

# MTECH (CSE) TWO YEAR DEGREE PROGRAM



## WHY

- Strong foundations in theory and application domains of Computer Science.
- Strong demands for graduates among large companies as well as startups.
- Prepares you for further research or study should you choose.
- Located in Silicon Valley of India.
- Department ranked 94 in the world as per the prestigious csranking.org, and ranked first in India.

## WHAT

- Rich variety of courses, across three streams.
- Theoretical Computer Science stream.
- Computer Systems and Software stream.
- Intelligent Systems stream.

## WHO

- Should possess 4-year BE/ BTech or equivalent degree.
- Indian citizens, OCI with degree from India or domiciled in India.
  - Initial shortlisting based on GATE (CS) score.
  - Shortlisted candidate to appear for programming test.
  - Final selection based on 70% weightage for GATE score & 30% weightage for IISc conducted test.
- Foreign Nationals are welcome to apply. Selection based on GRE/GRE Subject/ GATE score and performance in previous studies.

## HOW

- 43 credits of course work: 8 credits soft core from each stream, rest elective.
- 1-year project, with exposure to world-class research work (21 credits).
- Summer internship encouraged.
- Emphasis on soft skills, coding boot camps, and placement readiness.

MORE INFORMATION



<https://www.csa.iisc.ac.in/>



<https://admissions.iisc.ac.in/>



# DEPARTMENT OF COMPUTER SCIENCE AND AUTOMATION

INDIAN INSTITUTE OF SCIENCE (IISc), BENGALURU



## SHAPING INDIA'S FUTURE IN COMPUTER SCIENCE

The Department of Computer Science and Automation (CSA) at the Indian Institute of Science, Bangalore, is considered as a top Computer Sciences Department in India. With more than 30 faculty and more than 250 students, the department stands out due to its excellent and sustained research output as well as well-regarded course programs. Graduates of the department regularly get placed in the top-notch companies, research organizations, and institutes. CSA is actively pursuing an agenda of growth and excellence, and invites talented students to join us. Come, participate in this fascinating journey and help shape India's future in Computer Science.

## RESEARCH ECOSYSTEM

Faculty and students in CSA conduct cutting edge research across three broad areas:

**Theoretical Computer Science:** Algorithms and data structures, approximation algorithms, online algorithms, complexity theory, graph theory, game theory, learning theory, algorithmic algebra, automata theory, combinatorial geometry, computational geometry, computational topology, coding theory, cryptology, distributed computing, logic, formal verification.

**Computer Systems and Software:** Computer architecture, systems support for modern computing platforms (GPUs/coprocessors), systems support for machine learning, parallelization, embedded systems, operating systems, database systems, cloud computing, systems security, cyber-physical systems, graphics, visualization, programming languages, compilers, program analysis, software engineering.

**Intelligent Systems:** Machine learning, deep learning, robotics, convex optimization, data mining, information retrieval, bioinformatics, social network analysis, reinforcement learning, stochastic control and optimization, stochastic simulation, electronic commerce, game theory, auctions and mechanism design, cognitive systems, natural language processing (NLP).

## OPPORTUNITIES@CSA

CSA has maintained an excellent reputation for high quality degree programs. Entry into all degree programs is highly competitive. All students are offered scholarships during their period of study, subject to satisfactory performance.

**Post-Doctoral/Research Associate Fellowships:** CSA invites accomplished Ph.D. graduates to apply for post-doctoral fellowships/research associate positions.

**PhD in Computer Science:** CSA offers an internationally competitive PhD program in computer science. Our PhD graduates are highly sought after, both for industry research positions and for academic faculty positions. Currently, we have around 90 PhD students.

**PhD External Research Program (ERP):** This program is open to employees of R & D organisations, global companies and engineering college teachers to pursue a PhD degree.

**MTech (Research):** This program offers an attractive research intensive program for BE/BTech/MSc graduates.

**MTech (CSE):** Flagship ME program of CSA; provides strong foundations via coursework as well as opportunities for research projects.

**MTech (AI):** A cutting-edge course program offered jointly with Departments of ECE, EE, and ESE.

**Quality Improvement Program (QIP):** This program is open to faculty members of AICTE affiliated engineering colleges to pursue a PhD degree or an MTech degree.

Apply to CSA and explore the  
frontiers of computer science.  
For more details and application deadlines,

Please look up



[www.csa.iisc.ac.in](http://www.csa.iisc.ac.in)



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DEADLINE FOR ONLINE APPLICATION  
FOR ALL PROGRAMS:

**23<sup>RD</sup> MARCH 2023**

MORE INFORMATION



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