NATIONAL INSTITUTE OF TECHNOLOGY SRINAGAR

Hazratbal, Kashmir-190006.

INSTITUTE ACTION PLAN 2025

CONTENTS

INTRODUCTION:

India is one of the largest technical manpower producing countries of the world. India's vision to become a developed country by the year 2020 can only be achieved through creating income generating activities.

Technology is the means to creating income generating activities. It is the basis for creating wealth for elevating the socio-economic status of the people of a country. A nation can derive strength through development of technology. Technological strength depends upon: (i) *talented manpower,* (ii) *technology base (knowledge)* and (ii) *infrastructure for industrial growth.*

A measured combination of these factors together with the availability of natural resources and a huge market provides a country opportunity for developing economic and social status, which ultimately generates a self-supporting prosperous society. India possesses all these Educational institutes, especially those dedicated to Science & Technology, have to take the lead. A technical institute is one of the different wings of science and its vision/mission must aim at supplying quality technical manpower for implementing the vision and mission of the country.

NIT Srinagar will provide dedicated service for the fulfilment of the aspirations of individual as part of that of the nation as a whole. It will work to provide engineers and technologists who would be leaders in their field of work, participate in creativity, research, design, development and technology management in the country to meet global challenges to our society and industry. This unique endeavour will focus our effort towards the common goal and help in shaping the future of our country. NIT Srinagar will play a vital role in this endeavour by creating excellent resources and facilities for research and development as well as a large pool of highly trained engineers. It will contribute its share in converting India's large population from a liability into trained human capital.

Vision of NIT Srinagar

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

Mission of NIT Srinagar

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

M2. To prepare technically educated and broadly talented engineers, future innovators and entrepreneurs, graduates with understanding of the needs and problems of the industry, the society, the state and the nation.
M3. To inculcate the highest degree of confidence, professionalism, academic excellence and engineering ethics in budding engineer

Goals

i) *Providing Quality Education to the Students*

❖ To offer effective teaching-learning to students.

❖ To provide the knowledge, skills and attitudes to UG and PG students necessary for their being able to be distinguished globally and socially responsible.

❖ To train the students to learn to meet changing needs due to rapid technological advancement, to offer society the necessary technology and to actively participate in all round socio-economic development programmes.

❖ To provide the best, relevant, reliable and high-quality education by focussing on need-based specific solutions.

❖ To provide the framework to develop the inherent skill in students, by taking initiatives for technology innovation skill in the students, through sincere and target based, dedicated efforts.

ii) *Generation of Infrastructure for Research Activities*

❖ To provide facilities, infrastructure, inspiration and resources to conduct meaningful research of social relevance along with development of indigenous materials, capacities and technologies.

❖ To act as centres of excellence in technical education catalysing absorption, innovation, diffusion and transfer of high technologies for improved productivity & quality of life at national and global level.

❖ To keep in consideration the needs of the region in regard to local needs, relevance, strength and limitations and provide community service.

OBJECTIVES

Effective Teaching-Learning & Research Environment

❖ To create an environment for effective teaching-learning by encouraging students and faculty to nurture their intellectual curiosity, and scientific and research temper.

❖ To increase research and consultancy activity, with options for incentives and encouragement, to motivate staff and students to actively engage in research activities in collaboration with industry and R&D Centres.

i) *Continuing Education Programs*

❖ To encourage organisation with participation of staff and students in in-house and outside training programs, seminars, conferences and workshops on continuous basis.

❖ To increase the number of continuing education programmes.

❖ To provide opportunities for continuous updating in the knowledge of faculty through faculty exchange from premier institutions and industries.

❖ To increase interaction with educational and other research institutes.

ii) *Institute-Industry Linkage*

❖ To increase Institute-Industry interaction and to generate strong linkage with industry.

❖ To up-grade, develop and transfer Technology.

❖ To exchange faculty and working personnel from industry.

❖ To encourage active participation of alumni in resource generation, planning and development.

iii) *Institute–Society Linkage*

❖ To provide society with necessary consultancy and training to solve local problems by organising community development programs.

❖ To create awareness on the consequences of Environmental Pollution.

❖ To increase demand and pay packages of the student.

❖ To encourage and train in development of entrepreneurship.

ACTION PLAN

For the development of the NIT Srinagar, the institutional Action Plan comprising strength, weakness, opportunity, and threat of the institute has been prepared in the following way,

The Director, Registrar, Deans of the Institute, all HoDs, and other stakeholders of the Institute had several interactions extensively and arrived at the tentative strategic analysis. Again, it was discussed with all faculty and staff members of the institute to finalize the Action Plan. The detailed procedure to prepare the Action Plan is as given below,

1. Meeting and consultation were conducted with all stakeholders such as management, Deans, HoDs, faculty, staff, student, parents, and alumni.
2. Each department submitted data to strengthen the following institute infrastructure such as research laboratories, workshops, library, and campus infrastructure
3. The complete development plan was farther discussed with HoDs andSenior faculties of the institute. Further, the valuable suggestions and inputs were incorporated.
4. The final developmental plan was placed before the BOG for consideration and approval.
5. While preparing the Action Plan, the following factors were considered
   o The existing infrastructure of the institute, including buildings, laboratories, equipment, workshop, library, transport, hostel and other facilities.
   o Fee structures and admission policies as per the MoE norms.
   o Outcome based curriculum development and the teaching & learning process.
   o Employability
   o Faculty and staff training program
   o Research, consultancy and industry-institute interaction.

Strengths:

1. Institute is having young and dynamic faculty and staff members.
2. From the last three years institute has been ranked within 50 by India Today ranking.
3. Sponsored research project from DST, ISRO, UGC-DAE, DIC and including bilateral schemes.
4. Research collaboration with reputed foreign universities/institutes including USA, Japan, Germany, Israel, Poland, Italy etc.
5. Student Exchange research program with IIT Delhi
6. Research collaboration with various national laboratories including TIFR, BARC, IITs, NISER, and ISRO.
7. Excellent research outcomes published in high impact journals.

Weakness:

1. Admissions through state quota yield academically weaker students.
2. Difficulties in attract highly talent students for PG and research programs.
3. Poor male-female student ratio.

Opportunities:

1. Space to improve the quality research by conducting international conferences and interaction with industry and R&D sectors

2. Provide the training facility to enhance the teaching capabilities of faculties and skills for staff members.
3. Offering a new UG/PG program in emerging areas.
4. To assist academically weaker students in improving their quality.

Threats:

1. Expecting GATE and NET-JRF qualified candidates for the admission of M.Tech and PhD program however difficulties in attract highly talent students.
2. There is no major industry in North region to extend the industry-institute interaction.

By considering all the above factors, we have prepared the following Action Plan for 2021- 2025

1. Plan for starting a new program in the emerging area for the next 5 years in all UG/PG (including basic Sciences)
2. Attract international students
3. Enhance internal support
4. Library
5. Faculty and staff improvement
6. Campus infrastructure
7. Placement
8. Diversity
9. Research and consultancy
10. Outreach activities

Action Plan	Specific Objective/Action Plan	Expected Results/Target
Plan for starting a new program in the emerging area for the next 5 years in all UG/PG (including basic Sciences)	1. To strengthen the existing UG/PG program by incorporating diverse specialization 2. Initiate the interdisciplinary program in collaboration with nearby research institutes/industries 3. Revise the major curriculum to make a bridge between academic and industry needs. 4. Initiate a new program in a thrust area to resolve the societal challenges. 5. To set up a new laboratory in advance research areas. 6. To increase students' intake. 7. Increase the number of summer internship 8. Extend the academic help to weaker students.	1. Produce skilled UG/PG students to fit the requirement of industrial needs. 2. The student gains the ability to resolve regional technological issues.
Attract international	1. Increase the number of international students through	• Collaborative research work with International

	wide publicity by linking with various international institutes. 2. A joint exchange research program. 3. To attract the bilateral research projects	Universities.
Enhancement of internal support	1. To monitor the academic performance of the students through ERP. 2. To streamline academic results, routine, internal assessment, projects, etc	• Improve the Transparency and efficiency of the academic, administrative work
Library	1. To strengthen the resources of the library to keep up to date. 2. Extend the internet and intranet library access through OPAC	1. Increase access to the library by students and faculties. 2. Provides the access of libraries across in India
Faculty and staff improvement	1. Encourage to attend various conferences/workshops at National/ International levels. 2. To organize faculty development programs to improve in other fields. 3. Encourage staff members for higher education. 4. Organize the skill development program for staff members	• Improve the overall performance of staff and faculty members.
Campus infrastructure	1. To create space for built-up research laboratory and lecture halls including smart classrooms 2. To create the digital infrastructure to record online lectures. 3. To create infrastructure for surplus water and electricity supply, including backup. 4. Establish a green campus environment. 5. To set up the entrepreneurship within the camps.	• Improves the required academic and campus infrastructures
Placement	1. To increase the recruiters. 2. Conducting employability enhancement	• Increases the placement of graduates and scholars.

	3. Conducting carrier counselling	
Diversity	1. To establish a diversity cell to address internal complaints of the faculties and students. 2. To improve the hostel infrastructure for female students. 3. To increase the percentage of women students in new admissions. 4. To increase the recruitment of female faculties.	• It gives a platform for independent work culture to female students and faculties
Research and consultancy	1. To increase research funding from external agencies 2. To increase the high-quality publications 3. To attract more consultancy work 4. Creation of new research and testing laboratory for consultancy work. 5. Encourage faculty and scholars to file the patents 6. To organize national, international workshops/conferences/schools in the emerging research fields.	1. Develops the infrastructure for research and consultancy work 2. Faculty and research scholars get a platform to interact with international researchers.
Outreach activities	1. Adoption of nearby villages 2. Organizing awareness programs to school children for the importance of Science and Mathematics education. 3. Organizing interschool/intercollege competition to the benefit of school children	• It provides the importance of higher education to rural students of Srinagar(Jammu and Kashmir)

METHODOLOGIES

i) Qualities and Conditions of Staff

❖ By imparting value education to all people, especially the engineering community of the country.

❖ Induction of highly qualified, talented, competent & motivated faculty, and trained & dedicated supporting technical and administrative staff.

❖ By improving in-service conditions of faculties and technical staff commensurate to that of the industry to attract best faculty and staff.

❖ By introducing award of merit, recognition and sabbatical leave to performing faculty and staff.

❖ Establishing excellent academic support facilities (laboratory, library, Internet etc.) required for good education on continuous basis.

ii) SWOT Analysis and Restructuring

❖ Identifying particular areas of technology needed based on SWOT analysis (examining the existing facilities).

❖ Identifying the problems of J&K.

❖ Reforming regulations and curriculum by introducing greater flexibility to courses.

❖ Introduction of IT-enabled management in all activities of institute.

iii) Strengthening Research Oriented Activities

❖ Submission of concrete proposals to funding agencies for necessary grant.

❖ Establishing/strengthening of R&D facilities in institute in collaboration with industries.

❖ Developing more research-oriented laboratories and centres.

❖ Involving students in innovative technology projects.

❖ Providing research & development oriented education.

❖ Creating national/international collaborative programmes.

❖ Introducing need based more number of UG, PG & research programmes.

❖ Establishing network-link amongst NITs for resource and expertise sharing.

iv) Introduction of Monitoring and Control Mechanism

❖ Introducing a regular monitoring and control mechanism by establishing procedures and methodologies for assessing outcome of all actions taken and taking appropriate actions, wherever required, for restructuring.

OUTPUT INDICATORS

i) Q-Resource MP and Academic Environment

❖ Increase in qualified (minimum PhD) & talented faculty.

❖ Increase in qualified technical staff.

❖ Increase in visits of adjunct/visiting faculty from industry.

❖ Lectures by distinguished professionals from industry and academic institutes.

❖ Exchange programs at national & international level.

❖ Increase in state of the art laboratories in cutting edge technologies.

❖ Meaningful use of class rooms and laboratories, equipped with latest tools.

❖ Increase in non-formal training to industry and other educational institute (Executive/staff development Programme).

❖ Increased utilisation of infrastructure facilities in terms of man-hours by sharing the facilities with the other academic institutions.

ii) Infrastructure and Administrative Reforms

❖ Development of state-of-the-art infrastructure in terms of building (offices, Lecture theatres, new laboratories, new departments and centres, hostels, faculty and staff residences), equipment, library, video conferencing & media centre, medical, road, electricity, water supply, sanitation, telecom and Internet facilities, security, recreational facilities, environment and ambience.

❖ Administrative reforms (MIS, Transparency and self-monitoring mechanisms, autonomy, well defined responsibilities & accountability, maintenance etc.).

❖ Establishment of industry sponsored chairs.

❖ Nurture entrepreneurs.

❖ Increase in resource generation through alumni, consultancy, fee etc.

❖ Increase in community services to payback to society.

iii) Research Activities

❖ Increase in participation in national and international conferences.

❖ Increase in faculty visit/training/collaborative ventures with industry, research organisations and other academic institutions of repute in India & abroad.

❖ Increase in research publication, patents and technology transfer to industry.

❖ Increase sponsored research projects and consultancy.

❖ Increase in Ph.D. and post-doctoral research.

iv) Upgradation of Library Facilities

❖ *Construction of new library building with adequate space.*

❖ *Modernisation of library facilities.*

❖ *Providing Independent robust internet connectivity.*

❖ *Creating facilities to access e-resources through internet.*

❖ *Creating facilities to access e-resources within the library.*

❖ *Development of sufficient manpower in the library.*

❖ *Completion of computerisation of the library.*

❖ *Digitization of rare references and theses.*

❖ *Improve Training of library staff.*

v) Boost in Academic Activities

❖ Increase in student strength at M. Tech. and PhD level (restructuring the existing programmes & introducing new programmes).
❖ Increase in foreign students' intake.
❖ Increase in degree programmes.
❖ Introduction of new innovative programs like Dual degree program, MS by research program.
❖ Increase in departments and centres of excellence.
❖ National and Global Accreditation Certification and licensing for global competitiveness as per GATS (Mode - 2 and Mode – 4).

IDENTIFICATION OF TECHNOLOGIES THAT NIT SRINAGAR PUTS THRUST ON

Though NIT Srinagar has to keep pace with national and global trend in the development of technology, it has its own strengths and weaknesses, specific obligations and socio-economic responsibilities. NIT Srinagar needs to give greater impetus to all round development   to reduce the gap in progress that has been created because of two decades of uncertainty. As a step forward in this direction, following thrust areas have been identified with Vision-2025 which is linked to major areas in advanced technologies, technologies with socio economic implications, strategic technologies and technologies to make J&K state self-reliant.

A) Agriculture and Food processing
  i)   Agriculture Bio- Technology
- High yielding crops & terminator gene
- High nutritional & medicinal value crops
- Food/commodities high shelf life and taste (Plant pathology)
- Highly tolerance & pest resistant crop
- New variety of agriculture produce (GM) and quality improvement

  ii)   Food and fruit processing, packaging & storage technology
- Packaging & transportation without damage
- Processing & healthy preservation without losing nutrient

B) Infrastructure (Social & Industrial)
  i)   Housing & Land development
- Low cost rural housing
- Smart and energy efficient urban housing
- High rise buildings
- Mechanized Construction & modular construction
- Earthquake resistant construction
- Secured demolition technology
- Non-invasive and quick geo-technical explorations
- GIS, GPS and Remote sensing
- Utilization of underground space
- Health monitoring of the structures
- Structural green building technology.
  ii) Transportation
- High-speed (Rapid) surface & sub-surface transport
- Air transport and Airports
  iii) Communication
- Wireless technology and network sensors
- Satellite & space (inter-planet) communication technology
- Global high speed data transfer
- Signal Processing
- Telemedicine
  iv) Urban & Rural Planning and Management
- Solid waste management and utilisation

- Electronic & toxic waste management
- Water treatment
- Rain water harvesting, ground water recharging.
- GM bacteria for waste management.

    v) Technology for Local and Regional Development
- Avalanche & Landslide studies
- Foundations on slopes
- Prevention of land erosion.
- Preservation of tourist attractions viz. Dal Lake etc.

C) Resource Management
i) Energy Engineering
- Sources: Hydro, solar, wind, thermal, nuclear, fuel cell
- Alternative sources and resources of energy
- Renewable organic (bio) fuel
- Energy storage devices
- Electric Power: Generation, Transmission and distribution
- Energy audit and loss minimization
- Development of Energy efficient technologies
- Sensor based use of energy appliances.

ii) Water Resource Management
- River linkage
- Irrigation canals
- Rain water harvesting and ground water recharge

iii) Environment, Ecology & Sustainability
- Environmental impact assessment and audit
- Macro engineering the environment and weather
- Weather forecasting
- Global warming
- Development of Eco-friendly (Green) technology
- Waste management

D) Disaster Mitigation & Management
- Earthquake.
- Flood & drought
- Widespread fire in forest or in man-made infrastructure
- Predictions and post disaster rehabilitation

E) Technology Management
- Education technology and distance learning
- Knowledge Management
- Technology development, transfer, dissemination and absorption
- Development of indigenous technology (substitute of imported technology)
- Entrepreneurship
- Sustainability in resource generation and technology development

- User-friendly and Safe Technology
- Research & Development Management

F) Development of Newer and Advanced Technologies
- Computational Fluid Dynamics
- Embedded technology and Real time Systems
- VLSI
- MEMS and NEMS
- Nano Technology & Bio-Nanotechnology
- Advanced sensors & Network sensors
- Application of Artificial Neural Network (ANN) & Fuzzy Logic.
- Performance Based Seismic Design.

G) IT & Services
- Internet and digital network services
- E-governance
- Technology empowerment of mass
- Net security
- Software development for CAD etc.
- Telemedicine.

SWOT ANALYSIS

NIT Srinagar has identified its own thrust areas based upon its current strengths, capabilities, facilities, interests and future projections incorporating diverse needs and local conditions. A SWOT analysis is presented below for the NIT Srinagar while finalising its vision, mission, goals, policy guideline, strategies, action-plans, and expected outcomes, as stated on previous pages.

A) Strengths

i) Academic Sector
- Good quality faculty.
- Creamy layer of students.
- Full academic autonomy and university status.
- Adherence to academic calendar with regular academic sessions.
- Periodic updating of curriculum.
- Number of P.G. programmes offered.
- Well-equipped laboratories.
- Conducive ambience and well-endowed computational and academic infrastructural facilities.
- Good placement record.
- Developing countries' students come to NITS for higher studies.

ii) Non-Academic Sector
- Financial autonomy.
- Reasonably good funding.
- Good pay package for the staff.
- Brand image from more than 50 years of standing.
- Alumni in Senior/influential positions.
- Professional Board of Governors with administrative autonomy.

B) Weaknesses

i) Academic Sector
- Inadequate and insufficiently trained supporting technical staff.
- Inadequate sophisticated equipment and labs in the areas of emerging technologies & cutting edge disciplines for post graduate teaching and research.
- Inadequate educational technology facilities according to global norms.
- Low research and consultancy output due to inadequate research facilities.
- Teaching is curriculum centric rather than learning centric (Inadequate emphasis on problem solving, laboratory experimental design and simulation).

ii) Non-academic Sector
- Work culture is still driven by old REC legacy.
- Less than needed emphasis on overall personality development of student.
- Inadequate emphasis on entrepreneur skill development in students.
- Inadequate linkages with industry and community.

- Inadequate administrative skilled staff/officers.

C) Opportunities

i) Academic Sector
- Scope of providing world class education in cost effective manner.
- Increase in intake of UG, PG & PhD students as mandated by MHRD.
- Increase in research activities: PhD and sponsored research.
- Scope of establishing centre of excellence and advanced studies.
- To train technical supporting staff.
- International and national academic collaborations and joint ventures with industries.

ii) Non-academic Sector
- Boom in industrial development puts demand for quality technical manpower.
- MHRD's strong support for funds and autonomy.
- Scope of innovating new products/processes/designs and acquire patents.
- Scope of tapping Alumni experience; building corpus fund, developing labs, chair professorships, collaborative programs with universities/ industries etc.
- Increased interaction with industries.
- Tapping natural resources available in various parts of the country including different parts of J&K.

D. Threats

i) Academic Sector
- Lack of good faculty may permit mediocrity to overtake excellence.
- Overloading of faculties by Academic & Administrative activities results in the decrease in the pace of progress in research activities.

ii) Non-academic Areas

- More attractive opportunities outside NIT Srinagar, in terms of remoteness from the heart of country, tedious transportation facilities, pose a threat to attract and retain good faculty and technical staff.
- Lack of proper transportation facilities through Road/Rail resulting slower development of infrastructure at NIT Srinagar.
- Boom in self-financing institutions.

CONCLUDING REMARKS

Technical education has been the driving force in supporting industrial growth, creating healthy economic status, generating employment opportunity, eradicating poverty and all round development of society. NIT Srinagar has set its vision-mission'2025 with the aim of generating technically sound manpower, which will provide necessary technical support at both the national and international level. It is envisaged that there will be growing challenges to technical education in the coming years as global competition; technology advances, new markets etc. Shape the future. It is believed that this vision document will play the role of guideline towards fulfilling our common goal and in helping shape the future of the country.

J&K is lagging far behind the country's average development mark in almost all sectors: e.g., industrial growth, employment opportunity, transportation, education, economic condition, health etc. Being a technical institute of national importance, situated in the extreme north, NIT Srinagar would like to play a vital role in the upliftment of the quality of life of all sections of society of the region. Although a series of measures have been initiated by Government of India to implement various sponsored programmes, many more are needed to bring the general development status of this region to the level of the best in the mainstream. Therefore, NIT Srinagar has set its mission to provide cutting edge technology for this region by committing itself directly as well as indirectly to the needs of this region.

It may be pointed out that, at present NIT Srinagar has a scenic campus situated on the banks of the famous Dal Lake. The present land on which, it is built is 67 acres, which is far less than what is required for fulfilment of the vision. Therefore, a proposal for establishment of an additional New Campus comprising of 250 Acres is already under process.

The details of the existing branches of studies, proposed advanced technologies, technologies with socio-economic implications, student intake etc. along with new infrastructures required up to 2025 for making National Institute of Technology Srinagar a centre of academic excellence are highlighted in *Appendix-A*, attached herewith.

Abbreviations Used
CE= Civil Engineering Department
EE = Electrical Engineering Department
ME = Mechanical Engineering Department
CSE = Computer Science and Engineering Department
ECE = Electronics and Communication Engineering Department
CHEM = Chemistry Department
PHY = Physics Department
MATHS = Mathematics Department
H & SS = Humanities and Social Science
IT=Information Technology
MME=Metallurgical & Materials Engineering
CHE=Chemical Engineering

APPENDIX

Proposed New B. Tech. Courses (To be opened with Existing Departments)

Table (a)

Proposing Deptt.	Proposed B. Tech. Courses	Year of starting	Student Intake	Faculty Requirement			Lab Staff Requirement				Space Require-ment
				Prof	Asso. Prof.	Asst. Prof.	Technician	Lab Attd.	Clerk	Peon	
CE	Environmental Engineering	2015-16	30	01	02	04	03	06	01	01	25000 Sft.
ME	B.Tech. in Industrial & production Engineering	2016-17	50	02	04	08	02	02	01	01	
Chemistry & Chemical Engg.	B. Tech in Bio-technology	2015-16	60	01	01	02	02	01	01	01	3000 Sft

Proposed M. Tech./ M.Sc. Courses (To be opened with Existing Departments)

Table (b)

Deptt.	Proposed Courses	Year of Starting	Intake	Intake Enhancement Year	Intake Enhancement No.	Prof.	Assoc. Prof.	Asst. Prof.	Scientific Officer	Techn-ician	Lab Attd	Peon	Clerk	Space Requirement
CE	Environmental Engg. & Management	2019-20	25	--	--	01	-	02	01	01	01	-	-	
	Geotechnical Engineering	2013-14	25	--	--	01	-	02	-	01	01	-	--	
	Transportation Engineering	2014-15	25	--	--	01	-	02	-	01	02	-	--	
ME	Tribology & maintenance	2012-13	25	--	-	01	-	02	-	01	01			
	Thermal Engg.	2020-21	25	--	-	01	-	02	-	01	01			3000 Sft
	Mechotrons & MEMS	2019-20	25	--	-	01	01	02	-	01	01			
	Automotive Engg.	2018-19	25	--	-	01	01	02	-	01	01			
	Production Engg.	2018-19	25	--	-	01	-	02	-	01	01			3000 Sft
	Industrial Engg.	2019-20	25	--	-	01	-	02	-	01	01			
EE	Power & Energy Systems	2013-14	25	--	-	01	-	02	-	01	01			3000 Sft
	Power Electronics & Drivers	2021-22	25	--	-	01	-	02	-	01	01			
	Control & Automation	2021-22	25	--	-	01	-	02	-	01	01			3000 Sft
CSE	M.Tech. CSE	2023-24	20			01	01	02	-	02	-	-	--	3000 Sft
ECE	Information Security	2023-24	25	--	-	01	01	02	-	01	01	-	--	
	Micro Electronics	2015-16	25	--	-	01	01	02	-	01	01	-	--	3000 Sft
	Wireless Communication	2020-21	25	--	-	01	01	02	-	01	01	-	--	
CHE	Biochemical Engg. & Biotechnology	2024-25	15	-	-	01	02	02	01	01	01	-	01	
	Environmental Engg.	2021-22	15	-	-	01	02	02	01	01	01	-	01	
MME	M.Tech. in Metallurgical & Materials Engg	2022-23	15		15	01	01	02	-	02	02	01	01	
MATH (M.Sc/ M.Tech)	M.Sc. Applied Mathematics	2020-21	15	2014-15	25	-	-	01	-	-	-	-	--	
Chem	M.Sc. in Industrial Chemistry	2022-23	20	2017-18	25	01	01	02	-	01	01	-	-	
	M.Sc. in Bio-Science	2023-24	20	2017-18	25	01	01	02	-	01	01	-	-	
PHY	M.Sc. in Applied Physics	2024-25	15	2016-17	25	02	-	-	-	-	-	-	-	

Proposed PG Diploma Courses (To be opened with Existing Departments)

Table (c)

Deptt	Proposed PGD Courses	Year of start	Intake	Enhancement		Faculty requirement			Staff requirement				Space Requirement
				Yr	No.	Prof.	Assoc. Prof.	Asstt. Prof.	Techni- cian	Lab Attd.	Clerk	Peon	
CHE	Industrial Instrumentation	2022-23	25	-	-	-	-	02	-	-	-	-	150 m²
MME	Failure Analysis	2024-25	25	-	-	-	01	02	01	02	-	01	200 m²

Proposed Centres (To be opened separately)

Table (d)

Deptt	Proposed Centres	Year	Faculty requirement				Staff requirement				Space Requirement
			Prof.	Asso. Prof.	Astt. Prof.	Scientific Officer	Techni-cian	Lab Attd.	Peon	Clerk	
ME	Non Destructive Testing & Evaluation Centre	2014-15	01	02	--	1	1	1	1	-	200 m² for each of the Centres
	Energy Research Centre	2014-15	01	02	--	1	1	1	1	-	
	Ergonomics Centre	2018-19	01	02	--	1	1	1	1	-	
	Centre for Nano Science & Engg.	2020-21	01	02	--	1	1	1	1	-	
	Fatigue & Fracture Evaluation Centre	2020-21	01	02	--	1	1	1	1	-	
	Crygonic Research Centre	2021-22	01	02	--	1	1	1	1	-	
	Rapid Prototyping & Reverse Engg. Centre	2022-23	01	02	--	1	1	1	1	-	
	MEMS Design Centre	2023-24	01	02	--	1	1	1	1	-	
ECE	Centre for Telemediciens	2015-16	01	01	02	01	02	01	01	-	
MME	Testing & Evaluation of Materials Quality	2015-16	01	01	02	01	04	02	01	01	
EE	Centre for Energy Studies	2015-16	01	01	02	01	02	01	01	-	

Table (e)

Deptt.	Additional Space Requirement (m²)					
	Class Rooms	Labs	Seminar Rooms	Others (Faculty rooms etc.)	Proposed New Deptts	Total space
CE	200 m²	500 m²	100 m²	100 m²	600 m²	1500 m²
EE	200 m²	500 m²	100 m²	200 m²	------	1000 m²
ME	400 m²	500 m²	100 m²	600 m²	------	1600 m²
CSE	300 m²	400 m²	100 m²	200 m²	-------	1000 m²
ECE	400 m²	500 m².	100 m²	200 m²	------	1200 m²
CHM	400 m²	200 m²	100 m²	200 m²	-------	900 m²
MME	400 m²	500 m²	200 m²	500 m²	-------	1600 m²
PHY	200 m²	200 m²	100 m²	100 m²	--------	600 m²
MATH	200 m²	100 m².	100 m²	200 m²	---------	600 m²
HSS	100 m²	100 m²	100 m²	400 m².	--------	600 m²
10 Centres	7X 200m²					1400 m²
Total:						9600 m² *say 10,000* m²

Proposal for consideration of establishment of New Campus

Table (f)

S. No	Execution period	Name of the Project	Built up area where applicable	Estimated cost in Lacs
1	2011-17	2500 capacity Boys' Hostel	10,000 m^2	1500.00
2	-do-	500 capacity Girls' Hostel	1500 m^2	300.00
3	-do-	Construction of Married Scholars Hostel (PG/Ph.D students) (A) 300 capacity P.G Boys (B) 100 Married Scholars	12060 m^2	1810.00
4	-do-	New Library building	10,000 m^2	1500.00
5	-do-	Community cum Meditation Centre 1000 capacity	4000 m^2	600.00
6	-do-	Construction of Auditorium building	3100 m^2	465.00
7	-do-	Market Complex	2000 m^2	300.00
8	-do-	Security Barrack 100 capacity	554 m^2	84.00
9	-do-	Construction of Administrative building	2700 m^2	405.00
10	-do-	Construction of Estate Department, Central Store Office Building, T&P, NCC etc.	3000 m^2	450.00
11	-do-	Augmentation of electrical power supply (i) 33/11 KV sub station (ii) 11 KV distribution	250 m^2	38.00
12	-do-	Augmentation of Class room space	2000 m^2	300.00
13	-do-	Augmentation of Labs.	2000 m^2	300.00
14	-do-	Augmentation of Residential Area	2500 m^2	375.00
15	-do-	Recreational facilities for students viz. OA theatre, swimming pool and indoor stadium	3000 m^2	450.00
16	-do-	Construction of internal roads	-	1200.00
17	-do-	Construction of Institute main gate	-	25.00
18	-do-	Improvement of landscaping, Echo Park, Children Park	-	250.00