



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

**2022 - 2023**



## 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. (Artificial Intelligence) and 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 3 years in 2008 and for 6+1 years w.e.f. July 1st, 2014 (further extended for 1 year up to Jun 2022). 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 the IITs and 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		Faculty Members	
Jaidhar C. D.			
Year of Establishment			
2000			
Student Information			
Programme	Number of Students	Professors (HAG Scale) Ananthanarayana V. S. G. Ram Mohana Reddy	Assistant Professors (Grade II) Dinesh Naik Kiran M. Bhawana Rudra Shrutilipi Bhattacharjee
B.Tech. (AI)	88		
B.Tech. (IT)	336	Associate Professors Jaidhar C. D.	Adjunct Faculty Haridas Pai Shriram Kris Vasudevan
M.Tech. (IT)	67 (full-time)		
M.Tech. (By Research)	06 completed 03 ongoing	Assistant Professors (Grade I) Geetha V. Biju R. Mohan Sowmya Kamath S. Nagamma Patil Anand Kumar M.	Adhoc Faculty Anupama H. C. Mamatha K M. Pearl Alisha Lobo Anita S. R. M. Anburajam Meghana Pujar
Ph.D.	34 completed 42 in progress. (Full-time: 28; Part-time: 14)		



## 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 of Information Technology is actively involved in advanced research at the UG, PG and doctorate (Ph.D.) levels, in fundamental and cutting edge technologies. Current areas of research interest include - Affective Computing; Big Data/Cognitive Analytics; Bio-inspired Computing; Bioinformatics; Blockchain, Cloud Computing; Computer Networks; Computer Vision, Cyber-physical 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 Centered 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 – 186**

**Refereed International Conferences – 549**

**Refereed National Conferences – 6**

**Books and book chapters - 63**

## Recent Events

- SERB sponsored 7-Day Workshop on "Advanced Topics in Network Security and Cryptography" (May 30 - June 5, 2022)
- AICTE sponsored 5-day Workshop on "Quantum Computing & Quantum Cryptography" (Jun 7 - 11, 2021)
- NITK's National-level Hackathon "HackVerse 3.0" (Feb 26 - 27, 2022)
- First Workshop on Speech and Language Technologies for Dravidian Languages @ EACL 2021 (April 19-20, 2021)



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

<b><i>Research Project</i></b>	<b><i>Sponsoring Agency</i></b>	<b><i>Funding</i></b>	<b><i>Duration</i></b>	<b><i>Principal Investigators</i></b>
AI-based modeling and assessment of Saltwater intrusion phenomenon in west- flowing rivers of Coastal Karnataka	DST SERB POWER Grant	₹ 30 Lakhs	2022-25	Shrutilipi Bhattacharjee & Sowmya Kamath S.
Microsoft AI for Earth Grant	Microsoft	USD 15,000	2022-23	Sowmya Kamath S. & Shrutilipi Bhattacharjee
Google Cloud COVID-19 Research Grant	Google Inc	USD 10,600	2020-21	Sowmya Kamath S.
Google Cloud COVID-19 Research Grant	Google Inc	USD 9,100	2020-21	Neelima B.
Young Faculty Research Fellowship	Visweswaraya Ph.D. Scheme for Electronics & IT	₹ 14.98 Lakhs	2019-21	Geetha V.
Effective Online Framework for Protein Sequence Alignment and to Predict Protein Structure	Vision Group on Science and Technology, Govt. of Karnataka	₹ 5 Lakhs	2018-19	Nagamma Patil

<b><i>Other Projects</i></b>	<b><i>Agency</i></b>	<b><i>Budget</i></b>	<b><i>Duration</i></b>	<b><i>Faculty Member</i></b>
Structured content extraction from preformatted documents & study materials	Edumeister, USA	₹ 1.18 Lakhs	2020-21	Anand Kumar M.
NITK-MIS IRIS Project (Academic-centric Information System)	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. (Technical Convener)
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/level-

- 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 (1 year)
- Pennsylvania State University (PSU) (5 years)

## 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, Semantic Web



**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 and Speech Science, Cloud/Edge/Fog Computing, QoS Aware Green Data Centers, IoT and Smart Agriculture/Building/Campus/City/Home/Factory Applications

### Associate Professors



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

**Head of the Department**

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

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

### Assistant Professors (Grade I)



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

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

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



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

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

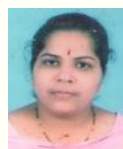
*Research:* Software Aging, Virtualization, Software Engineering, Software Architecture, Software Patterns, Requirements Engineering



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

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

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



**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

## **DETAILED FACULTY INFORMATION (contd.)**

### **Assistant Professors (Grade II)**



**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,



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

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, Computer Networks, Android Security Issues



**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

### **Adjunct Faculty**



**Haridas Pai** (Principal Engineer @ Cisco Security Business Group)

Email - [adj.hpai@nitk.edu.in](mailto:adj.hpai@nitk.edu.in) | Phone: +91-824-2473047

*Research:* Cloud & Cyber Security - Architecture & Design



**Shriram Kris Vasudevan**

Email - [adj.shriram@nitk.edu.in](mailto:adj.shriram@nitk.edu.in) | Phone: +91-824-2473047

*Research:* Embedded Systems, Operating Systems, IoT

## DETAILED FACULTY INFORMATION (contd.)

### Adhoc Faculty



**Anupama H. C.,** *M.Tech. (VTU, Belgaum)*

Email – [al.anupama@nitk.edu.in](mailto:al.anupama@nitk.edu.in)

*Research:* Wireless Sensor Networks, Mobile Adhoc Networks, Machine learning, Programming Languages, Algorithms



**Mamatha K. M.,** *Pursuing Ph.D., M.Tech. (VTU Belgaum)*

Email – [al.mamathakm@nitk.edu.in](mailto:al.mamathakm@nitk.edu.in)

*Research:* Wireless Sensor Networks, Swarm Intelligence and bio- Inspired computing, Natural Language Processing



**Pearl Alisha Lobo,** *M.Tech. (PES University)*

Email – [al.alishalobo@nitk.edu.in](mailto:al.alishalobo@nitk.edu.in)

*Research:* Artificial Intelligence, Blockchain Technology, Mobile Application Development



**Anita S R.,** *M.Tech. (VTU, Belgaum)*

Email – [al.anitasr@nitk.edu.in](mailto:al.anitasr@nitk.edu.in)

*Research:* Cloud Computing, Computer Networks, Network Security, IoT, Image Processing



**M. Anburajam.,** *M.E. (Anna University)*

Email – [al.anburajamitdept@nitk.edu.in](mailto:al.anburajamitdept@nitk.edu.in)

*Research:* Software Engineering, Artificial Intelligence, Java, Embedded System



**Meghana Pujar.,** *M.Tech. (VTU Belgaum)*

Email – [al.meghana@nitk.edu.in](mailto:al.meghana@nitk.edu.in)

*Research:* Artificial Intelligence, Cloud computing



## **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>
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
2018-19	93	92+1*	39 Lakhs	14.15 Lakhs
2017-18	97	96+1*	31 Lakhs	13.85 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>
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
2018-19	18	19	18.75 Lakhs	11.90 Lakhs
2017-18	16	16	18 Lakhs	11.63 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.
Prajna Hebbar	Univ. of California at Santa Cruz, USA	Integrated MS-Ph.D.
Medhini Narasimhan	Univ. of California Berkeley, USA	Integrated MS-Ph.D.
Shailee Jain	Univeristy of Texas-Austin, USA	Integrated MS-Ph.D.
Aditya Bhat	Purdue University, USA	Integrated MS-Ph.D.
Soundarya R.	National University of Singapore	Integrated MS-Ph.D.
Mohit R.	GeorgiaTech, USA	MS in Computer Science
Tushaar Gangavarapu	Columbia University, USA	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 –

- 213 High-end HP and Dell desktop systems, with i7 Processor and 16 GB RAM
- 65 High-end HP desktop systems, with i7 Processor and 32 GB RAM
- 2 Dell and 1 Lenovo Workstation with Xeon Processor and 8 GB RAM
- 28 Dell Desktop Systems with i7 processor and 8 GB RAM
- 11 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
- 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

The Head,  
Department of Information Technology,  
4<sup>th</sup> floor, IT Building, Western Campus,  
National Institute of Technology Karnataka, Surathkal,  
Srinivas Nagar P.O, Mangalore 575025, Karnataka, INDIA  
Tel: +91-824-2473047 (office) / +91-824-2474056 (direct)

Email: [hodit@nitk.edu.in](mailto:hodit@nitk.edu.in)

Website: [www.infotech.nitk.ac.in](http://www.infotech.nitk.ac.in)

