
COMPUTER SCIENCE AND ENGINEERING





About

The Department of Computer Science & Engineering, NIT Meghalaya offers B. Tech degree in Computer Science and Engineering discipline. This U.G Programme in Computer Science and Engineering is perhaps the most popular Programme in NIT Meghalaya, with an average intake of 30 students per year. The department has adequate facilities to support these teaching activities. It has a well qualified and experienced faculty team. The Computer Science and Engineering department makes all efforts in imparting high quality education to its highly motivated students. One of the aims of this department to play its role of producing Computer Engineers ready to satisfy the needs of the Computer and IT world. The Department is also actively involved in various Research activities.

The department also started its Mtech program from 2014 with an initial intake of 20. There is also a PhD programme under which research scholars are admitted twice a year.

Vision

Attaining global recognition in Computer Science & Engineering education, research and training to meet the growing needs of the industry and society.

Mission

- Imparting quality education through well-designed curriculum in tune with the challenging software needs of the industry
- Providing state-of-art research facilities to generate knowledge and develop technologies in the thrust areas of Computer Science and Engineering.
- Developing linkages with world class organizations to strengthen industry-academia relationships for mutual benefit.

Programme Outcomes (POs)

P01	Engineering knowledge: Apply the knowledge of mathematics, science, engineering fundamentals, and an eng specialization to the solution of complex engineering problems.
P02	Problem analysis: Identify, formulate, review research literature, and analyze complex engineering problems substantiated conclusions using first principles of mathematics, natural sciences, and engineering sciences.
P03	Design/development of solutions: Design solutions for complex engineering problems and design system com that meet the specified needs with appropriate consideration for the public health and safety, and the cultural environmental considerations.
P04	Conduct investigations of complex problems: Use research-based knowledge and research methods including experiments, analysis and interpretation of data, and synthesis of the information to provide valid conclusion
P05	Modern tool usage: Create, select, and apply appropriate techniques, resources, and modern engineering And prediction and modeling to complex engineering activities with an understanding of the limitations.
P06	The engineer and society: Apply reasoning informed by the contextual knowledge to assess societal, health, sa cultural issues and the consequent responsibilities relevant to the professional engineering practice.
P07	Environment and sustainability: Understand the impact of the professional engineering solutions in societal a contexts, and demonstrate the knowledge of, and need for sustainable development.
P08	Ethics: Apply ethical principles and commit to professional ethics and responsibilities and norms of the engin
P09	Individual and team work: Function effectively as an individual, and as a member or leader in diverse teams, a multidisciplinary settings.
P010	Communication: Communicate effectively on complex engineering activities with the engineering community large, such as, being able to comprehend and write effective reports and design documentation, make effectiv and give and receive clear instructions.

P011	Project management and finance: Demonstrate knowledge and understanding of the engineering and management principles and apply these to one's own work, as a member and leader in a team, to manage projects and in multidisciplinary teams.
P012	Life-long learning: Recognize the need for, and have the preparation and ability to engage in independent and continuous learning in the broadest context of technological change.

Program Specific Outcomes (PSOs):

PSO1	The ability to understand, analyse and develop solution strategy towards problems in the areas related to algorithms, software, machine learning, and Artificial Intelligence, web design, big data analytics, and networking for efficient computer-based systems of varying complexity.
PSO2	The ability to understand the evolutionary changes in computing, apply standard practices and strategies in software development using open-ended programming environments to deliver a quality product for business success, and meet the challenges of the future.
PSO3	The ability to employ modern computer languages, environments, and platforms in creating innovative career opportunities, entrepreneur, lifelong learning and a zest for higher studies and also to act as a good citizen by inculcating in them the values and ethics.

Program Educational Objectives (PEOs):

PEO1	Apply computer science theory blended with mathematics and engineering to model computing system.
PEO2	Design, implement, test and maintain software systems based on requirement specifications
PEO3	Communicate effectively with team members, engage in applying technologies and lead teams in industry.
PEO4	Assess the computing systems from the view point of quality, security, privacy, cost, utility, etiquette and ethics.
PEO5	Engage in lifelong learning, career enhancement and adapt to changing professional and societal needs.