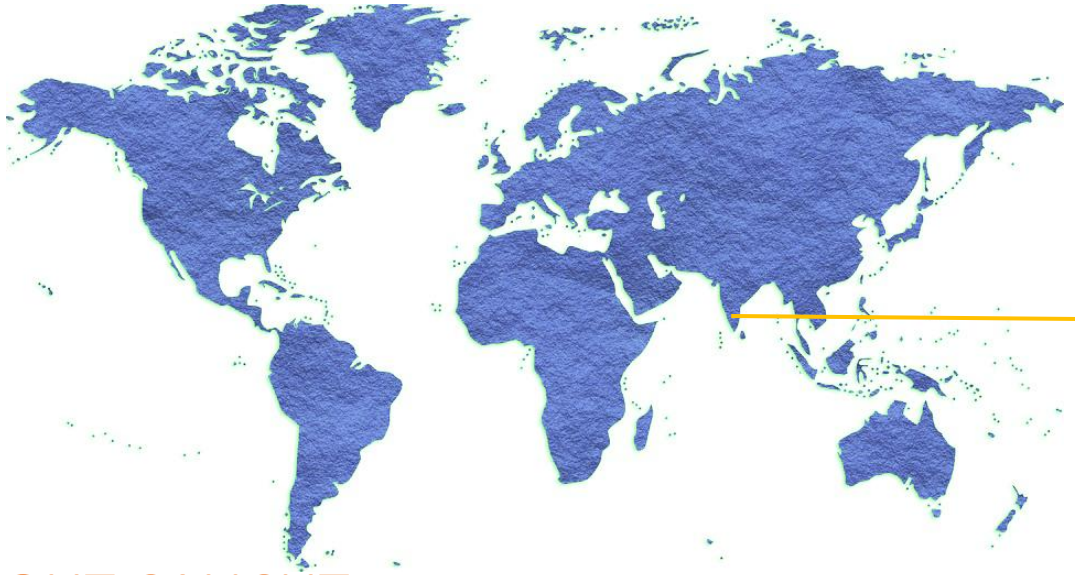
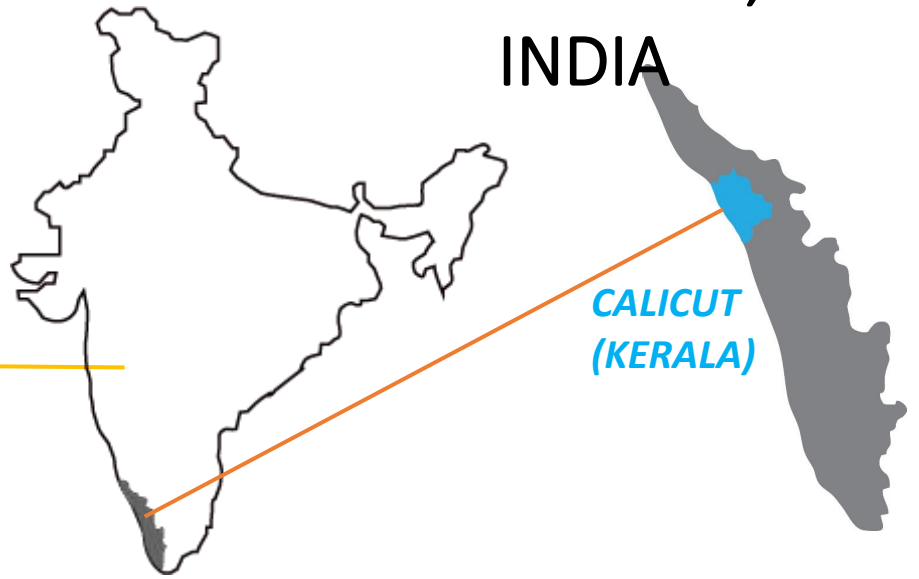
# NATIONAL INSTITUTE OF TECHNOLOGY CALICUT | INDIA

# CALICUT, KERALA, INDIA






*KERALA (INDIA)*

## ABOUT CALICUT

Calicut, also known as Kozhikode, located in the Malabar region of Kerala State, found a place in world history with the discovery of a sea route to India in 1498 by the Portuguese navigator Vasco da Gama.

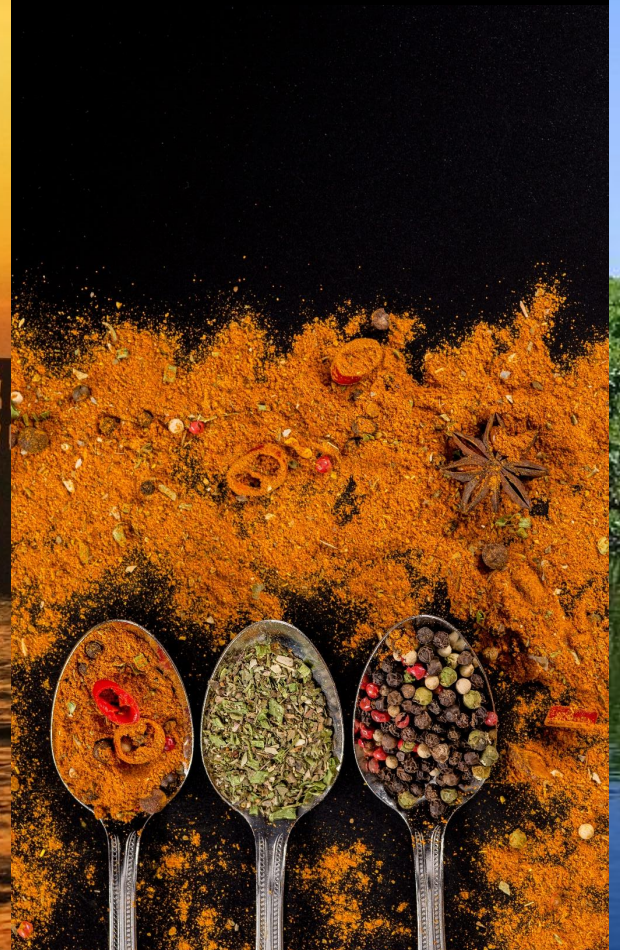
Basking in the idyllic setting of the Arabian Sea on the west and the proud peaks of the Wayanad hills on the east, Calicut is known for its serene beaches, lush green countryside, historic sites, calm backwaters, wildlife sanctuaries, rivers and waterfalls.

Calicut was given the tag of *City of Sculptures* (Shilpa Nagaram) in 2012 because of the architectural sculptures around the city. Besides, Calicut declared India's first UNESCO *City of Literature* in 2023.

Calicut - *the city of truth*, has a population of 1.8 million and is home to premier educational/research institutions. Currently there are many IT companies running in Cyberpark and HiLITE Business Park.

*The region of Malabar that hosts the Institute is the northern part of the State of Kerala and is a destination for ecotourism.*

*Malabar is historically known for its spices and trading with the Middle East.*



*Kerala is a popular tourist destination, known for its serene backwaters, wildlife sanctuaries, hill stations, and historic sites. Nature's bounty, vibrant culture and exotic cuisine bespeak the land's tourist slogan "God's Own Country".*

*The state is known for its classical dance forms like Kathakali and Mohiniyattam, as well as traditional music and art forms. The official language of Kerala is Malayalam.*

# ABOUT NIT CALICUT

## VISION

*International standing of the highest calibre.*

## MISSION

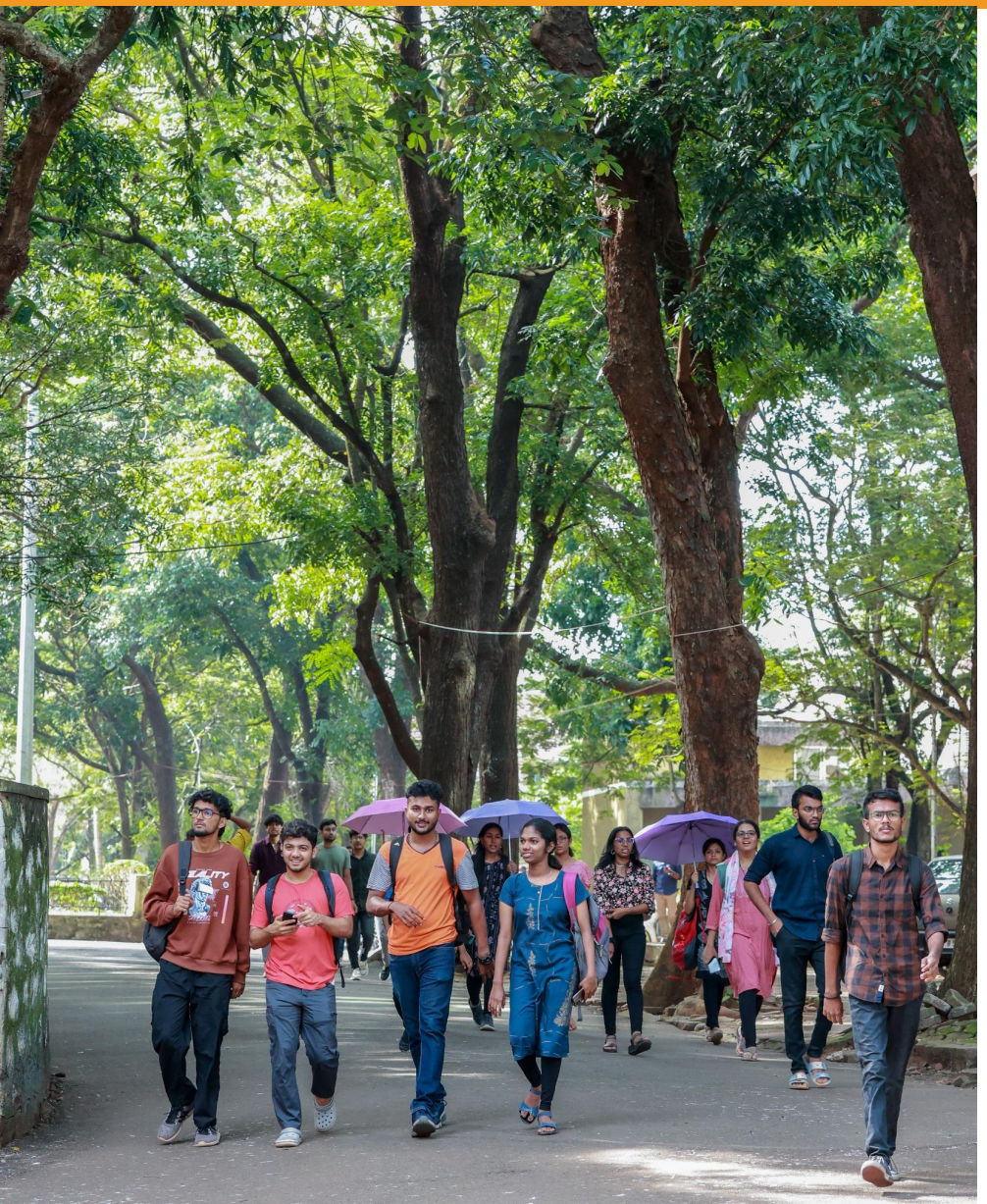
*To develop high-quality technical education and personnel with a sound footing on basic engineering principles, technical and managerial skills, innovative research capabilities, and exemplary professional conduct to lead and to use technology for the progress of mankind, adapting themselves to changing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

**National Institute of Technology Calicut (NITC)**

is one of the 31 institutions of national importance set up by an Act of Parliament namely the 'NITSER Act 2007', and is fully funded by the Government of India.

Originally established in 1961 as a Regional Engineering College (REC), it was transformed into a National Institute of Technology in 2002.

# A GLANCE AT NIT CALICUT



- *With its proactive collaborations with a multitude of research organizations, academic institutions and industries*, the institute has set a new style for its functioning under the NIT regime.
- *Being a fully residential institution, the campus houses:*
- Academic buildings
- Research labs
- Hostels
- Residences and other amenities among its infrastructure.
- *Doctoral-level research has remarkably increased in recent times with a substantial increase in the volume of research papers and patents produced.*

# INSTITUTE OVERVIEW

*The Institute offers Bachelor's, Master's and Doctoral Degree programs in programs in*

**Engineering | Science | Technology | Management**

**15** Departments

**12** UG Programmes

**32** PG Programmes including an MBA

*PhD Programme in all Departments*

Regular Teaching Faculty **422**

Regular Non-Teaching Faculty **289**

**8000+** *UG,PG & PhD Students on Roll*
*31% Students are Girls*

**45000+** *Distinguished Alumni*

# ACHIEVEMENTS & RECOGNITIONS: LAST THREE YEARS

## NIRF India Ranking 2024

ENGINEERING

ARCHITECTURE

## NIRF India Ranking 2023

ENGINEERING

ARCHITECTURE

## NIRF India Ranking 2022

ENGINEERING

ARCHITECTURE

## NIRF Innovation Ranking 2023

*(The only NIT among the top 10)*

## Institute's Innovation Council (IIC) – 2023

*Four Star Rating*

## Atal National Ranking of Institutions on Innovation Achievements (ARIIA) -2023:

*(The only NIT among the top 10)*

# DEPARTMENTS AND CENTRES

## DEPARTMENTS

1. Architecture and Planning
2. Bioscience and Engineering
3. Chemical Engineering
4. Chemistry
5. Civil Engineering
6. Computer Science & Engineering
7. Department of Education
8. Electrical Engineering
9. Electronics & Communication Engineering
10. Humanities, Arts and Social Sciences
11. Materials Science and Engineering
12. Mathematics
13. Management Studies
14. Mechanical Engineering
15. Physics

## CENTRES

1. Centre for Career Development
2. Centre for Clean Energy and Circular Economy
3. Centre for Continuing Education and Skill Development
4. Centre for Cultural and Art Relations (CCAR)
5. Centre for Electric Vehicle Engineering
6. Centre for Holistic Teaching and Learning
7. Centre for Indian Knowledge Systems
8. Centre for Industry - Institutional Relations (CIIR)
9. Centre for Information Technology, Research, and Automation (CITRA)
10. Centre for Innovation, Entrepreneurship & Incubation
11. Centre for Public Relations, Information and Media Exchange (C-PRIME)
12. Centre for Quality Assurance and Enhancement
13. Centre for Sustainable Technologies
14. Centre for Yoga and Holistic Wellness
15. Centre for Women Welfare and Social Empowerment (CWSE)
16. Centre of Excellence in Artificial Intelligence
17. Centre of Excellence in Logistics and Supply Chain Management

## THEMATIC CENTRES

1. Advanced Manufacturing Centre
2. Biomechanics
3. Campus Networking Centre (CNC)
4. Central Computer Centre (CCC)
5. Centre for Computational Modelling and Simulation (CCMS)
6. Centre for Materials Characterization (CMC)
7. Centre for Scanning Microscopy
8. Centre for Student Activities and Sports
9. Equal Opportunity Cell
10. Sophisticated Instruments Centre
11. Transportation Research

# ACADEMIC PROGRAMS

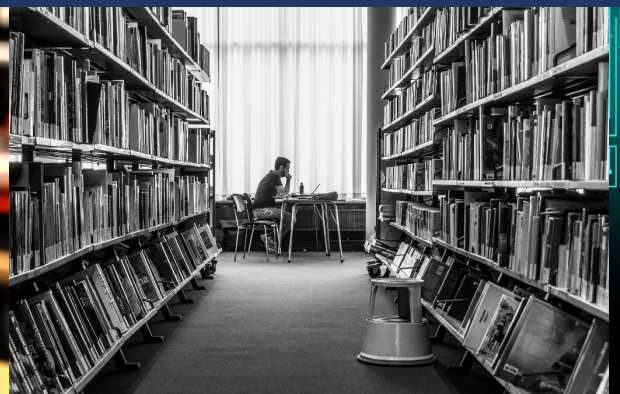
| Departments | B.Arch/B. Tech/BSc.Ed | M.Tech/M.Plan | MSc/MA/MBA | Ph.D. |
|---|---|---|---|---|
| Architecture and Planning (5 years) | ✓ | ✓ | × | ✓ |
| Bioscience and Engineering | ✓ | ✓ | × | ✓ |
| Chemical Engineering | ✓ | ✓ | × | ✓ |
| Chemistry | × | × | ✓ | ✓ |
| Civil Engineering | ✓ | ✓ | × | ✓ |
| Computer Science and Engineering | ✓ | ✓ | × | ✓ |
| Department of Education | ✓ | × | × | × |
| Electronics and Communication Engineering | ✓ | ✓ | × | ✓ |
| Mechanical Engineering | ✓ | ✓ | × | ✓ |
| Physics | ✓ | × | ✓ | ✓ |
| Materials Science and Engineering | ✓ | ✓ | × | ✓ |
| Management | × | × | ✓ | ✓ |
| Mathematics | × | × | ✓ | ✓ |
| Humanities, Arts and Social Sciences | × | × | × | ✓ |

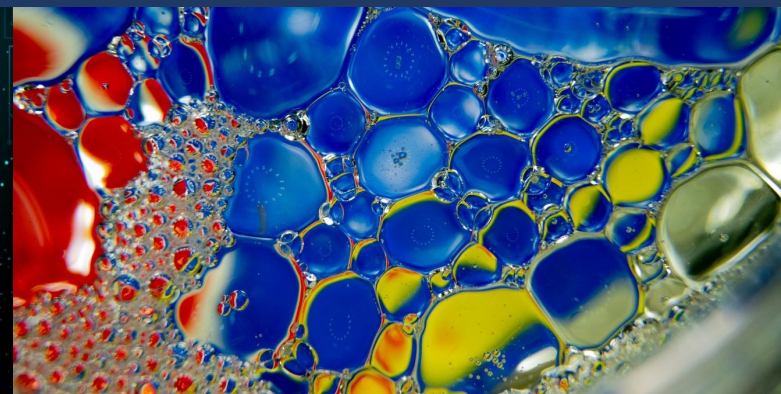
# INTERDISCIPLINARY RESEARCH

## PROGRAMS/ AREAS/ THRUST AREAS OF RESEARCH

***The major areas of research and consultancy of various departments/schools are as follows:***

- Architecture & Planning
- Chemical Engineering
- Chemistry
- Civil Engineering
- Computer Science & Engineering
- Electrical Engineering
- Electronics & Communication Engineering
- Mathematics
- Mechanical Engineering
- Physics
- Department Of Bioscience & Engineering
- Department Of Management Studies
- Department Humanities, Arts & Social Sciences
- Department Of Materials Science & Engineering

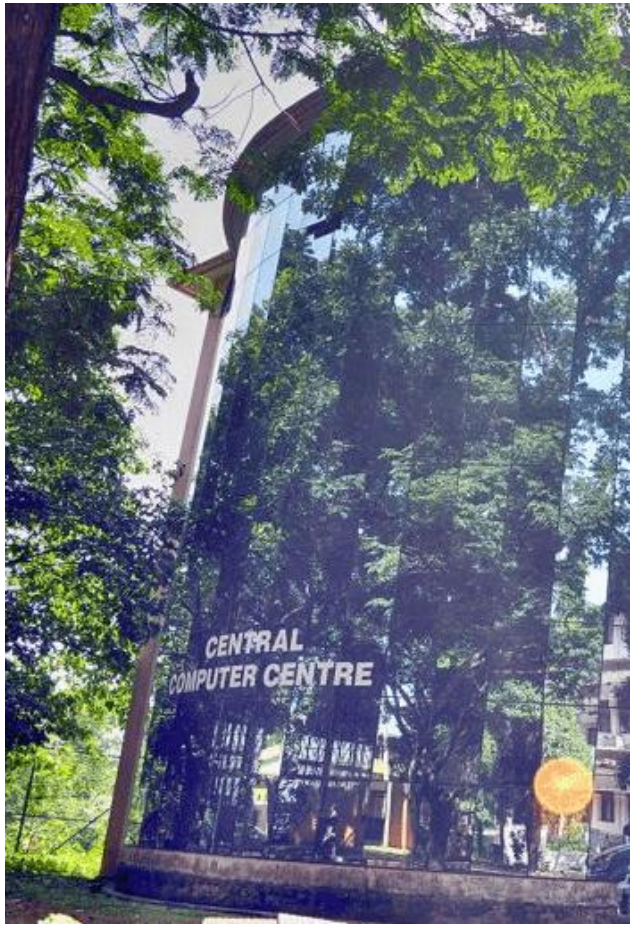




# RESEARCH THRUST AREAS

- 5G and Next Generation Communication Technologies
- Additive Manufacturing
- Artificial Intelligence
- Robotics
- Genetic Engineering
- Energy and Electrochemical Engineering
- Nanotechnology
- Waste Management
- Natural hazards
- Town Planning
- Electric Vehicle Engineering
- Technology Management

# THEMATIC CENTRES




## Centre for Computational Modeling and Simulation (CCMS)

CCMS aims to promote and support computational modelling as a mainstream research activity amongst the faculty and researchers of NIT Calicut.

***Link:*** *https://nitc.ac.in/thematic-centres/centre-for-computational-modelling-and-simulation-ccms*

## Centre for Materials Characterization (CMC)

The Centre for Materials Characterization (CMC) to host highly sophisticated testing, characterization and analysing facility to boost up the cutting edge research in Materials Engineering, Chemistry, Nanotechnology and allied areas.

*Link: https://nitc.ac.in/thematic-centres/centre-for-materials-characterization-cmc*

## Centre Computer Centre (CCC)

CCC is the central facility in NIT Calicut which caters for the computing requirements of the whole community of this institution. The Centre has state of the art infrastructure with four fully operational terminals spanning over three floors of the building..

***Link:*** *https://nitc.ac.in/thematic-centres/central-computer-centre-ccc*

# CENTRES OF EXCELLENCE
## (RESEARCH CENTRES)

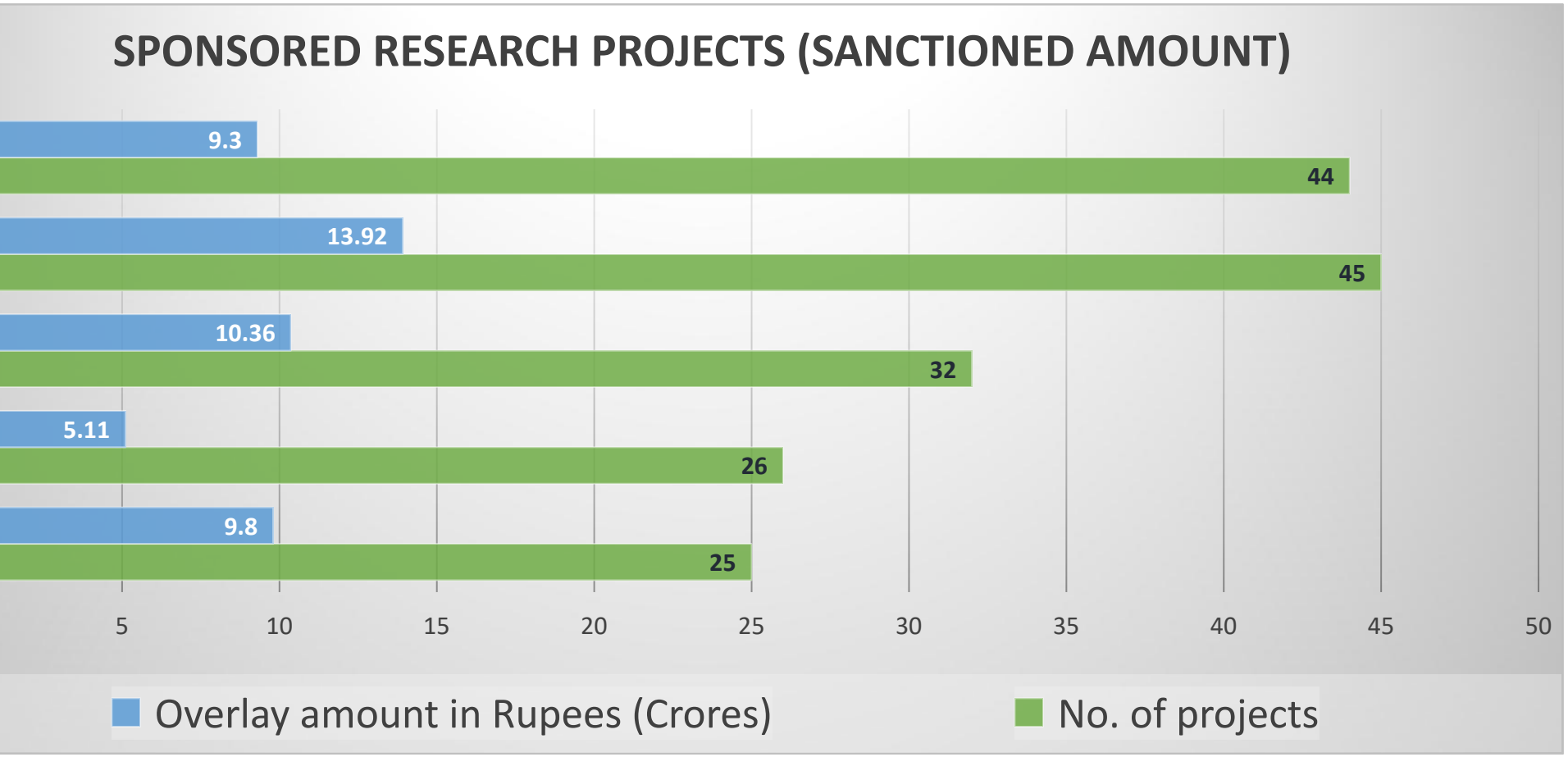
### Design Innovation Centre

Design Innovation Centre (DIC) was established by an MoU signed between NIT Calicut and IISc, Bangalore on 06-05-2015. The objectives of this centre are to promote a culture of innovation and creative problem solving, to promote knowledge sharing and to enhance interdisciplinary design-focused education, research and entrepreneurial activities.

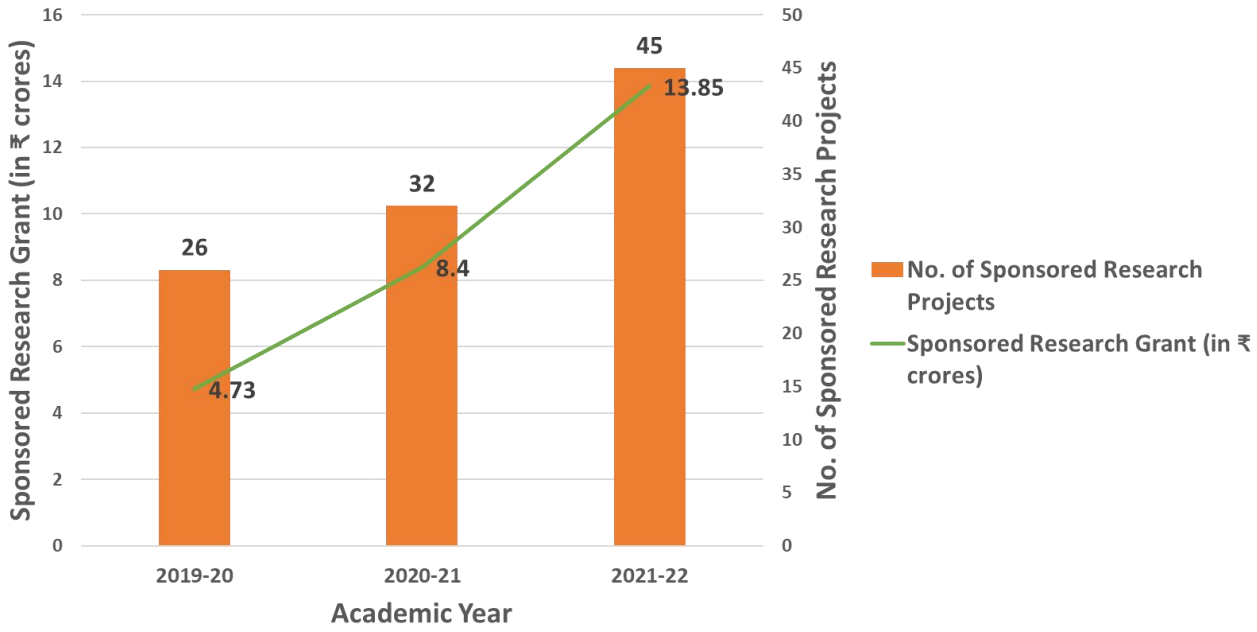
# RESEARCH & CONSULTANCY

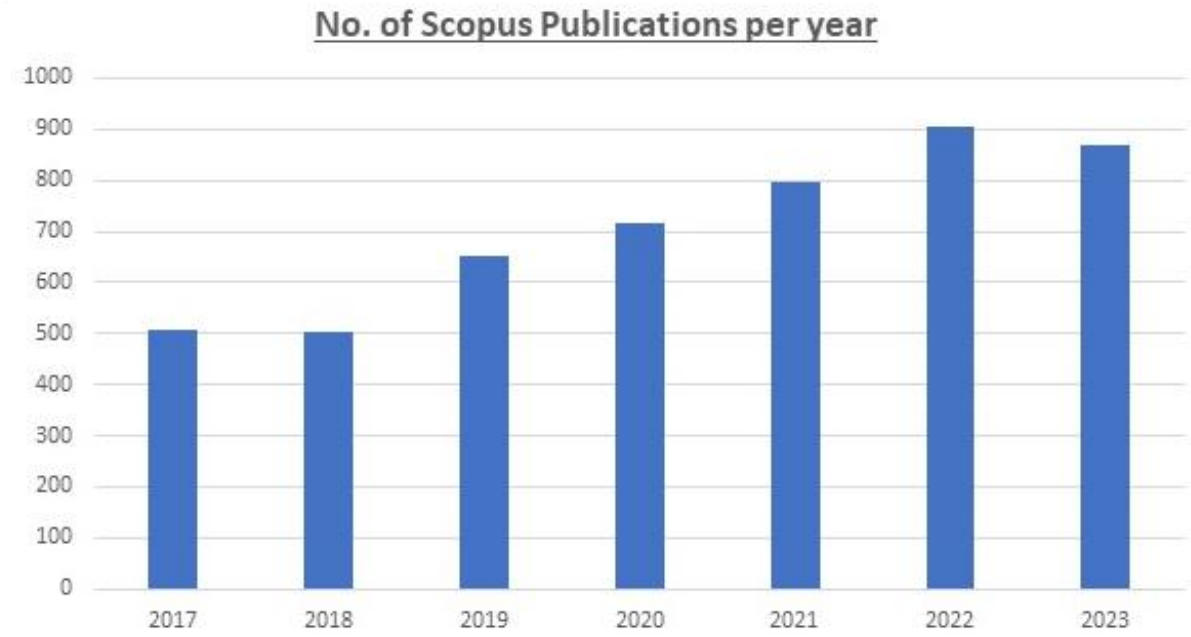
- NIT Calicut encourages research and innovation, with faculty and students actively engaging in projects.
- The institute has secured substantial funding from esteemed governmental and industrial agencies, with nine departments receiving FIST funding.
- The testing and consultancy services have expanded recently, and the department of civil engineering offers exceptional consultancy and testing services in multiple fields.
- NITC collaborates with foreign universities and institutions, enriching the research and development environment and enhancing the global research network.

# SPONSORED RESEARCH PROJECTS



# RESEARCH & CONSULTANCY



# INNOVATION AT NITC

## Entrepreneurship Ecosystem

NIT Calicut has a thriving entrepreneurship ecosystem, with a dedicated incubation centre to support students' start-up ideas. This promotes innovation and entrepreneurship among students.

# TECHNOLOGY BUSINESS INCUBATOR (TBI)

- Institute set up the TBI in 2004 with the support of the National Science and Technology Entrepreneurship Development Board (NSTEDB) of the Department of Science and Technology to incubate start-up industries.
- A dedicated Fab Lab facility is set up for the use of innovators.
- TBI also provides financial assistance to companies which require funds for their operations.
- TBI support the innovators for prototype development through the NIDHI-PRAYAS scheme giving grants up to Rupees 10 lakhs.

**Conducted 70+ training programmes in entrepreneurship development and trained approx. 1400 entrepreneurs.**

# TECHNOLOGY BUSINESS INCUBATOR (TBI)

- Sector agnostic - Open to innovators from all sectors
- Services offered to startups – Technical, Mentoring, marketing, Funding, Statutory and legal assistances
- Departments/Ministries associated with – DST, Technology Development Board, MeitY (TIDE Scheme), MoMSME (Incubator, Design scheme, AESDP), Defence Innovation Organisation (iDex), Kerala Startup Mission (IEDC), KDISC (ODOI, YIP)
- Project done that has social impact – Coir Cluster development at Balussery (MoMSME)

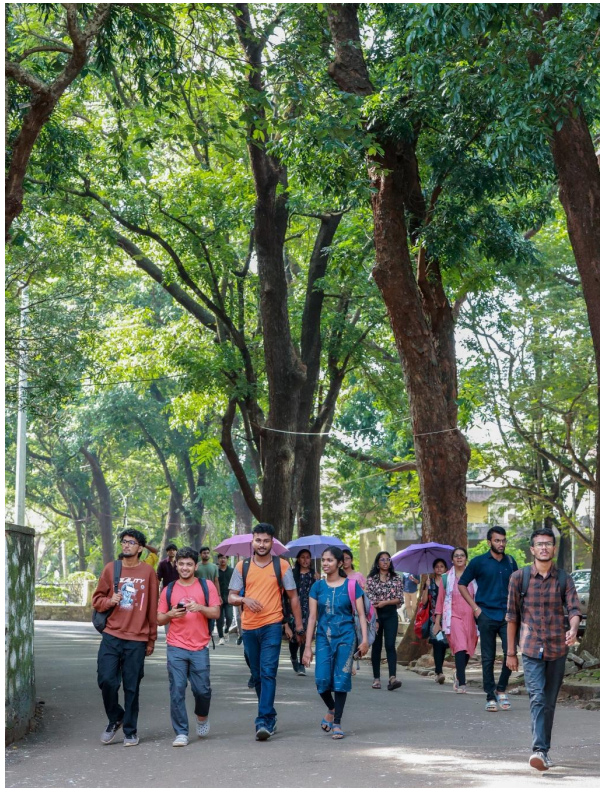
| 115 | 92 | 71 | 12 | 1200 |
|---|---|---|---|---|
| COMPANIES INCUBATED | GRADUATED COMPANIES | FUNDED COMPANIES | COMPANIES HAVING MORE THAN 1CR | EMPLOYMENT GENERATION |

# STUDENT ACTIVITIES

- Team Unwired
- Robotics club
- IEEE Student Chapter
- ISTE Student Chapter
- NASA ( Architecture)
- Aero Modelling Club
- Dept. Associations
- AI Club
- Innovation Club- NOVA
- Code Chef NITC Chapter

- Technical and Cultural Festivals: NIT Calicut is known for its annual technical and cultural festivals, such as 'Tathva' and 'Ragam.' These events attract participants and enthusiasts from all over the country, making them a hub for creativity and innovation. RAGAM and 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.

# LIFE on NITC CAMPUS



# INTERNATIONAL, ALUMNI & CORPORATE RELATIONS

**45000+** ALUMNI MEMBERS

**21** ALUMNI CHAPTERS

**225 L+** ALUMNI CONTRIBUTION 3 YEARS

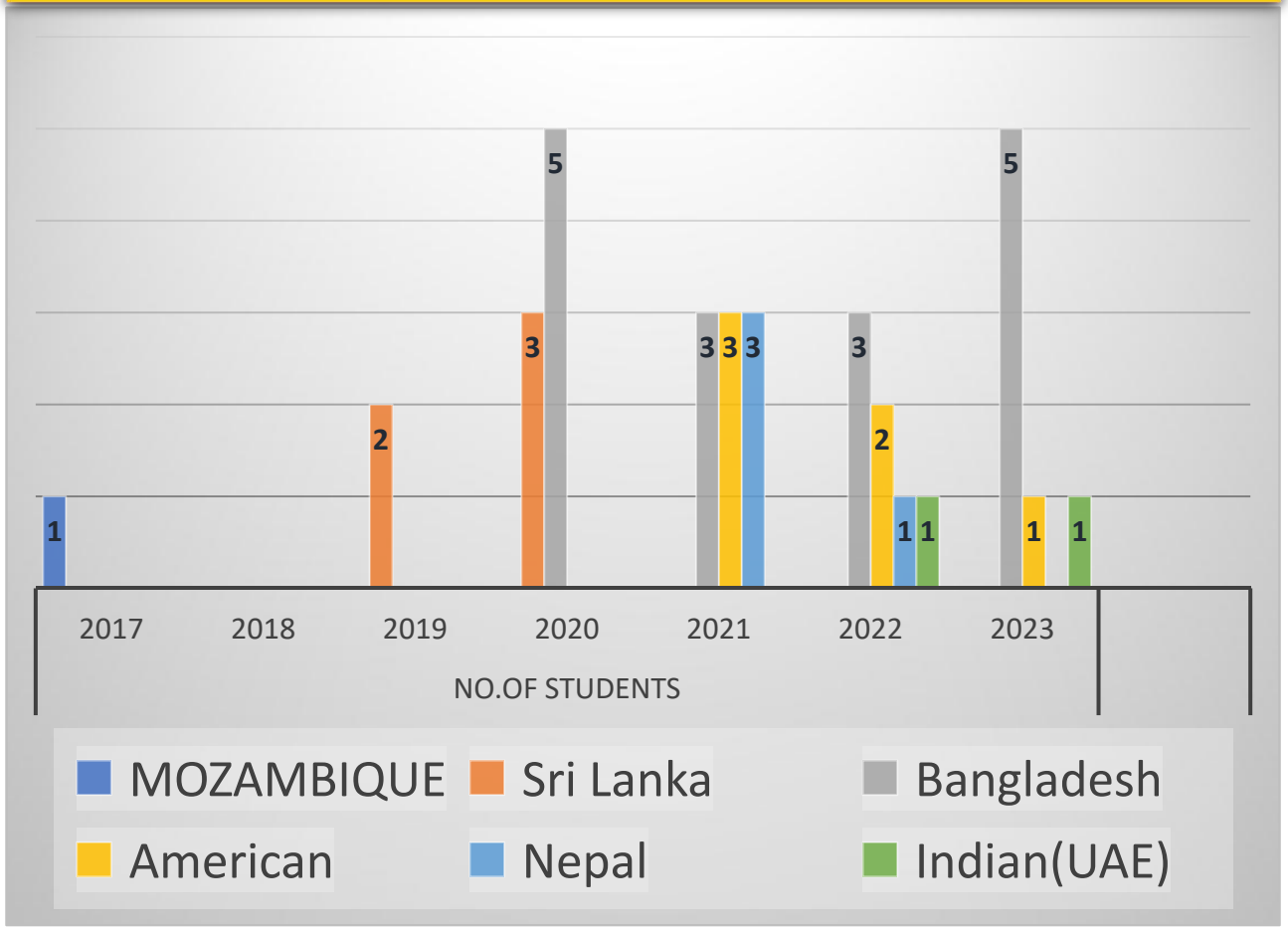
- NITC has a vibrant Alumni community of over 40,000 members. All of them are part of the NITC Alumni Association (NITCCAA)
- The Institute Management System (IMS) and the new Institute website are two key Alumni-sponsored projects. Work is progressing on a Student Plaza named 97th Avenue, sponsored by the 1997 batch. North America NITC Alumni Association is coordinating the NITC Alumni Mentoring Program (NITCAMP) to provide academic and career guidance to current students.
- 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.

# INTERNATIONAL, ALUMNI & CORPORATE RELATIONS (IACR)

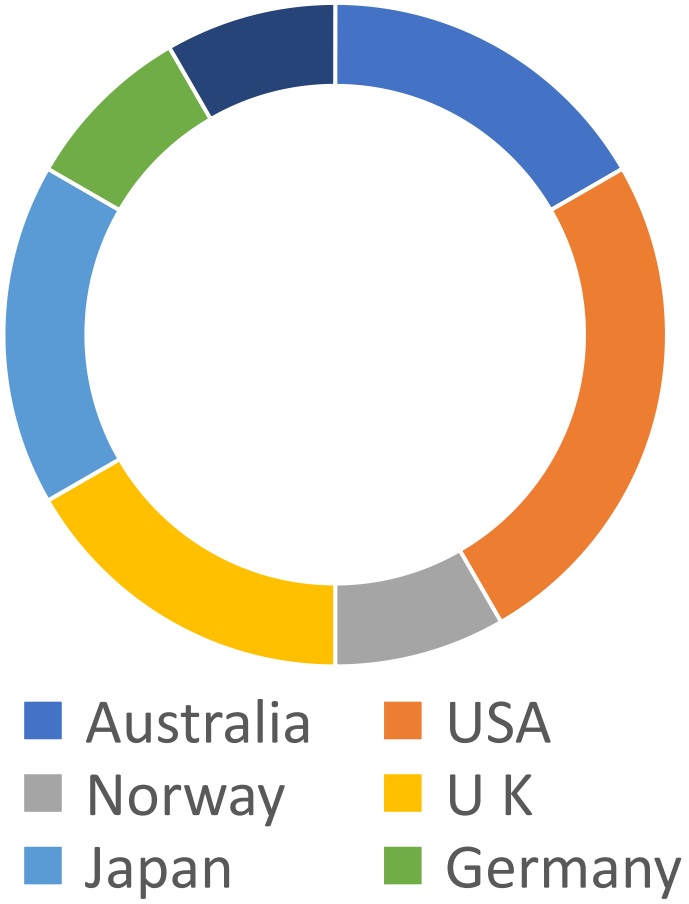
- Strengthen International collaboration in the Academic and Research domain
- Establish a mechanism for the attainment of global standards among the NITC fraternity
- Mobilise International Academic Collaboration
- Focus on creating world-class teaching practices and curriculum
- The office for International Relations aims to foster academic and research collaborations with reputed institutions and industries from India and abroad for the internationalization of higher education

# INTERNATIONAL RELATIONS

## *Number of International students in each year*

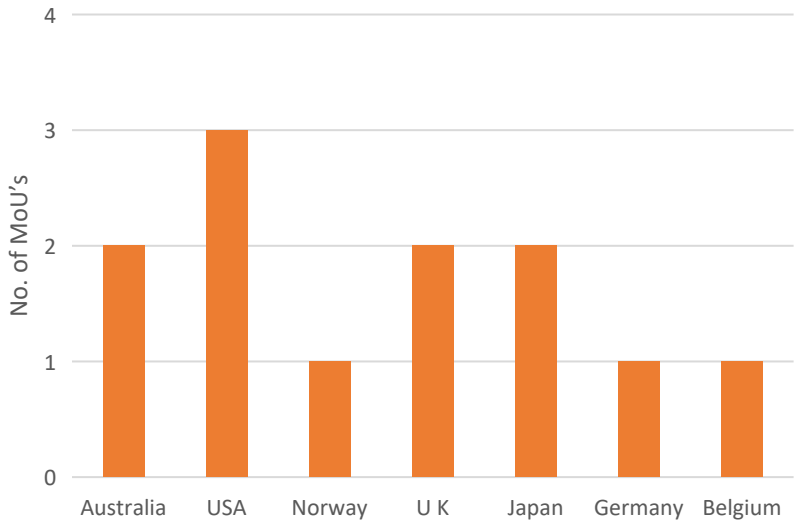



## *Number of MoU with the NITC*

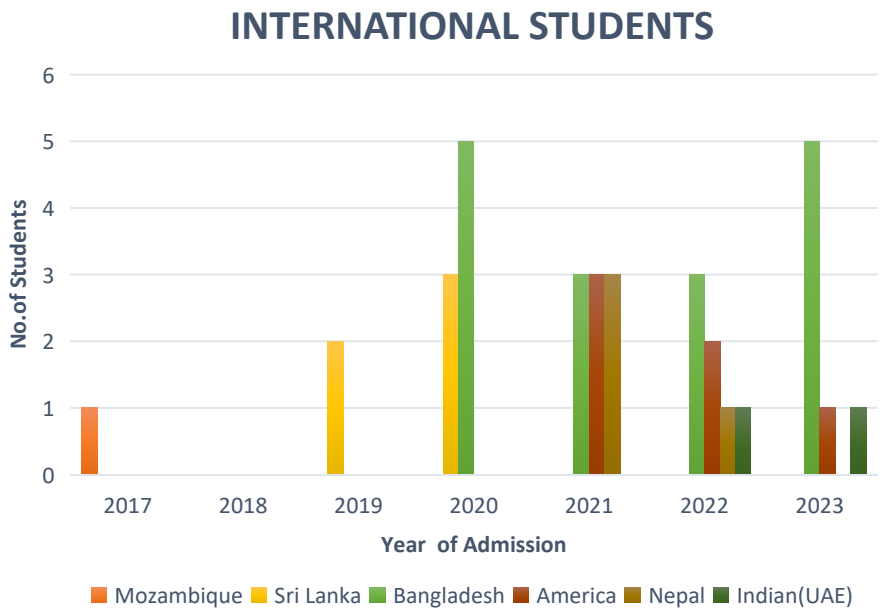


# INTERNATIONALISATION OF THE INSTITUTE

## International Partners of NITC




## International Students@ NITC



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# THANK YOU

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