

Dual (M.Tech. + Ph.D.) Degree Programme in CSE for B.E./B.Tech. (Non CS/IT)

Opportunity for Non CS/IT Graduate Engineers

About the Department

Formed in 1995, the Department has currently 27 faculty members working in areas covering all aspects of Computer Science and Engineering. It offers B.Tech., M.Tech., Dual (M.Tech + Ph.D.) and Ph.D. programmes in CSE. The alumni from the Department have been placed in respectable positions in both academia and industry across the globe.

Each student in the Department, save those in the first year of B.Tech., is provided an individual workspace and a personal computer. The Department hosts several research and project labs for teaching and research. It also has high-end computing facilities, servers, and software tools. All of them are available for use 24x7. Wi-fi facilities are available across the Department.

For more information visit: <http://www.iitg.ernet.in/cse>

About the Programme

The Department of Computer Science & Engineering at IIT Guwahati offers a dual (M.Tech. + Ph.D.) degree programme in Computer Science & Engineering specifically meant for Non CS/IT majors.

- ✦ Students will be admitted only under the 'Regular' category. A 'Regular' category student will have to work full-time.
- ✦ **Eligibility:** B.E./B.Tech. in any discipline other than CS or IT or equivalent, satisfying any one of the following criteria:
 - CPI of 7.5 or 70% marks and a valid GATE score in any subject, if the degree is not from an IIT.
 - If the degree is from an IIT
 - CPI of 8.0 or above, OR
 - CPI of 7.0 or above (but less than 8.0), with a valid GATE score in any subject
 - Candidates yet to appear in their qualifying degree examination are also eligible provided they complete all requirements for their degree before **15/07/2014** and fulfill the prescribed eligibility criteria. Candidates will have to submit the results of their qualifying degree examinations latest by **25-08-2014**
- ✦ **Degree Awarded:** After successful fulfillment of the prescribed criteria, the student will be awarded **M.Tech. and Ph.D. degrees together**.

Highlights

- Eligible for applying to TCS fellowship (₹25,000.00 /- p.m.) during Ph.D.
- Conference Travel Support
- Several MoUs/Tie-ups with industry and academic institutes in India and abroad for collaborative research and visit
- Ph.D.s from this Department have joined academia as faculty members in IITs, NITs, IIITs; as Post-Doc.s and industries



Research Areas

- **Theoretical Computer Science** : Parallel and Distributed Algorithms, External Memory Algorithms, Complexity Theory, Word combinatorics, Combinatorial Geometry, Analysis of Social Networks, Computational Commutative Algebra Data Streaming
- **Computer Architecture & Embedded Systems** : Formal Modelling, Embedded Systems, Fault Tolerance, VLSI Testing, FPGA Design, Multiprocessor Computer Architecture, Network-on-Chip design, Asynchronous systems, Advance Computer Architecture, Multicore Parallel Programming and Compiling, Real-Time and Embedded Systems
- **Computer Networks & Security** : Computer Networks, Computer and Network Security, Computational Geometry and Its Applications, Information Hiding: Steganography and Steganalysis, Multimedia Security
- **Machine Learning & Data Mining** : Machine Learning, Computational Biology, Systems Biology, Evolutionary Algorithms, Data Mining, Kernel Methods, Web Search Engine, Information Retrieval
- **Distributed Systems** : Operating Systems, Distributed Systems, Database Management Systems, Software Engineering, Parallel and Distributed Algorithms, External Memory Algorithms, Complexity Theory, Fault-tolerance
- **Man-Machine Interfaces** : Machine Translation, Natural Language Processing, Machine Learning, Digital Signal Processing, Speech Processing, Artificial Intelligence, Intelligent and Bio-Inspired Robotics, Emotional Robots, Mobile Agent based systems, Artificial Immune Systems, Cyber-physical Systems, Genetic Algorithms, Fuzzy Systems & Neural Networks, Human Computer Interaction, Rehabilitation Engineering, User Modeling

N.B: Underlined areas are of interdisciplinary nature. Prospective candidates are encouraged to check the web link http://www.iitg.ernet.in/cse/?page_id=69

Financial Support

As per prevailing (MHRD, GOI) norms:

1st & 2nd Year : Rs.16,000/- p.m.

3rd to 5th Year : Rs.18,000/- p.m.



IMPORTANT DATES

Starting of Online Application Process: 19 March 2014 onwards.

Closing of Online Application Process: by 5.00 p.m. of 23 April 2014

For Brochure & Online Application Form visit the link

<http://www.iitg.ernet.in/acad/AdvntNotificationJuly2014/dual.htm>