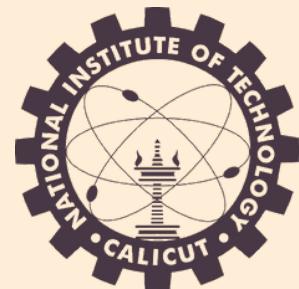




INFORMATION BROCHURE



तमसो मा ज्योतिर्गमय

NITC

राष्ट्रीय प्रौद्योगिकी संस्थान कालीकट

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT

An Institution of National Importance under the Ministry of Education, Govt of India

NIT Campus P O, Kozhikode 673601, Kerala

www.nitc.ac.in

VISION

INTERNATIONAL STANDING OF THE HIGHEST CALIBER

MISSION

To develop high quality technical education and personnel with a sound footing on basic engineering principles, technical and managerial skills, innovative research capabilities, and exemplary professional conduct to lead and to use technology for the progress of mankind, adapting themselves to changing technological environment with the highest ethical values as the inner strength.

Director's Message



The year 2022-23 has been an eventful period with tremendous strides in academics, research, innovation, consultancy and placement activities. It's a privilege to be part of this great Institution that has been expanding horizontally and vertically ever since its inception as Calicut Regional Engineering College. Started on a temporary building on the campus of Govt. Polytechnic, West Hill, Kozhikode on September 1, 1961, with 125 students enrolled in Civil Engineering, Mechanical Engineering and Electrical Engineering departments, NITC has now grown into an Institute with over 7300 students and a permanent campus spread over 300 acres of land. NITC now offers 11 undergraduate programmes, 31 postgraduate programmes and doctoral research programmes in various streams of Engineering, Technology, Architecture, Planning, Management and Science. Apart from this, we have launched the Integrated Teacher Education Programme, four year B Sc B Ed Programme.

It is a matter of pride for the Institute to announce that it has secured 23rd rank in the NIRF ranking under the Engineering stream, 2nd rank in the Architecture stream and 8th rank in the Innovation Ranking. NITC is the only NIT to find a place in the first 10 positions of the Innovation Ranking.

Our institute focuses on the overall well-being of students by imparting holistic education. Transforming young minds into good human beings who are equipped to be the torchbearers of the future is the motto of our team. In our mission to help them realise their dreams in the changing world, we have revamped our curriculum and are focussing on all dimensions of growth. Ensuring seamless networking with the best institutions/industries across the nation/globe, the institute builds networks with researchers, professionals and industries to have a broader academic audience. This brochure also gives insight into the major facilities available in the Institute, which helps in the steady growth including research and consultancy and the facilities of Technology Business Incubator that helps young entrepreneurs. Curriculum revamp and other developments are expected to produce more industry ready graduates and value-added research outputs with sustained quality and excellence. As Director, I am extremely grateful to the Government of India, the Ministry of Education, the Government of Kerala, the local administration, industries, funding agencies, alumni and all other internal and external stakeholders for rendering their tremendous support to achieve our vision of International standing of the highest calibre.

With best wishes and heartful regards,
Prof Prasad Krishna

Preamble

NIRF
Ranking
2023

Engineering

23

Architecture

02

Innovation

08

Transformation is essential for educational institutions to adapt to changes brought about by nature's laws and to take in the fruits of human endeavours in the fields of knowledge and skill. Such a goal was the driving force behind the transformation of the top Regional Engineering Colleges (RECs) to the new brand- institutions of national importance. The National Institutes of Technology (NITs), which are being developed to increase socioeconomic equality in high-quality education in science, technology, engineering, and management, have grown rapidly since the NIT Act was passed in 2007.

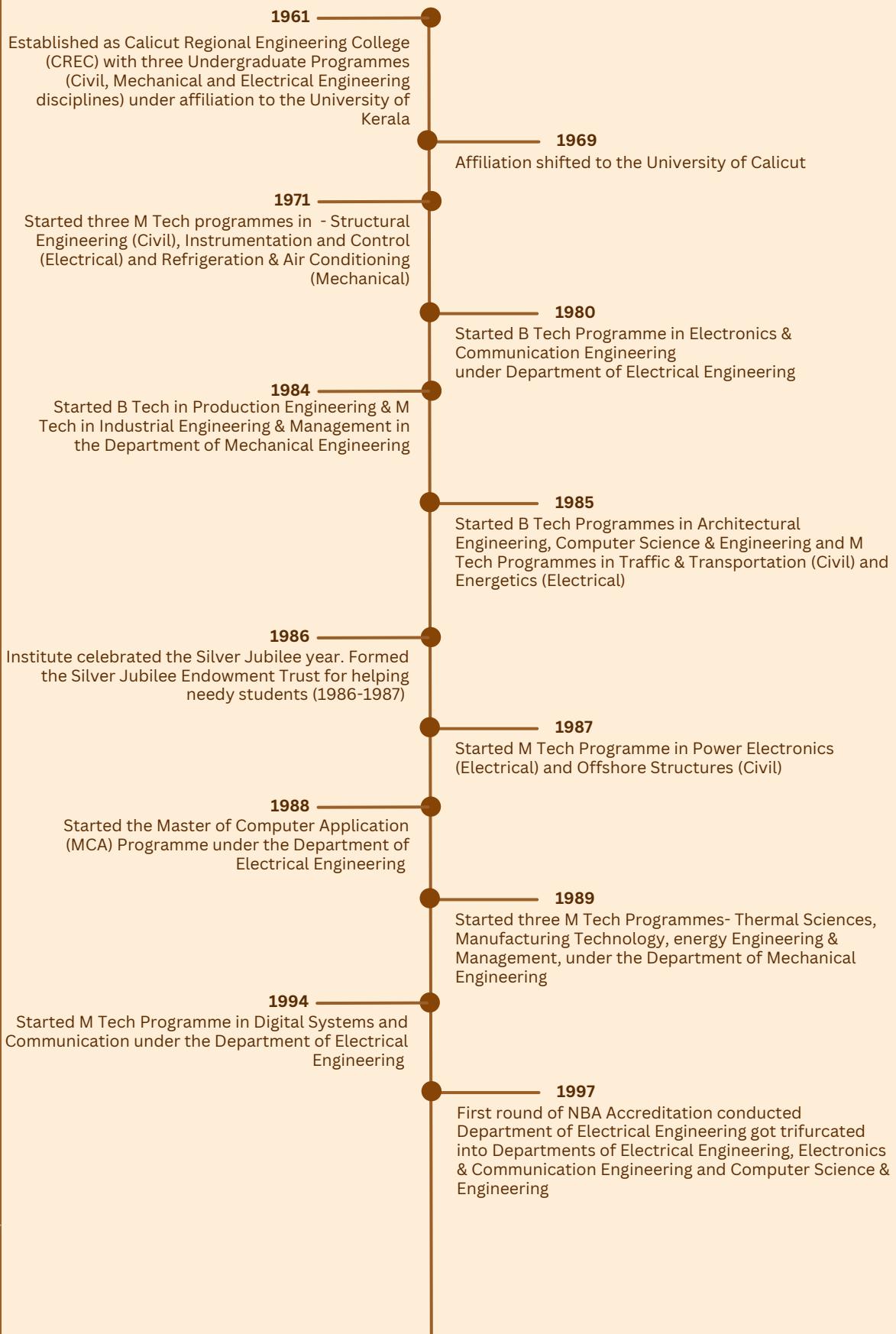
Apart from the core goal of national integration, the transformation of RECs to NITs introduced a significant focal area, research, was added to the mission. National Institute of Technology Calicut was first founded in 1961 as a Regional Engineering College (REC), and it began its illustrious journey with a new spirit, a new name, and a new mission in 2002. The institution now offers bachelor's, master's, and doctoral degree programmes in engineering, science, technology, and management. This has enabled the institute increase the scope of services it provides to humanity. Malabar, the area where the Institute is located, is in the northern part of the state of Kerala. The region is a popular spot for ecotourism and health tourism.

The area is rapidly developing and thriving in all facets of human life. However, the region is free from the smoke and choke of heavy industries. The local economy thrives mainly on local business, small-scale enterprises, and the overseas employment of residents. The revolutionary land reform policies have also led to a consistent distribution of growth throughout the area. The differences between the city and the rural area have been reduced as a result of this development. The natural beauty of the landscape has not yet been compromised by the threat of global warming.

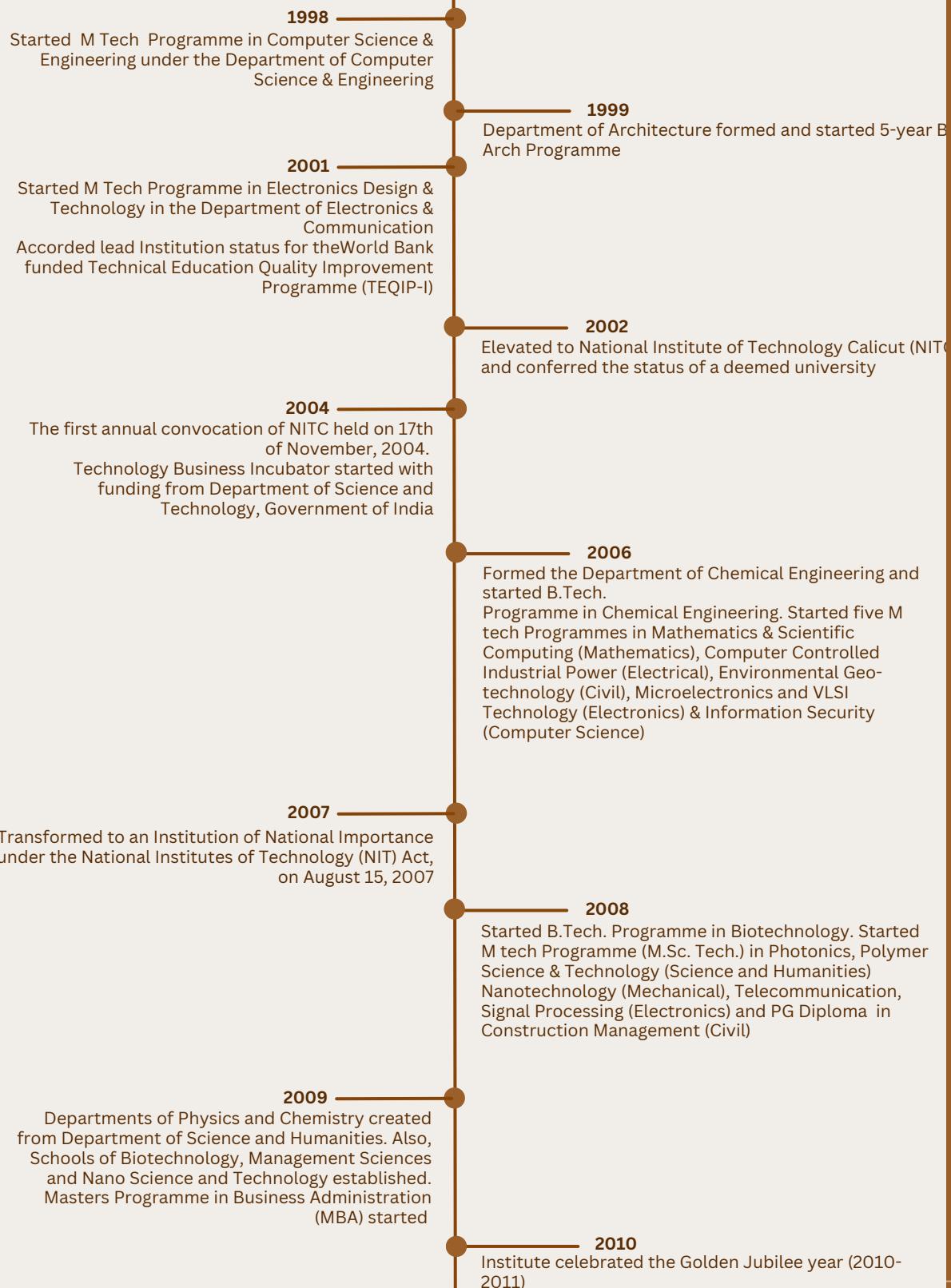
Malabar, a major producer of spices also has a long history of trade with the Middle East. Helping the region to maintain the pace of its growth, the National Institute of Technology, Calicut, has taken the lead in the regional development through numerous proactive steps as a friend, philosopher, and guide. A premier higher education and research institution it always works hand-in-hand with the society and maintains the momentum and growth pattern. Imperial reception for institute by the public poses challenges and opportunities to the faculty. As a result, testing, research, and development infrastructure are constantly improved. The Institute has been able to create graduates who are ready for employment as well as value-added research outputs with sustained quality and excellence by redefining the aims and placing emphasis on socially relevant themes.

The institute has been constantly progress and is now ranked second in the field of architecture, 23rd among technical institutes and 8th in Innovation as per recent NIRF Ranking. The campus offers a wide range of services and innovative education to over 7300 students. Our goal is to be among the top Institution that constantly collaborates with the best and renowned Institutions. For us, excellence is a journey and not the final destination. NIT Calicut is indebted to the tremendous support from the Government of India, the Ministry of Education, the Government of Kerala, the local administration, industries, funding agencies, alumni, and all other external as well as internal stakeholders.

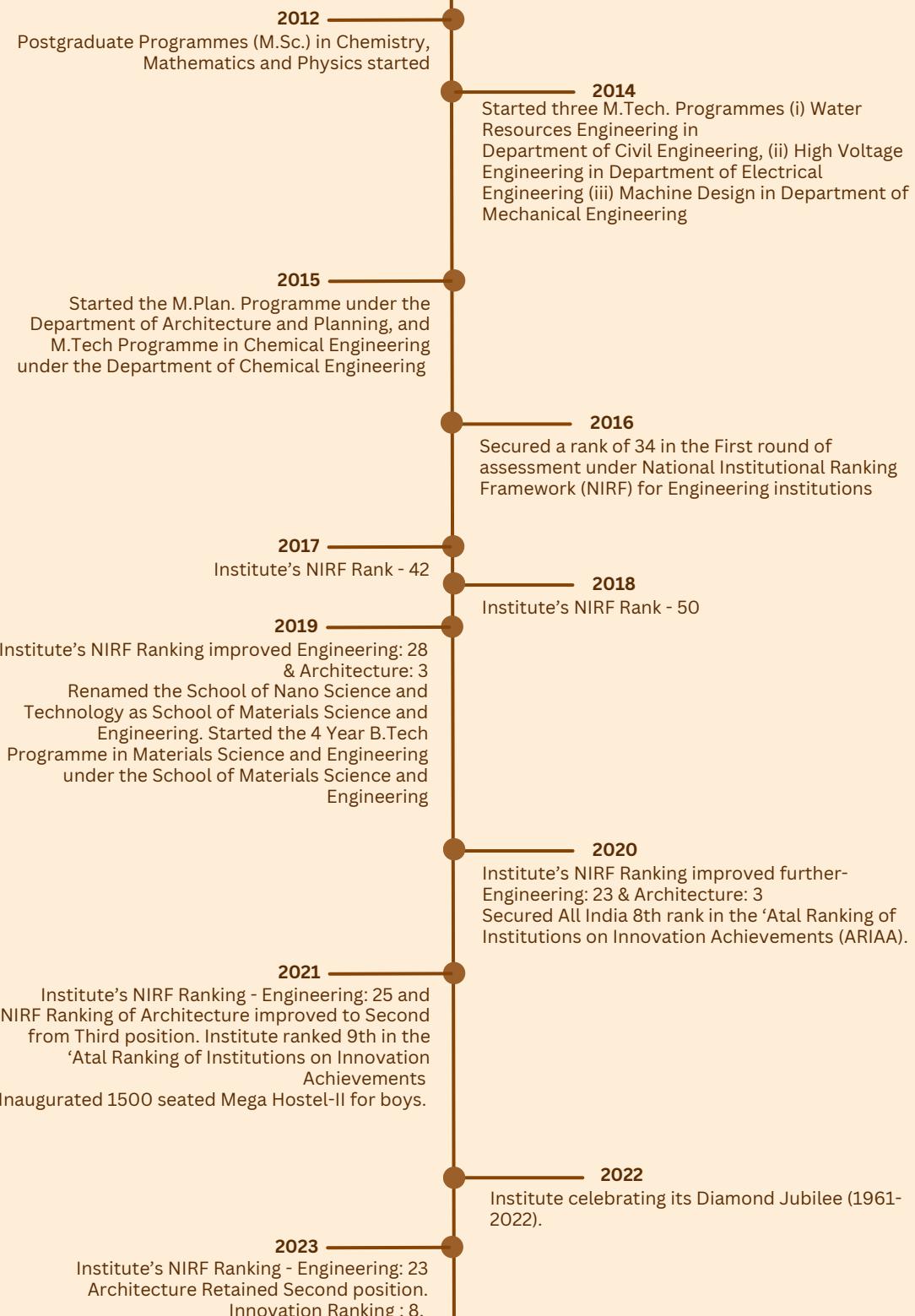
Milestones



Milestones



Milestones



Administration & Management

NIT Calicut is a fully centrally funded, academically autonomous institute of national importance governed by the NIT Act 2007. Hierarchically, the President of India is the Visitor to the Institute under the Act. The governance structure contains the National Council for NITs as the apex policy-making body, while the Institute's governance is vested with the Board of Governors. The Institute's Senate is the authority in academic matters. The Visitor appoints the Chairperson of the Board of Governors and the Director. The broad-based governance and administrative system under the NIT Act and First Statutes of NITs 2009 ensures participative decision-making and accountability. The Director is the executive head of the Institute. The director is a Member of the Board of Governors, the NIT Council and the Chairperson of the Senate. The management roles of the Institute are looked after by the Deans (Academic, Planning and Development, Faculty Welfare, Research and Consultancy, Student Welfare, Alumni Affairs and Corporate Relations) and the Heads of the Departments. The administration wing consists of the Registrar, the Deputy Registrars, Assistant Registrars, other Officers and the Ministerial staff.

The executive wing and maintenance wing consist of the engineering unit, electrical maintenance unit, estate management, and security and housekeeping units. The NIT Act prescribes the Constitution of the Senate, and members are drawn from the faculty of the Institute and from outside. Senate is responsible for the academic administration, including introducing and maintaining academic programmes. Subordinate to the Senate, a Board of Academic Council (BOAC) headed by the Dean (Academic) plays the link role between the Senate and the departments to make appropriate recommendations to the Senate. The Chairperson, Council of Wardens administers student Hostels with the help of council of Wardens and Hostel and Mess Committee. Student activities are planned and managed by the Student Affairs Council's elected body, overseen by the Dean (Students Welfare) student activities and sports officers and other faculty coordinators. Central Computing facility, campus Networking facility, Central Instrumentation facility and the Library provide the backbone support for academics and research. Technology Business Incubator is playing a pivotal role in social outreach and the promotion of the start-up ecosystem. There are facilities like the Innovation and Entrepreneurship Development Centre, Centre for Transportation Research, Design Innovation Centre, Centre for Materials Characterization, Centre for Computational Modelling and Simulation, IPR Cell, etc., to support R&D with thrust on innovations. Sixteen multidisciplinary centres have been established in the Institute in line with NEP 2020.

Academics

The Institute follows the latest trends in the globally accepted outcome-based education framework for all academic programmes. Under this, the performance of the students will be assessed using tools and techniques of both continuous and summative evaluations, with more or less equal footing on both. Best practices worldwide are examined and adopted when curriculum is formulated, and periodical revisions are attempted. All programmes and courses have been designed to provide a balanced blend of the basics of science and technology and the advanced theory and practices of the respective fields or disciplines. Industrial internships and project work facilitate exposure to the methods and practices. Currently, Institute is offering 11 Undergraduate and 31 Postgraduate programmes. In addition, four year Integrated Teacher Education Program (ITEP), a dual major undergraduate degree B.Sc. B.Ed. is going to be offered from the Academic Year 2023-2024 with majors in three different disciplines namely Physics, Chemistry and Mathematics. Besides these, all departments have their research programmes leading to PhD Degrees. Institute follows a 10-point scale for grading the performance in the UG and PG courses. The curricula of all the UG and PG programmes offered by the Institute are revised thoroughly in line with NEP 2020, NISP 2019 and National Credit Framework and adopted from 2023-24 academic year onwards. The Dean (Academic) oversees the smooth conduct of all the academic programmes.

11

UNDERGRADUATE
PROGRAMMES

31

POSTGRADUATE
PROGRAMMES

6

SCHEMES FOR
PhD PROGRAMME

7300 +

UG, PG & PHD STUDENTS

15

DEPARTMENTS

Departments

Architecture and Planning
Biotechnology
Chemical Engineering
Chemistry
Civil Engineering
Computer Science & Engineering
Education
Electrical Engineering
Electronics & Communication Engineering
Humanities, Arts & Social Sciences
Management Studies
Materials Science & Engineering
Mathematics
Mechanical Engineering
Physics

Undergraduate Programmes

Bachelor of Architecture (**B. Arch.**)

Bachelor of Technology (**B. Tech.**)

Bio-Technology
Chemical Engineering
Civil Engineering
Computer Science & Engineering
Electrical & Electronics Engineering
Electronics & Communication Engineering
Engineering Physics
Materials Science & Engineering
Mechanical Engineering
Production Engineering

Integrated Teacher Education Program (**B.Sc. B.Ed**)

Postgraduate Programmes

Master of Technology - **M. Tech.** (2 years)

- Department of Chemical Engineering
 - Chemical Engineering
- Department of Civil Engineering
 - Environmental Geotechnology
 - Offshore Structures
 - Structural Engineering
 - Traffic and Transportation Planning
 - Water Resources Engineering
- Department of Computer Science and Engineering
 - Computer Science & Engineering (Artificial Intelligence & Data Analytics)
 - Computer Science and Engineering
 - Computer Science & Engineering (Information Security)
- Department of Electrical Engineering
 - Electric Vehicle Engineering
 - High Voltage Engineering
 - Industrial Power & Automation
 - Instrumentation & Control Systems
 - Power Electronics
 - Power Systems
- Department of Electronics and Communication Engineering
 - Electronics Design & Technology
 - Micro Electronics & VLSI Design
 - Signal Processing
 - Telecommunication
- Department of Mechanical Engineering
 - Energy Engineering and Management
 - Industrial Engineering & Management
 - Machine Design
 - Manufacturing Technology
 - Materials Science & Technology
 - Thermal Sciences
- Department of Materials Science and Engineering
 - Nanotechnology

Master of Science - **M. Sc.** (2 years)

- Department of Chemistry
 - Master of Science (Chemistry)
- Department of Mathematics
 - Master of Science (Mathematics)
- Department of Physics
 - Master of Science (Physics)

Master of Business Administration - **M. B. A.** (2 years)

- Department of Management Studies
 - Master of Business Administration

Master of Planning - **M. Plan.** (2 years)

- Department of Architecture and Planning
 - Master of Planning (Urban Planning)

Doctoral Programmes

Doctoral Programmes are offered in all Departments of the Institute. Admissions to the Ph.D. programme of the institute are carried out in the following schemes: Scheme I: Full-time registration with Institute Fellowship or other Govt. Fellowships like CSIR-UGC JRF/KSCSTE/INSPIRE/Visvesvaraya scheme etc; Scheme II: Full-time registration under the Self-Sponsored category; Scheme III: Full-time registration for candidates sponsored from Industry or other organizations including Educational Institutions; Scheme IV: Internal Registration for regular staff employed at NITC/ Research staff employed in funded projects at NITC; Scheme V: External (Part-time) Registration for candidates from Industry or other organizations including Educational Institutions, Scheme VI: External Registration to Direct PhD programme by candidates working in industry who do not have a post graduate degree but have relevant experience in reputed Industry. A total of 300 seats are allocated per year for scheme I and II together. The PhD scholars are selected on merit basis depending on scores in GATE / NET / JEST/ NBHM, along with written tests and interviews conducted by the Institute.

Admissions

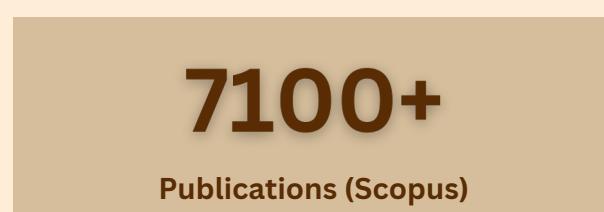
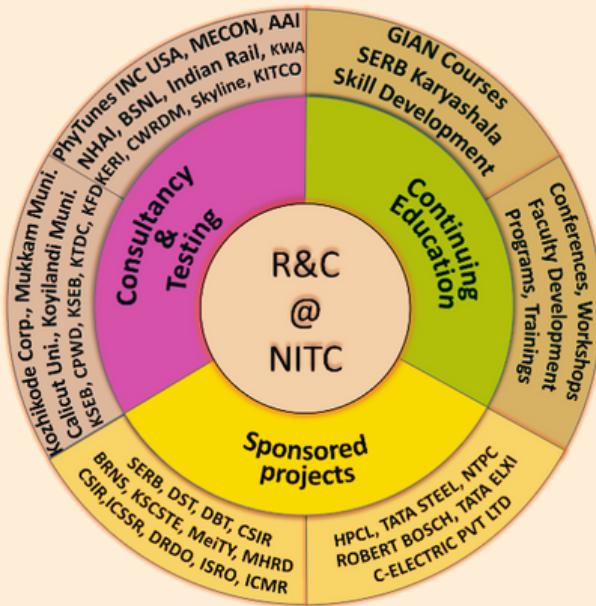
There is a good mix of national and international students on the campus. The undergraduates of NITC are admitted based on JEE (Main) rank. NITC turns out to be a top destination for the higher rank holders of JEE (Main). Students are also admitted through DASA, SII (Foreign Nationals and NRI students), MEA (Welfare) and ICCR scholarship (Foreign Nationals) schemes. The postgraduate students are admitted through centralised counselling by CCMT to M.Tech. Programmes on the basis of GATE scores and by CCMN to M.Sc. programmes based on JAM scores. Admission to MBA programmes is on the basis of CAT score. The student intake per year is about 1400 UG, 760 PG, and 300 PhD. The institute has also started admitting about 200 students for M. Tech, M. Plan. and MSc programmes under the self-sponsored scheme. Currently, the campus has over 7300 students, out of which 850 are doctoral students. The girls constitute roughly 27% of the total students on rolls.

Research & Consultancy

With the blend of multi-disciplinary knowledge, technical competency, and academic freedom, NIT Calicut is committed to conducting cutting-edge research and development activities with immediate and long-term goals. The dedication and innovation of the faculty members have resulted in substantial funding from esteemed Governmental and Industrial agencies. Another contributing factor to developing the research ecosystem is the numerous research-oriented fellowships awarded by various agencies. Remarkably, nine departments in our Institute have secured FIST funding from DST, totalling a sum of more than 13 Crores. Additionally, with the support of TEQIP and HEFA, many high-end equipment were added to the infrastructure. This substantial investment has catalyzed a quantum leap in our R&D capabilities, leading to a significant upswing in the quality of the publications, patents, and copyrights.

The Institute's testing and consultancy services have witnessed a significant expansion recently driven by our multi-disciplinary expertise, state-of-the-art test facilities, and enhanced public perception. The advanced equipment/facilities with various departments/centers enable us to undertake material testing and characterization ranging from nano to bulk level across multiple domains and applications. NITC is committed to community outreach through consultancy services, offering specialized expertise and solutions. To highlight, the Department of Civil Engineering has earned a high reputation for providing exceptional consultancy and testing services in a multitude of fields, including structural engineering, geotechnology, environmental engineering, transportation engineering, etc.

Furthermore, our active collaborations with esteemed foreign universities and institutions enrich our research and development environment, fostering international visibility and enhancing our global research network. NITC continues to thrive as a hub of innovation, research and development, driven by its commitment to excellence, collaborations, and advancing frontiers of knowledge.



Education Technology & Library

63000 +

E-Resources

1.35L

BOOKS

11000 +

SQM

FLOOR AREA

8000 +

USERS

The Central Library at NIT Calicut stands as a premier technical library in South India, a witness to its rich history dating back to the college's establishment in 1961. Covering an impressive floor area of 11,340 square meters, it boasts a remarkable collection of over 135,000 technical and scientific books. The Central Library plays a pivotal role in the academic and research life of the institution catering to a diverse user base of over 8000 individuals, including undergraduate and postgraduate students, research scholars, faculty, and employees from various Departments. The Library operates around the clock.

The digital library, known as 'NALANDA,' significantly enhances the library's resources by granting online access to a vast collection of over 8,000 E-Journals spanning various Engineering and Science disciplines. These journals encompass renowned publishers such as IEEE, Springer-Nature, Wiley, ASME, ASCE, Elsevier (including Science Direct's 8 Subject Collection), Springer, OUP, ACS, RSC Gold, APS, Taylor and Francis, IOP, alongside JSTOR journal archives. In addition to this extensive journal collection, the Digital Library boasts access to more than 6,000 E-Books sourced from reputable publishers such as Springer, Mc-Graw Hill, Pearson, IOP, Wiley, Taylor & Francis, PHI, Cambridge, World Scientific, and Elsevier.

NALANDA access to invaluable citation, financial, case studies, abstracting databases, including Scopus, Web of Science, Scifinder, MathSciNet, JGate, HBR cases and EPWRF India Time Series. These databases facilitate knowledge distribution, financial analysis and literature surveys, making NALANDA an indispensable resource for advanced research and learning in Engineering and Science Education. NALANDA's repository extends to standards, conference proceedings, and technical magazines from ACM Digital Library, BIS, ASTM Digital Library, and ISID, further enriching its comprehensive offerings. For added convenience, remote access is provided to subscribed content through the Knimbus platform, enabling users to access resources beyond the confines of the campus. The digital library actively collects and indexes students' project reports/theses using Dspace institutional repositories.

The central library plays an active role in supporting research activities by offering software tools such as Grammarly and Turnitin for enhancing research writing and conducting similarity checks on the institute's research outputs. The library's services are fully automated and accessible campus-wide through the utilization of the KOHA library management software. The key features of the Central Library's services include automated front-desk operations using RFID technology, campus-wide online access, and catalog access.

Working Hours:

The central library remains open from 09:00 am to midnight (00:00 am) every day except Sunday. The working hours of the Study Room are from 9:00 am to 12:00 midnight on all days

Technology Business Incubator

Institute has set up the Technology Business Incubator (TBI-NITC) in 2003-04 with the support of National Science and Technology Entrepreneurship Development Board (NSTEDB) of the Department of Science and Technology, Govt. of India to incubate startup industries. From that time onwards, a number of startups were incubated and made them graduate as profitable companies and businesses. Management of the TBI is through a charitable society registered under the Societies Registration Act XXI of 1860. Even though the focus of TBI was Information Technology and Electronics, a second unit of TBI sanctioned under the Startup India Mission 2016 has added new portfolios for incubation in the areas of agriculture, nanotechnology, biotechnology, and renewable energy. Out of the 105 startups registered with TBI, 87 have graduated after the due incubation period of 3 years. Approximately 1000 people are currently employed by these graduated companies and some of them have their offices abroad and client base include foreign companies and institutions. Further to the funding from NSTEDB, TBI has associated with Ministry of Micro Small and Medium Enterprises, Ministry of Information and Communication Technology and the Technology Development Board to widen the scope of funding to promote entrepreneurship. The TBI NITC is open to all the entrepreneurs.

TBI offers workspace with essential facilities at an affordable cost to the startup companies to begin with and the initial seed fund is also given. The main advantage for the startups in TBI is the availability of the technical expertise in the Institute. Many of the faculty, staff and students are extending support to the incubating companies of TBI, apart from the mentors from industry and other government departments. The companies can use the laboratory facilities of the Institute also for their product development. A dedicated Fab Lab facility is set up for the use of innovators. TBI also provides financial assistance to the companies which require fund for their operations. 72 companies have availed the seed funding/grant scheme of TBI ranging from 2 lakhs to 45 lakhs. As a policy, the TBI supports more product based startups as they will have difficulty in meeting the initial product development expenses unlike the IT/ITES/service companies. The selection of startup for incubation is based on the technical feasibility of the proposed product, financial viability of the venture, market potential of the product and background of the entrepreneurs. TBI support the innovators for prototype development through the NIDHI-PRAYAS scheme giving grant up to Rupees 10 lakhs. 34 innovators have been selected so far under this scheme. Student innovators of the Institute are also mentored by TBI to participate in various innovation and business idea competitions apart from guiding them to materialize their dream of becoming an entrepreneur. Innovation and Entrepreneurship Development Cell (IEDC) supported by Kerala Start Up Mission and Institute Innovation Council (IIC) established by MHRD are working along with TBI to promote student innovations.

Apart from these, TBI conducts Entrepreneurship development programmes, including a special programme for women entrepreneurs, every year with major funding from the MSME EDI. TBI has given training to almost 1200 people including 300 women. TBI has been conducting these programmes regularly for the past 12 years. It also conducts faculty development programmes every year for enabling the academic institutions in Entrepreneurship and for making the faculty equipped to support the entrepreneurship related activities in their institutions. TBI has successfully completed a project of the Coir Board of India where the objective was to develop a coir cluster and coir production units in the Kozhikode district to enhance the quality and productivity. Approximately 500 coir workers got benefited from this project.

105

COMPANIES INCUBATED



76

FUNDED
START-UPS

Multi-disciplinary Centers

Centre for Industry Institutional Relations



Major activities of CIIR are Collaborations /MoUs with Industries/Institutions, User Oriented Programs, Industry Internships, Setting up CoEs, Industry Sponsored Labs, Joint Conferences, Networking with Industry Associations (FICCI,CII, ASSOCHAM, Chamber of Commerce, etc.). Institute is a member of the Confederation of Indian Industry (CII) and actively involved in such industry programs.

NITC has signed several MoUs with industries, medical institutions, government organisations, etc., and which has yielded good response. We have signed more than 30 MoUs with reputed institutions like Govt. Medical College Calicut, SCTIMST Thiruvananthapuram, KMC Manipal, BIS Delhi, etc. Our MoU collaborators include IIT Madras, IISc Bangalore, IIT Hyderabad, IIT Palakkad. NIT Calicut has established a BIS Chair Professor recently. The various schemes available to strengthen the collaborations are Visiting faculty, Adjunct faculty, Professor of Practice and Co-teaching. We have about 10 eminent experts from industries and academics serving us in these posts. Under Co-teaching, we have about 30 experts from various fields every semester to strengthen the industry institutional collaborations and transfer the latest knowledge and practical aspects. Special track is introduced in the PG and PhD programs to attract practicing engineers/professionals and we conduct interdisciplinary training programs, short term courses, training on various software, etc. for the benefits of campus community and to the outside every semester.

Centre for Information Technology Research and Automation

CITRA is a multidisciplinary research centre established in march 2022 with a focus on training, research and consultancy in the area of information technology; having the vision to elevate NIT Calicut to the smartest T- School in the country through intelligent and automated IT Enabled services in a sustainable manner for all academic, research, co-curricular and outreach activities. CITRA envisions a complete Automation of all possible activities of the Institute.



The centre helps in scientific and futuristic planning and procurement of Network Infrastructure for the Campus Networking Centre and Central Computer Centre. State-of-the-art Research Infrastructure in the Area of Network and Cyber Security will be made available. It will create opportunities for students to do projects on campus-related problems and help them earn while they learn. CITRA is also formulating Training programmes/ certificate courses and consultancy in Cyber Security, Campus Automation and related areas. CITRA will also help to identify Industry-sponsored research positions /scholarships for PhD Scholars

Center for International Relations and Foreign Languages



Center for International Relations and Foreign Languages (CIRFL) is established in 2022 with a vision to Mobilize, Collaborate and Transpire Global Academic Exchange. The CIRFL envisions to Secure a niche for NITC in the global educational paradigm, fostering healthy international collaboration to facilitate research and learning of global standards and supporting a vigorous international exchange of academia and scholastic talent.

The objectives of the CIRFL are; Strengthen international collaboration in the Academic and Research domain, establish a mechanism for the attainment of global standards among the NITC fraternity, Mobilize International Academia Collaboration and Focus on creating world-class teaching practices & curriculum. The functions of CIRFL are; Coördinatie bi-Lateral and multilateral research and academic programmes; Facilitate MOUs with international universities & other research centres; Stimulate a constructive environment for joint research projects for faculty members and international academics; Encouraging Faculty & Student(s) exchange programmes; Organize visits of academic and scientific experts from different parts of the world; Arrange for in-house courses & programmes offered by visiting experts; Offer open-elective / short-term intensive courses in foreign languages to students and Mentor students to pursue international internships and apply for scholarships/fellowships.

Centre for Career Development

The Centre for Career Development was formed in 1988 to interact with the corporate world for possible employment for graduate students from the Institute. The Centre for Career Development also explores the possibilities for summer training and internship for the students of the Institute. National Institute of Technology Calicut has maintained a good placement record over the years. The graduates and post-graduates of NITC have been selected by some of the world's leading business corporations. The highly dedicated faculty, coupled with world-class infrastructure facilities, prepares deserving students to take up the challenges of the country's rapidly growing globalised techno-economic scenario. The activities of the Centre for Career Development are coordinated by the team comprising the Chairperson, Vice-Chairperson (Placements), Vice-Chairperson (Internships) and Vice-Chairperson (Training). Student and Faculty representatives from each department give the necessary support for the smooth functioning of the Centre. Moreover, the placement representatives play a vital role in the day-to-day conduct of the recruitment/internship drives. Technical Assistants and Office Assistants ably assist the office.



95.45%

Undergraduate
Placement

200+

Companies

1150+

Placement offers



Scan for Placement Report



Centre for Innovation, Entrepreneurship & Incubation

The Centre for Innovation, Entrepreneurship & Incubation (CIEI) – is an initiative by NIT Calicut to foster innovation and entrepreneurship culture among the students, faculty and staff to enable them to transform their innovative business ideas into reality. CIEI aspires to develop individual talents, skills and personality to give each business the best possible start, thus fostering entrepreneurship at a local, national/international level.

The Vision of CIEI is International standing of the highest calibre in innovation and entrepreneurship with a Mission to actively engage students, faculty and staff in innovation & entrepreneurship by creating a state-of-the-art ecosystem to solve the problems in the industry/society and the market through developing technology start-ups resulting in the regional economic development. CIEI offers unique and incentivized solutions, which will encourage students, staff and faculty to ideate and design novel solutions. CIEI will provide a supportive entrepreneurial environment that accelerates the successful development of start-up companies through an array of adequate resources and services. CIEI comprises of Institute innovation Cell (IIC), Design Innovation Centre (DIC), IPC (Institute Patent Cell) and Technology Business Incubator (TBI). Schemes like Students Innovative project funding, Institute Start up for faculty/staff/students are also implemented by the centre.

46

Student Innovative
Projects (funded)



RATED

IIC-NITC



Scan for
List of Patents

39

Innovation
Ambassadors

Centre for Cultural and Art Relations



The Centre for Cultural and Art Relations (CCAR) was established to make engineering education more multidisciplinary and improve students' learning experiences by incorporating fine and performing arts into the curriculum, which are clearly aligned with the NEP2020 vision statements. The centre aims to provide holistic education with innovation and style by combining arts and engineering. This may give our young minds a new way of seeing, perceiving, and interacting with their world, leaving an indelible impression on their senses.

It aspires to be a hub of art in practice and discourse within NITC. Public event programmes, workshops, research, and pedagogy are all expected to help build a community of artistic-engineers interested in the intersections of art, culture, and technology. CCAR strives to collaborate with cultural and artistic talents at the regional, national, and international levels to build bridges with the community in novel and exciting ways.

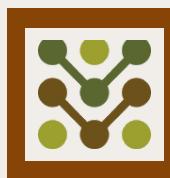
Centre of Excellence in Logistics and Supply Chain Management

NIT Calicut is partnering with the National Institute of Industrial Engineering (NITIE) Mumbai, the nodal Institute, in an initiative for Capacity Building in the domain of Logistics and Supply Chain Management to support the PM Gati Shakti Scheme. NIT Calicut has vibrant research teams related to logistics and supply chain, transportation engineering, remote sensing, urban planning, construction management and cyber security, which makes the Institute adept at contributing to the nation building.



As an ambitious initiative, NIT Calicut has recently launched a Centre of Excellence in Logistics and Supply Chain Management (CoELSCM) to contribute to the realisation of the objectives of the Gati Shakti Scheme. This Centre of Excellence is multidisciplinary and works across various research groups. It will focus on new and emerging technologies with multidisciplinary and translational research relevant to achieving PM Gati Shakti's objectives of improving the supply chain's operational efficiency and minimising the logistics costs of India. Faculty members in the domain of Industrial Engineering, Transportation Engineering, Remote Sensing and Geospatial Technology, Construction Management and Cyber Security and their research teams will be a part of this Centre. This Centre has developed 15 open/elective courses related to Logistics and Supply Chain Management for B.Tech./M.Tech. Students.

Centre for Holistic Teaching and Learning



The Centre for Holistic Teaching and Learning (CHTL) is created to facilitate a holistic approach to the teaching and learning process. The CHTL's mission is to develop an ambience of comprehensive teaching and learning through Research, Design & Development of educational/pedagogical content, Educational technology and Collaborative Interdisciplinary teamwork. The various themes of activities that the CHTL leverages are: Helping faculty to redesign their regular lectures and assignments in an Online/Blended mode; Conducting focused in-house programs for both faculty and students to utilize the available technology resources better; Developing customized technology resources for carrying out teaching-learning practices; Developing e-learning modules that can be used by learners outside the institution (Online and Distance Learning mode); and Conduct outreach programmes for faculty and students from nearby engineering institutions; Engage in collaborations with other institutions involved in Educational Technology Research

Centre for Indian Knowledge Systems



In line with the National Education Policy 2020, NITC has established the Centre for Indian Knowledge Systems (CIKS, BharatheeyaGyana Parampara Kendram) to promote education, training and research in traditional Indian Knowledge Systems (Science, Mathematics, Economics, Astronomy, Astrology). CIKS works with a mission to enable students, faculty and staff to engage in education and research on Indian Knowledge Systems for developing appropriate technologies/practices and products for sustainable growth. CIKS envisions empowering intellectuals with Indian Knowledge Systems to address technological challenges. CIKS is offering UG open elective courses, conducting a Certificate Course on Sanskrit under the Non-Formal Sanskrit Education scheme of Central Sanskrit University, New Delhi and also conducting invited lectures of eminent personalities to sensitise students, faculty and staff on Indian Knowledge Systems

Centre for Women Welfare and Social Empowerment



Women empowerment has been identified by the Government of India as a prerequisite not only for family and societal development, but also for the entire nation building. As a premier higher education institute in engineering, technology and scientific domain, National Institute of Technology Calicut is rightly positioned to support the women welfare and empowerment drive in the multiple segments the government have identified.

NIT Calicut assures women's empowerment by promoting a diverse and inclusive culture at NIT Calicut, thus helping to create a welcoming and supportive environment for women and other underrepresented groups. Consequently, the Centre for Women Welfare and Social Empowerment is established at NIT Calicut to facilitate its influence and expertise to advocate for gender equality and women's empowerment, both within the institute and in the broader community. The centre aims to empower women and improve their skills in order to help them achieve greater independence and success in their personal and professional lives. The centre activities are focused on women empowerment with outcomes expected in multiple facets, starting from personal development to skill development.

Centre for Yoga and Holistic Wellness

The Centre for Yoga and Holistic Wellness NIT Calicut was established aligned with the missions of National Education Policy NEP 2020. The centre aims to empower academic community through Yoga and Mindfulness practices to address challenges in profession and life. CYHW has paved way to bring physical, mental and emotional wellbeing through Yoga and Wellness training and practices. Activities are being organised on regular basis for students, scholars, faculty members to enhance their capability in academics, research and profession.



Yoga practices and workshops are held in the campus leading to a stress free, health conscious community contributing to the society and nation building. Yoga and aerobics practices are made available for the campus community in every semester along with the academic activities. The centre has established collaboration with Indian Yoga Association and Patanjali Yoga Research Centre, Kozhikode to take forward joint ventures. Elective courses of 3 credits were introduced into UG curriculum. The centre conducted activities such as wellness camps, expert lectures and workshops for the physical and mental wellbeing of campus community. The centre has taken initiatives to take forward scientific research in this valuable heritage wisdom of yoga for the betterment of individuals and nation.

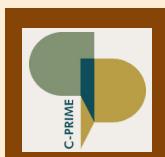
Centre for Quality Assurance and Enhancement



The Centre for Quality Assurance and Enhancement was set up with a vision to create an ethos towards holistic quality enhancement in academic, research and administrative practices of the Institute. The Centre strives to identify and apply benchmarks for assessment of quality in academic, research and administrative spheres in the Institute.

The Centre also is in the process of developing a system for conscious, consistent and catalytic action to improve the performance by the conduct of audits in Academics, Research, Administration, Equipment utilisation, Energy consumption and Environmental sustainability. The Centre aims to promote measures for institutional functioning towards quality enhancement through internalisation of quality culture and institutionalisation of best practices. Moreover, the Centre is functioning as a nodal agency to ensure continuous improvement of quality culture in the Institute.

Centre for Public Relations, Information and Media Exchange



The Centre for Public Relations, Information and Media Exchange (C-PRIME) envisions to ensure proper assimilation and dissemination of information about NITC. The activities of the centre include liaison with the media world, publication of Institute Brochure and Newsletters, maintenance and management of information on the Institute website, fostering public relations etc. Media Cell is a subsidiary wing of C-PRIME which aims to convey information about various events, achievements and activities of the Institute to the outside world through the print, electronic and social media platforms, so as to enhance the visibility and improve the perception about the Institute. We are committed to establishing and maintaining a cordial, fruitful and mutually beneficial relationship with the media world.

Advanced Manufacturing Centre

Advanced Manufacturing Centre set up in the Department of Mechanical Engineering is one of the finest facilities available in manufacturing. Major equipment available include, 5 axis CNC Coordinate Measuring Machine, 3 axis Integrated Multipurpose Micro-Machining Centre, 4 axis CNC Machining Centre, Rapid Prototyping Machine/ 3D Printers, CNC turning centres, CNC Surface Roughness Tester, Six component and Mini Cutting Tool Dynamometers. The fully fledged CAD/CAM Centre opens round the clock conducts free training programmes to NITC students. Popular CAD/CAM software available includes: SolidWorks, Creo, Catia, Siemens Nx, MSC Adams, Mastercam, Ansys, and Abaqus. Further details are available at <http://www.amc.nitc.ac.in/>

DST -FIST Scheme

Fund for improvement of Science & Technology Infrastructure in Higher Educational Institutions (FIST) is a special scheme that has been launched by the Department of Science and Technology, Government of India for selectively strengthening the infrastructure for post-graduate education and research in emerging areas. Departments of Computer Science & Engineering, Electronics & Communications Engineering, Electrical Engineering, Mechanical Engineering and Chemistry have received funding through this scheme in the recent past. The DST-FIST Centre for Precision Measurements And Nanomechanical Testing is one of the latest additions because of the FIST scheme. This has been set up at the cost of Rs 2.51 Crores. This centre has sophisticated facilities like 3D Profilometer, Nanoindenter, High Speed Camera, Thermal imager, etc. to help the research in design and manufacturing.

Sophisticated Instruments Centre

The Sophisticated Instrument Centre uses state-of-the art technology in measurements and metrology and has facilities for carrying out the measurements of industrial products. Most of the instruments like CNC Coordinate Measuring Machine (CMM), CNC surface roughness tester and measuring software have been imported from Japan with the financial assistance of the Ministry of Human Resources Development, Govt. of India. It aims to enable small industrialist to obtain certification of quality for their products at a reasonable cost. This centre also offers various training, testing and consultancy services to industries and academic institutions.

Centre for Transportation Research

The Centre for Transportation Research (CTR) was set up in 2013 with funding from Ministry of Human Resource Development under 'Establishment of 50 centres of excellence for Training and Research in Frontier Areas of Science and Technology scheme' (FAST scheme). The total project outlay is Rs. 6 crores for a period of 6 years. The mission of the Centre for Transportation Research is to improve the quality of life in our community, region and nation through leadership and excellence in transportation research, education and outreach using all the resources and strong partnership with government and industry. The CTR carries out research, training, testing and public awareness programmes in various aspects of transportation engineering. Many programmes and research have been undertaken. The training programmes sponsored by NRRDA is a regular feature.

Students Activities and Sports

Institute gives due importance for extracurricular activities both through formal and non-formal mechanisms. Students enjoy the benefits of facilities like flood lit clay courts for lawn tennis, concrete topped floodlit basketball court, floodlit volley ball court, multipurpose indoor court for badminton and table tennis, chess hall etc. The students also have access to a 25 station gymnasium, playfields for football, cricket and hockey, cricket net practising zone and pitch, etc. and a swimming pool. There is also one exclusive fitness centre attached to Ladies' Hostel having a gymnasium, badminton court and a table tennis room. The major attraction of the campus is the voluntary participation by the students in the sports events. Regular practice is taken up for every major game, under the expert guidance and supervision of the coaches hired for that purpose. The teams are trained for participation in various levels of tournaments, namely District, State, Invitation, Inter-university, Inter-NIT and so on. All these activities could help in going a long way in attaining the objective of "Total Fitness in the Campus". In the new undergraduate curriculum, there are activity points, which is seen to inculcate 'fitness awareness' among students and has resulted in enhancing the student participation. There are separate coaches appointed for all sports. The Students activities and sports officer oversee all sports activities and sports events in the campus.



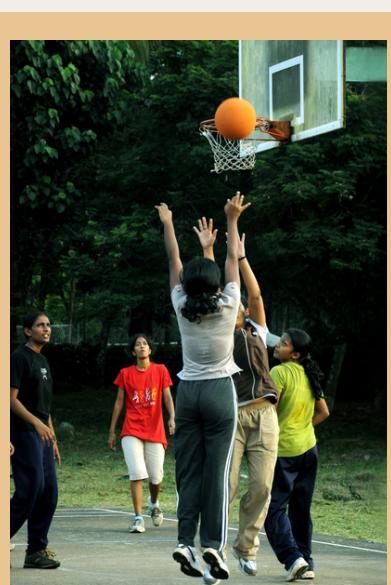
Students' Life & Hostels

The students live in hostels on campus. There are, at present, 13 hostels on the campus, out of which 10 are for boys and 3 for girls. These include two Mega Hostels for boys (500 seated Mega Hostel for boys -1 & 1355 seated Mega Hostel for boys -2) and a 500 seated Mega Hostel for ladies. Messes operated through outsourcing are available in all hostels. Hostel administration is through the Chief Warden and the Council of Wardens appointed by the Director. The Hostel and Mess Committee, with student members, manage the hostels and mess halls.

Student activities are organized and managed by the Students Affairs Council (SAC), an elected student body. The activities are overseen by the Dean (Students Welfare) and Students activities and sports officer. The SAC runs various clubs and conducts multiple technical and cultural events to bring out the extra-curricular talents of NITC students. Annual mega events of TATHVA and RAGAM attract thousands of students from institutions across the country.

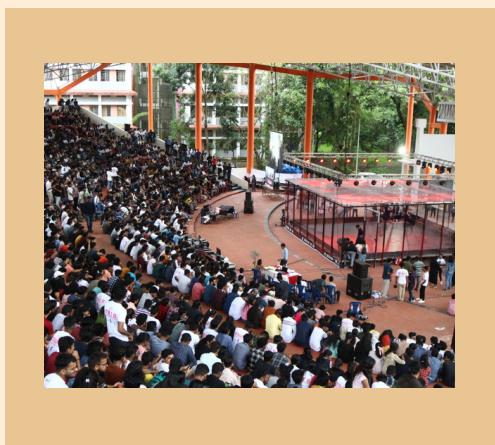
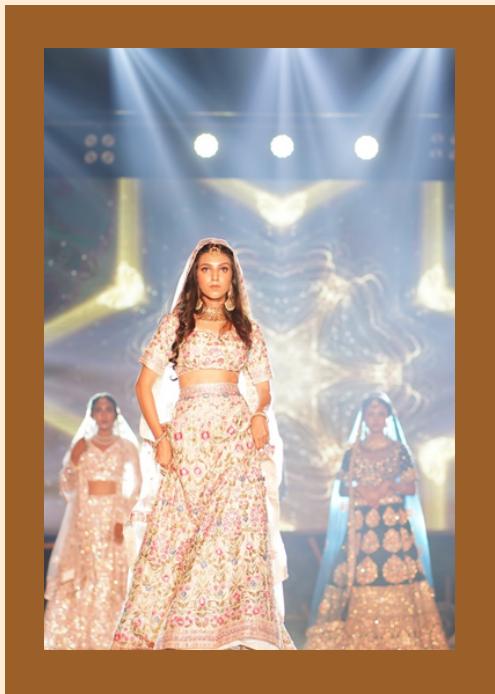
A Student Guidance Cell (SGC) is also functioning on the campus, which aims to provide guidance and counselling services to students based on their specific needs. SGC helps students to function better in all domains of life - academic, social, personal and psychological. The motive behind SGC stems from the need to facilitate the growth process and maintain the students' positive well-being.

The Silver Jubilee Endowment Trust (SJET) is a major source for financial support for needy students. There are a number of endowments that have been instituted by alumni and well-wishers, with a view to extend support to especially the undergraduate students.



Co-Curricular and Extra-Curricular Activities

- Cultural fest RAGAM and techno-management fest TATHVA organized by the Students Affairs Council (SAC)
- Student magazine published annually to showcase the talents of students
- Several student clubs for activities like music, debate, dance, drama, management, entrepreneurship, literary affairs, animal welfare etc.
- Active SPICMACY Calicut chapter
- Film club arranges screening of movies in open air theatre
- National Service Scheme (NSS) for community services (4 Units)
- National Cadet Corps (NCC) : Naval Unit (1 unit)
- Inter scholastic- Home and Away- district championship, state championship, inter university tournaments, inter NIT tournaments, etc.
- Membership in professional societies like ISTE, IEEE, CSI, SSI, IIIE, SAE, ICI, ACM etc.



Our Faculty Members

NITC is endowed with a rich faculty community, possessing varied Technical and Scientific expertise. Our faculty predominantly consists of Ph. D holders, involved completely in Teaching and Research. We have among our ranks faculty with adequate exposure to a multitude of best practices followed among the top institutions world over. Currently at NITC there are 383 faculty members, spread over the cadres of Professor (HAG), Professor, Associate Professor and Assistant Professor. Over the last few years as NIT, Institute has diversified the faculty structure widely, with expertise stretching from Molecular Biology and Genetics to Manufacturing Technology to Humanities and Social Sciences. Research output in the form of papers and patents are encouraged through generous incentives. A seed grant is given by NITC to faculty to kick start their research work. Faculty are encouraged to send proposals for funding of research projects through various Government funding agencies like DST-SERB, ICMR, ICSSR, DRDO, DBT, CSIR, NBHM, MHRD, BRNS, KSCSTE etc. Portion of the project overhead is given to the investigators for professional development. Faculty at NITC has a healthy relationship with Industry through consultancy projects undertaken. Faculty has the freedom to propose and conduct courses and design programmes, with adequate discussions amongst peers.

The institute has been endeavouring to fill the faculty vacancies by conducting regular recruitment interviews, ensuring selection of candidates with outstanding merit. Significant numbers of Ph.Ds and Post-Docs from various universities abroad have also joined the institute, leading to the trend of “brain-gain” in the recent times. The institute at present offers regular appointment only to Ph.D. degree holders.

Our Non-Teaching staff

Supporting staff is an indispensable ingredient of any academic Institution. NITC has a reasonably large contingent of dedicated non-teaching staff, with whose efforts various administrative, laboratory, maintenance and estate units function smoothly. Presently, there are 127 staff members in the regular cadre are involved in supporting the academic activities of the Institute. The number is expected to increase to 360 by December 2023. They are employed as administrative staff, laboratory technicians and skilled workers and support staff.

Alumni Network

NITC has a vibrant Alumni community of over 40,000 members. All of them are part of the NITC Alumni Association (NITCAA). They get back to their alma-mater on every occasion. The Institute is very proud of its former students now occupying key positions in academia, research organisations and leading industrial sectors across the globe. Today NITCAA has 18 Alumni chapters – 11 in India and 7 abroad. Many Alumni have sponsored scholarships under the umbrella of Silver Jubilee Endowment Trust to support the economically backward students of the Institute. SEWA, a charitable society started by the 1978 batch, sponsors several activities for the society and the students of NITC. World NITCAA Meet (WNM) is being conducted biannually. Silver Jubilee and Golden Jubilee meets of former batches is conducted every year in the campus since 1986 and 2011 respectively. NITCAA has executed projects like the Creative Zone, Maitri, Green Amphitheatre, IoT lab (Lab8085) etc. for contributing back to the institute. NITCAA contributed 350 laptops for the needy students of NITC for attending online classes during COVID19. The Institute Management System (IMS) and the new Institute website are two key Alumni-sponsored projects. Work is progressing on a Student Plaza named 97th Avenue, sponsored by the 1997 batch. North America NITC Alumni association is coordinating the NITC Alumni Mentoring Program (NITCAMP) for providing academic and career guidance to current students. The flagship festivals of NITC - Tatva and Ragam - as well various student clubs have consistently received the patronage of our Alumni. Eminent Alumni visit the campus regularly and interact with students as part of the Distinguished Alumni Lecture Series. Alumni are also co-teaching various courses along with regular faculty. NITC has instituted a Distinguished Alumni Awards scheme to celebrate the professional achievements and contributions of its Alumni under seven categories.

225L+

**Alumni
Contribution
in 3 years**



19

**ALUMNI
CHAPTERS**

45000+

ALUMNI MEMBERS



Campus Infrastructure

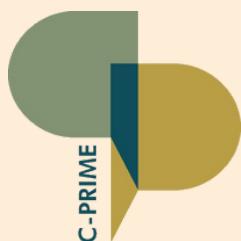


About Calicut

Kozhikode or Calicut is one of the prominent trade and commerce centre in Kerala, situated towards the north part of the State. The name Calicut was given by the British who made it the capital of Malabar region. Today it is the headquarters of a district of the same name and the third most populous city in the state of Kerala. It was the capital city of the erstwhile rulers known as Zamorins for a long period. The Portuguese Navigator Vasco de Gama landed in AD 1498 and since then Kozhikode became an important port in the Malabar region for the trade of spices, silk and other goods. This district is famous for its lush green countryside, beaches, wildlife sanctuaries, rivers, hillocks, historical places, etc. People are very kind hearted and well educated. The economy of Kozhikode mainly depends on agriculture, fisheries and timber. People from this region are working in the Middle East and their remittance to home land keeps the local economy buoyant. It is a fast developing city, both in terms of business and industry and is a centre for the export of coconut, coffee and tea. Kozhikode also boasts of the rich tradition in arts and crafts. Best time to visit Kozhikode is September to December if someone is not keen to enjoy the pouring rains of the South-West Monsoon from June to September. Kozhikode is well connected by road, rail and air. NH 66 passes through the city of Kozhikode and has a railway station, which connects the city to the rest of the country. Kozhikode International airport at Karipur is about 35 kilometers away from the city campus.



PRINTED & PUBLISHED BY



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