DEPARTMENT OF
COMPUTER SCIENCE AND ENGINEERING

VISION
To be a Centre of Excellence in the Discipline of Computing

MISSION

To develop human resource with sound knowledge - theory and practical - in the discipline of computing and the ability to apply the knowledge to the benefit of the society at large

तमसो मा ज्योतिर्गमय

NATIONAL INSTITUTE OF TECHNOLOGY CALICUT
NIT CAMPUS P O, KOZHIKODE, KERALA,
INDIA, PIN 673601

http://www.cse.nitc.ac.in

ABOUT THE DEPARTMENT

From its inception about a century ago, computing has become the defining technology of our age. The study of computing is the study of the process of abstraction and its power, the practice of design and implementation, mathematical theory of computation and its implications. Undergraduate programme in Computer Science and Engineering started in the year 1985 in the then Electrical Engineering Department. The Department of Computer Science and Engineering (CSE) was established as an independent entity in the year 1997 as a result of trifurcation of the Department of Electrical Engineering.

The CSE Department currently offers two MTech programmes, MCA programme and PhD programme in addition to the BTech programme in Computer Science and Engineering. The fast changing scenario in Information Technology necessitates the department to actively extend its research and development activities. The department also strives to fulfil its social responsibility by extending technical support to government and non-governmental organisations through community outreach programmes.

UNDERGRADUATE AND POSTGRADUATE PROGRAMMES

Name of the Degree	Duration	Specialization	Year of Commencement	Total intake
BTech	4 years	Computer Science and Engineering	1985	200
MCA	3 years	Computer Applications	1988	50
MTech	2 years	Computer Science and Engineering	1998	23
MTech	2 years	Computer Science and Engineering (Information Security)	2006	22

PhD PROGRAMME

Year of Commencement	Ongoing	Completed
2002	85	48

PROGRAMME COORDINATORS

BTech	Dr. Vinod Pathari
MTech	Dr. Priya Chandran
MCA	Dr. Arun Raj Kumar P
PhD	Dr. Vineeth Paleri

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

FACULTY AND SPECIALIZATION

Professors

Dr. Vineeth Paleri [MTech (IITK), PhD (IISc)]   Programming Languages, Compilers
Dr. Priya Chandran [MTech (IITR), PhD (IISc)]   Computer Architecture, Algorithms
Dr. S D Madhu Kumar [ME (IISc), PhD (IITB)]   Middleware, DBMS, Software Engineering
Dr. K A Abdul Nazeer [MTech (IITM), PhD (NITC)]   Artificial Intelligence, Bioinformatics, DBMS

Associate Professors

Dr. K Muralikrishnan [MTech (IITK), PhD (IISc)]   Algorithms and Complexity, Coding Theory
Dr. Saidalavi Kalady [ME (IISc), PhD (NITC)]   Data Mining, Operating Systems
Dr. Vinod Pathari [MTech (IITK), PhD (IITB)]   Information Security Management
Dr. N Saleena [MTech (IITM), PhD (NITC)]   Program Analysis, Compilers
Dr. M Subhasree [ME (IISc), PhD (IITM)]   Computational Geometry
Dr. R Subashini [MTech (IITM), PhD (IITM)]   Algorithms and Data Structures
Dr. Jimmy Jose [MTech (KU), PhD (IIT KGP)]   Cryptography and Security
Dr. G Gopakumar [MTech (CUSAT), MPhil (KU), PhD (KU)]   Bioinformatics, Data Mining

Assistant Professors

Mr. T A Sumesh [MTech (CUSAT), Pursuing PhD (IITK)]   Computer Networks, Computer Vision
Mr. B Sreenu Naik [MTech (Andhra Uni.), Pursuing PhD (IIT(ISM))]   Network Security, Cryptography
Mr. T M Srinivasa [MTech (VTU), Pursuing PhD (TUHH, Germany)] Bioinformatics
Dr. A Lijiya [MTech (CUSAT), PhD (NITC)]   Image Processing
Dr. Anu Mary Chacko [MTech (ABV-IIITMG), PhD (NITC)]   Computer Security
Dr. P N Pournami [MTech (KU), PhD (NITC)]   Image Processing, Machine Learning
Dr. P B Jayaraj [MTech (CUSAT), PhD (NITC)]   High Performance Computing
Dr. Arun Raj Kumar P [MTech (NITT), PhD (NITT)]   Computer Networks, Internet of Things
Dr. M Prabu [ME (Anna Uni.), PhD (Anna Uni.)]   Network Security
Dr. Vasudevan A R [MTech (AVV Uni.), PhD (NITT)]   Computer Security, Network Security
Dr. T Veni [MTech (Anna Uni.), PhD (NITT)]   Cloud Computing, Fog Computing
Dr. Hiran V Nath   [MTech (AVV Uni.), PhD (IDRBT)]   Cyber Security and Forensics
Dr. Jay Prakash [MTech (DAVV Indore), PhD (ABV-IIITMG)]   Data Mining, Soft Computing
Dr. Anil Pinapati [MTech (JNTU), PhD (NITW)]   Cryptography and Information Security
Dr. Pranesh Das [MTech (NIT Rourkela), PhD (NIT Nagaland)] Data Mining, Machine Learning and Optimisation
Dr. Raju Hazari [MTech(IIEST, Shibpur), PhD (IIEST, Shibpur)] Cellular Automata, Machine Learning
Dr. Renjith P [MTech (KU), PhD (IIITDM Kancheepuram)]   Graph Theory & Algorithms, Complexity theory
Dr. S Sheerazuddin [MSc (IMSc Chennai), PhD (IMSc Chennai)] Theoretical Computer Science (Logic & Verification)
Dr. Manjusha K [MTech (AVV Uni.), PhD (AVV Uni.)]   Document Analysis, Machine Learning
Dr. Sudarshan Chakravarthy [MTech (NITK), PhD (NITW)]   Cloud Computing

Technical Staff

Mr. Abdul Sathar V M   Technician (SG I)
Mr. Ajayachandran V R   Technical Assistant (SG I)
Mr. Biju Francis   Technician (SG II)
Ms. Sreeja V   Technician (SG II)

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

HEADS OF THE DEPARTMENT SO FAR

Dr. M N Neelakantan	1997 - 2000
Dr. V K Govindan	2000 - 2005
Dr. M P Sebastian	2005 - 2008
Dr. Vineeth Paleri	2008 - 2010
Dr. Priya Chandran	2010 – 2012
Dr. S D Madhu Kumar	2012 - 2014
Dr. K A Abdul Nazeer	2014 - 2016
Dr. Saidalavi Kalady	2016 - 2018
Dr. Saleena N	2018 - 2020
Dr. Muralikrsihnan K	2020-2022
Dr. Subhasree M	2022-

FACILITIES AVAILABLE

- 350+ Computers – available 24 hours
- High performance computing cluster
- Unique Digital Library support
- Department Eduserver running on Moodle Platform
- Excellent round the clock Internet connectivity
- APJ Abdul Kalam Conference Hall with Video Conferencing facility
- CSED Seminar Hall, Committee Room & Discussion Room
- Class rooms equipped with audio-visual systems
- Smart Classroom in NLHC 102

LABORATORIES

Hardware and Embedded Systems Lab	Secure Computing Lab
Formal Methods and Algorithms Lab	Image Processing & Multimedia Lab
Cloud Computing Lab	Machine Learning Lab
Big Data and Biocomputing Lab	Software Systems Lab
Network Systems Lab	

COMMUNITY SERVICES

- Spearheaded the IT literacy programmes at Nadapuram assembly constituency as part of the 'Growing Nadapuram' project
- Organized IT awareness programmes for the public at the Koduvally and Chathamangalam Grama Panchayaths
- As part of a Community Learning Initiative, 2-day Workshop was conducted on Essence of Computing for high school students
- Launched IT@Niravu, a project in collaboration with NIRAVU, a progressive residential forum (NGO) based at Calicut excelling in the field of organic farming
- Our students developed an agricultural information web portal named 'Krishippura' to help the organic farmers
- Imparted IT training to the rural youth, as part of IT@Niravu
- Our students developed an Online Mess Management System for the CISF Unit of Calicut Airport

MAJOR EVENTS ORGANISED

1. The Computer Science and Engineering Association (CSEA) organised an interactive session about "Career Options After BTech CSE" by Mr. Muhammed Yazar Y, Software Engineer at Facebook, USA on 5 November 2022.

2. CSEA organised 12th edition of Prof. M.N. Neelakantan Memorial Lecture Series. Mr. Biju Thomas, Manager at Tata Elxsi and alumnus of NIT Calicut talked about the redefinition of broadband experiences and the future of Residential Broadband Gateways on 16th September 2022 .

3. CSEA organised the 11th Lecture in the Prof. M.N. Neelakantan Memorial Lecture Series by Mr. Abins Jose, Senior Solutions Architect in the "Consumer, Media and Technology" vertical of Mindtree on 21st March 2022.

4. CSEA organised technical talk by Devika S, Software Engineer, Digital experience, Adobe on November 2021.

5. Dept. of CSE and AI Club, NIT Calicut organised 3-day Workshop on Generative Adversarial Networks (GANArt 2021), from 20-05-2021 to 22-05-2021.

6. Interactive Webinar on ReactJS concepts and component creation with Shahda Sayed, Microsoft on October 2021

7. 10th Lecture in the Prof. M.N. Neelakantan Memorial Lecture Series organised by CSEA in August 2021 on "Be Relevant. Cloud, Open source, and More - An Industry Perspective", by Mr. Manoj N. Palat, Open Source Lead and Committer, IBM.

8. CSEA, Institute Innovation Council, and the AI Club conducted "Introduction to Object Detection", a 2-day workshop on Artificial Intelligence from 28th to 29th November, 2021.

9. AI Club of NITC conducted a 2-day workshop on transformers titled "The Transformer Epiphany" from 18th to 19th December, 2021.

10. FOSSCell NITC, in association with the Computer Science and Engineering Association, oraganised Code.init(), the first of its kind DevSprint at NITC in January 2020.

11. 9th Lecture in the MN Neelakantan Memorial Lecture Series conducted on 9th September 2020 with a talk on "Leadership in the 'New Normal'" by Mr. Sunil Plavians, Senior Director - Global Services and Site Head,Finastra.

12. CSEA activities of 2019-20 inaugurated by Mr. Raveendran Kasthuri, CEO of ULCCS Group, Calicut on 18th September 2019, with a panel discussion on the topic "Industry Institute Collaboration: An Opportunity" and a keynote address on "Tips for takeoff – to a successful IT career" by Mr.Kasthuri.

13. Department of Computer Science & Engineering jointly with the Department of Radiation Oncology and Medical Physics, MVR Cancer Centre and Research Institute Calicut organised 6-day Faculty Development Programme on "Geometry, Imaging and Parallel Computing Techniques for Cancer Treatment (GIPCAN 2019)", under TEQIP-III from 10th to 15th June 2019.

14. Smart India Hackathon (SIH-2019), with support from MHRD and AICTE oraganised in March 2019.

15. Department of CSE jointly with the Institute of Mathematical Sciences Chennai organised an NCM-ACM India Summer School on "Graph theory and Graph Algorithms", from 17th June to 5th July 2019.

A FEW DISTINGUISHED ALUMNI

Nithin Varma - 2011
Assistant Professor
Chennai Mathematical Institute

Shahda Sayed - 2012
Microsoft

Muhammad Yazar - 2014
Facebook, USA

Dr. Ayush Jaiswal - 2014
Amazon

Dr. Preethi Jyothi - 2007
Assistant Professor, IIT Bombay

Srishti Chandra - 2015
Google, India
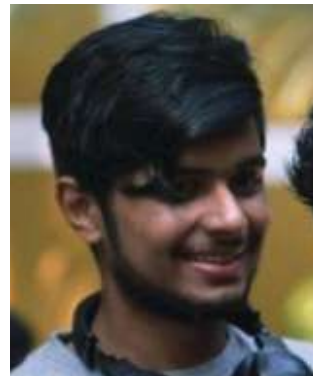
Glen Martin - 2015
Truecaller, India

Vinay Damodharan - 2017
Cisco, USA

Meera Sudharman - 2014
LinkedIn, India

Amruthlal - 2019
Amazon, USA

Ivan Biji - 2020
Microsoft, India

Sajan Skaria - 1996
Character Supervisor for
"Inside Out", Academy
Awards 2016

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

MAJOR AREAS OF RESEARCH

- Algorithms and Complexity
- Artificial Intelligence
- Bioinformatics
- Cloud Computing
- Compilers and Programming Languages
- Computer Architecture
- Computer Networks
- Cyber Security and Forensics
- Database Management Systems & Information Retrieval
- Data Mining
- Distributed Computing
- Fog Computing
- High Performance Computing
- Internet of Things
- Image Processing
- Information Management and Security
- Intelligent Systems
- Machine Learning
- Middleware
- Network Security
- Operating Systems
- Parallel and Distributed Computing Systems
- Programme Analysis

PLACEMENT STATISTICS OF STUDENTS (2019-2022)

PROGRAMME	2021-22	2020-21	2019-20
BTech	100%	100%	100%
MTech (CS)	100%	95.24%	88.89%
MTech (CS-IS)	100%	100%	100%
MCA	95.65%	90.62%	93.94%

INDUSTRY / RESEARCH COLLABORATIONS

- TCS
- SAP Labs
- JMR Infotech
- IBM
- Aryaka Networks
- Sree Chithra Tirunal Institute for Medical Sciences and Technology, Trivandrum, Kerala
- MVR Cancer Centre and Research Institute, Calicut, Kerala
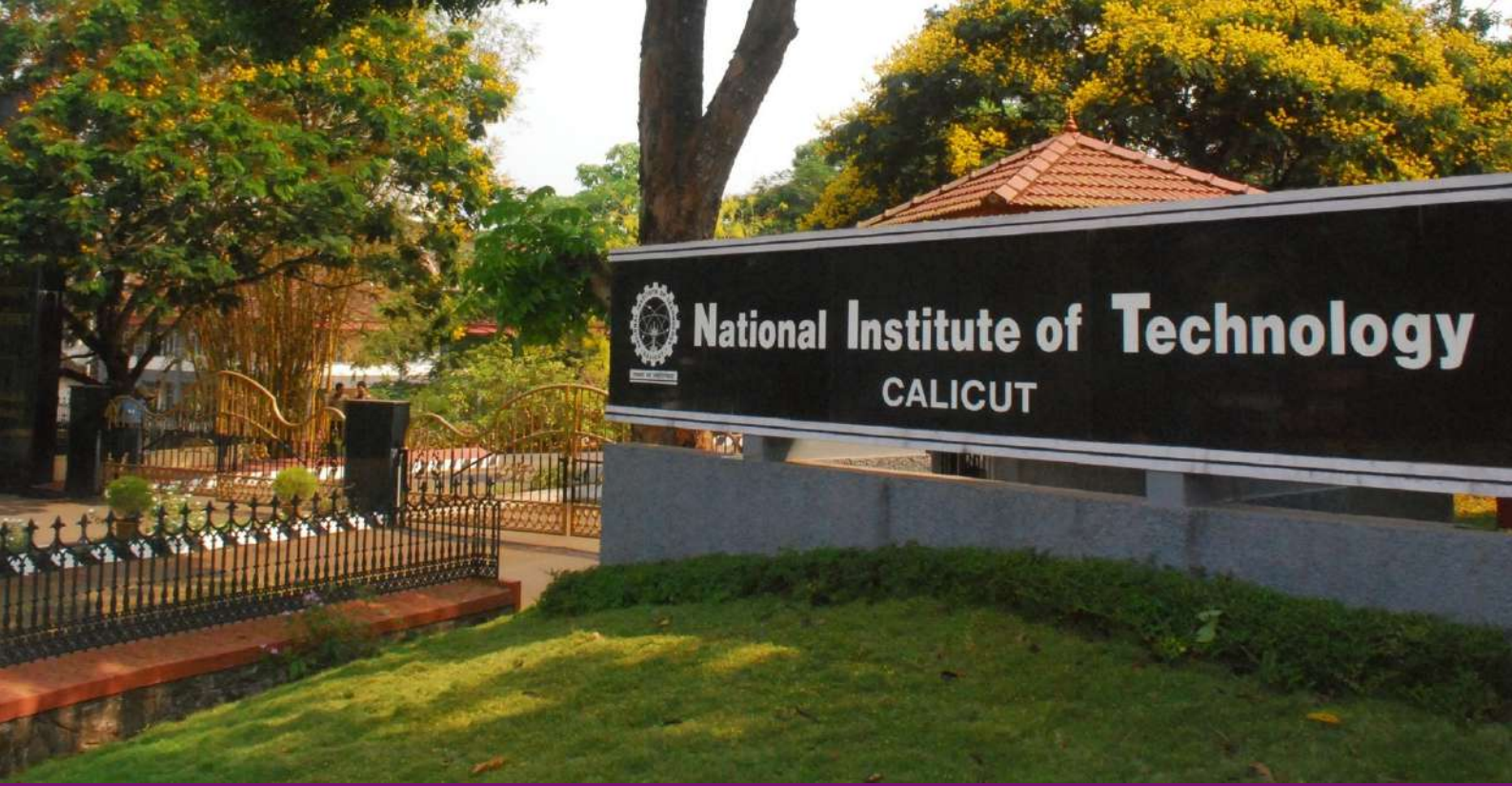- Govt. Medial College Calicut, Kerala

FACULTY RESEARCH PUBLICATIONS

Year	2021-22	2020-21	2019-20	Total
Publications by Faculty	97	48	91	236

ABOUT NIT CALICUT

National Institute of Technology Calicut (NITC) is set up by an act of Parliament named the NIT Act 2007, under the erstwhile Ministry of Human Resources Development (MHRD), Government of India (Home page: http://www.nitc.ac.in). NITC was initially established as Regional Engineering College Calicut (REC Calicut) in 1961 as a joint venture of the Government of India and the Government of Kerala with the objective of fostering technological empowerment and national integration. NITC has 10 departments, 13 multi-disciplinary centres, 11 thematic centres and 3 schools, offering 11 undergraduate and 30 postgraduate programmes apart from PhD. The institute has good infrastructure in computing, information technology and a well-stocked central library including digital library.

Set in a picturesque landscape at the foothills of the Western Ghats, National Institute of Technology Calicut is located about 22 kilometres north-east of the Calicut city, also known as Kozhikode. Calicut, "the city of virtues", located in the Malabar region of the 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, waterfalls and ayurvedic treatment.

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