



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



**INFORMATION  
TECHNOLOGY**



IT Building

## 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 has already demonstrated its potential for excellent research through quality scholarly publications - 70 peer-reviewed journal publications and more than 260 refereed conference papers. Several research and consultancy projects are also underway as part of various MoUs with reputed industry and academic organizations. Our students have consistently achieved near 100% placements and have demonstrated a high level of success at pursuing post graduate and doctoral studies at top universities of the world as per QS University Rankings - Carnegie Mellon University, Massachusetts Institute of Technology, Purdue & Georgia Tech, and in the IITs/IIMs.

## Vision

- To achieve excellence in education so as to enable students to establish themselves as world-class professionals and empower them with the proficiency and 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> Ananthanarayana V. S.		<b>Faculty</b>  <i>Professors</i> Ananthanarayana V. S. G. Ram Mohana Reddy
<b>Year of Establishment</b> 2000		
<b>Student Information</b>		
<i>Programme</i>	<i>Number of Students</i>	<i>Assistant Professors</i>
B.Tech	309	Biju R. Mohan
M.Tech	47 (full-time) +2 (HTTA)	Dinesh Naik Geetha V.
M.Tech (By Research)	02 completed 01 submitted	Jaidhar C. D. Nagamma Patil Sowmya Kamath S.
Ph.D	08 completed 02 submitted 13 in progress. (08 full time+ 05 part time)	

## Degrees and Programmes

- B.Tech (Information Technology)
- M.Tech (I.T - Regular)
- M.Tech (in I.T by Research)
- Ph.D (Information Technology)

## Current Research Areas

The Department of IT is actively involved in advanced research in cutting edge technologies at the UG, PG and doctorate level (PhD). Current research areas include Affective Computing, Big Data/Cognitive Analytics, Bio-inspired Computing, Bioinformatics, Cloud Computing, Cognitive Hearing/Speech Science, Data Mining, Scientific/Statistical Data Mining, Distributed Computing, Healthcare Informatics, High Performance Computing, Human Centered Computing, Multimedia & Virtual Reality, Natural Language Processing, QoS Aware MANETs, Security Issues in Information, Networks, Cloud & VoIP, Semantic Web Technologies, Social Network Analysis, Soft Computing, Software Engineering, Virtualization, Web Services and Wireless Sensor Networks among others.

## Research Publications

International Peer-reviewed Journals – 70

International Refereed Conferences – 260

## Recent Conferences organized & Workshops conducted

- TEQIP-II Sponsored Workshop on "Software Testing", by Dell R&D, Bangalore, on 24th February 2014
- Expert Lecture on "Mobile Computing and Research Trends", by Prof. Nabanitha Das, ISI Calcutta, on 24th of January, 2014
- Second International Conference on Advanced Computing, Networking and Security (ADCONS'13) - 15 -17 December 2013
- TEQIP II sponsored Expert Lecture on "Heterogeneous Computing" by Dr. Prakash S. Raghavendra, Principal Member-Technical Staff, AMD India - on October 25th, 2013
- TEQIP II sponsored Workshop on Attacks of Different Layers of TCP/IP & Tools for Analysis (AoDL-TCP/IP 2013) - during 10-11 October 2013.
- TEQIP II sponsored Workshop on "Virtualization" - on September 27th, 2013.
- TEQIP II sponsored research workshop on "Research Trends in Information Technology (RTinIT 2013)" – during 11- 12 July 2013.



## Some Research and Consultancy Projects

<i>Name of Project</i>	<i>Sponsoring Agency</i>	<i>Funding</i>	<i>Duration</i>	<i>Principal Investigators</i>
Development of Web Based Course Material on Distributed Computing Systems	MHRD NPTEL	Rs.3.5 lakhs	2012-13	Ananthanarayana V.S.
Distributed Computing and Web Services	Startup Grant, NITK	Rs. 5 lakhs	2007-10	Ananthanarayana V.S.
Knowledge Discovery in Multi Databases	MHRD(R&D)	Rs. 8 lakhs	2004- 07	Ananthanarayana V.S.
Quality of Service Aware Routing in MANETs	MHRD, Rajeev Gandhi National Research Fellowship	Rs. 8 lakhs	2011-14	G. Ram Mohana Reddy and Kiran Manjappa
Content Based Video Copy Detection & Prevention of In-Theatre Piracy	DST, Women Scientist Research Fellowship	Rs. 30 lakhs	2011-14	G. Ram Mohana Reddy and R. Roopalakshmi
Security Issues in WSNs	Startup Grant, NITK	Rs. 5 lakhs	2010-13	Geetha V.
High Performance Computing	Startup Grant, NITK	Rs. 5 lakhs	2010-13	Prakash S. Raghavendra
Multicore Optimization	IBM Faculty Award	\$10,000	2010-13	Prakash S. Raghavendra

## Industry-Institute Interactions

The Department has several industry linkages at various stages/levels which are being successfully pursued for activities like consultancy/R & D in areas of mutual interests and student projects. Some ongoing efforts as part of MoUs between the department of IT and reputed organizations in academia & industry are –

- Accenture Bombay – NITK MOU (2008 for 1 year)
- Dell India R&D Centre, Bangalore (2012)
- EMC Bangalore (2008 for 2 years)
- HP Bangalore (2008)
- Pennsylvania State University (PSU) (2008 for 5 years)



## Detailed Faculty Information



**Ananthanarayana V S**, *Ph.D (IISc Bangalore), Post Doctoral Fellow(Canada)*  
Professor and Head

Room no 407, 4th Floor, I.T Building,  
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*Research Interests:* Databases, Big Data Analytics, Data Mining, Distributed Computing, Semantic Web, Web Services



**Biju R Mohan**, *M.Tech (Pondicherry University), currently pursuing Ph.D*  
Assistant Professor

Room no 411, 4th Floor, I.T Building  
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*Research Interests:* Software Aging, Virtualization, Software Engineering, Software Architecture, Software Patterns, Requirements Engineering.



**Dinesh Naik**, *M.Tech (VTU, Belgaum), currently pursuing Ph.D*  
Assistant Professor

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*Research Interests:* Computer Network, Web Technologies, Cloud Computing.



**G. Ram Mohana Reddy**, *Ph.D (University of Edinburgh, UK)*  
Professor and Chairman (CCC)

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*Research Interests:* Affective Computing, Big Data/Cognitive Analytics, Bio-Inspired Computing, Healthcare Informatics, High Performance Computing, Intelligent Cloud Computing, QoS Aware MANETs, Social Network Analysis



**Geetha V**, *M.Tech (VTU, Belgaum), currently pursuing Ph.D*  
Assistant Professor

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*Research Interests:* Wireless Sensor Networks, Computer Networks



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

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*Research Interests:* Cryptography and Network Security, Computer Networks and Information Security, Security Issues in Voice over IP and Cloud Computing.



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

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



**Sowmya Kamath S**, *M.Tech (Manipal University), currently pursuing Ph.D*  
Assistant Professor

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*Research Interests:* Web Services, Semantic Web Technologies, Natural Language Processing and Understanding, Big Data Analytics

## Students' Information

### Placement Statistics (2013 - 2014)

<i>Degree</i>	<i>Total Eligible</i>	<i>Total Placed</i>
B.Tech (IT)	78	75
M.Tech (IT)	24	22
M.Tech (Research)	3	3

### Recent news on IT student admissions to top universities (QS World University Rankings)

<i>Student</i>	<i>Institute</i>	<i>Programme</i>
Srivatsa S Bhat	Massachusetts Institute of Technology & Carnegie Mellon University, USA	Integrated MS-Ph.D with full funding
Gaurav Trivedi	Univ. of Pittsburgh, USA	
Aditi Vutukuri; Prajwal R Prasad	Univ. of Georgia, USA	MS in Computer Science
Monisha M	Univ. of Texas at Austin, USA	

### Recent statistics on students pursuing Higher Studies

<i>Students pursuing higher education</i>	<i>Number of Students</i>	
	<i>In India</i>	<i>Abroad</i>
Master's Degree in IT and related fields	4	14
Master's Degree in Management field	4	1
Integrated Master's & PhD in IT & related fields	1	3

### Recent news on IT Entrepreneurs

<i>Student</i>	<i>Degree and Batch</i>	<i>Start-up Initiative</i>
Neelesh Soni	B.Tech, Batch of 2012	Co-Founder & Managing Director at Rhapsody Labs, Mumbai
Rohit Manglik	B.Tech, Batch of 2012	Founder, Career Breeder, Bangalore
Shashank N.D	B.Tech, Batch of 2009	Co-founder & CEO of Practo.com
Abhinav Lal	B.Tech, Batch of 2009	Co-founder & CTO of Practo.com
Parkal Suhas Kamath	B.Tech, Batch of 2007	COO of UnWrapIndia.com and Eye and Buy Retail
Vikram Nayak	B.Tech, Batch of 2007	CEO at Maximiner Analytics, Bangalore

## 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*

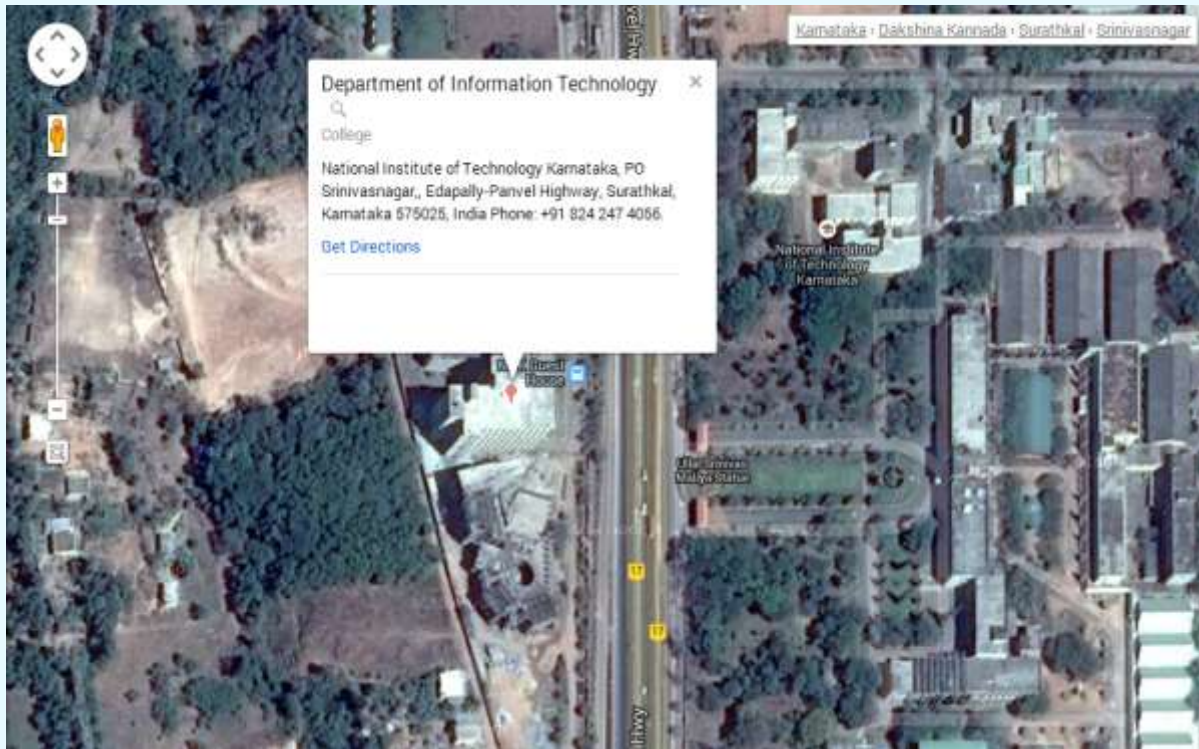
The Department Conference Room is equipped with LCD projector and teleconferencing facilities and is located on the 4th floor. It is used for conducting presentations, teleconferences, webinars etc.

### *Computing Facilities*

The department's laboratory setup provides excellent facilities to cater to the varied needs of B.Tech(IT), M.Tech(IT) and M.Tech(by research) students & Ph.D scholars. The department has several labs for general programming language laboratory courses for U.G 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 –

- 150 High end desktop systems, with i7 Processor and 8GB RAM
- 50 Pentium-IV computers with internet facility and 43 Workstations
- 30 HP Desktop Systems with i5 processor, 15 IBM and 35 HP Desktops with Pentium III processor
- 2 Blade servers, 2 IBM Servers and 1 rx2660 Itanium Server running Linux for laboratory support.
- IBM POWER 7 Virtualization Server
- Desktop Virtualization facility
- 2 Xeon Rack Mounted DL160 Servers running Fedora and 1 HP Proliant 16GB RPS Server.
- 2 CUDA based servers 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 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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