-learningexperience with state of the art curriculum.
- To increase the visibility of academic Programmes globally and attract talent at all levels.
- To undertake collaborative projects which offer opportunities for long term interaction with academia and industry.
- Sustained interaction with the alumni, students, parents, faculty and other stake holders to stay relevant in the globalized environment.
- To develop human potential to its fullest extent so that intellectually capable and imaginative gifted leaders can emerge in a range of professions

Faculty

Head of	Prof. Ajaz Hussain Mir &
Department	Dr. Farida Khursheed
Professor	Prof. Ajaz Hussain Mir
Professor	Prof. G.M Rather
Professor	Prof. Najeeb Ud-Din
Associate Professor	Er. Ajaz A Mir
Associate Professor	Dr. Gousia Qazi
Associate Professor	Er. Ab Gaffar Mir
Associate Professor	Dr. Gh Rasool Beigh
Assistant Professor	Dr. Shiekh Aamir Ahsan
Assistant Professor	Dr. Shahid Mehraj Shah
Assistant Professor	Dr. Omkar Singh
Assistant Professor	Dr. Amandeep Singh Rehal
Trainee Teacher	Ms. Uferah Maqbool
Lecturer (on contract)	Ms. Basreet Khan
Lecturer (on contract)	Ms. Mahwash Manzoor
Lecturer (on contract)	Ms. Asifa Amin
Lecturer (on contract)	Ms. Humairah Hamid
Lecturer (on contract)	Ms. Rameesa Mushtaq

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
I	Ajaz Hussain Mir	Adil Bashir	Secure framework for Internet of Things based e-health system	International Journal of E -Health and Medical Communications (IJEHMC)	1/10/2019
2	Ajaz Hussain Mir	S A Malik	Synchronization of Hindmarsh Rose Neu- rons	Neural Networks	1/3/2020
3	Ajaz Hussain Mir	Mahroosh Banday	Dental Biometric Iden- tification System using AR Model	TENCON 2019-2019 IEEE Region 10 Confer- ence (TENCON)	17/10/2019
4	Ajaz Hussain Mir	Haider Mehraj	Human Recognition using Ear based Deep Learning Features	2020 International Con- ference on Emerging Smart Computing and Informatics (ESCI)	12/3/2020
5	Ajaz Hussain Mir	Omar Rafique	A topological approach for cancer subtyping from gene expression data	Journal of Biomedical Informatics	1/2/2020
6	Ajaz Hussain Mir	Bazila Hashia	Segmentation tech- niques for the diagnosis of intervertebral disc diseases	Advances in Computa- tional Techniques for Biomedical Image Analy- sis	1/1/2020
7	Ajaz Hussain Mir	Mahroosh Banday	Cancellable biometric system based on linear combination of trigo- nometric functions with special application to forensic dental bio- metrics	International Journal of Biometrics	5/9/2019
8	Ajaz Hussain Mir	Riaz Ahmed Khan	IP mobility adoption in e-health services: a solution to modern healthcare monitoring system	International Journal of Healthcare Technology and Management	6/2/2020

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
9	Ajaz Hussain Mir	Shoaib Amin Banday, Shakeel Malik	Multilevel medical im- age encryption for secure communication	Advances in Computa- tional Techniques for Biomedical Image Analy- sis	1/1/2020
10	Ajaz Hussain Mir	S A Malik	FPGA Realization of Fractional Order Neu- ron	Applied Mathematical Modelling	27 Decem- ber 2019
П	Farida Khurshee d	Aejaz Farooq Ganai	Predicting next Word using RNN and LSTM cells: Stastical Language Modeling	2019 Fifth International Conference on Image Information Processing (ICIIP)	15/11/2019
12	Farida Khurshee d	Beenish Habib, Ashaq Hussain Dar, Zubair Shah	DDoS Mitigation in Eucalyptus Cloud Plat- form Using Snort and Packet Filtering—IP- Tables	2019 4th International Conference on Infor- mation Systems and Computer Networks (ISCON)	21/11/2019
13	Farida Khurshee d	Mohassin Ahmad	Reconfigurable compu- ting for Image Pro- cessing Systems: An overview	5 th International Confer- ence on Nanotechnology for Better Living (NBL – 2019)	7/11/2019
14	GM Ra- ther, GR Begh	Yusra Banday	SINR Analysis and Interference Manage- ment of Macrocell Cellular Networks in Dense Urban Environ- ments	Wireless Personal Communications	30/11/2019
15	Gh. Ra- sool Begh	Umer Ashraf	Non-Gaussian Noise Models and Asymptotic Analysis of BER Over Weibfull Fading with Impulsive Noise	TENCON 2019 - 2019 IEEE Region 10 Confer- ence (TENCON)	12/12/2019
16	GM Ra- ther	Umar Farooq	Design and Analysis of Rectangular Microstrip Antenna (RMSA) for Millimeter Wave Com- munication Applica- tions	Traitement du Signal 36,	6/9/2019

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
17	GM Ra- ther	Umar Farooq	Millimeter wave (MMW) communica- tions for fifth genera- tion (5G) mobile net- works	Progress in Advanced Computing and Intelli- gent Engineering. Spring- er.	31/06/2019
18	GM Ra- ther	Umar Farooq	A Study on the Cover- age of Millimeter Wave (MMW) Communica- tion Link for Fifth Gen- eration (5G) Mobile Networks	Innovations in Electron- ics and Communication Engineering. Springer.	27/05/2019
19	GM Ra- ther	Umar Farooq, Hushmat Amin	Design and Analysis of Graphene based Te- raHertz band Antenna for Nano Network Applications	International Conference on Nanotechnology for Better Living 2019	7/04/ 2019
20	GM Ra- ther	Umar Farooq	Performance Analysis of Millimeter wave link for Next Generation Mobile Networks	International Journal of Computing and Network Technology	01/05/2019
21	GM Ra- ther	Yusra Banday, Umar Farooq	Diffusion-Based molec- ular communication in Next-generation Nano -networks." Proceed- ings of International Conference on Nano- technology for Better Living	5th International Confer- ence on Nanotechnology for Better Living (ICNBL), Srinagar	07/04/2019
22	GM Ra- ther	Hushmat Amin	A Survey on Edge- Based Internet-of- Things	International Journal of Computer Networks and Applications	Decem- ber,2019
23	GM Ra- ther	Hushmat Amin	An Analytical and Sim- ulation Study of Round Trip Transmission Time of an Edge based Internet of Things Net- work	2nd International Con- ference on Innovative Mechanisms for Industry Applications (ICIMIA). IEEE, 2020	March, 2020
24	GM Ra- ther	Hushmat Amin, Umar Farooq	Internet of nano-things: An energy efficient routing protocol for healthcare applications	Proceedings of 5th Inter- national Conference on Nanotechnology for Better Living, Srinagar	April,2019

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
25	GM Ra- ther	Mir Mohsina	A Simple and Accurate FDTD Based Tech- nique to Determine Equivalent Complex Permittivity of the Multi-layered Human Tissue at MICS Band	Journal of Science: Ad- vanced Materials and Devices	January,2020
26	G M Ra- ther	Suman Chahar	The effect of shallow trench isolation and sinker on the perfor- mance of dual-gate LDMOS device	IEEE Transactions on Electron Devices	2019
27	Shahid M Shah	Vinod Sharma	Enhancing Secrecy Rates in a wiretap channel	Digital Communications and Networks	1/2/2020
28	Najeeb-ud -din	Sakshi Koul	Investigation of Non- ideality Factors for a P3HT: PCBM Based Bulk Heterojunction Organic Solar Cell in Presence of Silver Na- noparticles	Transactions on Electri- cal and Electronic Mate- rials	20/2/2020
29	GM Ra- ther and Najeeb-ud -din	Raheela Rasool	Analytical model for the effects of the varia- tion of ferrolectric material parameters on the minimum sub- threshold swing in negative capacitance capacitor	Journal of Semiconduc- tors	12/2019
30	Najeeb-ud -din	Afshan Amin Khan, Roohie Naaz Mir	Fault-Tolerant Buffer Aware Round Robin Arbiter Design for NoC Architectures	International Journal of Computing and Digital Systems	5/2019
31	Gausia Qazi	Taban Qayoom	On the Analysis and Comparison of Decou- pled Modal Gain Equal- ization Systems for Four-Mode (4 M)- EDFAs	Optik	7/3/2020

Program(s) Conducted

Conferences, Courses, Trainings conducted by the faculty during the period:

S.No	Name of the Co-Ordinator	Name of the pro- gram Conducted	Sponsoring Agency	Dates when Conducted
I	Prof. A. H. Mir, Dr. Fa- rida Khursheed, Dr Omkar and Dr Shahid M Shah	Biomedical Signal and Image Processing: Contemporary Meth- ods and Applications	TEQIP - III	(29/07/2019 to 02/08/2019
2	Dr Shahid M Shah and Dr Omkar Singh	Communication Sys- tem Design	TEQIP – III	(01/07/2019 to 05/07/2019
3	Sheikh Aamir Ahsan and Amandeep Singh	Emerging Electron Devices for Integrated Circuit Applications	TEQIP-III	5/07/2019 to 9/07/2019
4	Prof Najeeb-ud-din, Amandeep Singh and Sheikh Aamir Ahsan	Hands on Training on EDA Tools	TEQIP-III	22/07/2019 to 26/07/2019
5	Dr Gausia Qazi (Conference Secretariat)	Nanotechnology for Better Living (NBL)	TEQIP III	07/04/2019 to 11/04/2019

Sponsored Project(s)

S. N o.	Name of the Program	Investigator	Amount (in INR)	Sponsoring Agency (if any)
1	Development and Aug- mentation of the Industry Standard ASM-GaN- HEMT Model for State-of- the-art Integrated Circuit Design	Dr Sheikh Aamir Ahsan	3059100.00	Department of Science and Tech- nology, Science and Engineering Re- search Board (DST -SERB)
2	Design of an optical trans- mitter using optimized DFB laser and EDFA	Dr Gausia Qazi	4328137.00	Science and Engi- neering Research Board (SERB)
3	Information security and education awarness	Prof Ajaz Hussain Mir, Dr. Farida Khursheed.	3606000.00	DeitY
4	SMDP – C2S	Prof G M Rather, and Prof Najeeb- ud-din	12909000.00	R & D in Electron- ics group, Depart- ment of Electronics and Information Technology MoCIT, New Delhi

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S . No.	Scholar	Supervisor(s)	Status of Degree
I.	Adil Bashir	Prof A.H.Mir	Ongoing
2	Arooj Nissar	Prof A.H.Mir	Ongoing
3	Mahroosh Banday	Prof A.H.Mir	Ongoing
4	M. Haider Mehraj	Prof A.H.Mir	Ongoing
5	Ankita Wanchoo	Prof A.H.Mir	Ongoing
6	Suhail Ahmad	Prof A.H.Mir	Ongoing
7	Ummar Iqbal	Prof A.H.Mir	Ongoing
8	Sajad Ahmad Lone	Prof A.H.Mir	Ongoing
9	Omar Rafique	Prof A.H.Mir	Ongoing
10	Shakeel Ahmad Malik	Prof A.H.Mir	Ongoing
11	Shaiqa Nasreen	Prof A.H.Mir	Ongoing
12	Insha Ashraf	Prof A.H.Mir	Ongoing
13	Bazila	Prof A.H.Mir	Awarded in 2020
14	Haroon Yousuf Mir	Dr.Omkar Singh	Ongoing
15	Snowber Mushtaq	Dr.Omkar Singh	Ongoing
16	Tariq Rashid	Dr.Omkar Singh	Ongoing
17	Mursal Ayub Hamdani	Dr. Gausia Qazi	Ongoing
18	Ifrah Amin	Dr. Gausia Qazi	Ongoing
19	Mohsin Suharwerdi	Dr. Gausia Qazi	Ongoing
20	Suhail Khursheed Naik	Dr. Gausia Qazi	Ongoing
21	Zahid Gulzar Khaki	Dr. Gausia Qazi	Ongoing
22	Romana Yousuf	Dr. Gausia Qazi	Ongoing
23	Taban Qayoom	Dr. Gausia Qazi	Submitted
24.	Aaqib Hassan Bulla	Dr.Shahid Mehraj Shah	Ongoing
25	Shifa Showket	Dr.Shahid Mehraj Shah	Ongoing
26	Nida-ul-Islam	Dr. Shahid Mehraj Shah	Ongoing
27	Shahnawaz Rather	Dr. Shahid Mehraj Shah	Ongoing
28	Farkhanda Ana	Prof. Najeeb-ud-Din	Awarded in 2019
29	Mohd. Rafi Lone	Prof. Najeeb-ud-Din	Awarded in 2019
30	Raheela Rasool	Prof. G.M.Rather & Prof. Najeeb-ud-Din	Ongoing
31	Sakshi Koul	Prof. Najeeb-ud-Din	Ongoing
32	Bisma Bilal	Prof. Najeeb-ud-Din	Ongoing
33	Mehvish Shah	Prof. Najeeb-ud-Din	Ongoing
34	Baseerat Khan	Prof. Najeeb-ud-Din	Ongoing
35	Saima Bashir	Prof. Najeeb-ud-Din & Prof. G.M.Rather	Ongoing

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. N o.	Scholar	Supervisor(s)	Status of Degree
36	Sahar Fayaz	Prof. Najeeb-ud-Din & Prof. G.M.Rather	Ongoing
37	Misbah Manzoor	Prof. Roohie Naaz Mir & Prof. Najeeb-ud-Din	Ongoing
38	Yusra Banday	Dr. G.R Beigh & G M Rather	Submitted
39	Umer Ashraf	Dr. G.R Beigh	Ongoing
40	Shaiqa Keen	Dr. G.R Beigh	Ongoing
41	Injila Mubarik	Dr. G.R Beigh	Ongoing
42	Aqib Reshi	Dr. G.R Beigh	Ongoing
43	Ms Sumiksha	G M Rather & Dr G R Beigh	Ongoing
44	Mujtaba	Dr. G.R Beigh	Ongoing
45	Asif Ali	Dr. G.R Beigh	Ongoing
46	Humaira Hamid	Dr. G.R Beigh	Ongoing
47	Mr. Umar Farooq	Prof G.M.Rather	Awarded in 2020
48	Hushmat Amin Kar	Prof G.M.Rather	Under Submission
49	Ms Bisma Bukhari	G M Rather	Ongoing
50	Mir Mohsina Rahman	G M Rather	Under Submission
51	Malik Mubasheer	G M Rather	Ongoing
52	Shoeib Amin Banday	Prof. A. H. Mir	Completed
53	M Abdul Jawad	Dr. Farida Khurshid	Ongoing
54	Beenish Habib	Dr. Farida Khurshid	Ongoing
55	Mohassin Ahmad	Dr. Farida Khurshid	Ongoing
56	Aejaz Farooq Ganai	Dr. Farida Khurshid	Ongoing
57	Junaid Farooq War	Dr. Farida Khurshid	Ongoing
58	Sree Kumar R	Dr. Farida Khurshid	Ongoing
59	Rasik Rashid Malik	Dr. Sheikh Amir Ahsan	Ongoing
60	Zarak Bhat	Dr. Sheikh Amir Ahsan	Ongoing
61	Tamanna Nazir	Dr. Sheikh Amir Ahsan	Ongoing
62	Aasim Ashai	Dr. Sheikh Amir Ahsan & Dr. Amandeep Singh	Ongoing
63	Zahied Aazam	Dr Amandeep Singh	Ongoing
64	Sana Mehraj	Dr Amandeep Singh	Ongoing
65	Deep Singh	Dr Amandeep Singh	Ongoing

Purchase(s) Made

Purchases made by the department during the period

S.No	Name of the equipment/Item	Quantity	Date of Purchase	Amount of Purchase
T	Communication Modulation & De- modulation kits	10	31/12/2019	6,60,475
2	30 MHz Analog Oscilloscopes	5	31/12/2019	
3	Workstations- Dell intel Xeon E5-1650	4	05/11/2019	7,67,552
4	IRIS Dual Scanner	2	20/05/2019	36,600
5	PCB Prototyping Machine	I.	09/07/2019	10,20,000
6	Workstations - Dell Precision 5820 Tower CPU Base Intel Xeon E5-1650	5	05/11/2019	9,59,495
7	Klystron based Micro wave test bench	4	20-05-2019	9,57,884.4
8	GUNN based Micro wave test bench	4	20-05-2019	
9	Lumerical Device Simulator	01 Floating License	02/05/2019	14,24,0459

Laboratories Available

Laboratory facilities available at the department

S . No.	Name of Lab	S . No.	Name of Lab
I.	Analog Electronics Lab	10	Information & Network security Lab
2	Digital Electronic Lab	11	Advanced Communication Lab
3	Communication Systems Lab	12	Optical fiber Communication Lab
4	Computational Lab	13	VLSI Lab
5	Microprocessors Lab	14	Thin Film Transistor Lab
6	Microwave Engineering Lab	15	Advanced Characterization Lab
7	Machine Learning Lab	16	Embedded Sensing & Communication Lab
8	Biometrics Lab	17	Communication, Control and Learning Lab
9	Image Processing and Telemedicine Lab		

3.6 Department Of Chemical Engineering

The Department of Chemical Engineering was laboratories to compliment the theoretical established in the year 1963 for five year un- courses taught at graduate and post graduate dergraduate program with total student intake level and to handle research in thrust areas like of 25. The duration of degree was changed energy, environment, biotechnology and sepalater in the year 1981 to four years. Currently ration processes etc. Department offers B.Tech. and M.Tech. degree programmes with total intake of 92 and 18 students respectively. Students are also pursuing their Ph.D. research under the guidance of faculty members of the Department. As we know Chemical engineering requires basic knowledge of chemistry, biology, physics, and mathematics, the course syllabus has been accordingly devised. The course schemes at B.Tech. and M.Tech. level include the fundamental subjects like; reaction engineering, thermodynamics, transport phenomena and mass transfer etc. A range of complementary elective courses also exists in the schemes. The students are rigorously trained and evaluated on a continuous basis in order to transform them into world class Chemical Engineers. The academic program schemes have also been designed in tune with the requirements of the industry. The Department has well equipped

Department has produced more than 1500 Chemical Engineering graduates, majority of them belonging to different parts of the Country & some belonging foreign countries like, Iran, Libya, Jordan, Palestine, Saudi Arabia & Sudan. The Department has been maintaining a high standard of teaching & professional training to enable the students to compete in the national & international job markets. Department has been maintaining close liaison with various Institutes & industries.



Vision

To be one of the leading Chemical Engineering Departments in the Country engaged with teaching, research and training of students with high moral values to solve the problems of Chemical and Allied industries for meeting the aspirations of society.

Mission

- To create and sustain the strong foundations of Chemical Engineering education, research and innovation.
- To produce well qualified, innovative Chemical Engineers with entrepreneurial skills & leadership qualities to face and solve the problems of industries and the society at large.
- To make professional leaders, academicians and engineers with high moral values and ethics.

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"Nothing in this world is to be feared ... only understood." - Marie Curie

Faculty

	Prof. M. Noor-ul-Salaam
Head of Department	& Dr. Mushtag Ahmad Rather
	Dr. Hushtaq Anmau Kather
Professor	Prof. M. Noor-ul-Salaam
Associate Professor	Dr. Fasil Qayoom Mir
Associate Professor	Dr. Mushtaq Ahmad Rather
Assistant Professor	Dr. Tanveer Rasool Dar
Assistant Professor	Dr. Malik Parvez Ahmad
Assistant Professor	Dr. B. Krishna Srihari
Assistant Professor	Dr. Kurella Swami
Assistant Professor	Dr. Shashikant Kumar
Trainee Teacher	Miss Fatima Jalid
Lecturer (on contract)	Dr Afkham Mir
Lecturer (on contract)	Dr. Sameena Naaz Malik
Lecturer (on contract)	Miss Iqra

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal	Date of Publica-
Ι.	Dr. Fasil Qayoom Mir	Diyan ul Imaan, Babar Ahmad	Fabrication and characteriza- tion of poly (vinyl alcohol)– graphene nanoplatelets (GNPs) proton exchange membrane for direct methanol fuel cells	Materials To- day: Proceed- ings	12/03/2020
2.	Dr. Fasil Qayoom Mir	Ayaz Ahmed, Adnan Qayoum	Investigation of the thermal behavior of the natural insula- tion materials for low temper- ature regions	Journal of Building Engi- neering	25/06/2019
3.	Dr. Tanveer Rasool	Waris Baba	Removal of Ni(II) and Zn (II) from Aqueous Media using Algae-Sodium Bentonite Nano- composite	Book Chapter Nanotechnol- ogy for Energy and Environ- mental Engi- neering	May-2019
4.	Dr. Tanveer Rasool	Shashikant Ku- mar	Kinetic and Thermodynamic Evaluation of Pyrolysis of Plant Biomass using TGA	Materials To- day: Proceed- ings	March- 2020
5.	Dr. Tanveer Rasool	M. H. Tahir, Z. Zhao, J. Ren, S. R. Naqvi	Thermo-kinetics and gaseous product analysis of banana peel pyrolysis for its bioenergy potential	Biomass and Bioenergy", 122(2019) 193 -201.	01/02/2019
6.	Dr. B. Krishna Srihari	Sivasamy Bal- asubramanian, Ashish Kapoor	Transient simulation of liquid- liquid slug flow in a T-shaped process unit	AIP Confer- ence Proceed- ing	24/06/2019
7.	Shashikant Kumar	Tanveer Rasool, Shashikant Ku- mar	Kinetic and Thermodynamic Evaluation of Pyrolysis of Plant Biomass using TGA	Materials to- day: proceed- ings	March 2020
8	Fatima Jalid	Shivam Saxena, Tuhin S. Khan,	In Silico High Throughput Screening of Bimetallic and	Journal of Materials	12/09/2019

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Staff Member	Program Attended	Institute Where Attended	Date
1.	Dr. B. Krishna Srihari	International conference on Recent Advances in Chemical Engineering-2020 (RACE-2020)	University College of Technology, Osmania University, Hyderabad	8/01/20 to 9/01/20
2.	Dr. B. Krishna Srihari	Faculty Development Program on Outcome Based Education	NIT Srinagar	16/05/19 to 22/05/19
3.	Dr. B. Krishna Srihari	Faculty Development Program on Pedagogy	NIT Srinagar	01/04/19 To 05/04/19

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Staff Member	Program Attended	Institute Where Attended	Date
4.	Dr. Kurella Swamy	International Conference on Recent Advances in Chemical Engineering-2020 (RACE- 2020)	Osmania University/ Hyderabad	08/01/2020 to 09/01/2020
5.	Dr. Kurella Swamy	International Conference on Contemporary Issues in Engi- neering, Agriculture , Applied Sciences and Humanities (EAH-2019)	NIT Srinagar/ Srinagar	22/06/2019 to 23/06/2019
6	Dr. Kurella Swamy	Faculty Development Program on Outcome Based Education	NIT Srinagar/ Srinagar	16/05/2019 to 22/05/2019
7	Dr. Kurella Swamy	Faculty Development Program on Pedagogy	NIT Srinagar/ Srinagar	01/04/2019 to 05/04/2019
8	Shashikant Kumar	Digital Transformation In Teaching Learning Process	IIT Bombay (Online)	16/03/2020 to 30/03/2020
9	Fatima Jalid	EuropaCat 2019	Aachen, Germany	18/08/2019 to 23/08/2019

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Scholar	Supervisor(s)	Status of Degree
I	Mudasir Akbar Shah	Prof. Mohammad Noor Salam Khan	Thesis Submitted (2019)
2	Nasir Ahmad	Dr. Faisal Qayoom Mir	Ongoing
3	Aarif Hussain Shah	Dr. Mushtaq Ahmad Rather	Ongoing
4	Waris Baba	Dr. Mushtaq Ahmad Rather	Ongoing
5	Amir Hameed Khanday	Dr. Tanveer Rasool	Ongoing
6	Rumysa Saleem	Prof. M Noor Salam Khan	Ongoing
7	Dabeer Hussain Mir	Dr. Mushtaq Ahmad Rather	Ongoing
8	Jyotendra Nath	Dr. Shashikant Kumar	Ongoing
9	Rupak Kumar Singh	Prof. M Noor Salam Khan	Ongoing
10	Uzma Imtiyaz	Dr. Mushtaq Ahmad Rather	Ongoing
11	Nimaan Imtiyaz	Dr. Tanveer Rasool	Ongoing
12	Saheem Rasool	Dr. Tanveer Rasool	Ongoing
13	Fayaz Doobi	Dr. Faisal Qayoom Mir	Ongoing

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Scholar	Supervisor(s)	Status of Degree
14	Ishfaq Najar	Dr. Tanveer Rasool	Ongoing
15	Gowhar Afzal	Dr. Tanveer Rasool	Ongoing
16	Massarat Majeed	Dr. Mushtaq Ahmad Rather	Ongoing
17	Suhail Lone	Dr. Malik Parveez	Ongoing
18	Salman Farooq	Dr. Malik Parveez	Ongoing
19	Firdous Ahmad Dar	Dr. Kurella Swamy	Ongoing
20	Shahida Khan	Dr. Malik Parveez	Ongoing

Purchase(s) Made

Purchases made by the department during the period.

S.No	Name of the equipment/Item	Quantity	Date of Purchase	Amount of Purchase
I	HP Laser Jet Printer 3 in 1 (Model: 1136)	03	2/5/2019	61065
2	Water 1525 (HPCL) Binary With Accessories	04	25/07/2019	2997750
3	FTIR (Shimadzu)	02	25/07/2019	2398880
4	Briquetting Machine (Model: Ib.125)	01	06/11/2019	300000
5	Motor of Briquetting Machine	01	06/11/2019	100000
6	Cole Parmer Handheld (Ph Meter)	01	16/12/2019	17,600
7	Canon Multi Function Printer (G6070)	01	28/02/2020	19324
8	Sharp Photostat Machine, Model: Mx-M356nv And Trolley	01	I 3/03/2020	169689.72

Laboratories Available

Laboratory facilities available at the department

S. No.	Name of the Lab	S. No.	Name of the Lab
Ι.	Fluid Mechanics and Mechanical operations Laboratory	7.	Membrane Science & Technology Laboratory
2.	Thermodynamics & Reaction Engineer- ing Lab	8.	Process Dynamics & Control Lab
3.	Energy Engineering Lab	9.	Biochemical Engineering Lab
4.	Environment Engineering Laboratory	10.	Heat Transfer Laboratory
5.	Catalysis Laboratory	П.	Multiphase System Laboratory
6.	Mass Transfer Laboratory		

3.7 Department Of Metallurgy & Materials Engineering

The department of "Metallurgical & Materials The Objectives of the department are: Engineering" formerly known as the "Department of Metallurgical Engineering" was established in our Institute in the year 1963. under-graduate academic program leading to the award of B.Tech. Degree in engineering.

the students to synthesize their knowledge in several areas of metallurgical & materials engineering.

academia & industries at national levels intends of the society. to excel in metallurgical & materials engineering & in the allied areas by up-dating its academic curriculum & R&D activities so as to meet the requirements of the academia, industries & R&D centres.

To train personnel in the area of metallurgical & materials engineering who can be leaders in The department conducts a four (04) years designing, building and running of metallurgical plants required for the country as well as in R & D activities.

A two semester "Project Work" is provided to To motivate graduates to take up entrepreneurship in areas related to metallurgical and materials engineering.

To encourage graduates to become good hu-The department through interactions with man beings, responsible to the overall welfare

> To motivate graduates to take up higher studies in the area of metallurgical & materials engineering.

> > "The finest

Nixon

steel has to go

through the hottest

fire."— Richard M.

Mission

- To provide facilities & infrastructure for academic excellence in the field of Mechanical Engineering.
- To inculcate in the students a passion for understanding professionalism, ethics, safety, & sustainability, & enable them to contribute to the society.
- To nurture creativity of the students & encourage them to come up with innovative solutions to real life problems.
- To prepare the student for lifelong learning with global perspective.

Vision

To establish a unique global identity of the department in the frontier areas of Metallurgical and Materials Engineering 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.

Faculty

Head of Department	Dr. Atikur Rehman
Professor	Dr Rajinder Amberdar
Associate Professor	Dr. Yashwant Mehta
Associate Professor	Dr. Atikur Rehman
Associate Professor	Dr Gitanjali Goel
Assistant Professor	Dr. Kalicharan Sabat
Assistant Professor	Dr. Irfan Samad Wani
Assistant Professor	Dr. Srinibash Mishra
Trainee Teacher	Ms Aravi Muzaffar
Contractual Faculty	Dr. Dinesh Kumar
Contractual Faculty	Dr. Nadeem Bhat
Contractual Faculty	Dr. Nitika Kundan

HoD

Metallurgy &

Materials

Engineering

Dr. Atikur Rehman

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published	Date of Publica- tion
Ι.	Y Mehta	SK Rajput, Jitendra Kumar, TarunSoota, KK Saxena	Microstructural evolution and mechanical properties of 316L stainless steel using multiaxial forging	Advances in Materi- als and Processing Technologies	02/ 2020
2.	A Rahman	SA Lone	The degradation behaviour of nickel-based superalloys in the medical waste incineration plant	Sadhana	10/2019
3.	A Rahman	SA Lone	Electroless nanoceria films on nickel-based superalloy	Surface Engineering	09/2019
4.	A Rahman	R Jayaganthan	Photocatalytic Studies of Composite Ferrite Nanoparticles	Russian Journal of Inorganic Chemistry	08/2019
5.	S Mishra	S Saleem, G G Roy	A simulation study of reduc- tion kinetics for Sponge iron production in a rotary hearth furnace	Canadian Metallurgi- cal Quarterly	02/2020

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Staff Member	Program Attended	Institute Where Attended	Date
Ι.	Dr. Yashwant Mehta	Advanced Composites: Design and Manufacture	IIT Jammu	26/12/2019 to 30/12/2019
2.	Dr. Irfan Samad Wani	FDP on Pedagogy	NIT Srinagar	01/04/2019 to 05/04/2019
3.	Dr. Irfan Samad Wani	FDP on Outcome based Educa- tion	NIT Srinagar	18/05/2019 to 22/05/2019
4.	Dr. Kali Charan Sabat	FDP on Pedagogy	NIT Srinagar	01/04/2019 to 05/04/2019
5.	Dr. Kali Charan Sabat	FDP on Outcome based Educa- tion	NIT Srinagar	18/05/2019 to 22/05/2019
6.	Dr. Srinibash Mishra	FDP on Pedagogy	NIT Srinagar	01/04/2019 to 05/04/2019
7.	Dr. Srinibash Mishra	FDP on Outcome based Educa- tion	NIT Srinagar	18/05/2019 to 22/05/2019
8.	Aravi Muzaffar	TEQIP-III sponsored Faculty Development Programme on Outcome Based Education	NIT Srinagar	18/05/2019 to 22/05/2019
9.	Aravi Muzaffar	Short-term course under TEQIP -III on "Crystallography for Ma- terials Science"	IIT Delhi	24/06/2019 to 28/06/2019
10.	Aravi Muzaffar	IIM-NMD ATM 2019 organised by IIM Trivandrum Chapter	Thiruvananthapuram	3/ /20 9 to 6/ /20 9

Program(s) Conducted

Conferences, Courses, Trainings conducted by the faculty during the period:

S.No	Name of the Co-Ordinator	Name of the program Conducted	Sponsoring Agency	Dates when Con- ducted
Ι.	Y Mehta et al.	EAH-2019 Conference	NIT Srinagar and Krishi San- skriti, New Del- hi	22-23/06/ 2019

Sponsored Project(s)

S. No.	Name of the Program	Investigator (s)	Sponsoring Agency (if any)
I	Fatigue analysis of High Entropy Alloys	Mr. Umar Dass Mr. Riyaz Qasab Dr. G. Harmain Dr. Irfan Samad Wani Dr. Azhar Wani	NPIU

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Scholar	Supervisor(s)	Status of Degree
1.	Virendra Patle	Dr. Yashwant Mehta & Dr. R. Kumar (AMPRI Bhopal)	Ongoing
2.	Mayur Rajak	Dr. Yashwant Mehta & Dr. D.P. Mondal (AMPRI Bhopal)	Ongoing
3.	V Kasture	Dr. Yashwant Mehta & Dr.Nilesh Diwakar (TCST- RGPV, Bhopal)	Ongoing
4.	Tanvir Majeed	Dr. Yashwant Mehta & Dr. Arshad Noor Siddiquee (MED, JMI, New Delhi)	Ongoing
5.	Agniswami Behera	Dr. Yashwant Mehta	Ongoing
6.	Vinay M	Dr. Yashwant Mehta	Ongoing
7.	Shafaq Ashraf Lone	Dr. Atikur Rehman	Thesis Submitted
8.	Abreeq Rashid Naqshbandi	Dr. Atikur Rehman	Ongoing
9.	Syed Irtiqa Urfi	Dr. Atikur Rehman	Ongoing
10.	Krishna Kumar Thakur	Dr. Atikur Rehman	Ongoing

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. N o.	Scholar	Supervisor(s)	Status of Degree
11.	Manoj Kumar	Dr. Atikur Rehman	Ongoing
12.	Hameem Habib	Dr. Irfan Samad Wani & Dr. Samina Husain	Ongoing
13.	Owais farooq	Dr. Irfan Samad Wani	Ongoing
14.	Tahir Ahmad Dar	Dr. Kali Charan Sabat	Ongoing
15.	Sunil Patidar	Dr. Srinibash Mishra	Ongoing
16.	Vijay Singh	Dr. Srinibash Mishra	Ongoing

Purchase(s) Made

Purchases made by the department during the period.

S.No	Name of the equipment/Item	Quantity	Date of Purchase	Amount of Purchase
1.	UV/visible scanning spectro pho- tometer	I	20/01/2020	4,98,750.00
2.	Microwave sintering furnace	I	17/03/2020	4,41,150.00

Laboratories Available

Laboratory facilities available at the department

S. No. Name of the Lab

I	Thermodynamics Lab (Optical Emission Spectrometer)
2	Corrosion Lab (Bio-logic Potentiostat)
3	Powder Metallurgy Lab (Cryo Ball Mill, Micro-wave Sintering Furnace)
4	Metallography Lab (Microstructure Image Analysing System)
5	Mechanical Metallurgy Lab (Vicker's and Rockwell Hardness Testing Machine)
6	Foundry lab (Stir Casting and high temperature Tube Furnace)
7	Nano Material Synthesis Lab (UV/visible Scanning Spectro Photometer)

3.8 Department Of Computer Science & Engineering

neering was started in the year 2007, offering breaking researches & innovations. four year undergraduate courses, wherein undergraduate students are imparted knowledge in multitude of specialties, including: computer Architecture, Network, Operating System, Data Structure & Algorithm, Theory of Computation, Numerical Analysis, Compiler Design, Graphics, Artificial Intelligence, Database Management System, Data Mining, Software Engineering, Human Computer Interaction, etc.

The Department of Computer Science & Engi- ment. neering embodies the Institute's tradition of excellence as a world-class leader in computer science & engineering education & research. CSE is in a period of exciting growth & opportunity. In the current ever evolving industrial scenario contents delivered to the students are regularly updated by the faculty members who

"Design is not just what it looks like and feels like. Design is how it works."

-Steve Jobs

Vision

To inculcate the requisite acumen in the budding engineers, researches and innovators making them thorough and competent professionals, enabling them to take up and face any challenge in the industry or any research organization they serve.



The Department of Computer Science & Engi- have themselves been at the helm of path

In addition to academic work, the CSE department also has computer science research Programmes supported through government & industry funding. Faculty research helps define & expand the current & future use of technolo-

Over the year the students passed out from the department got placed in various National & Multinational companies with 100% place-

Mission

- To impart state of the art education necessary for a strong foundation needed to excel in all areas of computer science and prepare its students for real world challenges.
- To provide facilities and infrastructure for academic excellence in the field of computer science and engineering with extra emphasis on projects and latest research trends in the field.
- To inculcate in the student the passion for understanding professionalism, ethics, safety, sustainability and responsibility towards the society.
- To nurture creativity, independent thinking and encourage innovative solutions to real life challenging problems in computer science and engineering.
- To prepare student for future ahead by imparting valuable skills and problem solving repertoire.

Faculty

Head of Department	Prof. Roohie Naaz Mir
Department Office	Mr. Fayaz Ahmad
Assistant Professor	Dr. M. Ahsan Chesti
Assistant Professor	Dr. Shaima Qureshi
Assistant Professor	Dr. Ranjeet Kumar Rout
Lecturer (on contract)	Ms. Tahoor Hussain
Lecturer (on contract)	Ms. Sabha Sheikh
Lecturer (on contract)	Ms. Najma Farooq
Lecturer (on contract)	Mr. Muzafar Wani
Lecturer (on contract)	Mr. Adil Malla
Lecturer (on contract)	Mr. Syed Hussain

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
I	Prof. Roohie Naaz	Omerah Youssuf	A Survey on the Inter- net of Things Security: State-of-art, Architec- ture, Issues and Coun- ter measures	International Journal of Information and Com- puter Networks	June 2019
2	Prof. Roohie Naaz	Afshan Amin Khan, Najeeb- Ud-din-Hakim	Fault-Tolerant Buffer Aware Round Robin Arbiter Design for NoC Architectures	International Journal of Computing and Digital Systems	July 2019
3	Prof. Roohie Naaz	Saniya Zahoor	loT Fog Cloud Model for Digital Reach in Rural India	Lecture Notes on Data Engineering and Commu- nications Technologies Book Series, Springer	September 2019
4	Prof. Roohie Naaz	Saniya Zahoor	Adaptive data Trans- mission and Optimiza- tion in Internet of Things	International Journal of Innovative Technology and Exploring Engineer- ing	September 2019
5	Prof. Roohie Naaz	Vipul Sharma	Saliency guided faster- RCNN (SGFr-RCNN) model for object de- tection and recognition	Journal of King Saud University Computer and Information Science	September 2019
6	Prof. Roohie Naaz	Mohammad Khalid Pandit, Mohammad Ahsan Chishti	Adaptive Deep Neural Networks for Internet of Things	International Journal of Sensors, Wireless Com- munications and Control	December 2019
7	Prof. Roohie Naaz	Sahil Sholla, Mo- hammad Ahsan Chishti	Towards the Design of Ethics Aware Systems for the Internet of Things	China Communications	February 2020
8	Prof. Roohie Naaz	Burhan ul Islam Khan, Rashidah F. Olanrewaju, Farhat Anwar, Mashkuri Yaccob	MANET Security Ap- praisal: challenges, Essentials, Attacks, Countermeasures & future Directions	International Journal of Recent Technology and Engineering	March 2020
9	Prof. Roohie Naaz	Burhan ul Islam Khan, Rashidah F. Olanrewaju, Farhat Anwar, Bisma Rasool	A Comprehensive Insight into Game The- ory in relevance to Cyber Security	Indonesian Journal of Electrical Engineering and Informatics	March 2020
10	Prof. Roohie Naaz	Roohie Naaz	Secure Distributed Routing in Mobile Ad Hoc Networks Using Proactive Secret Shar- ing	10th International Con- ference on Cloud Com- puting, Data Science & Engineering (Confluence) 2020	January 2020

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
П	Prof. Roohie Naaz	Mohammad Khalid Pandit	Spiking neural net- works based computa- tional model for Inter- net of things devices	CSI 2020 Computer Society of India	January 2020
12	Prof. Roohie Naaz	Auqib Hamid Lone	Evaluating Quality-of- Service in Blockchains Using Modelling and Simulation Tools	,International Journal of Computing and Digital Systems	2020.
13	Prof. Roohie Naaz	Omerah Yousuf	A Survey on Security Enhancements in the Internet of Things Us- ing Software-Defined- Networking (SDN),	International Journal of Computing and Digital Systems	2020
14	Prof. Roohie Naaz	Burhan ul Islam Khan, Rashidah F. Olanrewaju, Farhat Anwar	ECM-GT: Design of Efficient Computational Modelling based on Game Theoretical Approach Towards Enhancing the Security Solutions in MANET	International Journal of Innovative Technology and Exploring Engineer- ing (IJITEE)	May 2019
15	Prof. Roohie Naaz	NA	Secure Distributed Routing in Mobile Ad Hoc Networks Using Proactive Secrete Sharing,	Confluence-2020, Amity University, Noida India	January, 2020
16	Prof. Roohie Naaz	Saniya Zahoor	Landslide prediction using Machine Learning on the Edge Node in Pervasive Internet of Things	2 nd International Confer- ence on ICT for Digital, Smart and Sustainable Development, IEEE, Ja- mia Hamdard, Delhi	February, 2020
17	Dr. Ahasan Chisti	Mohammad Irfan Bala	Survey of Applications, Challenges and Oppor- tunities in Fog Compu- ting	International Journal of Pervasive Computing and Communications	June 2019
18	Dr. Ahasan Chisti	Syed Rameem Zahra	Assessing the Services, Security Threats, Chal- lenges and Solutions in the Internet of Things	Scalable Computing: Practice and Experience	September 2019
19	Dr. Ahasan Chisti	Dr.RoohieNaaz, SahilSholla	Towards the Design of Ethics Aware Systems for the Internet of Things"	China Communications	September 2019
20	Dr. Ahasan Chisti	Mohammad Irfan Bala	Comparative Analysis of Load Balancing Algo- rithms for Cloud Com- puting in IoT		November 2019

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
21	Dr. Ahasan Chisti	Tausifa Jan Saleem	Data Analytics In The Internet Of Things: A Survey	Scalable Computing: Practice and Experience	December 2019
22	Dr. Ahasan Chisti	Dr. RoohieNaaz, Mohammad Khalid Pandit	Adaptive Deep Neural Networks for Internet of Things	International Journal of Sensors, Wireless Com- munications and Control	December 2019
23	Dr. Ahasan Chisti	Ab Rouf Khan	Data Aggregation Mechanisms in the Internet of Things: A Study, Qualitative and Quantitative Analysis	International Journal of Computing and Digital Systems	January 2020
24	Dr. Ahasan Chisti	Tausifa Jan Saleem	Assessing the Efficacy of Logistic Regression, Multilayer Perceptron, and Convolutional Neural Network for Handwritten Digit Recognition	International Journal of Computing and Digital Systems	January 2020
25	Dr. Ahasan Chisti	Dr. RoohieNaaz, SahilSholla,	Towards the Design of Ethics Aware Systems for the Internet of Things	China Communications	February 2020
26	Dr. Ahasan Chisti	Syed Rameem Zahra	Alleviating the Routing Issues of Internet of Nano Things by a Sim- ple, Lightweight and Generic (SLG) Routing Protocol	International Journal of Computing and Digital Systems	March 2020
27	Dr. Ahasan Chisti	Tausifa Jan Saleem	Data Mining for the Internet of Things	Advances in Data Min- ingApplications and The- oretical Aspects, Poster Proceedings, 19th Indus- trial Conference on Data MiningICDM 2019	July 2019
28	Dr. Ahasan Chisti	Tausifa Jan Saleem	Deep Learning for Internet of Things Data Analytics	Procedia Computer Science	December 2019
29	Dr. Ahasan Chisti	Mohammad Irfan Bala	Offloading in Cloud and Fog Hybrid Infra- structure Using IFog- Sim	10th IEEE International Conference on Cloud Computing, Data Science & Engineering (Confluence)	January 2020
30	Dr. Ahasan Chisti	Mohammad Irfan Bala	Optimizing the Com- putational Offloading Decision in Cloud-Fog Environment	IEEE sponsored Interna- tional Conference on Innovative Trends in Information Technology	February 2020

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/Journal where published	Date of Publication
31	Dr. Ahasan Chisti	Syed Rameem Zahra	Packet Header Com- pression in the Internet of Things	International Conference on Smart Sustainable Intelligent Computing and Applications under	February 2020
32	Dr. Ahasan Chisti	Tausifa Jan Saleem	Spiking Neural Net- works based computa- tional model for Inter- net of Things Devices	Proceedings of 53rd annual CSI 2020 Con- vention Souvenir	February 2020
33	Dr. Ahasan Chisti	Tausifa Jan Saleem	Exploring the applica- tions of machine learn- ing in IoT	Proceedings of 53rd annual CSI 2020 Con- vention Souvenir	February 2020
34	Dr. Ahasan Chisti	Syed Rameem Zahra	Data Fusion for han- dling heterogeneity and security issue of IoT Big Data	Proceedings of 53rd annual CSI 2020 Con- vention Souvenir	February 2020
35	Dr. Ahasan Chisti	Mohammad Irfan Bala	Offloading in Cloud and Fog Hybrid Infra- structure Using IFog- Sim	I0th IEEE International Conference on Cloud Computing, Data Science & Engineering (Confluence)	January 2020
36	Dr. Shaima Qureshi	NA	Simultaneous Mobility in MPLS	International Journal of Computing and Digital Systems	July 2019
37	Dr. Shaima Qureshi	Sadia Showket	Securing the internet of things using Block- chain	International Confer- ence on Cloud Compu- ting, Data Science & Engineerin (Confluence) .	January 29, 2020
38	Dr. Ranjeet Kumar Rout	SK Sarif Hassan, Sanchit Sindhwani, Hari Mohan Pandey, and Saiyed Umer	Intelligent Classification and Analysis of Essen- tial Genes Species Us- ing Quantitative Meth- ods.	ACM Transactions on Multimedia Compu- ting, Communications and Applications	04/04/2020
39	Dr. Ranjeet Kumar Rout	Hassan, Sk Sarif, Moole Parameswar Reddy	Dynamics of the Modi- fied n-Degree Lorenz System.	Applied Mathematics and Nonlinear Sciences	22/08/2019
40	Dr. Ranjeet Kumar Rout	Umer, Saiyed, Ala- mgir Sardar, Bibhas Chandra Dhara, Hari Mohan Pandey	Person Identification using Fusion of Iris and Periocular Deep Features	Neural Networks, https://doi.org/10.1016/ j.neunet.2019.11.009.	23/11/2019
41	Dr. Ranjeet Kumar Rout	Saiyed Umer, Smitarani Pati and Harveer Singh Pali	Analysis of Human Olfactory Receptor system using Fractal Dimensio	International Symposium on Fusion of Science and Technology (ISFT 2020)	06/01/2020
42	Dr. Ranjeet Kumar Rout	Biswa Mohan Sahoo; Ranjeet Kumar Rout; Saiyed Umer; Hari Mohan Pandey	ANT Colony Optimi- zation based Optimal Path Selection and Data Gathering in WSN	International Conference on Computation, Auto- mation and Knowledge Management (ICCAKM)	09/01/2020

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Faculty Member	Program Attended	Institute Where Attended	Date
1.	Prof. Roohie Naaz	Confluence-2020	Amity University, Noida India	29/01/2020
2.	Prof. Roohie Naaz	2 nd International Con- ference on ICT for Digital, Smart and Sus- tainable Development, IEEE	Jamia Hamdard, Delhi	28/02/2020
3.	Dr. Ahsan Chisti	Confluence-2020	Amity University, Noida India	29/01/2020
4.	Dr. Ahsan Chisti	International Confer- ence on Smart Sustain- able Intelligence Com- puting and Applications	Maharaja Agrasen Insti- tute of Technology, Del- hi, India	05/02/2020
5.	Dr. Shaima Qureshi	Confluence-2020	Amity University, Noida India	29/01/2020
6.	Dr. Shaima Qureshi	International Confer- ence on Smart Sustain- able Intelligence Com- puting and Applications	Maharaja Agrasen Insti- tute of Technology, Del- hi, India	05/02/2020
7.	Dr. Ranjeet Kumar Rout	FDP on "Outcome Based Education"	NIT Srinagar	18/05/2019 to 22/05/2019
8.	Dr. Ranjeet Kumar Rout	STC on "Emerging Electron Device for Integrated Circuit Ap- plications "	NIT Srinagar	5/07/20 9 to 9/07/20 9
9.	Dr. Ranjeet Kumar Rout	3 days Training on "Public Procurement under GFR 2017 & GeM"	Public Procurement Group, Government of India.	14/06/2019

Program(s) Conducted

Conferences, Courses, Trainings conducted by the faculty during the period:

S. No.	Name of the Program	Date When Conducted	Coordinator(s)	Sponsoring Agency (if any)
I	EXORDIUM 2019	03/07/2019 To 07/07/2019	Dr. Ahsan Chisti Dr. Shaima Qureshi Dr.Ranjeet Kumar Rout	TEQIP-III, NIT Srinagar
2	53 rd Annual Convention of Computer Society of India (CSI-2020)	16/01/2020 To 18/01/2020	Prof. Roohie Naaz Mir Dr. Ahsan Chisti Dr. Shaima Qureshi Dr. Ranjeet K Rout	TEQIP-III, NIT Srinagar

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S . No.	Scholar	Supervisor(s)	Status of Degree
I	Afshan Amin Khan	Dr. Roohie Naaz Mir Dr. Najeeb Uddin	On-going
2	Mohammad Irfan Bala	Dr. Mohammad Ahsan Chishti	On-going
3	Ab Rouf Khan	Dr. Mohammad Ahsan Chishti	On-going
4	Omerah Yousuf	Dr. Roohie Naaz Mir	On-going
5	Saniya Zahoor	Dr. Roohie Naaz Mir	Thesis Submitted
6	Tausifa Jan Saleem	Dr. Mohammad Ahsan Chishti	On-going
7	Syed Rameem Zahra	Dr. Mohammad Ahsan Chishti	On-going
8	Auqib Hamid Lone	Dr. Roohie Naaz Mir	On-going
9	Mohammad Khalid Pandit	Dr. Roohie Naaz Mir Dr. Mohammad Ahsan Chishti	On-going
10	Mohd Asifuddola	Dr. Mohammad Ahsan Chishti	On-going
11	Vipul Kumar Sharma	Dr. Roohie Naaz Mir	On-going
12	Neelam Saleem Khan	Dr. Mohammad Ahsan Chishti	On-going
13	Jameel Ahamed	Dr. Mohammad Ahsan Chishti	On-going
14	Sadia Showkat	Dr Shaima Qureshi	On-going
15	Azra Nazir	Dr Shaima Qureshi	On-going
16	Asim Rafiq Bhat	Dr Shaima Qureshi	On-going
17	Touseef Iqbal	Dr Shaima Qureshi	On-going
18	Sania Iqbal	Dr Shaima Qureshi	On-going
19	Nazir Shabbir	Dr Ranjeet Kumar Rout	On-going
20	Aafaq Mohi Ud Din	Dr Shaima Qureshi	On-going
21	Nailah Afshan	Dr Ranjeet Kumar Rout	On-going
22	Manzoor Ahmad Lone	Dr Shaima Qureshi	On-going
23	Irfan Rashid Pukhta	Dr Ranjeet Kumar Rout	On-going
24	Gousia Habib	Dr Shaima Qureshi	On-going
25	Imtiaz Ahmed	Dr. Mohammad Ahsan Chishti Dr Shaima Qureshi	On-going
26	Anam Iqbal	Dr. Mohammad Ahsan Chishti	On-going
27	Mehraj Uddin Tali	Dr. Mohammad Ahsan Chishti\ Dr Shaima Qureshi	On-going
28	Venkata Maha Lakshmi Nerusu	Dr Ranjeet Kumar Rout	On-going
29	Amar Deep Gupta	Dr Ranjeet Kumar Rout	On-going
30	Sameer Dixit	Dr Shaima Qureshi	On-going

Laboratories Available

Laboratory facilities available at the department

S . No.	Name of the Lab
I	Computer Programming Lab
2	Computer Networks Lab
3	Database Lab
4	Compiler Lab
5	Internet & Web Designing Lab
6	Computer Graphics Lab
7	Artificial Intelligence Lab

Patents

S. No.	Patent Title	Inventors	Status	Details
3	Method And Design For A Compre- hensive Apparatus To Collect, Pro- cess, Aggregate, Route, Save, Analyze And Filter Data In The Internet Of Things	Mohammad Ah- san Chishti		IN2019110462 86 14/11/2019

Purchase(s) Made

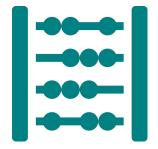
Purchases made by the department during the period.

S.No	Name of the equipment/Item	Quantity	Date of Pur- chase	Amount of Pur- chase
I	All In One (PCs) Dell OptiPlex 7470 AIO	40	/03/2020	33,40,000.00
2	UPS(10KVA Luminous)	07	13/12/2019	9.79,300.00

3.9. Department Of Mathematics

The Department of Mathematics, National repute. The Department has produced 8 PhD's Institute of Technology Srinagar started its in last five years. The faculty of the Department functioning in the year 1960. During past 52 is actively engaged in organizing workshops, years, many mathematicians of International national & international conferences. repute like Prof. Q. I. Rehman, Prof. M. A. Ansari (Bretlee Ansari's test), Prof. S. I. Hussain, The department is teaching around 50 courses worked in the Department. The faculty mem- M.Phil/Ph.D. students. bers of this department are actively engaged in research & published more than 100 research papers in journals of national & international

Prof. A. H. Siddiqui, Prof. A. G. Lone & many to B.Tech. students & 8 courses to M.Tech. &



"Because the ideas I had

about supernatural

beings came to me the

same way that my

mathematical ideas did.

So I took them

seriously."

— John Nash

Vision

To excel in teaching and research through creativity and to conduct collaborative academic and research Programmes.

Mission

- To inculcate in students the ability to apply Mathematical and Computational skills to formulate and solve their real life problems
- To create an atmosphere conducive for research and to produce researchers with clear thinking and determination, who are capable of discharging professional, social and economic responsibilities ethically

Faculty

Mathematics

Dr. Zamrooda Jabeen

&

Prof. Neyaz A Sheikh

Head of Department	Dr. Zamrooda Jabeen & Prof. Neyaz A Sheikh
Professor	Prof. Abdul Liman
Professor	Prof. Neyaz A Sheikh
Associate Professor	Dr. Hakim Tanveer Jalal
Assistant Professor	Dr. Mehraj Ah Lone
Assistant Professor	Dr. Ujwal Suresh R Warbhe
Assistant Professor	Dr. Rameez Raja
Lecturer (on contract)	Dr. Owais Ahmad
Lecturer (on contract)	Dr. Bisma Zahoor
Lecturer (on contract)	Dr. Sumeera Shafi
Lecturer (on contract)	Dr. Suraiya Jabeen
Lecturer (on contract)	Dr. Ishfaq Ahmad

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published	Date of Publication
I	Prof. Abdul Liman	Irshad Ahmad	On Inequalities concerning the polar derivative of polynomials	Thai Journal of Mathematics	2019
2	Prof. Abdul Liman	Irshad Ahmad	A note on rational func- tions with prescribed zeros	Thai Journal of Mathematics	2019
3	Prof. Abdul Liman	Irshad Ahmad	On an integral estimate concerning the polar deriv- ative of polynomials with restricted zeros	Filomat	2019
4	Prof Neyaz ahmad	Owais Ahmad	Explicit construction of tight non-uniform framelet packets on local fields	Operators and Matrices	2020
5	Prof Neyaz ahmad	Owais Ahmad	Periodic Gabor frames on positive half line	Jour. Math. Phy. Anal. Geometry	2020
6	Prof Neyaz ahmad	Owais Ahmad, M. A. Ali	Non-uniform nonhomoge- nous dual wavelet frame on Sobolev spaces in L2(K)	Afrika Math	2020
7	Prof Neyaz ahmad	Owais Ahmad	Non-uniform p- tight wavelet frames on positive half-line	TWS, J. Appl. & Engg. Math.	2020
8	Prof Neyaz ahmad	A.Ali	Rate Of Convergence Of Wavelet Series By Cesaro Means	Acta Universitatis Appilensis	2019
9	Dr. Tan- weer Jalal		Topological properties of some sequences defined over n-normed	Proyecciones Jour- nal of Mathematics	2020
10	Dr. Tan- weer Jalal	Ishfaq Ahmad Malik	Existence of solution for system of differential equations in co and 11 spaces	Afrika Matematika	2020
П	Dr. Tan- weer Jalal		Some ideal convergent multiplier sequence spaces using De le Vallee Poussin means	Proyecciones Jour- nal of Mathematics	2020
12	Dr. Tan- weer Jalal	Ishfaq Ahmad Malik	Application of measure of noncompactness to infi- nite systems of differential equations in ℓ p spaces	Rendiconti del Circolo Matemati- co di Palermo Series	2020
13	Dr. Tan- weer Jalal	Ishfaq Ahmad Malik	l-convergent triple differ- ence sequence spaces defined by a sequence of modulus functions	Journal of Nonline- ar Analysis and Optimization	2019
14	Dr. Tan- weer Jalal	Ishfaq Ahmad Malik	Measures of non- compactness in N(p,q) summable sequence spaces	Operators and Matrices	2019
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Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published	Date of Publi- cation
15	Dr. Tan- weer Jalal	Ishfaq Ahmad Malik	Infinite system of Inte- gral Equations in Two Variables of Hammer- stein Type in co and II spaces	Filomat	2019
16	Dr. Tan- weer Jalal	Ishfaq Ahmad Malik	Boundary value prob- lems for an Infinite system of second order differential equa- tions in Ip spaces	Mathematica Bohemi- ca	2019
17	Dr. Tan- weer Jalal	Ishfaq Ahmad Malik	Measures of Non- Compactness in N Summable Difference Sequence Spaces	Journal of Mathemati- cal Extension	2019
18	Dr. Mehraj A. Lone	Y Matsuyama, Falleh R. Al- Solamy, M. Jamali and M. H. Shahid	Upper bounds for Ricci curvatures for submani- folds in Bochner- Kaehler manifolds	Tamkang Journal of Mathematics	2020
19	Dr. Mehraj A. Lone	M. H. Shahid and G. E. Vilcu	Optimal inequalities for generalized normalized -Casorati curvatures of submanifolds in pointwise Kenmotsu space forms	Math Phys Anal Ge- om	2019
20	Dr. Mehraj A. Lone	P. Bansal, M. H. Shahid	Geometric bounds for δ -Casorati curvature in statistical submanifolds of statistical space forms	Balkan Journal of Geometry and Its Applications	2019

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Торіс	Scholar	Supervisor (s)	Status of Degree
I	Measures of Non-Compactness in Banach Spaces	Ishfaq Ahmad Malik	Dr. Tanweer Jalal	Degree Awarded in 2019

Laboratories Available

Laboratory facilities available at the department



Department Of Physics 3.10.

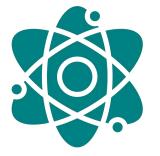
The Department of Physics was established in Till date more than 45 scholars have been

It offers two semester compulsory course of basic physics so necessary for engineering students. Besides, the Department offers Electromagnetic Fields & waves, Electronic Devices to the 5th semester (Electronics & Communication) students & Electromagnetic Field & Waves to the 3rd semester (Electrical) stu- fields for their M. Phil & Ph. D Degree. dents. Besides, the Department has the expertise for giving elective courses, for students of the Civil, Electrical, and Mechanical & Metallurgical Engineering Departments.

The Institute acquired the status of National Institute of Technology in August 2003. Since then, the Department of Physics remained very active in research & other academic activities.

Vision

To integrate the components of Basic Sciences and Engineering for grooming the students to be globally recognized professionals by striving hard to apply knowledge of Basic Sciences beyond the curriculum and demonstrate thinking across all disciplines.



1960 & since then it remained actively engaged awarded the degree of M. Phil/Ph. D. More in imparting the instructions at U.G. level in than 500 research publications in the national addition of achieving higher standards in the & International Journals of repute have been field of research by guiding M.Phil/Ph.D. Pro- published. Many research projects have been grammes & other sponsored research projects. successfully completed & many are running in the Department. The Department is presently very active in research in different fields like Studies of Ionospheric & Magnetospheric Plasma, Material Science, Nuclear Physics, Solid State Physics, Photonics, Renewable sources of energy & Nano-science & Technology. At present 8 research scholars are working in various

> "Gravity explains the motions of the planets, but it cannot explain

motion."—Sir

Isaac Newton

who sets the planets in

To awaken the young minds and discover their talents both in theory and in practical physics, through dedication to teaching, commitment towards students and innovative instructional.

Mission

- To craft the students, understand the importance of basic science and in particular Physics in the field of Engineering and Technology.
- To support the evolving activities of the institute and make the department vibrant.
- To make the vital contributions in areas such as faculty, modern labs and demonstrate a high level of competence in the study of Engineering Physics.
- To organize and sustain efficient functional systems in the department for the realization of our objectives as an institution of eminence and international standards.

Faculty

Head of Department	Dr. Seemin Rubab & Dr. Prince Ahmad Ganai
Professor	Prof. Mohammad Ikram
Associate Professor	Dr. Seemin Rubab
Associate Professor	Dr. Prince Ahmad Ganai
Associate Professor	Dr. Mohd. Ashraf Shah
Associate Professor	Dr. Ghulam Rasool Khan
Assistant Professor	Dr. Vijay Kumar
Assistant Professor	Dr. M Zubair Ansari
Assistant Professor	Dr. Harkirat Singh

HoD

Physics

Dr. Seemin Rubab

&

Dr. Prince Ahmad

Ganai

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published	Date of Publication
I	Dr Prince A Ganai	Nadeem-ul- islam, PA Ganai	Quantum corrections to AdS black hole in massive gravity	International Jour- nal of Modern Physics	30/12/2019
2	Dr Prince A Ganai	MA Mir, MA Shah, PA Ga- nai	Effect of Etching on Na- noporous Anodic Alumina	Iranian Journal of Science and Tech- nology, Transac- tions A: Science	25/04/2019
3	Dr Prince A Ganai	Nadeem-ul- islam, Prince A Ga- nai, Sudhaker Upadhyay	Thermal fluctuations to the thermodynamics of a non- rotating BTZ black hole	Progress of Theo- retical and Experi- mental Physics, Volume 2019, Issue 10, October 2019,	21/10/2019
4	Dr Prince A Ganai	Prince A Ga- nai, Owais Ahmad, Javier Perez Tobia, Alexander Fennell, Ve- daant Vyas	Lorentz symmetry breaking in supersymmetric quan- tum electrodynamics	International Jour- nal of Geometric Methods in Mod- ern Physics, Vol- ume 17, Issue 3, id. 2050038	05/03/2020
5	Dr. M A Shah	Jaffar Farooq Mir, S Rubab	Hematite (α-Fe2O3) Nanosheets with Enhanced Photo-electrochemical Ability fabricated via single step Anodization.	Chemical Physics Letters	17/05/2020
6	Dr. M A Shah	M A Mir, P A Ganai	Nanoporous anodic alumi- na (NAA) prepared in different electrolytes with different pore sizes for humidity sensing	Journal of Solid State Electrochem- istry,	05/06/2020
7	Dr. M A Shah	M A Mir, P A Ganai	Dielectric study of nanopo- rous alumina fabricated by two-step anodization tech- nique	Chemical Papers	20/08/2020
8	Dr. M A Shah	Mubashir Qayoom; Ruqiya Bhat; K. Asokan; M. A Shah, G.N Dar	Unary doping effect of A2+ (A= Zn, Co, Ni) substitut- ed iron oxide nanostruc- tures on structural, electri- cal and magnetic proper- ties	Journal of Materials Science: Materials in Electronics	09/04/2020
9	Dr. M A Shah	Tantray, A. M	Photo electrochemical ability of dense and aligned ZnO nanowire arrays fab- ricated through electro- chemical anodization	Chemical Physics Letters	I 3/03/2020
10	Dr. M A Shah	J F Mir, S rub- ab	Photo-electrochemical ability of iron oxide nanoflowers fabricated via electrochemical anodiza- tion	Chemical Physics Letters	07/01/2020

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published	Date of Publication
10	Dr. M A Shah	J F Mir, S rub- ab	Photo-electrochemical ability of iron oxide nanoflowers fabricated via electrochemical anodiza- tion	Chemical Physics Letters	07/01/2020
11	Dr. M A Shah	Boda, M. A., Khan, M., & Çırak, Ç	Enhancement in photoelec- trochemical ability via re- engineering the band gap of multi-podal titania nano- tubes on functionalizing with copper oxide nano- cubes	Applied Surface Science	10/09/2019 (Accepted date)
12	Dr. M A Shah	HS Devi, AH Sofi, TD Singh	Facile Hydrothermal Syn- thesis of Cu and Al Oxide Nanoparticles for Photo- degradation of Chlorpyri- fos	Journal of nanosci- ence and nanotech- nology	26/11/2019 (Accepted date)
13	Dr. M A Shah	S Rukh, AH Sofi	Antibacterial activity of magnesium oxide nanostructures prepared by hydrothermal method	Asian Journal of Nanoscience and Materials	07/05/2019
14	Dr. M A Shah	MA Mir, MA Shah, PA Ga- nai	Effect of Etching on Na- noporous Anodic Alumina	Iranian Journal of Science and Tech- nology, Transac- tions A: Science	25/04/2019
15	Dr. M A Shah	KA Najar, NA Sheikh, MM Butt, S Mush- taq	Engineered Synthetic Dia- mond Film as a Protective Layer for Tribological and Machining Applications: A Review	Journal of Bio-and Tribo-Corrosion	20/05/2019
16	Dr. M A Shah	SD Henam, F Ahmad, MA Shah, S Par- veen, AH Wani	Microwave synthesis of nanoparticles and their antifungal activities	Spectrochimica Acta Part A: Mo- lecular and Bio- molecular Spec- troscopy	25/01/2019
17	Dr. Vijay Kumar	S. Verma, D. Kumar, S. Dutta, V. Shar- ma, H. C. Swart, Vijay Kumar	A novel near white light emitting phosphor KSrY- Si2O7:Dy3+: Synthesis, characterization and lumi- nescence properties	Vacuum	09/01/2020
18	Dr. Vijay Kumar	P. Mankotia, S. Choudhary, K. Sharma, Vijay Kumar, J. K. Bhatia, A. Parmar, S. Sharma, V. Sharma	Neem gum based pH re- sponsive hydrogel matrix: A new pharmaceutical excipient for the sustained release of anticancer drug	International Jour- nal of Biological Macromolecules	15/11/2019
19	Dr. Vijay Kumar	S. Choudhary, K. Sharma, Vijay Kumar, J. K. Bhatia, S. Sharma, V. Sharma	Microwave-Assisted Syn- thesis of Gum Gellan-cl- poly (acrylic-co- methacryl- ic acid) Hydrogel for Cati- onic Dyes Removal	Polymer Bulletin	18/10/2019

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Faculty Member	Program Attended	Institute Where Attended	Date
I	Dr. M A Shah	International Work- shop on Advanced Materials (IWAM-2020)	RACKAM, Dubai	22/02/2020 to 26/02/2020
2	Dr M A Shah	National Conference on Advanced Function- al Materials-2019 (NCAFM-2019)	Jamia Millia Islamia, New Delhi	20/11/2019 to 21/11/2019
3	Dr. Moham- mad Zubair Ansari	Faculty Development Programme	NIT Srinagar	01/04/2019 to 05/04/2019
4	Dr. Vijay Ku- mar	Faculty Development Program on "Outcome Based Education	National Institute of Technology Srinagar	18/05/2019 to 22/05/2019
5	Dr. Vijay Ku- mar	Faculty Development Program on "PADAGOGY"	National Institute of Technology Srinagar	01/04/2019 to 05/04/2019
6	Dr. Harkirat Singh	Faculty Development Program on "Outcome Based Education	National Institute of Technology Srinagar	18/05/2019 to 22/05/2019
7	Dr. Harkirat Singh	Faculty Development Program on "PADAGOGY"	National Institute of Technology Srinagar	01/04/2019 to 05/04/2019

Program(s) Conducted

Conferences, Courses, Trainings conducted by the faculty during the period:

S.No	Name of the Co-Ordinator	Name of the program Con- ducted	Sponsoring Agency	Dates when Conducted
I	Dr. M A Shah	5 th International Conference on Nanotechnology for Better Living (NBL-19)	DST/DRDO/ TEQIP	07/04/2019 to 11/04/2019
2	Dr. Mohammad Zubair Ansari	Virtual Lab demo	IIT Kharagpur	24/04/2019 to 25/04/2019
3	Dr. Mohammad Zubair Ansari	One week short term course on Materials Characterization Techniques	TEQIP III , NIT Srinagar	24/06/2019 to 28/06/2019
4	Dr. Vijay Kumar, Dr. Harkirat Singh, Dr. Mohd Zubair Ansari	Short term course on " Materi- als Characterization Tech- niques"	TEQIP III , NIT Srinagar	24/06/2019 to 28/06/2019
5	Dr. Vijay Kumar, Dr. Harkirat Singh, Dr. Mohd Zubair Ansari	Short term course on " Materi- als Characterization Tech- niques"	TEQIP III , NIT Srinagar	24/06/2019 to 28/06/2019

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Scholar	Supervisor(s)	Status of Degree
	Towseef Ahmad Sheergojri	Dr. Mohammad Zubair Ansari	Ongoing
2	Mr. Deepak Kumar	Dr. Rajesh Sharma (S) (Chandigarh University) & Dr. Vijay Kumar (CS)	Degree Awarded (15/07/2020)
3	Mr. Irfan Ayoub	Dr. Vijay Kumar	Ongoing
4	Mr. Nisar Hussain	Prof. Seemin Rubab and Dr. Vijay Kumar	Ongoing
5	Mr. Umer Mushtaq	Dr. Vijay Kumar	Ongoing
6	Mr. Juniad UI Ahsan	Dr. Harkirat Singh	Ongoing
7	Mr. Sajid Mohamad	Dr. Harkirat Singh	Ongoing
8	Mr. Asif Majeed	Dr. Harkirat Singh	Ongoing
9	Mudasir Ahmad Mir	Dr. M A Shah Dr. P A Ganai	Ongoing
10	Jaffar Farooq Mir	Dr. M A Shah Dr. S Rubab	Ongoing
11	Ab. Mateen Tantray	Dr. M A Shah	Ongoing
12	Showket Ahmad Mir	Dr. M A Shah	Ongoing
13	Alim Mushtaq	Dr. M A Shah	Ongoing
14	Reyaz Ahmed	Dr. M A Shah	Ongoing
15	Arshid Ahmad	Dr. M A Shah	Ongoing
16	Suhail Ahmad	Dr. M A Shah	Ongoing

Sponsored Project(s)

S. No.	Name of the Program	Amount (in INR)	Sponsoring Agency (if any)
I	Preparation and Properties of biodegradable composites and their application in food packag- ing	12,60, 000/-	TEQIP-III
2	Nano-emulsions as carriers for targeted delivery of bioactive compounds	16,00,000/-	TEQIP-III

Patents

Patents held by the department during the period.

S. No.	Patent Title	Inventors	Status	Details
I	Biocompatible food wrappings: Green solution to plastic and aluminium foil and an edible cum biocompatible film for food packaging material	Vishal Sharma, Kashma Sharma, Vijay Kumar, Sonal Chaudhary	Applied For	T.1(27)/ TIFA/2019
2	Smart Shoes for Using Nanotechnolo- gy	Sandeep Singh Rana and M A Shah	Applied	

Laboratories Available

Laboratory facilities available at the department

S. No.	Name of the Lab	S. No.	Name of the Lab
I	General Physics Lab-First Semester	7	Characterization Lab
2	General Physics Lab -Second Semester	8	Computational Physics Lab
3	Advanced optics Lab	9	Renewable Energy Research Lab
4	Electronics & Instrumentation Lab	10	Synthesis Lab
5	Solid State Physics Lab	П	XRD Lab
6	Materials Science Lab	12	Spectroscopy Lab
	Name of the Facility	3	UV-Vis Photospectometer (Shimanzo)
I.	Microwave Synthesis Setup (Antonpar)	4	Scanning Electron Microscope (SEM
2	X-Ray Diffractometer (Panalytical)	5	Muffle/Ordinary Furnaces

60th Annual

3.11 Department Of Chemistry

The Department of Chemistry was established in 1960 & has been headed by the renowned personalities like Prof. R. P. Jeerath, Dr. Ram Murthi, Dr. Shakti Rais Ahmad, & Dr. A. K. Choudhry. About fifteen Ph.D.s & 30 M. Phils have been produced by the Department till date. The faculty members of the Department have published many scientific papers & reviews in National & International journals of repute. Research, in the areas of Physical, Organic, Inorganic & Environmental Chemistry, are being carried out in the Department.

Vision

To become a unique centre of excellence for teaching, research and development that makes significant contribution for producing academic professionals/technocrats in frontier area of Chemical Sciences.

> "Chemistry begins in the stars. The stars are the source of the chemical elements, which are the building blocks of matter and the core of our subject." —Peter Atkins



Mission

- To impart quality education and fundamental concepts of Chemical Sciences to students and research scholars through our state of art laboratory, teaching and research facilities.
- To build a scientific environment and motivation towards innovation with quality research in the field of Chemical Sciences and interdisciplinary areas.
- To provide a broad foundation in Chemistry that stresses scientific reasoning and analytical problem solving with a molecular perspective.

Faculty

Head of Department	Dr. Javid A Banday
Professor	Prof. Tabasum Ara
Professor	Prof. Kowsar Majid
Associate Professor	Dr. Shakeel Ahmad Shah
Associate Professor	Dr. Javid A Banday
Associate Professor	Dr. Hamida Tu Nisa
Assistant Professor	Dr. Mohammad Aslam
Assistant Professor	Dr. Maktedar Shrikant Shivaji
Assistant Professor	Dr. Ravi Kumar
Assistant Professor	Dr. Rohit Jignesh Kumar Vasant Bhai
DST-Inspire Faculty	Dr. Dr. Malik Abdul Wahid
Ramanujan Fellow	Dr. Saifullah Lone

HoD

Chemistry

Head of

Department Dr.

Javid A Banday

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Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published	Date of Publication
I	Prof. Kowsar Majid	Haamid Ha- roon, Kowsar Majid	MnO2nanosheets support- ed metal-organic frame- work MIL-125(Ti) to- wardsefficient visible light photocatalysis: Kinetic and mechanistic study	Chemical Physics Letters	27/02/2020
2	Prof. Kowsar Majid	Malik Abdul Wahid, Ma- hendra Patel, Gulzar Ahmad Bhat ,Kowsar Majid	High Na+ Mobility in rGO Wrapped High Aspect Ratio ID SbSe Nano Struc- ture Renders Better Elec- trochemical Na+ Battery Performance	ChemPhysicsChem	03/03/2020
3	Prof. Tabassum Ara	Gazunfor Ali,Nisar A. Dangroo, Shabnam Ra- heem,TahiraN aqvi, TabassumAra and Masood Ahmad Rizvi	"Photo-Oxidation Coupled Kabachnik–Fields and Bigenelli Reactions for Direct Conversion of Benzyl alcohols to α- Aminophosphonates and Dihydropyrimidones"	ActaChim. Slov	March 2020
4	Dr. S. A. Shah	Umar Ali Dar	Quantum chemical ap- proach towards the sec- ondary amino derivatives of C(3) substituted 1,4- naphthoquinone: Com- bined molecular and dft- calculations	Journal of Molecu- lar Structure	27/10/2019
5	Dr. Ravi Kumar	SJ. Hong, R. Dutta, R. Ku- mar, Q. He, V. M. Lynch, J. L. Sessler and C H. Lee,	meso- Alkylidenyldibenzihex- aphyrins: synthesis and protonation studies	Chemical Commu- nications	22/06/2019
6	Dr.Jigneshk umar V. Rohit	Atul Thakur, Harish Kumar,	Colorimetric sensing ap- proaches of surfacemodi- fied gold and silver nano- particles for detection of residual pesti- cides: a review	International Jour- nal of Environmen- tal Analytical Chemistry	24-01-2020
7	Dr.Shrikant Maktedar	Parth Malik, Shrikant S. Maktedar, GopalA- vashthi, Tapan K. Mukherjee, Man Singh	Robust curcumin-mustard oil emulsions for pro toanti -oxidant modulation of graphene oxide	Arabian Journal of Chemistry	09/11/2019

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Staff Member	Program Attended	Institute Where Attended	Date
I	Prof.Kowsar Majid	One-week Faculty Development Program on Outcome Based Education	NIT Srinagar/ TEQIP-III	18/05/2019 to 22/05/2019
2	Prof.Tabassu mAra	One-week Faculty Development Program on Outcome Based Education	NIT Srinagar/ TEQIP-III	18/05/2019 to 22/05/2019
3	Dr.Shakeel A Shah	One-week Faculty Development Program on Outcome Based Education	NIT Srinagar/ TEQIP-III	18/05/2019 to 22/05/2019
4	Dr.Javid Ah- mad Bandey	One-week Faculty Development Program on Outcome Based Education	NIT Srinagar/ TEQIP-III	18/05/2019 to 22/05/2019
5	Dr.HamidaCh isti	One-week Faculty Development Program on Outcome Based Education	NIT Srinagar/ TEQIP-III	18/05/2019 to 22/05/2019
6	Dr. Ravi Ku- mar	one week Short Term Course on Recent Advances in Chemical Sciences (RACS-2019)	TEQIP-III	08/05/2019 to 12/05/2019
8	Dr. Ravi Ku- mar	One-week Faculty Development Program on Technical Education Quality Improvement Program	NIT Srinagar/ TEQIP-III	01/04/2019 to 05/04/2019
9	Dr. Ravi Ku- mar	One-week Faculty Development Program on Outcome Based Education	NIT Srinagar/ TEQIP-III	18/05/2019 to 22/05/2019
10	Dr.Jignesh V. Rohit	One-week Faculty Development Program on Technical Education Quality Improvement Program	NIT Srinagar/ TEQIP-III	01/04/2019 to 05/04/2019
11	Dr.Jignesh V. Rohit	One-week Faculty Development Program on Outcome Based Education	NIT Srinagar/ TEQIP-III	18/05/2019 to 22/05/2019

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Staff Member	Program Attended	Institute Where Attended	Date
12	Dr.Jigneshku mar V. Rohit	International Confer- ence on Nanotechnol- ogy for batter living (ICNBL)	National Institute of Technology, Srinagar, J&K	07/04/2019 to 11/04/2019
13	Dr.Shrikant Maktedar	One-week Faculty Development Program on Technical Education Quality Improvement Program	NIT Srinagar/ TEQIP-III	01/04/2019 to 05/04/2019
14	Dr.Shrikant Maktedar	One-week Faculty Development Program on Outcome Based Education	NIT Srinagar/ TEQIP-III	18/05/2019 to 22/05/2019
15	Dr. Moham- mad Aslam	One-week Faculty Development Program on Technical Education Quality Improvement Program	NIT Srinagar/ TEQIP-III	01/04/2019 to 05/04/2019
16	Dr. Moham- mad Aslam	One-week Faculty Development Program on Outcome Based Education	NIT Srinagar/ TEQIP-III	18/05/2019 to 22/05/2019

Program(s) Conducted

Conferences, Courses, Trainings conducted by the faculty during the period:

S.No	Name of the	Name of the program Con-	Sponsoring	Dates when
	Co-Ordinator	ducted	Agency	Conducted
I	Dr. J. A. Banday & Dr.Jignesh V. Rohit	one week Short Term Course on Recent Advances in Chemi- cal Sciences (RACS-2019)	TEQIP-III	08/05/2019 to 12/05/2019

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S . No.	Scholar	Supervisor(s)	Status of Degree
I	Romaisa Latif	Dr. J. A. Banday, Dr. Khurshid Ahmad, Dr. S. Chandra	Awarded (2019)
2	Feroz Ahmad Sofi Prof. Kowsar Majid		Awarded (2019)
3	Jahangir Ahmad Dar	Prof. Kowsar Majid	Awarded (2020)
4	Hafizullah Dar	Prof. Tabassum Ara & Dr. Khalid Yousaf	Awarded (2020)
5	Guzanfor Ali Khan	Prof. Tabassum Ara	On Going
6	Bilal Ahmad Ganaie	Prof. Tabssum Ara, Dr. J. A. Banday, Dr. Bilal Ahmad	Ongoing
7	Asif Ahmad Malik	Prof. TabassumAra	Ongoing
8	Rafiq Ahmad Rather	Prof. TabassumAra	Ongoing
9	Rabia Amin	Prof. TabassumAra	Ongoing
10	Jahangir Ahmad War	Dr.Hamida-Tun-Nisa Chisti	Ongoing
П	Aabid Hussain Bhat	Dr.Hamida-Tun-Nisa Chisti	Ongoing
12	Nisar Ahmad Chopan	Dr.Hamida-Tun-Nisa Chisti	Ongoing
13	UmerRafiq	Prof. Kowsar Majid	Ongoing
14	Haamid Haroon (UGC-JRF)	Prof. Kowsar Majid	Ongoing
15	Ghulam Mohd	Prof. Kowsar Majid & Dr.Saifullah Lone	Ongoing
16	Mudassir Ahmad Dar	Dr. Malik Abdul Wahid & Prof. Kowsar Majid	Ongoing
17	Mubashir Ali Bhat	Prof. Kowsar Majid	Ongoing
18	Muzaffar Ahmad Bhat	Prof. Kowsar Majid	Ongoing
19	Shahjahan UI Islam	Dr. Malik Abdul Wahid	Ongoing
20	Irfan Majeed Bhat	Dr. Saifullah Lone	Ongoing
21	Umar Ali Dar	Dr. S. A. Shah	Ongoing
22	Sajad Ur Rehman Beig	Dr. S. A. Shah	Ongoing
23	Shahnawaz Shaheen	Dr. J. A. Banday & Dr. Qazi Naveed Ahmad	Ongoing

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Scholar	Supervisor(s)	Status of Degree
23	Shahnawaz Shaheen	Dr. J. A. Banday & Dr. Qazi Naveed Ahmad	Ongoing
24	Mehraj-ud-Din Bhat	Dr. J. A. Banday & Dr. S. A. Shah	Ongoing
25	Zubaid-Ul-Khazir Rather	Dr. J. A. Banday, Dr. Hamida Chasti	Ongoing
26	Gulam Nabi Yatoo	Dr. J. A. Banday	Ongoing
27	Ishrat Gowsia	Dr. J. A. Banday	Ongoing
28	Sajad Ahmad Bhat	Dr. J. A. Banday	Ongoing
29	Mohammad Aasif Hajam	Dr. J. A. Banday	Ongoing
30	Ishfaq Ahmad	Dr. J. A. Banday	Ongoing
31	Waseem Arif	Dr. Ravi Kumar	Ongoing
32	Ishfaq Ahmad Lone	Dr. Ravi Kumar	Ongoing
33	Ajaz Athar Parra	Dr. Ravi Kumar	Ongoing
34	SabreenaYousaf Bhat	Dr. Shrikant Maktedar	Ongoing

Purchase(s) Made

Purchases made by the department during the period.

S.No	Name of the equipment/Item	Quantity	Date of Purchase	Amount of Purchase
I.	FTIR	01	22.11.2019	I 7,30,000/-
2	BET Surface Area Analyzer	01	Feb.2020	29,99,500/-
3	Rotary Evaporators	02	30.03.2020	28,17,574/-
4	UV-VIS Spectrophotometers	02	22.11.2019	17,75,000/-

Laboratories Available

Laboratory facilities available at the department

S. No.	Name of the Lab
Ι.	High Performance Liquid Chromatograph (HPLC)
2	BET Surface Area Analyzer
3	FTIR Spectrophaotometer
4	UV-Vis- Spectrophotometers

Laboratories Available

Laboratory facilities available at the department

S. No.	Name of the Lab
5	Microwave Synthesizer
6	Rotary evaporators
7	Deep Freezers
8	Shaking Incubator
9	Thermo Gravimetric Analyzer (TGA)
10	Ball Mill
11	Photo lamp
12	Muffle Furnaces
13	Centrifuge
14	Hot Air Oven
15	Tube Furnace

Achievements

- Postgraduate Program in Chemistry (M. . Sc Chemistry) has been approved in the said period.
- A research centre, Interdisciplinary Division for Renewable Energy & Advanced Materials (iDREAM) under Department of Chemistry has been approved in the said period.

3.12 Department Of Humanities, Social Sciences & Management

ences, which is one of the oldest departments play an excellent role in developing the manaof the institute, is contributing to the academ- gerial & professional capabilities of the students ics by offering various courses in English, Man- who have a potential market both in public & agement, Economics & Entrepreneurship at private companies of India & foreign countries. B.Tech. level & Research Methodology & Com- The courses are intended to enhance their munication Skills at M.Tech. level. The students employment opportunities in the growing corof B.Tech. & M.Tech. are introduced to the porate sector & bring together the technologibasic concepts & advanced studies in the above cal problem-solving savvy of engineering & the mentioned subjects. As these courses equip the organizational, administrative, & planning abiliengineering students with the professional ties of management in order to oversee comskills, the department makes every effort to plex enterprises from conception to complekeep these courses updated. It tries to amal- tion. Apart from it, the Department has many gamate the field of engineering & the field Programmes of higher learning in mind but the of management by equipping students with the non availability of staff is the main impediment. technical expertise & leadership skills as are For some professional courses like MBA & required to advance their career in the fast- Diploma in Entrepreneurship, the department paced world of competition.

The Department of Humanities & Social Sci- The subjects like Management & Economics is making efforts both in terms of staff & infrastructure.

"It is more important

to do what is

strategically right

than what is

immediately

profitable"- Philip

Kotler

The Department of Humanities & Social Sciences, shall be offering a Master's programme in Business Administration (MBA) from the academic session (Autumn 2020)

Vision

To lead in innovative teaching, knowledge building, and value based educational experiences by providing quality education.



Mission

To develop strong critical thinking, analytical reasoning, problem solving, management and communication skills in students with creative talent that will foster their development as knowledgeable, engaged and confident citizens and leaders.

Faculty

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Co-Authors	Title of the paper	Conference/ Journal where published	Date of Publication
I	Dr. Rasak Annayat	Nil	A Brief Survey of Indian English Literature	Insight Journal of Applied Research	7/06/2019
2	Dr. Su- maira Nabi	Naziya Rasool and Younis Rashid Dar	Machine Translation with UNL: A Study of Kashmiri	Advances in Com- puter Science and Information Tech- nology , p-ISSN: 2393-9907	23/06/2019

Program(s) Attended

Conferences, Courses, Trainings attended by the faculty members during the period:

S. No.	Faculty Member	Program Attended	Institute Where Attended	Date
1.	Dr. Jaya Sri- vastava	Faculty Development Programme on Out- come Base Education	NIT Srinagar	18 th May 2019 to 22 nd May 2019
2.	Dr. Jaya Sri- vastava	One Week Workshop on Research Methodol- ogy Using SPSS and AMOS	National Institute of Tech- nology Srinagar	8/02/2020 to 12/02/2020
3.	Dr. Tahir Ah- mad Wani	Faculty Development Programme on Out- come base Education	National Institute of Tech- nology Srinagar	18/05/2019 to 22/05/2019
4.	Dr. Rasak Annayat	One Week Workshop on Research Methodol- ogy Using SPSS and AMOS	National Institute of Tech- nology Srinagar	8/02/2020 to 12/02/2020
5.	Dr. Fouzia jan	One Week Workshop on Research Methodol- ogy Using SPSS and AMOS	National Institute of Tech- nology Srinagar	8/02/2020 to 12/02/2020
6.	Dr. Sumaira Nabi	International Confer- ence on Contemporary Issues in "Engineering, Agriculture, Applied Sciences and Humanities	National Institute of Tech- nology Srinagar	22/06/2019 to 23/06/2019
7.	Dr. Sumaira Nabi	One Week Workshop on Research Methodol- ogy Using SPSS and AMOS	National Institute of Tech- nology Srinagar	8/02/2020 to 12/02/2020

Program(s) Conducted

Conferences, Courses, Trainings conducted by the faculty during the period:

S.No	Name of the Co-Ordinator	Name of the program Conducted	Sponsoring Agency	Dates when Con- ducted
1.	Dr.Tahir Ahmad Wani	One Week Workshop on Research Methodology Using SPSS and AMOS	TEQIP	8/02/2020 to 14/02/2020

Sponsored Project(s)

S. No.	Name of the Program	Investigator	Amount (in INR)	Sponsoring Agency (if any)
1.	Subsistence Consumer Marketing Systems in Conflict Zones, Anteced- ents Implications and Rec- ommendations	Dr. Saiyed Wajid Ali (JMI) and Dr. Tahir Ahmad Wani	ICSSR	Rs. 5,50,000
2.	Impact of Migration on Psycho-Socio and Eco- nomic Wellbeing of Elder- ly Pandit Migrants: An Evaluative Study Circuit Design	Dr. Farzana Gulzar (KU) and Dr Tahir Ahmad Wani	ICMR	53,000,00

Doctoral Program(s)

Details of Doctoral Programmes conducted by the department:

S. No.	Topic/Area of Research	Scholar	Supervisor(s)	Status of Degree
I	Marketing	Ather Siddiq Zargar	Prof. M.F. Lala	Ongoing
2	Marketing	Shuaib Ahmad Shah	Prof. M.F. Lala	Ongoing
3	Finanace	Irfan Rashid	Dr. Tahir Ah Wani	Ongoing
4	Finanace	Sheikh Gowhar Rasool	Dr. Tahir Ah Wani	Ongoing
5	African-American Literature	Uzma Yaseen	Dr. Jaya Srivastava	Ongoing

4.0 Centres

The Various Centres functional at NIT Srinagar are:

Centres at NIT	
WRMC	1
CSC	2
CRFC	3
liedc	4
LIRC	5



4.1 Water Resources Management Centre

WRMC was established by the Ministry of To undertake Research & Development work Education, Government of India in 1983 under of a high order by mobilizing inter- disciplinary new plan scheme for creation of infrastructure & inter- institutional collaboration. in the areas of emerging technology. The objectives of the Center are:

To undertake work on specific technological of Information on the subject. problems of relevance & importance in Water Resources Management & to make fundamen- To undertake research works in the field of tal contribution to the advancement of tech- Water Resources Engineering to meet the nology.

To act as a resource center for the creation of knowledge & for the collection & dissemination

requirements of industry, Research & Development establishments, Irrigation & other Water **Resources Management Agencies.**

Staff

Head of Centre	Professor M. A. Lone
(Chair Professor (Part-time) for Shiekhul Alam Sheikh Nurrudin Chair	Prof. Rohitashw
(Co-Ordinator, Environmental Sustainability Study Centre) / Associate Professor	Er Danish Ahmad
Consultant, Professor Chair for Sheikhul Alam Shiekh Nurrudin Chair	Dr. Mir Bintul Huda
Office cum Technical Asstt. for Sheikhul Alam Shiekh Nurrudin Chair	Mr. Fayaz Ahamd Tantray

Publications

Papers published and presented by the Faculty:

S. No.	Faculty Member	Title of the paper	Conference/Journal where published	Date of Publication
I	Prof. M A Lone	'Significance of Shape factor of Obstacle on Local Scour'	Iranian Journal of Science and Technology'	2018
2	Prof. M A Lone	, 3	International Journal of Geotechnical Engineering	2018
3	Prof. M A Lone	0	International Journal of Geotechnical Engineering	2019
4	Prof. M A Lone		International Journal of Hydrology Science and Technology	2019
5	Prof. M A Lone	Waste free Srinagar City'	International Journal of Engineering, Technology, Science and Research	2018
6	Prof. M A Lone		International Journal of Engineering, Technology, Science and Research	2018
7	Prof. M A Lone	nation Of Permeability	ence ,Engineering and	2018

Sponsored Project(s)

S . No.	Name of the Program	Investigator	Amount (in INR)	Sponsoring Agency (if any)
I	Assessment of Effect of Climate Change on Water Resources, particularly in Indus Basin- A Professorial Chair		100,00,000.00 (Endowment)	Ministry of Water Resources, Gol
2	Maximization of Irrigation Potential and Water use Efficiency		90,000.00	J&K State Water Resources Regula- tory Authority (JKSWRRA)

Research & Development Activities

A Chair Professor in Water Resources, entitled, sis on assessment of effect of climate change on the Institute, in 2008.

The main objective of the Chair is to carry out studies on water resources with special empha-

Sheikhul Alam Sheikh Nuruddin Chair for Wa- it & adaptation strategies in respect of planning, ter Resources, has been established by the Min- design & management of water resources sysistry of Water Resources (MoWR) in the Cen- tems of particularly Indus Basin. An important tre under an agreement between the MoWR & activity related to the Chair is the transfer of technology to CWC & other organizations of MOWR/GOI

Facilities Available:

- Environmental Sustainability Study Centre (ESSC): Establishment of the Environmental Sustainability Study Centre, (ESSC) is being carried out under TEQIP-III for an initial amount of 100.00 lacs. The ESSC shall have a facility for Testing and Assessment of various parameters pertaining to Water, Waste water, AIr and Noise Pollution. Purchase of Major Equipment for thr facility has been completed.
- Library Facilities: Fair amount of literature on topics related to Water Resources Engineering & other related topics is available in the main library of the Institute. Besides that a good collection of books, journals and reports are available in the library of Water Resources Management Centre.
- Computational facilities: The Centre has also a Mini-computer Centre with necessary computational facilities.

Laboratories

- Hydraulics/Fluid Mechanics Lab. Hy- draulics /Fluid Mechanics laboratory which has been brought up to the higher standards of research & development is not only catering the requirements of the Centre but also meets the requirements of departments of Civil Engineering & Mechanical Engineering. It has got almost all necessary equipment & is being modernized with the latest equipment/instruments.
- Hydrobiology lab: This Lab was set up under the approval of the MHRD. The lab is equipped with the latest water & sewage testing equipment.
- Hydrometeorological Observatory: This observatory has also been set -up under one more scheme of MHRD & has a facility of recording all the important Hydro -meteorological parameters.

Future Plans

the MoWR, & is planning to activity participate data collection is more authentic & accurate. in the study with other leading Institutes.

The Centre has been nominated to act as Nodal The Centre is planning to upgrade its Hydro-Centre for Basin-wise studies with respect to meteorological Observatory with the latest availimpact of climate change on Water Resources by able equipment & instrumentation so that the

4.2 Computer Services Centre

The institution has long back absorbed itself present Institute has two links one is 512 Kbps well perceived in all over the campus. The (IGbps internet connectivity). Computer Services Centre developed under the scheme of Centre of Excellence aims to The Centre has extended the facilities of interfacilities to the teaching community, students WiFi systems. including scholars, administrative staff & others. It has been providing latest & sophisticated computer service to all the departments & the sections.

All the Institute departments, sections & hostels are connected vide a campus wide network which covers almost all the Institute. At

into the Computer culture & its effects can be provided by Ernet India & other by BSNL

provide centralized computer/Inter-net work net to hostels including girl's hostels through



Staff

Chairperson	Dr. Shaima Qureshi
Maintenance Engineer	Er. Kaleem Dar
Computer Operator	Mr. Umar Majid
Web Programmer	Er. Shabir Mustafa

5.2 Programmes Conducted

Conducted Spoken Tutorials Exams for CSE to promote IT literacy through Open Source and IT Departments. Spoken Tutorials is an Software. (Since July 2017 – till date) initiative of National Mission on Education through ICT, MHRD, and Government of India



Purchase(s) Made

Purchases made by the department during the period.

S. No. Name of Equipment

T	Windows Blade Servers
2	Smart Rack
3	Core Switch + Upgrades
4	Wifi Access Points
5	Switches for New Labs , Hostels and various locations
6	UPS for CSC old
7	Campus Wifi
8	Thin Clients
9	Thin Client Server
10	UPS for sites (42)
П	UPS for sites (10)
12	IP Cameras/NVR - for both Labs
13	Distribution Switches
14	All in One PC
15	Online UPS for new Labs
16	Fiber Splicer and OTDR
17	Projector
18	Photocopier
19	Manageable Switch

Laboratories Available

Laboratory facilities available at the department

S . No.	Name of the Lab	
I	CSC Lab I – Central Lab facility with 60 systems.	
2	CSC Lab II – Central Lab facility with 92 systems.	
3	CSC Lab III – Central Lab facility with 92 systems.	

4.3 Central Research Facilities Centre



started functioning since 2012.Various Research facilities have been created for the research & consultancy work. These include SEM/EDS, Nanoindenter Hysitron TI Premier, X-Ray Diffractometer (XRD), Litesizer™ 500 •

Particle Analyzer, MCR 102 Rheometer, Planetary – Mill pulverisette 5, Raman Spectroscopy and other related facilities. Recently the centre has established state of art Coating Laboratory and has also procured Field Emission Scanning • Electron Microscope.

CRFC houses a variety of major analytical instruments which are operated and maintained by a dedicated and qualified group of Scientists and Engineers. CRFC has a vision "To be one of the Leading Analytical Instrument Facility Centers at National Level".

Central Research Facility Centre (CRFC) has The main objectives of CRFC are:

- To provide facility of analysis in R&D using Sophisticated Instruments.
- To organize workshops on the use and application of various Sophisticated Instruments for researchers belonging to Universities, Industries and Private sector.
- To develop new measurement/analytical techniques by research in various areas of Science, Technology and Engineering.

Staff

Chairman	Prof. M. Farooq Wani
Member	Prof. Ab Qayoom Dar
Member	Prof. Najeeb Ud-Din
Member	Dr. Shakeel Ah Shah
Member	Dr. Atikur Rehman
Member	Dr. Mohammad Ashraf Shah
Member	Dr. Mushtaq Ahmad Rather

Purchase(s) Made

S.No	Name of the equipment/Item	Quantity	Date of Purchase	Amount of Purchase
01	Field Emission Scanning Electron Microscope. (FESEM)	01	11-12-2019	2,95,68,400.00
02	Multi Target Sputtering System.	01	07-09-2019	1,81,000 GBP

4.4 Innovation, Incubation & Entrepreneurship Development Centre



Industry Institute Interaction Cell & Entrepre- addition in various thrust areas like technology was to share its experience with the Industry & renewable energy, handicraft, electronic system to utilize the human resources & all other re- design, manufacturing, IT enabled and other sources available at the Institute effectively services etc. with the assistance of participating Industries.

Centre aims to nurture and inspire the young establish a centre where activities related to entrepreneurial brains of the Institute as well innovation, incubation & entrepreneurship as the region to peruse innovations, start-ups could be undertaken in a coordinated manner and entrepreneurship by creating a vibrant and on modern approaches. Accordingly these two conducive ecosystem in the region. We aim to cells were merged & renamed centre under empower Start-ups to grow through innova- the title "Innovation, Incubation & Entrepretions & design in order to provide fulcrum to neurship the economic augmentation and employment lished due approval of the Competent Authoriopportunities.

The incubation centre is facilitating and nurturing the growth and development of innovators and start-ups through hand-holding, providing 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

Vision

The IIED Centre of NIT Srinagar aims to coordinate and leverage, through Innovation, Incubation and Entrepreneurship, an ecosystem fostering a culture of cutting edge technology making NIT Srinagar the harbinger of innovation in the state of Jammu and Kashmir in sectors of Science & Technology by offering industrial solutions with emphasis on national growth and social upliftment.

The Institute had since long established an of start-up endeavors with disruptive value neurship Cell. The main object of these Cells developing, agriculture including horticulture,

In view of the prevailing scenario for encourag-IIED centre is headed by Prof. Saad Parvez. The ing innovation & enterprise, it was decided to Development Centre" was estabty. The Centre has already started extending its technical support to young Innovators & has held number of interactions with the local industrialists. The Centre is in the process of preparation of a DPR for establishing a major innovation centre for the benefit of the region.

> An advisory committee has been constituted having an Interdisciplinary representation to guide the activities of the Centre.

Mission

- To promote a vibrant, innovative, and entrepreneurial environment for conducting quality research with an aim to develop knowledge economy.
- Creation and development of sustainable, globally competitive facility that contribute towards the accelerated economic growth of the region by identifying, exploring and developing regional competitiveness
- To strengthen institute-industry linkages to formulate collaborative ventures with the business community of the region in particular and nation in general
- To assist and develop new business ventures, start ups, job creation and employment generation in specific sectors that are aligned with a region's unique areas of opportunity

Objectives of the Centre

- Entrepreneurship Development through

 incubation and training
- Strive for development and deployment of scientific/ technological solutions to solve
 confronting challenges in the areas like energy conservation, water management, waste management, sanitation control,
 development of local technologies, ergonomic design, and so forth
- Identify engineering problems of diversified nature where research and innovation can help to find smart solutions

- Operate to provide institutional support in scouting, spawning, sustaining and scaling up Grass root innovative ideas
- Provide incubation support as and when required to develop innovations
- Mutual interaction with industry (local & national)
- Skill development and service sector support
- Provide IRP platform to obtain patents

"If we tried to think of a good idea, we wouldn't have been able to think of a good idea. You just have to find the solution for a problem in your own life." -Brian Chesky, Co-founder of Airbnb

Staff

Coordinator	Dr. Saad Parvez
Member	Prof. Babar Ahmad
Member	Prof. A.Q. Dar

Activities

IIED Centre NIT Srinagar is a community comprising 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)

- Entrepreneurship Development Cell: EDC 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.
- **Innovation Cell :** IC initiates 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.
- 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 interdiscipli-

nary nature of design to cut across research and move projects from research to development.

- Institute Industry Interaction Cell: IIIC brings industry thought leaders with college experts to seed innovative thinking
 and to enable collaboration in technology, products, services, and business models.
- Skill Development Club: SDC is trying hard to develop the dynamic skill requirements of students by organizing skill development Programmes and workshops to

Benefits for the students

- Become a leader- manage a student organization, illustrate abilities in planning, logistics, marketing, and advertising, create visibility for future employers.
- Build a network- make contacts with entrepreneurs, professionals and academics who can help with recommendations, network and start a venture with peers.
- 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 business planning.

increase the employability of students to bridge the gap between education and industry. The main motive of club is to recognize the team's potential and to adapt to the changing circumstances.

TOD FOD JOD Club TFJ Club 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.

Functions

- To inculcate a culture of innovation driven entrepreneurship through student projects.
- To organize Entrepreneurship Awareness Camps, Entrepreneurship Development Programmes, Faculty Development Programmes and Skill Development Programmes in the Institute/ institution.
- To arrange interaction with entrepreneurs and create a mentorship scheme for student entrepreneurs.
- To facilitate creation of entrepreneur's club in each department to foster culture of entrepreneurship among students
- To disseminate knowledge and insights in entrepreneurial theory and practice through lectures activities and workshops.
- Build knowledge and skills to translate ideas into opportunities while they are on campus.
- Be motivated to start their own companies after graduation or after a few years of gaining industry experience.

Achievements

Smart India Hackathon (SIH) 2019:

prize worth Rs. 50,000 at VelTech Chennai.

MSME Ministry approves BI at NIT Srinagar

The proposal submitted by the institute for its recognition as Host Institute for implementa- Yuwa Innovators: Food Grain Washer and tion of the scheme "Support for Entrepreneurial and Managerial Development of MSMEs through Incubator" has been considered & approved during Meeting of PMAC held on 20/12/2019 at New Delhi.

NIT Srinagar students participated in SIH 2019 Since last three years Centre is participating in organised by MHRD's Innovation Cell. Students the Meeting of National Innovation clubs at of NIT Srinagar received Second Runner up Rashtrapati Bhavan and presenting innovative projects.

> To unleash the young creative minds the centre conducted a number of workshops on TOD-FOD-JOD for school children

Idea Challenge 2018

Water Purifier Machine

More

- Apart from the above the IIED center is working for establishment of state of the art Incubation center 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 commercialized and handed over to a local firm for production.
- The center recently received the approval of Rs. I Crore from MSME, J&K, for setting the Incubation Centre at NIT Srinagar.

4.5 Library & Information Resources Centre

Library & Information Resources Centre. of its collection using KOHA software and is The NIT Srinagar library supports the in the process of computerizing all its activi-Teaching, Research & and other related ties. At present the readers have access to Programmes of the institute. The Library has library OPAC & circular section is computa good collection of documents that com- erized. Following e-resources through prises of Books, Journals, Theses, Video INDEST consortium are available online cassettes, Learning Resources (LRs) & Com- through the Library for the benefit of compact discs in the field of Engineering, Science, munity in the campus; Management, and Literature & Humanities.

The Central library has a separate section due to September 2014 floods took number 9898 books issued to them for study in a full worth around 30 lacs were purchased & a semester.

The Institute has a Central Library named The library has computerized data of whole

The library which had suffered huge losses for SC/ST students with a stock of about of steps for making up the losses & books massive renovation is going on.

Library Organization

- **Acquisition Section**
- **Processing Section**
- **Periodical Section**
- Circulation section
- **Reference Section**
- Reading/Browsing Section •
- Stack I
- Stack II
- SC/ST Section

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 Services

Membership

The membership form is available at the circu- the library rules. lation counter and the same is required to be attested by the Head of the Department/ Search Section.

Text Book & Reference Section

The textbook and reference section remain 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

All the students, faculty members, research The books available here are meant to be isscholars & administrative staff can register sued to the faculty, students, research scholars themselves for the membership of the library. and other readers as per the criteria given in

OPAC (Online public access catalogue) Science Direct **E-Resources**



LIRC	
Established in	1960
Members	3217
Books	57088
Data Usage	80%
Annual Budget	4 Cr
Timings (Weekdays)	08:45 -
Timings (Holidays)	10:00 - 17:00

Titles Added

Year	Number of New Titles Added
2016-2017	1193
2017-2018	164
2018-2019	956
2019-2020	4250

Staff

Chairman Library Prof. Najeeb Udin
Committee Shah
Deputy Librarian Ms. Asmat Ali
I/C Library Dr. M. Hanief
Member of the Library Committee Prof. Zubair Ansari
Member of the Prof. S A Shah
Member of the Dr. Ranjit Kumar Rout
Member of the Library Committee Dr. Irfan Samad Wani
Member of the Dr. M S Charoo
Member of the Dr. Malik Perveez
Member of the Dr M Adil Bazaz
Member of the Prof Nayaz Ahmad
Member of the Dr. Prince Ahmad
Member of the Mr.Janibul Bashir
Member of the Library Committee Prof Mir Mukhtar
Mrs Saymee Technical Assistant SG)
Mrs Tahira Technical Assistant
Mr. M Y Rather Technical Assistant
Mrs. Dilshada Assistant (SG)
Mrs. Neelofar Assistant (SG)
Mr. Shabir Ahmad Sheikh Jr. Lib assistant
Mr. Noor Mohammad Orderly
Mr. Gh Mohammad Sheikh Orderly

Library Resources

The library has a wide range of resources on engineering, sciences, humanities & Social Sciences

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.

	Subjects Covered	URL	Total cost
	Wiley		
	Civil Engineering & Construction, Electronics & Electrical Engineering, Computer Science &IT, Chemistry & Chemical Engineering, Physics, Maths & Statistics & Mechanical Engineering.	Year 2016 & 2017	\$88,694
"I have always imagined	Springer Nature		
	Chemistry & Materials Science, Computer Sci-		
that Paradise will be a	ence, Engineering, Mathematics &Statistics, Phys- ics &Astronomy	Year 2016 No. Of Titles 3298	€52,759.20
kind of library."	Elsevier		
— Jorge Luis Borges	Chemical Engineering, Chemistry ,Engineering, Materials Science, Mathematics, Physics & As- tronomy, Computer Science		\$102136
	Pearson		
	Chemistry, Civil Engineering, Computer Science & IT, Electronic Telecommunication, Mathemat- ics, Mechanical Engineering, Physics		INR 15,64,059.00

E-Journals

E-Journals	E-Journals Subscription Period
ACM Digital Library	January 2019 to December2019
ASCE Journals	January 2019 to December2019
ASME Journals Online	January 2019 to December2019
J Gate Plus (JCCC)	January 2019 to December 2019
Oxford University Press	April 2019 to March 2020
Springer Link 1700 Collection + Nature Journals	April 2019 to March 2020
Web of Science Lease Access	January 2019 to December 2019

NDL eResources

E-Resources are accessible to our Institute through eShodhSindhu (eSS)

E-Resources	E-resources Subscription Period
Scopus	January 2019 to December 2020
South Asia Archives (SAA)	National Licensing

URL www.inflibnet.ac.in/ess/eres.php.?memID=357

Back Files of Science Direct Journals from M/S Elsevier on the following subjects are now available from Vol.1, Issue1up to the year 1994

Subjects Covered	Year	URL
Engineering & Technology	Pre 1995	sciencedirect.com
Materials Science	Pre 1995	sciencedirect.com
Chemical Engineering	Pre 1995	sciencedirect.com
Computer Science	Pre 1995	sciencedirect.com
Inorganic Chemistry	Pre 1995	sciencedirect.com
Organic Chemistry	Pre 1995	sciencedirect.com
Mathematics	Pre 1995	sciencedirect.com
Business Management Accounting	Pre 1995	sciencedirect.com

Subjects Covered	URL
Science Direct (one Year Subscription) (8 subject collection) Jan 2020 to Dec 2020	www.sciencedirect.com/
IEEE/IET Electronic Library (IEL) online (One Year Subscription) Jan 2020 to Dec 2020	http://ieeexplore.ieee.org/

BIS & ASTM Standards on our IP range.

Subjects Covered	URL
BIS (for 3 Years)	http://standards.bsb.co.in/
ASTM	http://compass.astm.org

5.0 Centralized Services

The Institute has a number of Centralised Services which facilitate the carrying out of various activities of the students & the staff effectively. A brief description of these facilities is given below:

Trainings, Placements & Career Guidance 5.1

The Industrial Training & placement are the ter placement of the students. The institute two important issues of the students which are has been able to attract a good number of being taken care of by a well established relevant reputed companies & organizations for "Training & Placement "(T&P) Department of on campus selection of the students. Mock this Institute. The T&P Department is usually test, counseling & seminars are carried out for headed by a senior faculty member & assisted the students to train them for better perforby administrative staff & the student's repre- mance in their interviews for placements. In sentatives from the different departments.

The students have to essentially undergo a practical training period of six to eight weeks at 5th/7th semester level in projects & industry within or outside the state in Jan-Feb each year, when the institute observes winter vacations. This training plays a vital role in exposing the students to actual industrial environment & in broadening their professional outlook. Thus, this training increases the employability opportunities of the students.

to introduce the institute to more & more companies & organizations concerned for bet-

Members of Placement Cell:

- Full-time Officers: | TPO
- Full-time Trainers: 2 (Soft skills & Personality Development)
- Student Volunteers attached to placement cell: 32



this context a good number of reputed companies have recorded their appreciations for coordination of departments & students representative's efforts in conducting on campus placements. The Endeavour of the T & P Department is to attain cent percent placement. The students from different departments are also involved in various relevant activities of the training & Placement like quizs, mock tests, mock group discussion etc.

The objective of the placement cell is to mould the students to cope with the changing de-The T &P Department is making every effort mands of the corporate world and place them in reputed companies based on the expected

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.

"The best way to predict the future is to create it." — Abraham Lincoln

Functioning of Placement Cell

base for ready reference.

National Institute of Technology Srinagar (NIT curriculum. Further, resource persons and Srinagar) lays emphasis on the placement of professionals from the field of communication the students by training and preparing the and interpersonal skills are invited to equip our students to face the real life situation after students with necessary soft skills required to graduation. An exclusive Placement & Training face the interviews in today's competitive department under the guidance of an eminent world. Such training exposure enhances the professor collects the data of the graduating students' employability. Goal setting Time students and maintains a comprehensive data- Management and Prioritization are the Key points that are implanted in the Young minds.

comprehensive and harmonious development on software relevant to industry such as VLSI, of the personality. We have regular communi- Embedded Technology, Auto/Electrical CAD, cative English Program incorporated in the Pro/E, JAVA, J2 EE, just to mention a few.

The Institute provides an environment for Institute also provides need-based Programmes

Branch	Batch Size	Placement	Higher Studies	Percentage
CSE	47	29	2	81.57
IT	34	15	0	65.21
ECE	44	14	8	75.86
Electrical	49	10	5	39.47
Civil	75	H	4	36.58
Mechanical	55	19	NA	42.22
Chemical	34	6	5	57.89
Metallurgy	24	6	3	47.36

Placement Details (AY 2019-20)

Student Welfare Cell

hensive, developmental program designed to career counselling seminars & workshops. assist students in making & implementing informed educational and occupational choices. Career guidance & counseling program develops an individual's competencies in selfknowledge, educational & occupational exploration, and career planning. It aims to:

- To create awareness among the students for their future profession.
- To provide guidance to the students on various options available in the courses of their study
- To provide information to the students on the scope and relevance of any area irrespective of their field of interest.
- To provide guidance to develop positive attitude and behavior in order to meet challenges of life to make it healthier.

Resource persons from different fields deliver

talks about career options to students & teach-

Career Guidance and Counseling is a compre- ers & staff of the Institute through guidance &

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 for themselves.
- To enable students to integrate themselves with the milieu.
- To acquaint them with various career options through seminars.
- To address problems related to stress, anxiety, examination phobia, peer pressure and adjustment to changed environment

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 of it

Companies that Visited the Campus

2019-20

S.no.	Name of the company	S.no.	Name of the company
	Buy Hatke	37	
	,		Paxcom
2	Lowe's Services	38	Paisa Bazaar
3		39	Sagacious Research
4	ZS Associates (Consultancy Profile)	40	Smt. S.R Patel Engineering College
5	ZS Associates (Software Profile)	41	Allincall
6	Wheelseye	42	Byjus
7	Blogvault	43	L&T Construction 2.0
8	Optum	44	Prospecta Software
9	L&T Construction	45	OIL India (PSU)
10	Forbes Marshall	46	White Panda
11	Samsung R&D	47	SECON
12	Tally Solutions	48	One Banc Technologies
13	Lumenci	49	White Panda 2.0
14	Capgemini	50	Mckinley & Rice 2.0
15	Schindler	51	Planetspark
16	OYO	52	Aptean
17	ABB	53	Whitehat Jr
18	Tata Projects	54	Bansal Classes
19	SRF	55	DMI Finance
20	Brillio	56	ACT Fibernet
21	Policy Bazaar	57	VBT Technologies
22	Wipro Turbo	58	NXT Life Technologies
23	L&T Limited	59	NPCL Noida
24	Vedanta	60	Nippon Steel(Essar Steel)
25	GreyB	61	Raam Group
26	Eagle View	62	Toppr
27	GAIL [PSU]	63	IOCL
28	Maruti Suzuki	64	DXC
29	CEAT Tyres	65	Parul University M.Tech
30	Anglo Eastern	66	Dunzo
31	Jaro Top Scholars	67	Pine Labs
32	Avanti Learning	68	PNB Metlife
33	Adobe Systems	69	II-IV Incorporated
34	Indian Air Force	70	Tejas Networks
35	Mckinley & Rice	71	Gammon
36	CGI	72	BEL
		12	

Placement Statistics (AY 2019-2020)

S.	Details	Details Branches							
No.	Details	CSE	IT	ECE	EED	MED	CIVIL	MMED	CHEM
I.	Total Batch Strength	47	34	44	49	55	75	24	34
2	No of Students Registered for Placement*	38	23	29	38	45	41	19	19
3	No of students placed as on 31/03/20	29	15	14	10	19	11	6	6
4	No. of offers as on 31/03/20	31	16	16	11	20	11	6	6
5	No of recruiters	52	46	46	35	29	20	17	19
6	No of students who have availed admission for Higher studies	2	0	8	5	0	4	3	5
7	Placement Percentage on Total strength	61.7	44.11	31.81	22.72	34.54	14.66	25	17.64
8	Placement Percentage on Regis- tration	76.31	65.21	48.27	26.31	42	26.82	31.57	31.57
9	Placement Percentage including Higher Studies	81.57	65.21	75.86	39.47	42	36.58	47.36	57.89

* Includes students with CGPA >= 6.5 (Upto 6th Semester) & who participated in all T&P registrations.

** Indicates total number of students places. (Double Offers not counted).

*** Indicates total number of students placed (including Double Offers).

Top Packages

OIL India Limited Offered a **22 LPA** to Shubham Verma of Mechanical Engineering.

Lowes India Offered a **19.4 LPA** to Hitesh Kumar, Aman Gautam, Shubam Sharma, Satya Samal, Himanshu Raj, Vaibhav Gupta, & Kshitij Raj of CSE, IT & ECE.

GAIL Limited offered a package of **18 LPA** Anil Pal & Basit Ahmad Khan of Mechanical Engineering.

Organizations which offered Internships

2019-20

S.no.	Name of the company
01	Buy Hatke
02	ALTTC
03	Blogvault
04	Vedantu Innovations
05	IIT Madras
06	IIT Delhi
07	IIT Bombay
08	BARC Mumbai
09	IISC Bangalore
10	Powergrid
11	NTPC
12	JSW
13	Vizag Steel
14	Bharat Electronics Limited (BEL)
15	BHEL
16	Aviconn
17	SAIL
18	Maruti Suzuki
19	DMRC
20	Lucknow Metro
21	ALSTOM
22	Cogoport
23	Clarico

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.

5.2 Central Workshop



more significant in the industrial environment ics, instrument & control products. to manufacture products for the service of the mankind. Workshop Practice is a core subject & is highly essential for all engineers & technotechniques & concepts of manufacturing. The basic requirement is to impart instructions & practical knowledge of workshop technology to all the engineering students. In addition to introduction to various tools, processes & materials, live practical demonstration has been prepared for various trades in the workshop.

A well equipped workshop forms the most important centre in all the Engineering institutions for training of students of all the branches & trades. The students are trained to acquire basic knowledge & skills about engineering materials, manufacturing practices, equipment, tools & safety precautions to be observed during manufacturing of different products. The students carry out manual operations using mostly h& tools & elementary machines in the carpentry, pattern making, bench work & fitting, welding, sheet metal, black smithy & forging, machining, foundry & casting trades etc..

The field of engineering continues to grow These trades are relevant & common to most rapidly, transcending disciplines & driving eco- of the industries manufacturing & repairing nomic growth. Workshop practice has become mechanical, electrical, computers, & electron-

The student has to acquire practical knowledge & skills of using machines & equipment, various crats for formalizing themselves with the latest cutting, measuring & marking tools, performing main operations through simple exercises.

> The Central Workshop provides facilities in various trades of fabrication & manufacturing.

> The workshop is a Central facility & provides full assistance to the students of all departments to under take the classes of Workshop Practice & provides practical training in all its nine engineering streams & also looks after the transport section with an aim to provide the transport to the students for technical tours & other related functions.

> The primary objective of the Central Workshop is to impart the workshop practice to the engineering students & carry out the fabrication of project work of B.Tech. & M.Tech. students besides it plays pivotal role in maintenance & repair work of Institute.

Vision

To nurture Mechanical Engineers with a passion for professional excellence, who are ready to take on global challenges and serve the society with high human values.

Mission

- To provide facilities and infrastructure for academic excellence in the field of Mechanical Engineering.
- To inculcate in the students a passion for understanding professionalism, ethics, safety, and sustainability, and enable them to contribute to the society.
- To nurture creativity of the students and encourage them to come up with innovative solutions to real life problems
- To prepare the student for lifelong learning with global perspective

STAFF	
Er. S. I. A Qadri	Superintendent Workshop
Firdous Ahmad Wani	Senior Technical Assistant
Mohammad Ismail Kumar	Senior Technical Assistant
Muneer Ahmad	Senior Technician
Ghulam Rasool Teli	Senior Technician
Showkat Ahmad Darzi	Senior Technician
Javaid Ahmad Ahanger	Senior Technician
Mohammad Shabaan Rather	Senior Technician
Mushtaq Ahmad Shah	Senior Technician
Mohammad Ramzan	Senior Technician
Zahoor Ahmad Misghar	Technician
Noor Mohammad Ahanger	Technician
Manzoor Ahmad Najar	Technician
Lateef Ahamd Ganie	Technician
Mohammad Nadeem	Technical Assistant
Sameer Koul	Technical Assistant
Zahid Shafi	Technical Assistant
Afnan Asad	Technical Assistant
Aatif Haqani	Technical Assistant
Mohammad Ashraf	Technical Assistant
Muzafar Shah	Technical Assistant
Irfan Yusuf	Technical Assistant

Workshops & Sections

Machine Section	Sheet Metal Section
Fitting & Bench Work Section	Welding Section
Foundry & Casting Section	Smithy & Forging Section
Carpentry & Pattern making Section	

Publications

Papers published and presented by the Staff:

S . No.	Staff Member	Title of the paper	Conference/Journal where published	Date of Publication
01	Er. Syed Irshad Ahmad Qadri	The effect of cutting speed and work piece hardness on turning performance of nickel based super alloy-718 using ceramic cutting inserts	Journal of Engineering Research Express, 2019 IOP publishing Ltd	2019
02	Er. Syed Irshad Ahmad Qadri	An experimental study on investigation of machining of nickel based superalloy 718	Journal of Materials To- day: Proceedings	2019
03	Er. Syed Irshad Ahmad Qadri	A study on effect of tool tip temperature on wear of ceramic cutting tools	Journal of Physics: IOP series conf.1240	2019
04	Er. Syed Irshad Ahmad Qadri	Assessment of machin- ability of super alloy Inconel 718 using alu- minum oxide and mixed oxide ceramic cutting tools	Journal of Materials Sci- ence and Engineering :IOP series conf.1240	2019
05	Er. Syed Irshad Ahmad Qadri	Machinability of Inconel -718 at different levels of hardness using ce- ramic inserts	Journal of Materials & Manufacturing Processes	2019
06	Er. Syed Irshad Ahmad Qadri	MEMS technologies/an overview on scaling advantages and issues	International journal of scientific and technical advancements	2019

Activities Undertaken

S. No.	College/University	Date	Charges Levied
I	Conducted Workshop Practice Classes of Govt. College of Engineering and	20/01/2020 to 2/02/2020	Rs. 5,19,750.00
2	i) Conducted Workshop Practice Classes of Central University of Kashmirii) Practical oriented Viva-Voce of Central University of Kashmir	27/01/2020 to 03/02/2020	Rs. 1,78,413.00
	ii) Practical oriented Viva-Voce of Cen- tral University of Kashmir under the coordination of Dr S.I.A.Qadri	06/02/2020	

Students Project work

S.No.	Department	B.Tech./M.Tech./PhD	No. of projects
Ι.	Civil Engineering Department	B.Tech.	05
2.	Metallurgy & Materials engineering	B.Tech.	06
3.	Electrical Engineering Department	B.Tech.	01
4.	Mechanical Engineering Department	B.Tech.	15
5.	Information Technology Department	B.Tech.	01
6.	E&C Department	B.Tech.	04
7.	Chemical Engineering Department	B.Tech.	02
8.	Civil Engineering Department	M.Tech.	02
9.	Mechanical Engineering Department	M.Tech.	02
10.	Civil Engineering Department	PhD	05
П.	Mechanical Engineering Department	PhD	06
12.	Electrical Engineering Department	PhD	01
13.	Metallurgy & Materials Engineering	PhD	01
14.	P&D	Maintainance	03
15.	Sports Department	Maintainance	01
16.	Mess Department	Maintainance	01

S.No.	Facilities Setup	Description/Utility
01	Conducting classes and examination of Workshop practice classes for different educational institutes	Coursework includes practical demonstra- tion using various equipment and hand tools as discussed above
02	Project fabrication B.Tech, M. Tech and P.hD	Using various equipment as discussed above separately.
03	Transport facility	Providing Institute Vehicles for academic purposes including seminars, workshop and medical emergency purposes etc. Fortuner, Scorpio, Innova, Mini Buses 32

Since its establishment, the central workshop is sional TIG, MIG and Metal Arc welding set-up introduction of the State-of-The-Art profes- the institute as well.

being upgraded on timely basis in order to from "FRONIUS". Several other up gradations cope up with the trending technology and in- like CNC Machining centre, CNC Router, dustry needs. The latest up gradation of the Electro Discharge Machining and Plastic Injecworkshop is in the welding section with the tion Moulding are on the future prospects of

5.3 Planning & Development

P&D Sections:

Construction Division

Undertakes face-lifting, repair & renovation works of existing buildings, roads & paths at the Institute

EM&R Section

Undertakes repair & renovation of electrical works at the Institute

Estates Section

Involves the following:

- Maintaining of Assets Registers.
- Purchasing of goods.
- Keeping record of unserviceable items.
- In charge for rentals of shops inside the Campus
- In charge of the Residential Quarters & look after quarter status.

	Staff Placed at P&D	
S . No.	Name of the Staff	Designation
I	Prof. Abdul Qayoom Dar	Dean P&D
2	Prof. A.A Masoodi (WEF 14/11/19)	Associate Dean (Civil)
3	Prof. B. A. Mir (upto 13/11/19)	Associate Dean (Civil)
4	Prof. Dr. Abid Bazaz	Associate Dean (Electrical)
5	Er. Gowhar Ahmad Tramboo	Executive Engineer on deputation
6	Dr. Fayaz Ahmad Sofi	Estates Officer
7	Parvez Ahmad Bhat	Ex. Engineer (Electrical)
8	Bashir Ahmad Hafiz	Technical Assistant SG-I
9	Prince Mahmood Ahmad	Technical Assistant SG-I
10	Haji Ghulam Nabi	Sr. Superintendent
H	Ishrat Jan	Sr. Superintendent
12	Peer Parvez Ahmad	Junior Engineer (civil)
13	Mushtaq Ahmad Bhat	Technical Assistant (TH)
14	Mrs. Rohie Akhtar	Sr. Technical Assistant SG-I
15	Showkat Ahmad	Sr. Technician
16	Abdul Gaffar	Sr. Technician
17	Mohammad Sadiq	Sr. Technician
18	Showkat Ahmad Malla	Sr. Technician
19	Khurshid Ahmad	Sr. Technician
20	Ghulam Nabi	Sr. Technician
21	Ab.Majeed Bhat	Technician
22	Khazir Mohammad Khan	Works Assistant/Technician
23	Ghulam Ahmad Bhat	Works Assistant/Technician
24	Mohammad Ayoub Wani	Works Assistant/Technician
25	Mushtaq Ahmad Gassi	Works Assistant/Technician
26	Abdul Rehman Baba	Works Assistant/Technician
27	Mohammad Ramzan Dar	Works Assistant/Technician
28	Nazir Ahmad Dagga	Works Assistant/Technician
		tual Staff
	Mohsin Kawa	Junior Engineer (Electrical)
2	Manzoor Shafi Bhat	Junior Engineer (Civil)
3	Moomin Khurshid Beigh	Electrician
4	Irshad Ahmad Baba	Electrician
5	Rayees Ahmad Baba Mahmi ud din Sofi	Electrician
6 7	Mehraj-ud-din Sofi Javaid Ahmad Shah	Electrician Electrician
/		ed Workers
1	Sadaam Hussain	Electrician
2	Ovais Ahmad Khan	Electrician
3	Sofi Sameer	Electrician
4	Shahzad Ahmad Dar	Electrician
5	Gulzar Ahmad Bhat	Electrician
6	Rameez Raja Dar	Electrician
7	Ishtiyaq Ahmad Bhat	Electrician
8	Mohammad Rafiq Wani	Carpenter
9	Ghulam Hassan Shah	Carpenter
10	Mohammad Rafiq Budoo	Mason
11	Ghulam Mohammad Pandit	Mason

Works Undertaken

The details General Renovation Works as well as new works which were undertaken during the 2019-2020 are as under:

S:No.	General Works (details)	Work done cost (in INR)
	Construction of Shed (20'x40') for Kitchen in Pre-fab hostel	11,76,230.00
2	Construction of temporary frisking passage for pedestrian security check-up at main gate of NIT Srinagar. (Civil Stage)	75,000.00
3	Construction of Lavatory block near Pre-fab classrooms. (Civil Stage)	9,33,000.00

The details works under Civil Stage were undertaken during the 2019-2020 are as under:

S:No.	Civil Stage Works (details)	Work done cost (in INR)
I	P/F S.S plate outdoor signboards at NIT Srinagar	10, 02,450.00
2	Distempering of various departments at NIT Srinagar	15,49,122.00
3	Renovation of Solid State Physics Lab, Deptt of Physics. (Civil Stage)	2,01,000.00
4	Renovation of PG Block of Water Resources, Deptt. of Civil Engg . (Civil Stage)	8,62,000.00
5	Face-lifting/Repair works for new faculty rooms of HSS Department. (Civil Stage)	4,53,000.00
6	Renovation of office room of Chemical Engg. Department. (Civil Stage)	2,38,000.00
7	Providing & fixing of floor tiles for Dynamics lab of Mechani- cal Engg . (Civil Stage)	1,36,000.00
8	Renovation of Membrane Lab in Chemical Engineering Department (Civil Stage)	4,79,000.00
9	Renovation of Washroom in campus Activity Center. (Civil Stage)	2,24,000.00
10	Development of area on the backside of drawing halls by way of dismantling of depilated chain-link fencing including defunct gas plant (Civil Stage)	2,40,000.00
П	Renovation of Rooms No. 120 and 226 in Chemistry Deptt (Civil Stage)	2,27,000.00
12	Renovation of faculty room No. 312 in Mathematics Deptt (Civil Stage)	53,000.00
13	Creation of Aluminum section cabins in newly constructed two pre-fab computers centers for control and maintenance of power backup systems (Civil Stage)	1,60,000.00
14	Creation of storage room in the Main Faculty Block attics for Physics department (Civil Stage)	1,16,000.00
15	Proving and fixing polycoated sheet roofing for Inorganic Chemistry Lab (Room No. 123) (Civil Stage)	1,32,000.00

Planning & Development (contd)

S:No.	Civil Stage Works (details)	Work done cost (in INR)
16	Renovation of Rooms No. 325 and 329 in Physics Depart- ment. (Civil Stage)	2,00,000.00
17	Electrification of Static cum fire proof tents installed at differ- ent places in the campus.	8,58,480.00
18	Installation of energy meters of hostels, departments, resi- dential quarters & shopkeepers.	17,24,250.00
19	Renovation of Control Rooms & geysers circuit of Chenab hostel. (Electrical stage 2019-20)	7,41,000.00
20	Renovation of Electrification of image processing Lab, Ma- chine learning lab digita electronic lab, Analog lab, Computa- tional lab, Comm. lab & P/F of main power panel in Electron- ics & Communication Engg. Depptt. (Electrical stage 2019-20)	6,65,000.00
21	Renovation of Electrification of Faculty rooms of Humanities, newly constructed Tin Shed Mess near Jhelum Hostel, Air conditioner for Dean P&D & Registrar Chamber & replace- ment of defunct batteries in senior girls hostel & EM&R., (Electrical stage 2019-20)	4,65,000.00
22	Renovation of Electrification of Chemistry Faculty rooms, Faculty room of Civil Engg. Depptt., Mechatronics lab, Schol- ars lab of Mechanical depptt. & Physics labs. (Electrical stage 2019-20)	5,00,000.00
23	Renovation of Electrification of various labs of Chemical Engg. Deptt, Office rooms of Maintenance Engg. block, Earthing in EDP cell of Physics lab. (Electrical stage 2019-20)	3,80,000.00
24	Renovation of Control rooms of all 6 blocks of Jhelum Hos- tel. (Electrical stage 2019-20)	7,50,000.00
25	Renovation of Electrification of of Soil Mechanics & Dynamic lab of Civil Engineering Department. (Electrical stage 2019- 20)	4,71,000.00
26	Renovation of three control rooms of Indus hostel. (Electrical stage 2019-20)	6,60,000.00
27	Augmentation of present flood/street lighting system to cov- er the dark areas & other areas of Estates Department, WRMC & Girls hostel. (Electrical stage 2019-20)	2,62,000.00
28	P/F of various additional cameras in the Institute. (Electrical stage 2019-20)	4,56,000.00

60th Annual Report **5.4 Other Facilities**

SAS Centre:

provide sporting & recreational facilities to the recent past the hospital has been modernized students keeping in mind the famous quotation "sound mind carries sound body". In this direction the department of physical Education is providing various sporting & recreational facilities to the students in the main ground & in the in- door Common Hall. From last few years the department is excelling in all the sports activities like Cricket, Football, Volleyball, Bank & ATMs Chess, Carom, Badminton, Athletics etc. The main ground of the Institute was made fully operational & capable to hold almost all sporting events.

Sporting & Recreational Facilities:

Boy students:

- Common Indoor Hall & TV Hall
- Gymnasium
- Basket ball court
- Playground
- Volleyball court
- **Badminton Court**
- Lawn tennis court
- Football ground
- Cricket ground
- 10- Indoor games:

Girl Students:

- Table tennis
- Carom
- Chess
- Volleyball
- Badminton
- Treadmill
- Mini Gymnasium
- Kho Kho,

Medical Unit

The Medical Unit of the Institute is headed by a qualified & experienced Medical Officer & manned by trained Lab. & other paramedical staff. In addition a lady doctor is available daily on part time basis. The Medical Unit has a two storied separate building spread over an area of 303 sq.mtr. Apart from providing facilities for consultations & investigations, medicines

are issued to the students & staff free of any cost. The Unit has two Ambulances available to The primary objective of the department is to cater to emergencies round the clock. In the & has been equipped with the latest diagnostic tools like the Haematological & Biomedical equipment & a fully automatic ECG unit. The Medical Unit also ensures proper hygiene in the students messes & restaurants / tea stalls by advisories & inspections.

A fully computerized branch of J&K bank is functioning within the Institute premises having onsite ATM. The bank has installed internet banking / phone banking/mobile banking in the branch. The bank also extends swift facility of house building loans, consumer loans & many other small loans to the staff & educations loans to the students. Besides this, an ATM of SBI is also operational inside the campus.

Telephone Exchange

Our Institute has a fully automated telephone exchange providing internal & external phone connectivity.

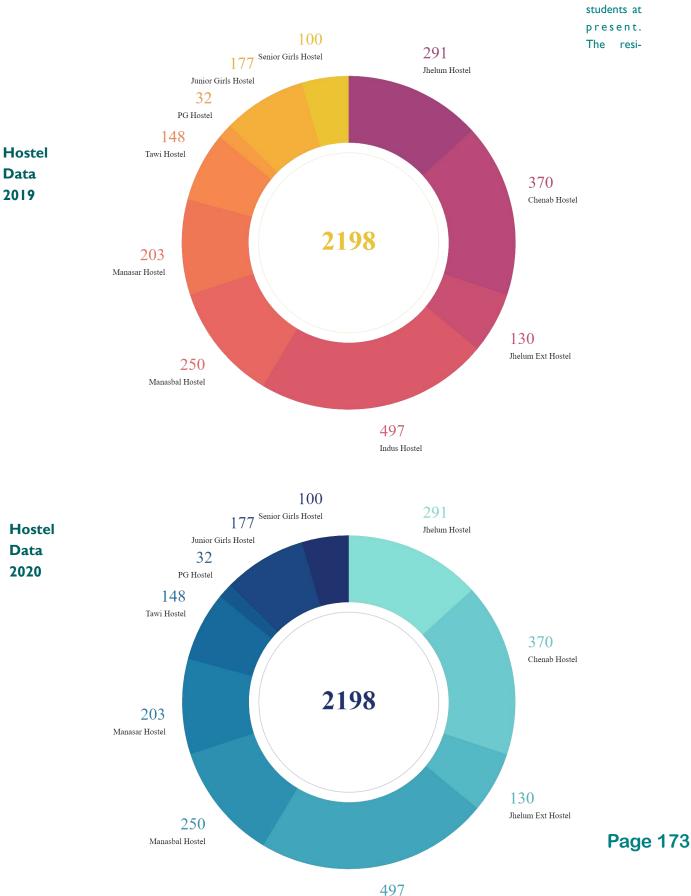
Transport Unit

Prompt attention was given to repair & maintenance of the Institute vehicles. Transport facilities were provided the various experts & other Institute guests invited for placement of students & other academic activities. The transport facilities were also provided to the students for conducting the various technical tours. In addition, Ambulance service has been provided to the Medical Unit of the Institute which facilitates the students in getting the proper medical care during emergency. Besides it, three numbers of light vehicles were purchased during the year 2018.

Post Office

Though a Post & Telegraph office operates near the campus at Hazratbal, at one & a half kilometer distance, the Institute has taken step to get a Post Office established in the Campus itself for benefit of students.

Students' Residential Facilities



Indus Hostel

The Institute has eight boys hostel named after famous rivers of our state. These are Chenab, Indus, Dal, Jhelum, Manasar, Manasbal, Tawi & PG & Two Girls Hostel which provide accommodation to about 2004

60th Annual Report 6.1 Technical Education Quality Improvement Program Phase III

National Institute of Technology Srinagar has been selected for the third phase of the World Bank assisted Technical Education Quality Improvement Programme (TEQIP-III).

Implementation Agency: National Project Implementation Unit, Ministry of Human Re- • source Development.

The Project, Third phase of Technical Education Quality Improvement Programme Project Strategy (referred to as TEQIP-III) is fully integrated with the Twelfth Five-year Plan objectives for • Technical Education as a key component for improving the quality of Engineering Education in existing institutions with a special consideration for Low Income States and Special Category States (SCS) and support to strengthen few affiliated technical universities to improve their

policy, academic and management practices.

Project Objectives

The goals of TEQIP-III are, better academic standards, through accreditation, training faculty in better teaching methods, qualification up gradation, improved research outputs in institution. Also to incorporate better systems for assessment of student learning, through which to produce high quality engineers with better employability. The focus is to strengthen the UG/PG labs, so that students are ready to cater the needs of industry and increasing enrollment and starting new programmes. In addition, the project also supports to enhance the skills of technical and administrative staff. IIT Kharagpur has been selected as mentor institute to participate in twinning arrangements for knowledge transfer, exchange of experience, optimizing the use of resources and developing long-term strategic partnerships.

The Project will focus on the following objectives:

- Improving quality and equity in engineering institutions in focus states viz. 7 Low Income States (LIS), eight states in the North-East of India, three Hill states viz. Himachal Pradesh, Jammu & Kashmir, Uttarakhand and Andaman and Nicobar Islands (a union territory (UT)
- System-level initiatives to strengthen sector governance and performance which

include widening the scope of Affiliating Technical Universities (ATUs) to improve their policy, academic and management practices towards affiliated institutions, and

Twinning Arrangements to Build Capacity and Improve Performance of institutions and ATUs participating in focus states.

- The project will be implemented in alignment with the 12th Five Year Plan (2012-17), based on faster, sustainable, and inclusive growth. It emphasizes increasing the supply of highly-skilled workers to drive the economy, as well as helping lowincome states catch up with their more advanced neighbours.
- The Project will be implemented through the Ministry of Human Resource Development (MHRD) of the Government of India as a Central Sector Scheme (CSS), wherein 100% funds will be provided as grants to the States, Institutions& ATUs.
- The funding pattern details with respect to Government funded, Government aided institutions and ATUs are given in Section 6.
- A set of Government orders for States and UTs is to be issued to achieve a high and sustained impact of the Project. These orders are to give the project institutions adequate decision making powers that will enable and encourage them to deliver quality education and undertake research in an efficient manner. The primary focus is to increase empowerment of institutions for self-governance and create incentives for achieving excellence in engineering education.
- The project institutions will be required to implement academic and non-academic reforms within their self-conceived development programmes that focus on quality and relevance, excellence, resource mobilization, greater institutional autonomy with accountability, research and equity.

Professional development programmes for engineering-education policy planners, adminis-

Technical Education Quality Improvement Programme

TEQIP III (Contd)

trators and implementers at the Central, State tution and achievements will be measured efficient governance activities.

• monitoring and evaluation. The prime responsi- tion of financial allocations and achievements in bility of monitoring will lie with the institutions faculty and staff development and management themselves. The management structure at the development activities. Institutional level i.e. the Board of Governors (BoG) along with Hevad of the institution will improving the performance of institution in at different points of the undergraduate proinstitutions. The Government of India and the how and where to improve, without putting World Bank will conduct bi-annual Joint Re- undue pressure on students. views of the Project with assistance from the National Project Implementation Unit (NPIU). Plans for ATUs prepared by each project insti- cation of some of the indicators.

and University levels will be organized. The through a set of performance indicators. The Project will also support development of more monitoring will focus on implementation of reforms by institutions, achievements in project activities under different sub-components, The Project will lay major emphasis on procurement of resources and services, utiliza-

In the project, the technical assistance to monitor the progress of Institutional projects AICTE is planned which will include designing on a regular basis and provide guidance for an assessment system to track student learning project implementation. The information from gram. Surveys of students, faculty, non-teaching project institutions will be collected through a staff and administrators will deepen insight into scalable web-based Management Information how institutes address specific problems relat-System (MIS). State Governments will also ed to student learning. Assessments will be regularly monitor and evaluate the progress of designed to provide feedback to institutes on

In this project, the fund will be linked to The monitoring will be based on Institutional the Disbursement Linked Indicators (DLIs) and Development Proposals (IDPs) and Action will be disbursed only after achieving and verifi-

Project Design

TEQIP seeks to enhance quality and equity in the project are given below: participating engineering education institutions and improve the efficiency of the engineering education system in focus states. The Project will support two components:

Component I: Improving quality and equity in engineering institutions in focus states

Sub-component 1.1: Institutional Development • for Participating Institutions

An estimated 90 Engineering Education institutions meeting (progressively) the enabling • mechanisms and based on meeting minimum . standards in quality of Institutional Development Proposals (IDPs), will be selected.

Institutions are required to define the activities in their IDP that they want to carry out in the project. These activities should be under the scope of the project and are those that fulfil the objectives of the project. However, some of the suggested activities under the scope of

- Procurement of Goods (equipment, furniture, books LRs, software and minor items) and minor civil works.
- Improvement in Teaching, Learning and Research competence.
- Improve student learning
- Student employability
- Increasing faculty productivity and motivation
- Establishing a twinning system
- Twinning arrangements with high performing institutions under Sub-component 1.3 to build capacity and improved performance
- Recruitment and retention of high quality faculty (through better faculty appraisal systems and the faculty recruitment plan). (Consultant services if required, can also be procured for the above said activities.)

60th Annual Report **TEQIP-III PROJECT DESIGN** (contd)

Component 2: System Level initiatives to strengthen sector governance and performance

This component will support MHRD and key apex bodies in engineering education, including AICTE and NBA, to strengthen the overall system of engineering education. The activities are:

- Provide technical assistance to AICTE and NBA
- Professional development of Technical • Education and TEQIP administrators in • the project States and project institutions
- Initiatives for Effective Governance System of institutions at the level of Board of • Governors
- Implementing Direct Benefit Transfer System to ensure fund transfer electroni-

cally to SPIUs and institutions, and

Project monitoring & evaluation

All institutes and ATUs in the Project, as well as those government and government -aided institutes that participated in TEQIP I and/or II but are not participating in TE-QIP III and ATUs not part of the Project, will be linked to the National Knowledge Network. Last mile connectivity will be provided by the Project.

- 24x7 broadband connectivity and Wi-Fi access in all academic and administrative buildings and hostels.
- Developing or establishing technology learning centers at all universities which affiliate engineering colleges

S.no	Description	Funds
		Allocated
		(in INR)
1	Procurement of Goods	9.90 Cr
2	Academic Process	4.95 Cr
3	Incremental Operating Costs	1.65 Cr
	Total amount (in INR)	16.5 Cr



Technical Education Quality Improvement Programme

- **Procurement of Goods:**
- **Academic Processes**
- **Operating Cost**

Procurement of Goods:

TEQIP III has established many labs for UG, PG and Research Scholars of the Institute in all Engineering departments. The purchase of the equipment is made as per the procurement Language lab has been established in the Deplan of the TEQIP III.

State of the Art Nano Coating Laboratory has been established under the expert guidelines of •

- Amount allocated = INR 15.0 Cr.
- Under High performance Institute
- Additional Project Life Allocation of Rs. 1.5 Cr (60:30:10)
- Total Amount: Rs. 16.5 Cr

Prof. Tarun Kanti Bhattacharya, Department of Electronics & Electrical Communication Engineering, IIT Kharagpur under Twinning Activity for an amount of Rs 1.6 Cr

partment of Humanities and Social Science for the first time in NIT Srinagar under TEQIP III.

Furniture (Table 375 No. and Chairs 500

TEQIP III (Contd)

- No.) for laboratories and research scholars have been procured under TEQIP III.
- 35 No of UPS have been purchased at Institute Level and were installed among the various labs of the Institute.
- ESSC lab has been established under TE-QIP III. An amount of Rs 67.0 lacs lacs
 have been utilized for the purchase of equipment for setting up the lab.
- Engine Tribotester with Tribocorrosion module and Turbine Tester have been purchased in order to strengthen the Tribology lab and Erosion Testing lab of Mechanical Engineering Department.
- Dynamics lab gas been established in the Civil Engineering Department for an amount of Rs 20.4 lacs.
- HPLC and FTIR for the labs of chemical engineering department have been purchased for an amount of Rs. 54.0 lacs.
- ASTM and BIS have been procured under learning resources of TEQIP III for Library in order to strengthen the library of the Institute.

Minor Civil Works:

- Refurbishment of XRD lab has been undertaken under TEQIP III.
- Lab spaces have been created for the equipment of CRFC under minor civil works.

Academic Process:

- Faculty of the Institute has been benefited to improve their academic and administrative skills through various training Programmes conducted in-house and outside
 NIT Srinagar. Since the inception of the project. This has enabled NIT Srinagar to go ahead with the accreditation of all departments. E-SARs have been uploaded for 5 engineering departments & the accreditation team is scheduled to visit in • the near future.
- Students at UG, PG and PhD level have benefited by improving their performance.

Since it was observed that a large number of students fall in ineligible category during placement drives as they have backlogs from earlier semesters. Remedial classes have been started for these students & this has proven extraordinary beneficial.

- Students had participated in various academic and co-curricular activities through TEQIP funds. Students at UG, PG & PhD levels have participated in various events like Go Kart Event, Hackathon & one of the idea in Smart India Hackathon has been selected in the top
- At Research Level PhD students have been participated in various National Events/ Conferences Like NFEST, CPIE etc
- Internships have been conducted in highly reputed Public Sector units like BSNL etc.
- PG & PhD Students have been provided grants under consumables head to carry out their research activities without any hindrance.
- For the First time NIT Srinagar has started coaching in 2018 for GATE for students under TEQIP-III. Total 436 students were registered in this program and out of these 137 students have qualified in GATE 2019.
- For the First time NIT Srinagar has started Skill Development Program in 2019 for the students. Total 235 students were registered in this program the training includes following skills to the pre-final students under Graduate Employability.
- Entrepreneurial /Innovation Skills
- Managerial skills
- Leadership skills.
- Communication skills
- Team working skills
- Under twinning activities Experts have been invited for the establishment of CRFC Lab, for delivering lectures. Fur-

Technical Education Quality Improvement Program Phase III

ther, an International Conference NBL- • 2019 was organized under twinning activities.

- Seventeen Short Term Courses were organized through TEQIP funds for the • students and faculty members for improving their skills.
- NIT Srinagar Sponsored 2nd International Conference on NFEST with NIT Kurukshetra and CPIE conference with NIT Jalandhar
- Financial support is being provided to the students for their placement drive.
- PhD Students also get Research Assistanceship through TEQIP funds.
- Equity action Plan has been implemented in NIT Srinagar.
- ASME Students Chapter has been setup under the TEQIP.

- Management Information System (MIS), PFMS, Accounting Software have been rolled out for better efficiency and governance.
- For TEQIP Statutory audit and Performance audit have been carried out.
- In the recent meeting at NPIU the Institute was among the best performing institute under TEQIP.

Academic Activities under TEQIP-III

- Events
- Go Kart Event
- Smart India Hackathon
- Sea India Club.
- Induction Program

Tests Conducted

AMCAT Test

6.2 Unnat Bharat Abhiyan

launched in April, 2018. Currently 748 institu- taken part in Phase I.

Unnat Bharat Abhiyan is flagship programme of tions are participating under the scheme. In Ministry of Human Resource Development phase II, 605 institutions were selected. Out of (HRD) that aims to enrich Rural India. The these 313 are technical Institutions and 292 are second edition (Unnat Bharat Abhiyan 2.0) was Non-Technical Institutions. 143 institutions had

Vision

Unnat Bharat Abhiyan is inspired by the vision of transformational change in rural development processes by leveraging knowledge institutions to help build the architecture of an inclusive India.

Mission

The Mission of Unnat Bharat Abhiyan is to enable higher educational institutions to work with the people of rural India in identifying development challenges and evolving appropriate solutions for accelerating sustainable growth. It also aims to create a virtuous cycle between society and an inclusive academic system by providing knowledge and practices for emerging professions and to upgrade the capabilities of both the public and private sectors in responding to the development needs of rural India.

Goals

- To build an understanding of the development agenda within institutes of Higher Education and an institutional capacity and training relevant to national needs ,especially those of rural India.
- To re-emphasize the need for field work, state-holder interactions and design for societal objectives as the basis of higher education.
- To stress on rigorous reporting and useful outputs as central to developing new professions.
- To provide rural India and regional agen-

cies with access to the professional resources of the institutes of higher education, especially those that have acquired academic excellence in the field of science ,engineering and technology ,and management.

- To improve development outcomes as a consequence of this research .To develop new professions and new processes to sustain and absorb the outcomes of research.
- To faster a new dialogue within the larger community and science, society and the

UBA at NIT Srinagar

NIT Srinagar is the Regional Coordinating Insti- site (unnatbharatabhiyan.gov.in). On the basis tute for Unnat Bharat Abhiyan (UBA), a flagship programme of Ministry of Human Resource Development (MHRD), Govt. of India. The programme is inspired by the vision of transformational change in rural development, realises a key position for education institutions in the country for the same.

Initially five following villages were adopted by tors to monitor the progress of various activi-NIT Srinagar for the transforming these villages in model villages in Jammu and Kashmir. These Rs. 20215/-has been spent on the visits and villages are located in five districts of Kashmir holding Gram Sabha meetings in these villages. region.

- Nanibough (Kulgam)
- Gutligund (Anantnag)
- Fakir Gujri (Srinagar)
- Puchal (Pulwama)
- Muqam (Budgam)

There are five faculty members of NIT Srinagar, who are working as Coordinators of these adopted villages. These coordinators are in close touch with the village committees. The coordinators make regular visits to these villages. During the interaction with the village committees, the coordinators get educated about the problems faced by these villagers and help them to find solutions to the problems at local level. The coordinators also discuss the problems of the villages with the district collectors and give them technical solutions to minimize the problems existing in these villages. NIT Srinagar is also assisting district administration in providing technical solutions to various problems faced by these villagers in drainage, water sharing, drinking waters, education, health sector, agriculture, marketing etc.

Initially an amount of Rs 1.68 Lacs was given to NIT Srinagar for conducting two surveys: household and village surveys. These surveys were thoroughly conducted by the team of workers hired by NIT Srinagar. The surveys have already been uploaded on the UBA web-



of these surveys, problems have been identified which needs to be solved for transforming these villages into modal villages. An amount of 1.68 lacs were spent on these surveys.

Coordinators of these villages hold Gram Sabha meetings with the villagers from time to time. The various Gram Sabha meetings were NIT Srinagar is participating in UBA since 2015. held in 2017, 2018 and 2019 by the coordinaties as shown in figure below. An amount of

> Under UBA program, Middle and Primary schools of these adopted villages are to be transformed as model schools. Students of these schools are to be given computer and scientific education and also to establish tinkering laboratories in these schools. Various visits were made by the coordinators UBA of NIT Srinagar to the villages and to impart computer knowledge to the teachers and students of these primary and middle schools.

> NIT Srinagar donated 80 computers to the schools of these villages for establishing computer labs. Minor repairs were required to be made to these desktops for making fully functional.

> NIT Srinagar organized One Day Orientation Workshop on 17TH Feb 2020 for PI's of all colleges of the Kashmir Valley and for the teachers working in schools of the adopted villages. In this Workshop, more than 80 PI Coordinators participated. Experts from IIT Delhi (NCI) were invited to deliver lectures on the topics like: vision, objectives and processes linked to the UBA. District Collector Srinagar was the chief guest of the workshop.

> NIT Srinagar has also distributed dustbins to one of the adopted villages for collection of solid waste

6.3 Prime Minister's Development Package

Development and Development of Sports in Institutions. now, the UT of J&K. This included establish-

Prime Minister Modi announced a ₹ 80,000 ment of an IIT and IIM in Jammu; stepping up crore development package for the erstwhile efforts under the HIMAYAT scheme to train state of Jammu and Kashmir in 2015. Among one lakh youth over five years, and augmenting other Sectors Government allocated Rs. 2600 sports infrastructure. In addition to upgrading crore for Human Resource Development, Skill & Modernizing of existing Higher Educational

PMDP at NIT Srinagar

PMDP was approved for NIT Srinagar on In a Board meeting held on 29/09/2018, it was 09/08/2016 for Up-gradation and Moderniza- resolved that a fresh DPR will be tion of various facilities at NIT Srinagar. An submitted to MHRD for revisiting the project amount of Rs INR 100.00 Crore was sanc- and to complete the remaining works of the tioned for implementation of the project at project successfully. An amount of INR 64.82 NIT Srinagar.

The details of various activities initiated at NIT Srinagar for up gradation, Modernization and removal of obsolescence in various departments and laboratories. And for developing state of art facilities and laboratories, for students at U.G, PG and at Research level are given below:

- Modernisation of Hostel/ Mess
- Modernization of Medical Facilities
- Up Gradation of Sports Facilities
- Up Gradation of Wifi Enabled Campus and Computer Services Centre
- Smart Class Rooms
- Up Gradation of Institute Library
- **E** Education Management
- Developing Innovation Incubation and Entrepreneurship Development Centre

The work against PMDP projects was initiated in December 2016 and an amount of Rs 35,18 Crore has been spent on various activities of the project till date. The amount was spent from plan grants as MHRD did not release any grant against the PMDP till date. Monthly progress report of the scheme has been submitted to MHRD, till ending October 2018. The project was put under halt from March 2018 due to non-availability of finance.

Crores is further required to complete the remaining works under the PMDP Project. The details of activities to be completed and the requirement of funds to needed to complete the remaining work of the project are given in the following sections.

Students Centric Developments

Modernization of Hostel Mess, Kitchen, Food outlets etc:

There are nine hostels in the Institute and more than 2500 wards are residing in these hostels. The weather in Srinagar remains cold and harsh from September to March and in absence of Proper heating system, it is difficult to provide heating arrangement in the hostels for the students, for such a long period of 07 months. This problem has been further aggravated as the number of students has increased to a large extent. It is not possible to provide heating arrangement separately to individual students through electric heating due to shortage of electricity during these months. Therefore, NIT Srinagar needs to provide appropriate heating system in the hostels.

In order to provide healthy, hygienic food to the students residing in various hostels it is necessary to follow the guidelines set by Food Safety and Standards Authority of India. It is

PMDP at NIT Srinagar (contd)

dent messes and the food outlets and other services for the students at the campus with appropriate interventions like furniture, equipment, benches, rain/sunshades and lighting etc. In addition, it is also proposed to provide washing and cleaning facility for clothes to the students residing in various hostels. The estimated amount for this activity is 1437.00 Lakhs

Modernization of Medical Facilities:

As the number of students has increased 10 times as compared to the number of students before conversion from REC to NIT. It is proposed to create a modem diagnostic centre with need basis facilities in the institute and to develop a physiotherapy centre for the students and staff. The estimated amount is Upgradation of the 375.00 Lakhs.

Up-gradation of Sports facilities:

Good Sports facilities are very essential for a professional Institute so that the students utilize these for their overall development. In this regard it is proposed to develop the Outdoor/ indoor facilities with latest technology, the estimated amount for this activity is 1820.00 Lakhs.

Modernization of Infrastructure of Institute.

Computer Services Centre:

It is proposed to widen the internet coverage and extend it to all the students in their hostels and develop a Wi-Fi enabled Campus. It is proposed to develop a software development cell, cyber forensic lab and Campus placement lab in the institute. In addition, it is also proposed to make available all licensed software's of general nature to all students and staff through networking under the computer services centre, The estimated amount is 2000.00 Lakhs for this activity.

proposed to refurbish the dining halls of stu- Modernization of Teaching -Learning Facilities/ Smart classrooms

NIT has 40 classrooms which includes new and old class rooms. These classrooms need to be upgraded with latest teaching aids and other facilities In addition there are ten conference rooms in various departments. The estimated amount is 1418.00 lacs. It is proposed to refurbish the classrooms, seminar rooms, laboratories by appropriate modifications and installation of the state of the art facilities to convert them into Smart class rooms so that the teaching/learning process becomes interactive, more fruitful and interesting, The estimated amount is for this activity is 1418.00 Lakhs.

Institute Library:

With introduction of a number of PG programs during the last 4 yrs and enrolment of a large number of PhD. Scholars across all departments, it has become very essential to procure the related reference materials including additional e-resources etc, for such students in addition to normal books and other facilities in the library to make it an interesting and a hub of the academic activities. It is also pertinent to maintain that during 2014 floods, a large number of Text books and references were damaged. In order to compensate the same, library needs to purchase Text books Up-gradation of WIFI enabled campus and and references. The estimated amount for this activity is 1250.00 Lakhs

Campus e-Governance Education **Management System:**

NIT Srinagar needs Campus e-Governance Education Management System and MIS. It should contain all facilities for automation viz., a fully integrated, secured, rule based-online e-Governance system, with inbuilt smart card and Bio-Matrix support for students and faculty, computerization of complete academic activities of students from admission to his degree printing, online fee payment, UHF based attendance, pre-admission process, ad-

PMDP at NIT Srinagar

reports, course registration, academic calendar, are pursuing PhD, in various disciplines of sciteaching plan, timetable and attendance, pre- ence and Engineering in the institute. There are examination work, post-examination work, more than 200 students pursuing M. Tech de-SMS and e-mail alerts for students and faculty grees in various Engineering departments. etc. The other facilities include fully integrated, Number of PhD. Students and Post Graduate multi-user system with full protection against students will receive a quantum jump in near unauthorized access, secured, accurate & time- future. In order to cater to the Research facilily information to users at all levels for better ty needs of PhD. & Post Graduate students and decision making. This will improve the overall faculty, NIT Srinagar has to augment its Reefficiency of various users and hence will im- search facilities with state of art equipment in prove the performance of the system, The various research areas. Moreover, NIT Srinagar estimated amount is for this activity is 200.00 has established 05 Centres in the institute. Lakhs

Up-gradation of Research & Innovation Centres:

Of late, research and teaching activities at PG level are growing at fast pace at NIT Srinagar.

mission process counseling, fees collection and At present more than 400 Research Scholars Further to encourage innovation & entrepreneurship amongst the students, there is a strong need to upgrade the existing Innovation, Incubation & Entrepreneurship Development Centre (IIEDC) also. The estimated amount for this activity is 1500.00 Lakhs.

7.0 Annual Accounts

BALANCE SHEET as on 31/03/2020

			(Amounts in INR)
SOURCES OF FUNDS	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
Unrestricted Funds			
Corpus/Capital Fund	I.	1,91,62,39,059.83	47,40,59,812.75
Designated/Earmarked Funds	2	2,16,14,14,706.69	2,09,84,69,913.04
Current Liabilities & Provisions	3	91,40,45,067.86	2,27,46,98,755.90
To	tal	4,99,16,98,834.38	4,84,72,28,481.69
APPLICATIONS OF FUNDS	5		
Fixed Assets	4		
Gross Tangible Assets		1,77,21,18,423.69	2,10,32,66,968.28
Intangible Assets		-	-
Capital Work in Progress		83,57,54,094.00	75,45,80,252.50
Investments	5		
Long Term		27,74,39,120.00	23,49,39,120.00
Short Term		1,41,45,15,076.00	1,41,26,20,987.00
Investments Others	6	-	-
Current Assets	7	62,81,20,179.66	30,42,90,453.31
Loans, Advances & Deposits	8	6,37,51,941.03	3,75,30,700.03
Rounded off to		-	0.57
Το	otal	4,99,16,98,834.38	4,84,72,28,481.69
Significant Accounting Policies	23		
Contingent Liabilities and Notes to Accounts	24		

Deputy Registrar (Accounts)

As

Registrar

Director

Annual Accounts

			(Amounts in INR)
INCOME	SCHEDULE	CURRENT YEAR	PREVIOUS YEAR
Academic Receipts	9	14,70,11,344.70	13,49,81,363.56
Grants-in-Aid Subsides	10	97,42,13,168.00	1,17,30,00,000.00
Income From Investments	11	8,19,84,007.00	7,06,59,183.00
Interest Earned	12	25,84,456.00	-
Other Incomes	13	60,58,550.68	73,98,011.39
Prior Period Income	14	-	-
Τα	tal	1,21,18,51,526.38	1,38,60,38,557.95
EXPENDITURE			
Establishment Expenses	15	69,76,05,782.50	77,21,24,202.06
Academic Expenses	16	13,54,86,552.00	11,94,99,962.29
Administrative Expenses	17	13,57,43,140.00	12,57,12,097.70
Transport Expenses	18	14,05,405.00	5,93,778.88
Repair & Maintenance	19	40,50,838.00	85,05,728.00
Financial Costs	20	-	-
Depreciation	4	7,38,23,394.23	10,22,40,884.03
Other Expenses	21	-	-
Prior Period Expenses	22	-	-
	tal	1,04,81,15,111.73	1,12,86,76,652.96
Balance being Surplus of		16,37,36,414.65	25,73,61,904.99
Expenditure over Income (B-A)			
Balance being Surplus (Deficit) carried to General Fund		16,37,36,414.65	25,73,61,904.99

INCOME & EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31/03/2020

Bil

Deputy Registrar (Accounts)

Registrar

Director

Annual Accounts

					(Amounts in INR)
RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	I ATTENTO	CURRENT YEAR	PREVIOUS YEAR
Opening Balance			Opening Balance		
Bank Accounts	-	99,57,349.64	Bank Accounts		- 32,43,57,434.64
Cash in Hand	-	99,055.00			
			Earmarked Endowment Funds		
Earmarked Endowment Funds			Loan Scholarship Account		- 6,38,904.96
Building Fund					
Loan Scholarship Account			Current Liabilities & Provisions		
Plan Recurring (Gate Scholarship / Supervisory Charges)			Big Data Analytics (Training Programme)		- 1,95,200.00
Sheikh UI Alam Chair			College Caution Money		- 8,100.00
Current Liabilities & Provisions			Cost of AIEEE Forms		
Big Data Analytics (Training Programme)			CSIR Fellowship Chemistry		- 1,64,326.00
Cost of AIEEE Forms			Deposits		- 1,17,93,608.00
CSIR Fellowship Chemistry			Hostel Caution Money		- 11,85,000.00
Deposits	-	1,92,23,705.00	Inspire Programme		- 15,92,186.00
Development Charges	-	I I,20,500.00	Institute Caution Money		- 14,89,900.00
Group Insurance (Students)	-	9,12,700.00	Library Caution Money		- 1,23,500.00
Hostel Caution Mon- ey	-	2,31,000.00	Mess Caution Money		- 12,70,500.00
Inspire Programme	-	I I,00,000.00	SERB Conference		- 1,82,903.00
Institute Caution Money	-	4,40,000.00	Benevolent Fund		- 60,000.00
Library Caution Money			Vishvesvarya Ph.D. Scheme		- 12,32,426.00
Mess Caution Money			Electricity Payable		
Mess Deposit			Salary Payable		

RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR ENDED 31/03/2020

					(Amounts in INR)
RECEIPTS	CURRENT	PREVIOUS	PAYMENTS	CURRENT	PREVIOUS
Mess Establishment charges	-	1,000.00	Special manpow- er Development Programme (SMPD)		
Ramamanujan Fellowship (SERB)	-	15,00,000.00	Flood Relief Do- nation		- 1,95,500.00
Red Cross Fund	-	150.00	Unnat Bharat Abhiyan		- 92,558.00
Special Manpower Development Programe (SMPD)			Vishvesvarya Ph.D. Scheme		
Two Days Workshop in Metallurgy Department			Messing Allowance Payable		- 23,00,000.00
SERB Fellowship	-	29,21,962.00			
Unnat Bharat Abiyaan	-	5,00,000.00	Research Schemes		- 43,62,556.00
Vishvesvarya Ph.D. Scheme	-	1055755	CSIR Scheme (Physics)		
Research Schemes					
CSIR Scheme (Physics)			SERB Fellowship		- 38,02,858.00
Information Security of Education (ISEA)					
Inspire Fellowship Scheme					
SMDP-II VSLI			Deposits From (Students)		
			DASA-2016		
Deposits from students					
DASA-2016			Statutory Liabilities (GIS, GPF, TDS, WCT)		
Fuel charges for genset			Association Fund (NPS)		- 224450
			Court Attachment		- 24,000.00
Statutory Liabilities (GIS, GPF, TDS, WCT)			C.P. Fund		
C.P. Fund			Deputation GP Fund		- 5,82,264.00

RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR ENDED 31/03/2020 (contd.)

					(Amounts in INR)
RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR		REVIOUS EAR
G.P. Fund of Employees	-	630500	G.P. Fund of Employees		-	6,89,06,251.00
Group Insurance			Group Insurance		-	31,983.00
Income Tax	-	7,01,938.00	Income Tax		-	3,81,07,488.00
LIC Premium	-	3,00,265.00	Institute Research			
New Pension Scheme	-	13,737.21	Lekuminia Fund			
Students Welfare Fund	-	11,20,250.00	LIC Premium		-	35,09,787.00
Court attachment	-	6000	New Pension Scheme		-	12,56,629.00
Alumni Association Membership Fee			PLI			
Deutation GP Fund			Sales Tax			
Sales Tax	-	3,58,573.00	Staff Welfare Fund			
Association Fund NPS			Student Welfare Fund		-	2,73,909.00
Other Current Liabilities			Teacher Society Fund			
Transfer/Scholarship Grant			Labour Cess			
Mess Fee	-	81,819.00				
			Indirect Incomes			
-			Maintenance Of Sports Fields			
Grant In Aid Plan						
Creation Of Capital Asset	-	69,70,00,000.00	Other Current Liabilities			
Special Plan Creation Of Capital Asset S/C	-	3,15,00,000.00	Transfer/ Scholarship Grant		-	13,737.00
Sub Plan Creation Of Capital Asset	-	I,44,00,000.00	GP Fund Remittable to Kashmir University		-	2,60,376.00
Special Plan Creation Of Capital Asset 3			Mess Fee		-	17540432
TAS/T Creation Of Capital asset			Fixed Assets			

					(Amounts in INR)
RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
Fixed Assets			Central Research Facility Centre		- 1,00,09,844.15
Setting Up Of New Labs			Diesel Water Pump		
Library Books	-	4,059.00	Face Lifting of Campus		- 1,24,02,414.00
Modernization of Hostels and Messes	-	1,52,55,532.00	Furniture College (Plan)		
Pre Fab. Hostels/ Class Rooms	-	7,00,00,000.00	Guest House		- 1,55,64,480.00
Purchase of Furniture for Institute	-	49,10,629.00	Hi Tech Auditorium		- 5,81,920.00
Setting Up Of New Labs	-	68,59,117.00	Installation/ Commissioning of Fire Fighting System		
Subscription to E-Journals	-	26,94,721.00	IIED Centre		- 4,78,500.00
			Indoor Stadium		- 1,55,31,220.00
Investments Earmarked Endowment Funds			Library Books		- 87,48,700.00
Long Term			Library Books & Equipment		- 7,29,780.00
Fixed Deposit Long Term	-	70,53,466.00	Mega Hostel		- 8,75,925.00
			Office Automa- tion		- 53,39,449.00
Short Term			Power Station		
Fixed Deposit Short term	-	40,79,65,415.00	Pre Fab. Class Room		
			Purchases of Furniture (Institute)		- 69,92,202.00
Current Assets			Renovation of Elect. Installation System		- 8,22,890.00
Grant in Aid Receiva- ble From MHRD			Renovation of gen. Maintenance Hostels/Buildings		- 20,51,057.00

RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR ENDED 31/03/2020 (contd.)

(Amounts in INR)

					(Amounts in INR,
RECEIPTS	CURRENT	PREVIOUS	PAYMENTS	CURRENT	PREVIOUS
	YEAR	YEAR		YEAR	YEAR
Sundry Debtors (Old Deput. GP Fund)		-	Renovation of lab. Building & Aca- demic Building		- 1,59,88,019.0
Establishment Expenses			Renovation of Office Equipment		- 1,89,100.0
Employees Retirement & Terminal Benefits Pension	-	18,11,946.94	Construction Of Indoor Sports Facility Centre & Swimming Pool		
Salary Wages Allowance and Bonus	-	93,672.00	Construction/ Up gradation Of Sports Facility In Campus		
DIEM Allowance			Lab. Building EPD/Physics Lab		
Messing Allowance			Overhead Water Tank		
Pay			Electric fitting		
			Setting Up of New Labs		- 5,91,82,180.0
Grant in Aid Subsidies			Setting up of New Lab (Mechanical)		- 1,45,31,855.0
Grant in Aid Non- Plan Recurring (General)	-	52,81,00,000.00	Strength of Central Work- shop		- 22,30,200.0
Grant in Aid Non- Plan Recurring (Salaries)			Setting Up of IIID Centre		- 11,134.0
Grant in Aid Non- Plan Recurring Special Component For S/C	-	5,96,00,000.00	Strengthening of Library Facility Centre		- 67,07,739.0
Grant in Aid Non- Plan Recurring Tribal Area Sub Plan	-	2,91,00,000.00	Strengthening of Medical Facilities		- 4,33,105.0
Grant In Aid Salary	-	48,05,00,000.00	Up gradation of Telephone Exchange		- 2,14,500.0
Grant In Aid Salary Tribal Area	-	2,38,00,000.00	Subscription to E-Journals		- 2,34,37,951.0
Grant In Aid Salary Sp. Component Salary S/C	-	5,19,00,000.00	Telephones		- 52,775.0

					(Amounts in INR)
RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
Interest on Savings Bank Account	-	44,31,661.07	Up-gradation of Computer Service Centre		- 13,03,05,101.00
Loans, Advances & Deposits			Up-gradation of power station		
Advance to Employees	-	19,84,896.76	Up-gradation of Sports Facilities		- 6,57,580.00
Computer Advances			Modernisation of Hostel & Mess		
Imprest With HOD			PMDP Payments		- 3,07,96,000.00
			Purchase Of Vehicles		- 1,80,480.00
Transport Expenses			Lavatory Block		- 40,365.00
Vehicle Running Expenses			Work Shop Equipment		- 1,11,000.00
			Laboratory Equipment		- 5,61,970.00
Academic Receipts			Replacement of Rust Pipes In Water Supply		
Admission Fees	-	1,78,03,039.03	Investments- Earmarked Endowment Funds		
Advance Result	-	15,750.00	Long Term Fixed Deposit		- 78,50,000.00
Application Form Fee	-	63,500.00	Short Term fixed Deposit		- 60,01,62,460.00
Computer Usage	-	4,46,000.00			
Degree Fee	-	6,47,391.00	Establishment Expenses		
Examination Fee	-	11,31,340.00	-		
Fine	-	12,30,119.68	Employees Retirement and Terminal Benefits		
Games and Sports Activities	-	15,41,000.00	Gratuity		- 1,87,06,368.00
Hostel Rent	-	56,41,985.36	Leave Encash- ment		- 1,16,14,393.00
Industrial Training	-	4,46,000.00	Pension		- 31,07,80,954.00
Lab. Fee Income	-	4,80,565.00	Salary Wages Allowances		
Library Fee	-	4,66,121.00	Bonus		

RECEIPTS & PAYMENTS ACCOUNT FOR THE YEAR ENDED 31/03/2020 (contd.)

					(Amounts in IN	R)
RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR	
Migration Fee	-	2,29,450.00	Children Educa- tional Allowance		- 30,35,100.	00
Recreational Charges	-	1,000.00	Dearness Allowance		- 2,56,86,306.	00
Registration Fee			Diem Allowance		- 78,08,729.	00
Tuition Fee	-	11,20,39,267.24	Hill Composite Allowance		- 28,05,332.	00
Water & Electricity (Hostel)	-	2,000.00	House Rent Allowance		- 1,69,18,645.	00
Fees from Students (Convocation & Oth- er Fees)			Leave Travel Concession		- 29,56,322.	00
Games & Other Fee			Medical Facilities		- 18,56,390.	00
Income from Investments			Medical Reimbursement Allowance		- 23,07,741.	00
Interest on Long Term Deposits	-	2,22,143.00	Messing Allowance		- 1,06,85,333.	00
Interest on Short Term Deposits	-	4,65,40,791.00	Pay		- 21,96,41,444.	00
			Professional Development Allowance		- 5,02,079.	00
Other Income			Transport Allowance		- 1,00,08,460.	00
Rent from Shops, Accommodation, Post Office, Bank etc.	-	8,55,088.00	Washing Allowance		- 95,980.	00
Electricity Income	-	1,39,320.00	Interest on GP Fund			
Quarter Rent	-	41,908.00	Loans, Advanc- es & Deposits		- 5,32,544.	00
Rent from Guest House	-	36,560.00	Advance to Employees		- 1,01,38,038.	00
Misc. Income	-	7,11,619.32	Computer Advance			
			Festival Advance Recovery			

					(Amounts in INR)
RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
			Academic Expenses		
CLOSING BALANCE			Alumni Meet		- 1,52,844.00
Bank Accounts			Co-Curricular Activities		- 5,46,290.00
			Co-Curricular Activities		- 14,305.00
			Computer Ser- vice Centre		- 7,22,007.00
			Games & Misc. Contingencies		- 1,08,140.00
			Games & Sports Activities		- 2,18,009.00
-			Inter NIT Sports Meet		- 51,149.00
			' Laboratory Running Expenses		- 34,71,002.00
			Library Services & Contingencies		- 4,53,772.00
			Scholarship Sti- pend to Students		- 10,46,27,446.00
			Seminars & Conferences		- 1,42,373.00
			Student Project		- 21,76,968.00
			Training & Placement		- 1,07,678.00
			Wages		- 1,90,849.00
			Journals & Publications		- 38,21,804.29
			Convocation		- 7,78,228.00
			Administrative Expenses		
			Advertisement and Publicity		- 33,10,318.00
			Campus Inter- view		- 18,887.00
			Chemical & Rea- gents		- 90,860.00
			Legal Expenses		- 19,59,225.00
			Retirement Bene- fits		- 26,27,912.00
			Sanitation		- 60,68,552.00

					(Amounts in INR)
RECEIPTS	CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	PREVIOUS YEAR
			Communica- tion		- 2,12,217.00
			Internet Fee		- 42,674.00
			Infrastructure		- 4,34,67,133.00
			Other Adminis- trative Expenses		- 6,56,40,523.70
			Infrastructure		
			Water Expenses		
			Hot & Cold Weather Charges		
			Electricity Ex- penses		
			Insurance of Insti- tute Property		
			Other Adminis- trative Expens- es		
			NIT Transit House		
			Printing & Sta- tionery Con- sumption		
			Travel & Convey- ance		
			Water Expenses		
			Misc. Contingen- cies		
			Liveries		
			Other Adminis- trative Expens- es		
			Printing & Sta- tionery Con- sumption		
			Travel & Convey- ance		
			Misc. Contingen- cies		

RECEIPTS		CURRENT YEAR	PREVIOUS YEAR	PAYMENTS	CURRENT YEAR	(Amounts in INR) PREVIOUS YEAR
				Repair/ Maintenance		
				Electrical Maintenance		- 15,60,295.00
				Maintenance of College & Hostel		- 27,71,044.00
				Maintenance of Genset		- 7,66,078.00
				Parks & Gardens		- 23,87,180.00
				Parks & Gardens		
				Round off		- 0.57
				Closing Balance		
				Bank Accounts		- 29,77,76,740.31
				Cash-in-Hand		- 2,47,386.00
Grand Tota	.u	- 2	,67,25,53,993.25	Grand Total		- 2,67,25,53,993.25

Deputy Registrar (Accounts)

Olime

Registrar

Bil

Director

Separate Audit Report

Separate Audit Report on the Accounts of the National Institute of Technology, Hazratbal, Srinagar for the year ended 31 March 2020.

We have audited the attached Balance Sheet of the National Institute of Technology, Srinagar as at 31 March 2020, Income & Expenditure Account and Receipts & Payments Account for the year ended on that date under Section 19 (2) of the Comptroller & Auditor General's (Duties, Powers & Conditions Of Service) Act 1971 read with Section 22 (2) of the National Institute of Technology Act, 2007. These financial statements are the responsibility of the Institute's management. Our responsibility is to express an opinion on these financial statements based on our audit.

- 2. This Separate Audit Report contains the comments of the Comptroller & Auditor General of India (CAG) on the accounting treatment only with regard to classification, conformity with the best accounting practices, accounting standards and disclosure norms, etc. Audit observations on financial transactions with regard to compliance with the Law, Rules & Regulations (Propriety and Regularity) and efficiency-cum-performance aspects, etc., if any, are reported through Inspection Reports/ CAG's Audit Reports, separately..
- 3. We have conducted our audit in accordance with auditing standards generally accepted in India. These standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatements. An audit includes examining, on a test check basis, evidences supporting the amounts and disclosure in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of financial statements. We believe that our audit provides a reasonable basis for our opinion.
- 4. Based on our audit, we report that:
- i. We have obtained all the information and explanations which to the best of our knowledge and belief were necessary for the purpose of our audit;
- ii. The Balance Sheet and Income & Expenditure Account/Receipts & Payments Account dealt with by this Report have been drawn up in the format prescribed by the Ministry of Human Resources Development, Government of India vide order No. 29-4/2012-FD dated 17 April 2015.

- iii. In our opinion, proper books of accounts and other relevant records have been maintained by the National Institute of Technology, Srinagar, in so far as it appears from our examination of such books.
- iv. We further report that:

A. Contingent Liabilities & Notes to Accounts Notes to Accounts

As per the prescribed format and Accounting Standard 15, provision for retirement benefits i.e. pension, gratuity and leave encashment (wherever applicable) are to be provided, based on actuarial valuation. But, the Institute has not made any provision towards pension of the employees covered under Old Pension Scheme in contravention of prescribed format and Accounting Standard 15.

A reference is invited to note at Sl.no. B.ii), which states that, liability on account of retirement benefits of the employee of the Institute, as assessed by the actuary, amounting to Rs.38.86 crore (gratuity and leave encashment) has not been recognized in the books of Institute, as per the instructions of the Ministry. The note given is incorrect to the extent that, Ministry's representative in Board of Governors (BOG) has given the above- stated instructions (in its meeting held on 28.09.2020), and not of the Ministry. The note given is also found deficient to the extent that is does not include the fact that BOG had given these instructions on the ground that the liability on account of retirement benefits assessed by the actuary was based on the Gratuity Act instead of applicable Central Civil Service Rules.

B. General

B.1 The Institute has booked expenditure of Rs.46.69 crore, Rs.50.73 crore and Rs.26.08 crore under object heads 31, 36 and 35 respectively. However, actual expenditure under these heads were Rs.48.53 crore, Rs.48.89 crore and Rs.25.15 crore. (comment at SI.no 'C'). Thus, Schedule 3 is showing wrong balances which need to be corrected. Utilisation certificate of object head 35, also needs to be revised as it is showing expenditure of Rs.26.08 crore, instead of actual expenditure of Rs.25.15 crore.

Separate Audit Report (contd)

B.2 General Financial Rules 230 (8) (GFR 2017) provides that, all interests or other earnings against Grants in aid or advances (Other than reimbursement) released to any grantee institution should be mandatorily remitted to the Consolidated Fund of India, immediately after finalization of accounts. Clause 12 of the sanction order of grants pertaining to recurring/non-recurring grants, also included above condition. The Institute has not kept separate account/ FDRs of Grant-in-Aid. Therefore, it could not work out the interest earned on Grant-in-Aid, resulting in non-remittance/ non-provision of interest to the Consolidated Fund of India, which is in contravention to the aforesaid GFR provision.

Observation in this regard was also included in the previous years SAR, but, compliance has not been made. As this treatment is being adopted since long, the Institute is required to work out the entire amount of income generated from unspent grants and remit the same to Government of India. Suitable disclosure should be given in the next year financial statements, along with monetary effect.

B.3 As per the Accounting Policy at Sl.no. 4 i), tangible assets are valued at cost less accumulated depreciation and depreciation on fixed assets is provided on Straight Line Method (SLM). However, the Institute has provided depreciation on Written Down Value Method, in contravention to its own accounting policy. Detailed working of calculation of depreciation, as per the SLM, according to the life of assets and year of purchase, should be made by the Institute and correct depreciation be charged in the accounts.

B.4 Closing capital work in progress and Fixed Assets as per previous year accounts was Rs.75.45 crore and Rs.210.33 crore, respectively. The accounts of current year are depicting the figures of opening capital work in progress and opening Fixed Assets of Rs.76.62 crore and Rs.209.16 crore, respectively.

The Institute informed that, the adjustment entry for an amount of Rs.1.17 crore which was wrongly capitalised and shown under Fixed Assets, had been passed in financial year 2018-19, after finalization of annual accounts,. No disclosure has been made in this regard in the Notes to Accounts of current year.

B.5 Scrutiny of bank records revealed that:

- Balance in the J & K bank CD 106 account, as per the accounts is Rs.6.55 crore, while the bank has confirmed it at Rs.42.20 crore. The Institute has not prepared bank reconciliation for the difference, amounting to Rs.35.65 crore.
- ii) Balances in following three bank accounts, were confirmed by the J & K Bank, but these accounts and their balances have not been included in the annual accounts.

SI. No	Account No.	Balance as per Accounts (Rs.)
1.	0391040100009839	161077.00
2.	0391040520000001	607085.00
3.	0391010100000531	0

iii) Balance confirmation Statements in respect of following six bank balances, have not been obtained from the concerned banks:-

SI. No	Bank Name/Account No.	Balance as per Accounts (Rs.)
Т.	Canara Bank	242360.00
2.	OBC Funds Bank Account	711580.00
3.	SBI	65,683.01
4.	SBI Jammu	Nil
5.	SBI Savings Bank Account (REC Branch)	5324528.00
6.	SBI Scholarship	393473.00

iii) As per the information furnished, the Institute has following three dormant accounts in the J&K bank:-

SI. No	Bank Name/Account No.	Balance as per	Balance as per
		Accounts (Rs.)	Accounts (Rs.)
Ι.	JK Bank Staff Welfare Fund-5596	9734.00	9906.00
2.	JK Bank Staff Welfare Fund-5597	12989.00	13218.00
3.	JK Bank Staff Welfare Fund-5598	12989.00	13218.00

These dormant accounts, needs to be closed and balance in these accounts transferred to any other account (s) in operation.

B.6 The Institute has not obtained balance confirmation in respect of debtors and advances at the close of the financial year. In absence of the same, authenticity of the balances depicted in the financial statements by the Institute, cannot be verified.

B.7 Non-availability of annual accounts of GPF and NPS:

As per the prescribed format, accounts relating to GPF, NPS were to be annexed with the annual accounts. However, the Institute has not annexed these accounts with the annual accounts.

C. Grant-in-Aid

The position of grant-in-aid of the Institute for the financial year 2019-20 is as under:

Particulars	OH-31	OH-36	OH-35 (Creation of Capital Assets)	Total
Previous year un- spent balance	5.33	9.35	25.52	40.20
Add: Grant received during the year	58.68	58.01	5.00	121.69
Total funds available	64.01	67.36	30.52	161.89
Less: Expenditure	48.53	48.59	25.15	122.57
Unspent balance at the end of the year	15.48	18.47	5.37	39.32

D. Management Letter

Deficiencies which have not been included in the Audit report have been brought to the notice of the Institute's management through a management letter issued separately for remedial/corrective action.

- Subject to our observations in the preceding paragraphs, we report that the Balance Sheet, Income and Expenditure Account and Receipts and Payments Account dealt with by this report are in agreement with the books of accounts.
- ii) In our opinion and to the best of our information and according to the explanations given to us, the said financial statements read together with the Accounting Policies and Notes on Accounts, and other significant matters stated above and other matters mentioned in Annexure to this Audit Report give a true and fair view in conformity with accounting principles generally accepted in India:
 - a. In so far as it relates to the Balance Sheet, of the state of affairs of the National Institute of Technology, Hazratbal, Srinagar as at 31st March 2020; and
 - b. In so far as it relates to Income & Expenditure Account, of the surplus for the year ended on that date.

For and on behalf of the C & AG of India

Principal Director of Audit (Central), Chandigarh

Place: Chandigarh

Date: 30.04.2021

Annexure to Audit Report

I. Adequacy of Internal Audit System

Internal Audit wing has not been established since the inception of Institute in 2003.

2. Adequacy of Internal Control System:

Internal Control System is found to be inadequate to the extent that:

- i) Accounting manual has not been prepared.
- ii) Physical verification of Fixed Assets/Consumables/Library books was not conducted.
- iii) Non-preparation of bank reconciliation statement of J & K bank CD 106 account, non-inclusion of three bank balances in annual accounts, nonobtaining of balance confirmation of six bank balances; as commented at SI no. B.5 of the report.
- iv) Non-confirmation of balances of debtors/advances.

3. System of Physical Verification of Fixed Assets & Inventory

Physical verification of Fixed Assets was not conducted

4. System of Physical verification of Inventory

Physical verification of inventory was not conducted.

5. Regularity in payment of statutory dues:

As per the records, the Institute is regular in payment of statutory dues, except an outstanding amount of Rs.31.44 lakh on account of Sales Tax, which pertains to the financial year 2017-18.

DU # 2 mi

Director

Speed



भारतीय लेखापरीक्षा तथा लेखा विभाग कार्यालय प्रधान निदेशक लेखापरीक्षा (केन्द्रीय), चण्डीगढ़

Indian Audit & Accounts Department Office of The Principal Director of Audit (Central), Chandigarh



दि॰/Dated: 30 4. 22 2

स०/No: पी.डी.ए. (सी)/के. व्यय/SAR/NIT Srinagar/ 2019-20/ 907

सेवा में,

सचिव, शिक्षा विभाग, मानव संसाधन विकास मंत्रालय, भारत सरकार नई दिल्ली – 110001

विषयः National Institute of Technology, Srinagar (Jammu & Kashmir) के वर्ष 2019-20 के लेखाओं पर पृथक लेखापरीक्षा प्रतिवेदन

महोदय,

कृपया National Institute of Technology, Srinagar (Jammu & Kashmir) के वर्ष 2019-20 के लेखाओं पर पृथक लेखापरीक्षा प्रतिवेदन (Separate Audit Report) संसद के दोनों सदनों के समक्ष प्रस्तुत करने हेतु सलंग्न पायें | संसद में प्रस्तुत होने तक प्रतिवेदन को गोपनीय रखा जाए|

संसद में प्रस्तुत करने के उपरांत प्रतिवेदन की पांच प्रतियाँ इस कार्यालय को भी भेज दी जाएँ|

कृपया इस पत्र की पावती भेजें |

भवदीय,

संलग्न: उपरोक्त अनुसार

Sd ≃ प्रधान निदेशक

उपरोक्त की प्रतिलिपी वर्ष 2019-20 की पृथक लेखापरीक्षा प्रतिवेदन की प्रति सहित आवश्यक कार्यवाही हेतु निदेशक, National Institute of Technology, Hazratbal, Srinagar, Jammu & Kashmir- 190006 को प्रेषित की जाती है|

भवदीया.

निदेशक (केन्द्रीय व्यय)











































एक कदम स्वच्छता की ओर





National Institute of Technology Srinagar

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