



DEPARTMENT OF INFORMATION TECHNOLOGY
NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA
SURATHKAL, MANGALORE 575025 INDIA

2020 - 2021



Profile of the Department

Established in the year 2000, the Department of Information Technology is the youngest among the 14 departments at NITK Surathkal. The department strives to be a centre for excellence, innovation and research with dedicated faculty, highly motivated students, state-of-the-art facilities and an innovative teaching-learning environment. The department was accredited by the National Board of Accreditation (NBA) for 3 years in 2008 and for 6 years w.e.f. July 1st, 2014 (with a one year extension till July 2021). The department has consistently demonstrated its potential for excellent research through sponsored research projects, consultancy work, high-quality scholarly publications, text books, open source software and other professional contributions. Several research and consultancy projects are also underway as part of various MoUs with reputed industry and academic organizations. Our students have consistently achieved 100% placements and have demonstrated a high level of success in pursuing post graduate and doctoral studies at top universities of the world as per QS World University Rankings, like Massachusetts Institute of Technology, Carnegie Mellon University, Yale, Columbia, Purdue and in the IIT's & IIMs.

Vision

- To achieve excellence in education, so as to enable students to establish themselves as world-class professionals & empower them with the proficiency & knowledge to excel in the dynamic field of IT.

Mission

- To create and disseminate knowledge through research, teaching & learning, and to enhance society in meaningful & sustainable ways.
- To serve our students by inculcating in them problem solving, leadership & teamwork skills, and the value of commitment to quality, ethical behavior & respect for others.

Head of the Department Biju R Mohan		Faculty Members <i>Professors (HAG Scale)</i> Ananthanarayana V. S. (Deputy Director) G. Ram Mohana Reddy
Year of Establishment 2000		
Student Information		<i>Associate Professors</i> Jaidhar C D
<i>Programme</i>	<i>Number of Students</i>	<i>Assistant Professors (Grade I)</i> Biju R. Mohan Geetha V Sowmya Kamath S Nagamma Patil Anand Kumar M
B.Tech	320	<i>Assistant Professors (Grade II)</i> Dinesh Naik Kiran M Bhawana Rudra Shrutilipi Bhattacharjee
M.Tech	58 (full-time)	<i>Adjunct Professors</i> Prakash S. Raghavendra (AMD Fellow) Sidney David Rosario
M.Tech (By Research)	03 completed 03 ongoing	
PhD	26 completed 36 in progress. (27 full time; 9 part time)	

Degrees and Programmes

- B.Tech (Information Technology)
- M.Tech (Information Technology) and M.Tech (by Research)
- PhD (Information Technology)

Current Research Areas

The Department of Information Technology is actively involved in advanced research at the UG, PG and doctorate (PhD) levels, in fundamental and cutting edge technologies. Current areas of research interest include - Affective Computing; Big Data/Cognitive Analytics; Bio-inspired Computing; Bioinformatics; Blockchains, Cloud Computing; Computer Networks; Computer Vision, Cryptography; Cyberphysical Systems, Database Systems; Data Mining; Distributed Computing; Geoscience and Spatial Data Mining, Graph Analytics, Green Computing and Green Datacenters; Healthcare Analytics; High Performance Computing; Human Centred Computing; Internet of Things & Smart Sensing applications; Mobile and Vehicular Adhoc Networks; Machine Learning; Natural Language Processing & Understanding; Pervasive Computing; Requirements Engineering; Service-oriented Computing; Software Engineering and Architecture; Security Issues in Information, Networks and VoIP; Semantic Web Technologies; Social Network Analysis and Wireless Sensor Networks among others.

Research Publications and Books

Peer-reviewed International Journals – 161

Refereed International Conferences – 478

Refereed National Conferences – 6

Books and book chapters - 55

Recent Events

- 8th Intl Conf on Frontiers of Intelligent Computing: Theory and Applications (FICTA 2020) (Jan 4-5, 2020)
- NITK-HPE MoU Signing and HPE sponsored HPC Lab Inauguration (Aug 17, 2019)
- Distinguished Alumni felicitation to Mr. Deepak Dhar, Founder-CitrusPay and CXO-NestAway Technologies and Mr. Smruthi Ranjan Parida, CTO-NestAway Technologies (as part of NITK Diamond Jubilee Engineers' Day Celebrations on 15 Sep 2019)
- National Workshop on High Performance Computing and Applications HPCA 2019, (Aug 12-17, 2019)
- AICTE Sponsored Five-day Workshop on "Blockchain Technology" (Dec 16-20, 2019)
- TEQIP-III Workshop on AI/ML Applications in Emerging Areas of CS/IT (Dec 9-13, 2019)
- Two Day NITK-HPE Workshop on Computer Networks (Oct 22-23, 2019)



RECENT RESEARCH & CONSULTANCY PROJECTS

<i>Research Project</i>	<i>Sponsoring Agency</i>	<i>Funding</i>	<i>Duration</i>	<i>Principal Investigators</i>
Google Cloud COVID-19 Research Grant	Google Inc	\$ 10,600	2020-21	Sowmya Kamath S.
Google Cloud COVID-19 Research Grant	Google Inc	\$ 9,100	2020-21	Neelima B.
A Framework for Deep Learning based Analytics for Intelligent Healthcare Applications	DST-SERB (Early Career Research Grant)	₹ 35 Lakhs	2017-20	Sowmya Kamath S.
Effective Online Framework Solution for Protein Sequence Alignment and to Predict Protein Structure & its subcellular localization using Amino Acid Molecules	Vision Group on Science and Technology, DST, Govt. of Karnataka	₹ 5 Lakhs	2018-19	Nagamma Patil
Young Faculty Research Fellowship	Visweswaraya PhD Scheme for Electronics & IT	₹ 5 lakhs	2018-19	Geetha V.

<i>Other Projects</i>	<i>Agency</i>	<i>Budget</i>	<i>Duration</i>	<i>Faculty Member</i>
NITK-MIS IRIS Project (Academic-centric Student Information System Development)	NITK	₹ 54 Lakhs	2016-ongoing	Ananthanarayana V.S. Biju R Mohan Sowmya Kamath S
CCMT 2016 (Centralised Counselling for M.Tech/M.Arch/M.Plan Admissions)	MHRD	₹ 450 Lakhs	2015-16	Ananthanarayana V.S (<i>Technical Convener</i>)
DASA Admissions Portal	MHRD	₹ 20 Lakhs	2011-14	Ananthanarayana V.S Biju R Mohan G Ram Mohana Reddy

Industry-Institute Interactions

The Department has several industry linkages and MoUs at various stages/levels, some of which are-

- Hewlett Packard Enterprise, Bangalore - NITK MoU (2019-2024)
- RDL Technologies, Mangalore - NITK-IT LoI (2018-2021)
- Huawei Technologies India Ltd., Bangalore - NITK MOU (2015-to date)
- AMD India, Bangalore - NITK MOU (2012-to date)
- Dell India R&D Centre, Bangalore (2012-to date)
- Accenture, Mumbai – NITK MOU (2008 for 1 year)
- EMC Bangalore (2008 for 2 years)
- HP Bangalore (2008)
- Pennsylvania State University (PSU) (2008 for 5 years)

DETAILED FACULTY INFORMATION

Professors (HAG Scale)



Ananthanarayana V S, *PhD (IISc Bangalore), Post-doc (Canada)*

Deputy Director

Email - anvs@nitk.ac.in; Phone: +91-824-2473550

Research: Databases, Data Mining, Distributed/Pervasive Computing, Service-oriented Computing



G. Ram Mohana Reddy, *PhD (University of Edinburgh, UK)*

Email - profgrmreddy@nitk.ac.in; Phone: +91-824-2474056/2473551

Research: Affective Computing, Cloud/Cognitive Computing, Green Data Centers, Social Networks

Associate Professors



Jaidhar C.D., *PhD (NIT Trichy)*

Email - jaidharcd@nitk.edu.in; Phone: +91-824-2473553

Research: Cryptography, Network/Information Security, Security Issues in Cloud Computing, Precision Agriculture

Assistant Professors (Grade I)



Biju R Mohan, *PhD (NITK Surathkal)*

Head of the Department

Email - biju@nitk.ac.in; Phone: +91-824-2473558

Research: Software Aging, Virtualization, Software Engineering, Software Architecture



Geetha V., *PhD (NITK Surathkal)*

Email - geethav@nitk.ac.in; Phone: +91-824-2473554

Research: Internet of Things, Wireless Sensor Networks, Computer Networks



Sowmya Kamath S., *PhD (NITK Surathkal)*

Email - sowmyakamath@nitk.edu.in; Phone: +91-824-2473557

Research: Healthcare Analytics, Natural Language Processing/Understanding, Machine Learning, Information Retrieval



Nagamma Patil, *PhD (IIT Roorkee)*

Email - nagammapatil@nitk.ac.in; Phone: +91-824-2473559

Research: Data Mining, Data Mining Techniques to Bioinformatics, Soft Computing



Anand Kumar M., *PhD (Amrita Vishwa Vidyapeetham)*

Email - m_anandkumar@nitk.edu.in; Phone: +91-824-2473561

Research: Natural Language Processing, Information Retrieval, Machine/Deep Learning

DETAILED FACULTY INFORMATION (contd.)

Assistant Professors (Grade II)



Dinesh Naik, *M.Tech (VTU), [pursuing PhD]*

Email - din_nk@nitk.ac.in; Phone: +91-824-2473552

Research: Web Semantics, Cloud Computing, Computer Networks



Kiran M., *PhD (NITK Surathkal)*

Email - kiranmanjappa@nitk.edu.in; Phone: +91-824-2473561

Research: Bio-inspired Computing, Blockchains, Soft Computing, WSN, MANETs.



Bhawana Rudra, *Ph.D (IIT Allahabad)*

Email - bhawanarudra@nitk.edu.in; Phone: +91-824-2473560

Research: Future Internet and its Security, Information Security, Wireless Sensor Networks



Shrutilipi Bhattacharjee, *Ph.D (IIT Kharagpur), Post-doc (Technical University of Munich, Germany)*

Email - shrutilipi@nitk.edu.in; Phone: +91-824-2473142

Research: Geoscience and Spatial Data Mining

Adjunct Professors



Prakash Raghavendra, *PhD (IISc Bengaluru) [AMD Fellow]*

Email – adj.srp@nitk.edu.in

Research: Compilers, Deep Learning, High Performance Computing



Sidney Rosario, *PhD (Univ. of Rennes, France), Post-doc (Univ of Texas, Austin)*

Email – adj.sidney@nitk.edu.in

Research: Algorithms and Complexity.

Adhoc Faculty



Neelima B., *PhD (NITK Surathkal), Post-doc (Argonne National Laboratory)*

Email – al.neelimab@nitk.edu.in

Research: High Performance Parallel and Distributed Computing, Computer Organization and Architecture, Cryptography and Network Security, Data Anonymization and Privacy



Priyadarshini R., *M.Tech (PSG College of Engineering)*

Email – al.priya06@nitk.edu.in

Research: Computer Graphics, Virtual Reality, Augmented Reality



Shruthi J R., *M.Tech (Basaveshwara Engineering College, Vidyagiri, Bagalkot)*

Email – al.jrshruti1205@nitk.edu.in

Research: Image processing, Speech processing, Natural Language Processing, Data Mining



Thanmayee S., *M.Tech (NMAMIT, Nitte)*

Email – al.thanmayees@nitk.edu.in

Research: Big Data, IoT, Machine Learning, Parallel Computing, Distributed Computing

STUDENTS' INFORMATION

B.Tech Placement Statistics (last 5 years)

<i>Placement Year</i>	<i>Total Eligible</i>	<i>Total Placed</i>	<i>Highest Pay Package</i>	<i>Average Pay Package</i>
2019-20	96	96	43 Lakhs	17.06 Lakhs
2018-19	97	96+1*	39 Lakhs	14.15 Lakhs
2017-18	93	92+1*	31 Lakhs	13.85 Lakhs
2016-17	97	93+4*	25 lakhs	11.27 lakhs
2017-18	96	93+3*	25 lakhs	9.85 lakhs

M.Tech Placement Statistics (last 5 years)

<i>Placement Year</i>	<i>Total Eligible</i>	<i>Total Placed</i>	<i>Highest Pay Package</i>	<i>Average Pay Package</i>
2019-20	22	21	~ 20 lakhs	~ 12 lakhs
2018-19	19	14+5*	18.75 lakhs	11.90 lakhs
2017-18	15	15	18 lakhs	11.63 lakhs
2016-17	16	16	22.5 lakhs	10.17 lakhs
2017-18	21	19+2*	21 lakhs	11.55 lakhs

Recent student admissions to top universities (as per QS World University Rankings)

<i>Name of Student</i>	<i>Institute</i>	<i>Programme</i>
Medhini Narasimhan	University of California Berkeley	Integrated MS-PhD
Shailee Jain	Univeristy of Texas-Austin	Integrated MS-PhD
Aditya Bhat	Purdue University	Integrated MS-PhD
Soundarya R	National University of Singapore	Integrated MS-PhD
Shreya Singh	Stanford University	M.S in Computer Science
Divija Nagaraju	Carnegie Mellon University, USA	M.S in Computer Science
Aditya Jayasimha	Carnegie Mellon University, USA	M.S in Computer Science
Shashi Roshan	University of Illinois, Urbana-Champaign, USA	M.S in Computer Science
Divya Narayanan	GeorgiaTech, USA	M.S in Computer Science

Some IT Entrepreneurs

<i>Student</i>	<i>Degree and Batch</i>	<i>Start-up Initiative</i>
Manash Sharma	B.Tech, Batch of 2021	Co-founder of OxyHeal Pvt. Ltd.
Shashank N.D & Abhinav Lal	B.Tech, Batch of 2009	Co-founders of Practo.com, World's second largest healthcare startup (as per Forbes India)
Rohit Manglik	B.Tech, Batch of 2012	Founder, EduGorilla Platform
Smrithi Ranjan Parida	B.Tech, Batch of 2007	COO, NestAway
Nitin Bantwal Rao	B.Tech, Batch of 2008	Co-founder, SunGlass Inc (<i>San Francisco</i>) and DPlay.com (<i>Stanford</i>)
Neelesh Soni, Gaurav Raj	B.Tech, Batch of 2012	Co-founder/CEO of Piktor Imaging and Rhapsody Labs
Shreyas Tonse	B.Tech, Batch of 2006	CEO, Zwayam Digital
Srinivasan Narayanan, Smrithi Ranjan Parida	B.Tech, Batch of 2005	Co-founders, CohortPlus

DEPARTMENTAL FACILITIES

Classrooms

The department has well furnished classrooms and seminar rooms to facilitate learning, discussions and debates. The specially designed classrooms are equipped with audio visual aids (sound system and LCD projectors) & internet connectivity (Wi-Fi) to enhance the learning process. The classrooms are situated in the same building as the department, on the 3rd, 5th and 6th floors.

Department Library

The department has its own library, situated on the 5th floor, offering reference books for all subjects and areas of Information Technology. It also includes a Library Information System developed in-house, providing search and discovery functionalities for the library's various resources like seminar reports, UG/PG/PhD Theses and technical videos in a single search. It provides account/history management, automated issue and alert system etc.

Seminar Hall

The department's seminar hall is on the 5th floor and is equipped with ceiling-mounted LCD projector, and wireless audio system. It can comfortably seat more than 125 people and is used for conducting classes, seminars and distinguished lectures.

Conference Room

The Department Conference Room is equipped with LCD projector and teleconferencing facilities and is located on the 4th floor. It is used for conducting presentations, teleconferences, webinars etc.

Computing Facilities

The department's laboratory setup provides excellent facilities to cater to the varied needs of B.Tech, M.Tech & M.Tech(by research) students and PhD scholars. The department has several labs for general programming language laboratory courses for UG and dedicated labs for fields like Virtualization, Data Processing, Internet Technology and System Software. PG students and research scholars work in dedicated labs equipped with high-end machines and facilities. Some state-of-the-art computing facilities available in the various labs include –

- 2 Rack Mount Servers with 2 NVIDIA TESLA P40 GPUs
- 2 Dell Power Edge R730 XD2U Rack Mount Server with 2 NVIDIA TESLA M40 GPUs
- 2 Xeon Rack Mounted DL160 Server running Ubuntu and 1 HP Proliant 16GB RPS Server
- 2 Power Edge 420 server and IBM POWER 7 Virtualization Server
- 1 Blade Server, 1 IBM Server and 1 rx2600 Itanium Server running Linux for Laboratory support
- 3 high-end Dell, 1 Lenovo and 11 HP Workstations
- 2 CUDA based server for High Performance computing
- 181 high-end Desktop systems with i7 processor (8GB RAM) and 15 systems with 4GB RAM
- 30 HP Desktop with i5 Processor, 7 IBM and 17 HP desktops with Pentium III processor
- Desktop Virtualization facility (20 NComputing Devices)
- 2D and 3D camcorders for High Performance Multimedia Lab and Applications
- Microsoft Kinect, Sense 3D, Myo, Leapmotion, Arduino, Raspberry Pi3, Health/Environment Monitoring Sensors, VR based head Mounted Devices, Google Glass, Oculus Rift, Eye Tracker, Firebird Robotic Kit, Nintendo Wii etc for Human Computer Interaction Applications
- MEMSIC Wireless Sensor Network Professional and Educational Kits
- Microprocessor and Interface Kits for hands on experiments.
- LAN Trainer Kits for Network and routing simulation experiments
- Rational Rose Suite 7 and IBM's Business Intelligence Suite

DEPARTMENT LOCATION



Contact Information

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