MECHANICAL ENGINEERING

PROGRAMMES:

Post Graduation

Program Name: **M.Tech in Machine Design**

Level: **PG (Intake: 18)**

Year of Start: **2014**

Programme Educational Objectives (PEOs)

PEO1 Graduates will have successful careers as design engineers in Mechanical and allied Industry

PEO2 Graduates will be able to pursue advanced studies and involve in a process of lifelong learning.

PEO3 Graduates will address societal problems professionally, ethically with due attention to environmental issues

Programme Outcomes (POs)

After the completion of two year post-graduate programme in Machine Design, Graduates are expected to acquire the abilities to:

PO1. Independently carry out research/investigation and development work to solve practical problems in Machine Design.

PO2. Write and present a substantial technical report/document.

PO3. Demonstrate a degree of mastery over Machine Design.

PO4. Acquire in-depth knowledge in Machine Design with hands on skill in using modern engineering tools to address real world engineering problems and be socially responsible.

PO5. Employ modern engineering, management and financial tools to cater to the needs of the community.

Programme Specific Outcomes (PSOs)

At the end of the programme, the students will be able to

PSO1. Attain the ability to apply the fundamental knowledge of Machine Design in synthesis, analysis, design and development of components/machines using modern engineering tools.

PSO2. Independently carryout research to find out effective solutions to real life problems pertaining to Machine Design and allied domain and to prepare technical reports.

Post Graduation

Program Name: **M.Tech in Industrial Automation & Robotics**

Level: **PG (Intake: 18)**

Year of Start: **2011**

Programme Educational Objectives (PEOs)

PEO1 - Graduates will be successful as engineers in the industry and provide solutions to problems faced in the multi-disciplinary field of Automation & Robotics.

PEO2 - Graduates will have the ability to be an integral part of research programmes and involve in a process of lifelong learning.

PEO3 - Graduates will address problems in the society in a professional & ethical manner with due attention to environmental issues.

Programme Outcomes (POs)

At the completion of two year post-graduate program, the students of Industrial Automation & Robotics, NIE are expected to acquire the abilities to:

PO1. Independently carry out research/investigation and development work to solve practical problems in Industrial Automation & Robotics.

PO2. Write and present a substantial technical report/document.

PO3. Demonstrate a degree of mastery over Industrial Automation & Robotics.

PO4. Employ Artificial Intelligence and robotics tool to cater into industrial automation needs in both discrete and process plants.

PO5. Provide solutions to varied engineering problems through the interpretation of data using modern computational tools.

Programme Specific Outcomes (PSOs)

PSO1: Post-Graduation in Industrial Automation & Robotics prepares the students by providing training in the key interdisciplinary areas such as Drives, PLC, SCADA, Artificial intelligence, Big data analytics, Vision sensor system, Mechatronics, Modelling-simulation, Industrial Robotics and Mobile robotics with hands-on experience.

PSO2: Interaction and collaborations with outside industries and institutes to achieve good academic track records to enhance research and entrepreneurship skills.