



DEPARTMENT OF MATHEMATICAL AND COMPUTATIONAL SCIENCES
NATIONAL INSTITUTE OF TECHNOLOGY KARNATAKA, SURATHKAL
MANGALURU - 575025, KARNATAKA, INDIA

2016-2017

About the Department

The Department of Mathematics was (today called, the Department of Mathematical and Computational Sciences) started along with the Institute (1960). The department initially catered to the needs of Engineering Mathematics for all UG and PG programmes and subsequently, in 1988-89, introduced two PG programmes namely, the Master of Computer Applications (MCA) and Master of Technology (M.Tech.) in Systems Analysis and Computer Applications (SACA). In 2003, the department started the regular doctoral programmes in “Mathematics” and “Computer Applications”. The Department has started the M.Tech in Computational Mathematics (CMA) in 2014 in place of the earlier M.Tech (SACA).

Department Vision

The vision is to develop and maintain overall academic excellence in the educational and research activities carried out.

Department Mission

- To impart the best quality education in Mathematical fundamentals to all the Engineering students of the Institute.
- To produce high quality professionals to meet the needs of software industry through the PG programmes.
- To engage in R&D work in the frontier areas of Mathematical and Computational Sciences.

Programs Offered

| Program Name | Annual Intake |
|--|---------------|
| M.C.A. (Master of Computer Applications) | 92 |
| M.Tech (Computational Mathematics) | 27 |
| Doctoral (Ph.D) | 15 |

Placement

Students of Mathematical and Computational Sciences are recruited by the companies like MERCEDES-BENZ, ORACLE, IBM, DELL, EMC, L&T, IDrive, SAP, VIRTUSA, VERIZON, SAPIENT, AMDOCS etc.

BRIEF FACULTY PROFILES

| | | | |
|----------------------|---|---|---|
| Professors |  | A Kandasamy, Ph.D Areas of Research : CFD, Rheology, Tribology, Computational Techniques, Optimization Techniques, Genetic Algorithms, Bio-Informatics, Wireless Sensor Networks Email: kandy_aks@yahoo.com, kandy@nitk.ac.in Web Page: http://aks.nitk.ac.in/ or http://macs.nitk.ac.in/faculty/kandasamy | |
| | Keshava Prasad Halemane, Ph.D Areas of Research: Optimization, Computational Systems Science and Engineering, Computations in Decision Making Email: k.prasad.h@gmail.com, kph@nitk.edu.in Web Page: http://macs.nitk.ac.in/faculty/keshava-prasad-halemane | |  |
| |  | Murulidhar N N, Ph.D Areas of Research: Reliability Engineering, Stochastic Process Email: muruli@nitk.ac.in, murulidharnn@gmail.com Web Page: http://macs.nitk.ac.in/faculty/murulidhar-n-n | |
| | Santhosh George, Ph.D Areas of Research: Functional Analysis, Operator Theory, Ill Posed Operator Equations, Non-linear Analysis. Email: sgeorge@nitk.ac.in Web Page: http://macs.nitk.ac.in/faculty/santhosh-george | |  |
| |  | Suresh M Hegde, Ph.D Areas of Research: Graph Theory and combinatorics Email: smhegde@nitk.ac.in Web Page: http://macs.nitk.ac.in/faculty/suresh-m-hegde | |
| Associate Professors | B R Shankar, Ph.D Areas of Research: Cryptography, Finite Fields, Functional Analysis, Number Theory, Operator Algebras Email: brs@nitk.ac.in, shankarbr@gmail.com Web Page: http://macs.nitk.ac.in/faculty/b-r-shankar | |  |
| |  | R. Madhusudhan, Ph.D Areas of Research: Computer Network Security, Remote User Authentication, Mobile computing Email: madhu@nitk.ac.in ,madhu_nitks@yahoo.com Web Page: http://macs.nitk.ac.in/faculty/r-madhusudhan | |
| | Shyam S. Kamath, Ph.D Areas of Research: Graph Theory,Combinatorics Email: shyam@nitk.ac.in Web Page: http://macs.nitk.ac.in/faculty/shyam-s-kamath | |  |
| |  | Sujatha D. Achar Areas of Research: Numerical analysis, Theory of functions of complex variables Email: sujatha_achar @nitk.ac.in Web Page: http://macs.nitk.ac.in/faculty/sujatha-d-achar | |


A Senthil Thilak, Ph.D

Areas of Research: Graph Theory (Pure & Applied), Algorithmic Graph Theory, Wireless networks.

Email: thilak@nitk.ac.in, asthilak23@gmail.com

Web Page: <http://macs.nitk.ac.in/faculty/senthil-thilak>

Chandhini G, Ph.D

Areas of Research: Numerical methods – Radial basis function based schemes

Email: chandhini@nitk.ac.in

Web Page: <http://macs.nitk.ac.in/faculty/chandhini-g>


I. Jeyaraman, Ph.D

Areas of Research: Complementarity problems

Email: jeyaraman.iitm@gmail.com

Web Page: <http://macs.nitk.ac.in/faculty/i-jeyaraman>

Jidesh P, Ph.D

Areas of Research: Mathematical Imaging, Image Processing, Data compression, Graph image processing

Email: jidesh@nitk.ac.in, ppjidesh@gmail.com

Web Page: <http://macs.nitk.ac.in/faculty/jidesh-p>


Kedarnath Senapati, Ph.D

Areas of Research: Probability and Stochastic Processes, Blind Signal Deconvolution and Separation, Wavelets and Signal Processing, Complex Dynamics

Email: kedar11@gmail.com

Web Page: <http://macs.nitk.ac.in/faculty/kedarnath-senapati>

P Sam Johnson, Ph.D

Areas of Research: Functional Analysis, Operator Theory

Email: sam@nitk.ac.in, nitksam@gmail.com

Web Page: <http://macs.nitk.ac.in/faculty/p-sam-johnson> or <http://sam.nitk.ac.in>


Pushparaj Shetty D, Ph.D

Areas of Research: Algorithmic Graph Theory, Algorithms for Wireless Sensor Networks, Computational Molecular Biology

Email: prajshetty@nitk.edu.in, prajshetty@gmail.com

Web Page: <http://macs.nitk.ac.in/faculty/pushparaj-shetty-d>

Satyanarayana Engu, Ph.D

Areas of Research: Partial Differential Equations

Email: satyawl@gmail.com

Web Page: <http://macs.nitk.ac.in/faculty/satyanarayana-engu>


Srinivasa Rao Kola, Ph.D

Areas of Research: Coloring of Graphs

Email: srinu.iitkgp@gmail.com, srinukola@nitk.ac.in

Web Page: <http://macs.nitk.ac.in/faculty/srinivasa-rao-kola>



V. Murugan, Ph.D

Areas of Research: Functional Equations, Fixed Point Theory, Dynamical Systems

Email: mrgniitm@gmail.com

Web Page: <http://macs.nitk.ac.in/faculty/v-murugan>



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| Assistant Professors |  | Vishwanath K. P, Ph.D Areas of Research: Fluid Dynamics, Mathematical Modelling of Physical Phenomena Email: vishy@nitk@edu.in, shastryvishwanath@gmail.com Web Page: http://macs.nitk.ac.in/faculty/vishwanath-k-p |
| | | Vivek Sinha, Ph.D Areas of Research: Real Analysis Email: viveksinha@nitk.ac.in Web Page http://macs.nitk.ac.in/faculty/vivek-sinha |
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| Non-Teaching Staff |  |  |  |
| | Gangadhara B Assistant Executive Engineer | I Ganesh Assistant (SG-II) | Jaya K Attendant |
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Ongoing R&D Projects

| Sl. No | Title of the project | Funding Agency | Amount (Rs in Lakhs) | Principal Investigator |
|--------|---|----------------|----------------------|------------------------|
| 1. | Topological Structures of Semi Closed Operators In Hilbert Spaces | SERC, DST | 3.20 | P. Sam Johnson |
| 2. | A Study on Moore-Penrose Inverse in Krein Spaces | NBHM, DAE | 1.85 | P. Sam Johnson |
| 3. | On the Solutions of Convection-Diffusion Equations | NBHM, DAE | 8.50 | Satyanarayana Engu |

Publications: (Last Five years)

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|-----------------------------|------------------------|--|
| International Journals -162 | National Journals - 08 | International Conference Proceedings- 15 |
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Facilities in the Department

- High End Desktop with i7 processor and 8 GM RAM with dual Boot Operating System Windows 8 and Ubuntu 14.x LTS - 200 Nos.
- Dell Work Station with 8 GB RAM with Dual Operation System - 06 Nos.
- Microprocessor and Interface Kit for Logic Design Lab - 25 Nos.

CONTACT INFORMATION

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| Head of the Department Department of Mathematical and Computational Sciences National Institute of Technology Karnataka, Surathkal Srinivasnagar, Managluru - 575 025, India | Telephone +91-824-247 3048 Telefax +91-824-247 4048 Email hodmacs@nitk.ac.in |
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