

PEOs and POs of M. Tech. in Design and Manufacturing

The **programme educational objectives (PEOs)** of the M. Tech degree on **Design and Manufacturing** of National Institute of Technology Silchar are-

- (a) To enhance the foundation and the knowledge-base of students in Design and Manufacturing and to make them capable for effectively analyzing and solving the problems associated in this field.
- (b) To deliver comprehensive education in Design and Manufacturing to ensure that the students have core competency to be successful in industry or research laboratory and motivate them to pursue higher studies and research in interrelated areas.
- (c) To encourage the students to take up real life and/or research related problems and to create innovative solutions of these problems through comprehensive analysis and designing.
- (d) To inculcate a sense of ethics, professionalism and effective communication skills amongst graduates for their successful careers.
- (e) To provide an academic environment that gives adequate opportunity to the students to cultivate lifelong skills needed for their successful professional career.

Program Outcomes (POs) of the M. Tech degree in **Design and Manufacturing** are as follows-

- (a) Graduates will demonstrate sound domain knowledge on wider perspective to become successful professionals.
- (b) Graduates will demonstrate an ability to identify, formulate and solve Design and Manufacturing problems.
- (c) Graduates will demonstrate an ability to conceptualize the designs and manufacturing aspects and evaluate them to select optimal feasible solution considering safety, environment and other realistic constraints.
- (d) Graduates will demonstrate skill of good researcher to work on a problem, starting from scratch, to research into literatures, methodologies, techniques, tools, and conduct experiments and interpret data.
- (e) Graduates will demonstrate research skills to critically analyze complex Design and Manufacturing problem for synthesizing new and existing information for their solutions.
- (f) Graduates will demonstrate skills to use modern engineering tools, software and

equipment to analyze and solve complex engineering problems.

- (g) Graduates will exhibit the traits of professional integrity and ethics and demonstrate the responsibility to implement the research outcome for sustainable development of the society.
- (h) Graduates will be able to communicate effectively to comprehend and write effective reports following engineering standards.
- (i) Graduates will demonstrate skills of presenting their work unequivocally before scientific community, and give and take clear instructions.
- (j) Graduate will demonstrate traits of manager in handling engineering projects and related finance, and coordinate workforce towards achieving their goals.
- (k) Graduates will exhibit the traits of good academician and engage in independent and reflective lifelong learning.
- (l) Graduates will demonstrate an ability to work on laboratory and multidisciplinary tasks.