Faculty @ CDS ([http://cds.iisc.ac.in/people/faculty/](http://cds.iisc.ac.in/people/faculty/))

- **Sivaram Ambikasaran**
  Numerical Linear Algebra
- **Anirban Chakraborty**
  Computer Vision
- **Sashikumaar Ganesan**
  Finite Element Methods
- **Jayant R Haritsa**
  Database Systems
- **Sekar K**
  Structural Biology
- **Atanu Mohanty**
  Computational Electromagentics
- **Debnath Pal**
  Genome-wide function annotation
- **Venkatesh Babu R**
  Computer Vision
- **Soumyendu Raha**
  Optimization of dynamical systems
- **Nandy S K**
  Reconfigurable Architectures
- **Yogesh Simmhan**
  Distributed and Big Data Systems
- **Partha Pratim Talukdar**
  Natural Language Processing
- **Sathish S Vadhiyar**
  Parallel application optimization
- **Murugesan Venkatapathi**
  Computational Physics
- **Phaneendra Yalavarthy**
  Medical Imaging

The Department of Computational and Data Sciences (CDS) is a new interdisciplinary engineering department at Indian Institute of Science (IISc), Bangalore, covering the broad research areas of computational science and engineering, and scalable computer & data systems. CDS was formed in December 2015.

‘Computational Science’ deals with theoretical and computational aspects in numerical solution of problems, and application of these methods to all scientific domains.

‘Computer & Data Systems’ explores the design and evaluation of high performance computer systems and Big Data platforms, and scalable analytics.
The **M.Tech. (Computational and Data Science)** at CDS is an unique interdisciplinary course program. The program imparts foundational techniques and systems skills for computational and data sciences, with advanced courses selected by students to allow specialisation on methods, platforms and applications.

The M.Tech. program starts in August and spans 2 years (4 semesters). In the first year, students are exposed to fundamental concepts of computational and data science such as data analysis, mathematical and computational tools. The course students will take 36 credits of course work over 2-3 semesters. Courses are divided into hard core courses (13 credits), soft core (10 credits), and electives (13 credits). They will also complete a dissertation project worth 28 credits over a 12 month period in second year.

More details at: [http://cds.iisc.ac.in/academics/mtechcds/](http://cds.iisc.ac.in/academics/mtechcds/)

**Eligibility**
BE /B Tech/M Sc/MCA/Four year B.S. or equivalent in any discipline of science/engineering (with a valid GATE Score)

*Strong Mathematical and Programming background is required.*

More details at: [http://cds.iisc.ac.in/admissions/course-degrees/](http://cds.iisc.ac.in/admissions/course-degrees/)

**Highlights of the Course Program**
- First degree program in India from a premier institution to train students as data scientists!
- Curriculum prepares students for research & development in computational and data science areas
- One Year Dissertation Project to give comprehensive experience on applying computational and data sciences techniques
- Develops soft skills of the students
- 100% placements

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Research admissions at CDS are conducted separately in two streams.

**Computational Science Stream (CD-CP)** deals with computational methods and their application to scientific domains. This typically requires skills at the intersection of applied mathematics, application-specific knowledge, and effective use of computing platforms. Research in this area include Bio-molecular Computation, Computational Electrodynamics, Computational Physics, Medical Imaging, Numerical Linear Algebra, Numerical Analysis, Computational Mathematics/Scientific Computation, and Structural Biology & Bio-Computing.


More details at: [http://cds.iisc.ac.in/admissions/research-degrees/](http://cds.iisc.ac.in/admissions/research-degrees/)

**Highlights of Research Programs**
- Cutting edge research training in inter/multi disciplinary fields of engineering
- Attractive named/sponsored fellowships for deserving candidates, including enhanced stipend
- World class preparation of students for research and teaching careers in academia or industry
- Top class publications in Tier-1 venues
- World class research facilities/environment