



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

**2024 - 2025**



## Profile of the Department

Established in the year 2000, the Department of Information Technology is the youngest among the 14 departments at NITK Surathkal. Since then, it has grown to be a center for excellence, innovation and research with dedicated faculty & staff, highly motivated students, state-of-the-art facilities and an innovative teaching-learning environment. The department offers two undergraduate programmes (B.Tech.-IT and B.Tech.-AI); one post-graduate programme (M.Tech.-IT), M.Tech. in IT (by Research) and Ph.D. programmes are also offered by the department. The department was accredited by National Board of Accreditation (NBA) for 6 years (2022-2023 to 2027-28, upto 30-06-2028), for 6+1 years w.e.f. 01-07-2014 (further extended for 1 year up to 30-06-2022) and for 3 years in 2008. It has demonstrated its significant potential for excellent research through high-quality scholarly publications, research projects, patents and other initiatives. Several research & consultancy projects are currently underway as part of various grants/MoUs with reputed industry and academic organizations. Our students have consistently achieved excellent placements year after year and have demonstrated a high level of success at pursuing post-graduate and doctoral studies at leading universities world-wide (as per QS World University Rankings). Many NITK-IT graduates are currently at universities of repute like Massachusetts Institute of Technology, Carnegie Mellon University, Yale, Cornell, Columbia, Duke University, Purdue, Georgia Tech, and in IITs/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.*

<b>Head of the Department</b> Geetha V.		<b>Faculty Members</b>	
<b>Year of Establishment</b> 2000		<i>Professors (HAG Scale)</i> Ananthanarayana V. S. G. Ram Mohana Reddy	<i>Assistant Professors (Grade II)</i> Janani T.
<b>Student Information</b>			
<i>Programme</i>	<i>Number of Students</i>		<i>Adhoc Faculty</i>
B.Tech. (AI)	176	<i>Associate Professors</i> Jaidhar C. D. Sowmya Kamath S. Nagamma Patil	Deepa C Jayashree T R Jim M John Palla Parasuram Yadav
B.Tech. (IT)	334	Biju R. Mohan Geetha V.	Rashid A Santanu Dey
M.Tech. (IT)	69 (full-time)	Anand Kumar M. Purushothama B. R.	Suresan Pareth Vivek Kumar
M.Tech. (By Research)	09 completed 03 ongoing	<i>Assistant Professors (Grade I)</i> Shrutilipi Bhattacharjee Bhawana Rudra Dinesh Naik Kiran M.	
Ph.D.	42 completed 39 in progress. (Full-time: 22; Part-time: 17)		

## Degrees and Programmes

- B.Tech. (Artificial Intelligence)
- B.Tech. (Information Technology)
- M.Tech. (Information Technology) and M.Tech. (by Research)
- Ph.D. (Information Technology)

## Current Research Areas

The Department is actively involved in advanced research at the UG, PG and doctorate (Ph.D.) levels, in fundamental and cutting edge technologies, like

1. *Data Science, Analytics, and Artificial Intelligence:* Big Data/Cognitive Analytics, Database Systems, Data Mining, Geoscience and Spatial Data Mining, Healthcare Analytics, Machine Learning, Natural Language Processing & Understanding, Network Analysis
2. *Computing Systems and Infrastructure:* High Performance Computing, Distributed Computing, Cloud Computing, Green Computing and Green Datacenters, Pervasive Computing, Vehicular Adhoc Networks, Quantum Computing
3. *Systems Engineering:* Software Engineering and Architecture, Requirements Engineering, Service-oriented Computing, Blockchain, Requirements Engineering
4. *Networking and Security:* Computer Networks, Security Issues in Information, Networks and VoIP, 5G and 6G applications, IoT & Smart Sensing, Wireless Sensor Networks.
5. *Human-Centered Computing:* Affective Computing, Bio-inspired Computing, Bioinformatics, Computer Vision, Semantic Web Technologies.

## Research Publications and Books

**Peer-reviewed International Journals - 241**

**Refereed International Conferences - 652**

**Refereed National Conferences - 6**

**Books and book chapters - 71**

## Recent Events

- Expert talk on "*Opportunities for AI Applications in Ophthalmology Domain*", Prof. (Dr.) Uma Kulkarni, Yenepoya University (August 21, 2024)
- Expert talk on "*Data Management and Analytics for Wearable Technologies in Healthcare*" by Prof. Vijayan Sugumaran, Co-director, Center for Big Data Analytics, Oakland University, Michigan, USA (August 7, 2024)
- 5 Days Self-sponsored Short-term Training Programme on "*Applications of Deep Learning in Multidisciplinary Area*" (July 1-5, 2024)



## **RESEARCH, CONSULTANCY & DEVELOPMENT PROJECTS (RECENT)**

<b>Research Project</b>	<b>Sponsoring Agency</b>	<b>Funding</b>	<b>Duration</b>	<b>Principal Investigators</b>
Creating Awareness in the Field of AI through Hands-on Activities for secondary school children in select districts of Karnataka, Kerala and TN	DST NCSTC	₹ 37.12 Lakhs	2024-27	Anand Kumar M.
Bharath 5G Usecases Lab	DoT, Govt. of India	₹ 71 Lakhs	2023-28	Geetha V, Sowmya Kamath S. Kiran M. (PI: Ashvini Chaturvedi, ECE)
Quantum Cryptanalysis using Grovers Quantum Search Algorithm	DRDO	₹ 51 Lakhs	2023-25	Bhawana Rudra
A Deep Explainable Framework for Semantically Similar Document Retrieval & Summarization of Legal text	SERB Core Research Grant	₹ 42 Lakhs	2023-26	Anand Kumar M.
AI-based modeling and assessment of Saltwater intrusion phenomenon in west- flowing rivers of Coastal Karnataka	DST SERB POWER Grant	₹ 28.87 Lakhs	2022-25	Shrutilipi Bhattacharjee & Sowmya Kamath S.

<b>Consultancy/Other Projects</b>	<b>Agency</b>	<b>Budget</b>	<b>Faculty Member</b>
Development of GUI for Log Analysis	MIPL	₹ 4.38 Lakhs	Ananthanarayana V.S. Sowmya Kamath S. Geetha V.
IMU Algorithm Development	MIPL	₹ 7.49 Lakhs	Geetha V. Sowmya Kamath S. Ananthanarayana V.S.
Business Document analysis	MIS India	₹ 28.57 Lakhs	Sowmya Kamath S.
Structured content extraction from preformatted documents & study materials	Edumeister USA	₹ 1.18 Lakhs	Anand Kumar M.

### **Industry-Institute Interaction**

The Department has initiated several linkages, some recently signed MoUs are listed below.

- Oakland University, USA (2024-2029)
- Tata Consultancy Services Ltd. (2022-2025)
- QUNU Labs Pvt. Ltd. Bangalore (2022-2025)
- Hewlett Packard Enterprise, Bangalore - NITK MoU (2019-2024)

## DETAILED FACULTY INFORMATION

### Professors (HAG Scale)



**Ananthanarayana V. S., Ph.D. (IISc Bangalore), Post-doc (Canada)**

Email - [anvs@nitk.edu.in](mailto:anvs@nitk.edu.in) | Phone: +91-824-2473550

*Research:* Data Mining, Web Services, Distributed Computing, Databases



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

Email - [profgrmreddy@nitk.edu.in](mailto:profgrmreddy@nitk.edu.in) | Phone: +91-824-2473551

*Research:* Artificial Intelligence, Big Data Analytics, Cognitive Hearing/Speech Science, Cloud/Edge/Fog Computing, QoS-aware Green Data Centers, IoT applications

### Associate Professors



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

Email - [jaidharcd@nitk.edu.in](mailto:jaidharcd@nitk.edu.in) | Phone: +91-824-2473553

*Research:* Cyber Security, Internet of Things (IoT), Precision Agriculture



**Sowmya Kamath S., Ph.D. (NITK Surathkal)**

**Associate Dean (Alumni Network)**

Email - [sowmyakamath@nitk.edu.in](mailto:sowmyakamath@nitk.edu.in) | Phone: +91-824-2473557

*Research:* Healthcare Analytics, Natural Language Processing, Information Retrieval, Generative AI, Visual Computing



**Nagamma Patil, Ph.D. (IIT Roorkee)**

Email - [nagammapatil@nitk.edu.in](mailto:nagammapatil@nitk.edu.in) | Phone: +91-824-2473559

*Research:* Data Mining, Soft Computing, Applying Data Mining Techniques to Biological Data



**Biju R. Mohan, Ph.D. (NITK Surathkal)**

**Professor-in-charge (Institute website)**

Email - [biju@nitk.edu.in](mailto:biju@nitk.edu.in) | Phone: +91-824-2473558

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



**Geetha V., Ph.D. (NITK Surathkal)**

**Head of the Department**

Email - [geethav@nitk.edu.in](mailto:geethav@nitk.edu.in) | Phone: +91-824-2473554

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



**Anand Kumar M., Ph.D. (Amrita Vishwa Vidyapeetham)**

Email - [m\\_anandkumar@nitk.edu.in](mailto:m_anandkumar@nitk.edu.in) | Phone: +91-824-2473561

*Research:* Natural Language Processing, Text Analytics, Information Retrieval, Machine Learning



**Purushottama B R., Ph.D. (NIT Warangal)**

Email - [puru@nitk.edu.in](mailto:puru@nitk.edu.in) | Phone: +91-824-2473145

*Research:* Information Security, Cryptography, Cloud Security, Security Analytics.

## DETAILED FACULTY INFORMATION (contd.)

### Assistant Professors (Grade I)



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

Email - [shrutilipi@nitk.edu.in](mailto:shrutilipi@nitk.edu.in) | Phone: +91-824-2473142

*Research:* Geoscience and Spatial Data Mining, Complex Network Analysis



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

Professor-in-charge (Staff training programs)

Email - [bhawanarudra@nitk.edu.in](mailto:bhawanarudra@nitk.edu.in) | Phone: +91-824-2473560

*Research:* Cryptography and Network Security, Cyber Security, IoT, Blockchain Security, Quantum Computing & Cryptography, Future Internet & its Security,



**Dinesh Naik**, Ph.D. (NITK Surathkal)

Email - [din\\_nk@nitk.edu.in](mailto:din_nk@nitk.edu.in) | Phone: +91-824-2473552

*Research:* Deep learning for Computer Vision and Natural Language Processing, Evolutionary Deep Intelligence, Scientific Imaging, Remote Sensing, Biomedical Imaging



**Kiran M.**, Ph.D. (NITK Surathkal)

Email - [kiranmanjappa@nitk.edu.in](mailto:kiranmanjappa@nitk.edu.in) | Phone: +91-824-2473561

*Research:* Blockchain Technology, 5G and beyond, Wireless Sensor Networks, Mobile Adhoc Networks, Swarm Intelligence and Bio-inspired Computing,

### Assistant Professors (Grade II)



**Janani T.**, Ph.D. (NIT Trichy)

Email - [jananit@nitk.edu.in](mailto:jananit@nitk.edu.in) | Phone: +91-824-2473142

*Research:* Cryptography, Image Encryption, Multimedia Analytics

## STUDENTS' INFORMATION

### **B.Tech. (IT) 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>
2023-24	137	102+4*	55 Lakhs	24.56 Lakhs
2022-23	113	112+1*	54.75 Lakhs	29.23 Lakhs
2021-22	91	91	45.03 Lakhs	23.03 Lakhs
2020-21	95	93+2*	45.03 Lakhs	17.28 Lakhs
2019-20	97	96+1	43 Lakhs	17.06 Lakhs

\*Off-campus placement

### **M.Tech. (IT) 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>
2023-24	34	26+2*	34.1 Lakhs	15 Lakhs
2022-23	35	35		
2021-22	29	28+1*	45.03 Lakhs	17.38 Lakhs
2020-21	26	24+2*	28 Lakhs	12.25 Lakhs
2019-20	22	22	20 Lakhs	12 Lakhs

\*Off-campus placement

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

<i>Name of Student</i>	<i>Institute</i>	<i>Programme</i>
Akshara Prabhakar	Princeton University, USA	Integrated MS-Ph.D.
Medhini Narasimhan	Univ. of California Berkeley, USA	Integrated MS-Ph.D.
Shailee Jain	University of Texas-Austin, USA	Integrated MS-Ph.D.
Aditya Bhat	Purdue University, USA	Integrated MS-Ph.D.
Spandana Balumuri	Univ. of Texas at Austin	MS in Computer Science
Akshay Udupa	Carnegie Mellon University	MS in Computer Science
Mohit Mitra.	GeorgiaTech, USA	MS in Computer Science
Nachiketh Naganure	Texas A & M University	MS in Computer Science
Tilak Shenoy	Univ. of Illinois Urbana- Champaign	MS in Computer Science

### **Some IT Entrepreneurs**

<i>Student</i>	<i>Degree and Batch</i>	<i>Start-up Initiative</i>
Shashank N.D. & Abhinav Lal	B.Tech, Batch of 2009	Co-founders, Practo Healthcare
Shreyas Tonse	B.Tech, Batch of 2006	CEO, Zwayam Digital
Rohit Manglik	B.Tech, Batch of 2012	Founder, EduGorilla Platform
Vaibhav Arcot	B.Tech, Batch of 2018	Co-founder, TreeSwift Inc.
Neelesh Soni & Gaurav Raj	B.Tech, Batch of 2012	Co-founders of Piktora Imaging and Rhapsody Labs
Smrithi Ranjan Parida	B.Tech, Batch of 2007	COO, NestAway
Sanchit Garg	B.Tech, Batch of 2016	Co-founder & CTO, ChangePay MMS
Manash Sharma	B.Tech, Batch of 2021	Co-founder of OxyHeal Pvt. Ltd.
Utkarsh Ajay Patil	B.Tech, Batch of 2021	Co-founder of Cryptocase & Seventy7 Technologies Pvt. Ltd.

## **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 labs are situated in the 3<sup>rd</sup>, 4<sup>th</sup>, 5<sup>th</sup> and 6<sup>th</sup> floors of the building, while the classrooms are located in the adjacent building, Lecture Hall Complex C (LHC-C).

### ***Department Library***

The department has its own library, situated on the 5<sup>th</sup> 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/Ph.D. 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 5<sup>th</sup> 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 seminars and distinguished lectures.

### ***Conference Room***

The Department Conference Room is equipped with digital display system and teleconferencing facilities and is located on the 4<sup>th</sup> floor. It is used for conducting presentations, seminars, meetings, webinars etc.

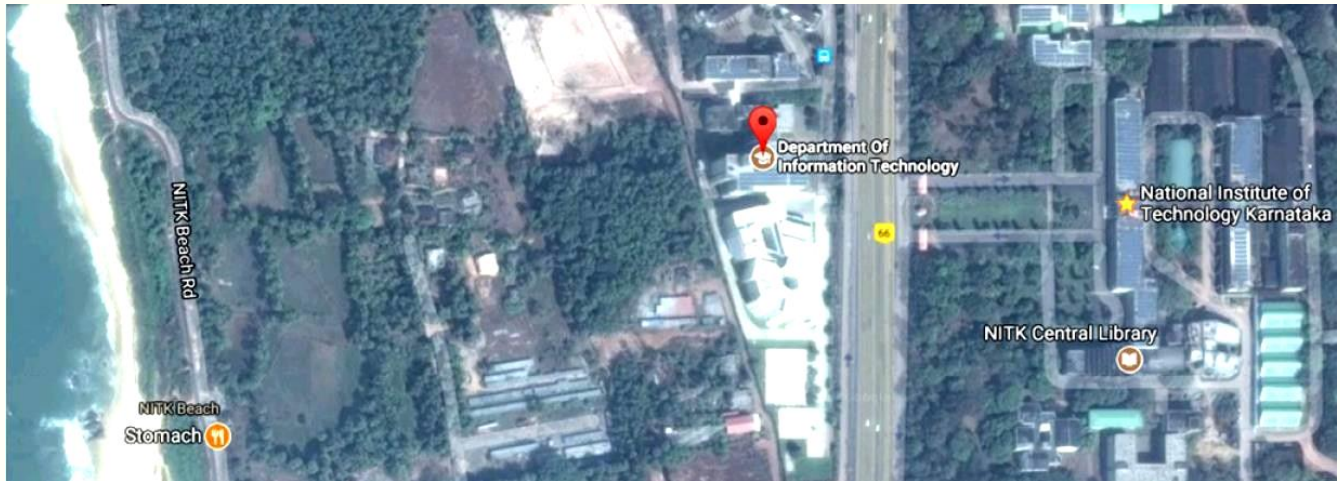
### ***Computing Facilities***

The department's laboratory setup provides excellent facilities to cater to the varied needs of B.Tech., M.Tech./M.Tech.(Research) students and Ph.D. scholars. The department has several labs for general programming language laboratory courses for UG and dedicated labs for fields like Internet of Things, Data Analytics and High Performance Computing. 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 –

- 163 High-end HP and Dell Desktop systems, with i7 Processor and 16 GB RAM
- 209 High-end HP Desktop systems, with i7 Processor and 32 GB RAM
- 1 Lenovo Workstation with Xeon Processor and 8 GB RAM
- 3 Dell Desktop Systems with i7 processor and 8 GB RAM
- 2 HP Desktop Systems with i7 processor and 4 GB RAM
- 2 CUDA based servers for High Performance Computing – Dell Power Edge R730XD
- 1 Dell Power Edge R540 Server
- 1 Tyrone Camarero Server and 1 NVIDIA DGX Station for High Performance Computing
- 2D and 3D camcorders for High Performance Multimedia Lab and Applications
- Microsoft Kinect for Xbox 360 for Human Computer Interaction Applications
- MEMSIC Wireless Sensor Network Professional and Educational Kits.
- Microprocessor and Interfacing Kits for hand-on experiments.
- 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 .
- 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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Department of Information Technology,  
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