



# DEPARTMENT OF ELECTRICAL ENGINEERING

## National Institute of Technology Calicut

### Programme Educational Objectives of M. Tech Programme in Industrial Power and Automation

<b>PEO1</b>	To prepare post graduate students to excel in technical profession, industry and/or higher education by providing a strong foundation.
<b>PEO2</b>	To transform engineering students to professionals in the field of Industrial power and Automation, so that they could comprehend, analyze, design and create novel products and solutions to engineering problems that are technically sound, economically feasible and socially acceptable.
<b>PEO3</b>	To train students to exhibit professionalism, keep up ethics in their profession and relate engineering issues to a broader social context.
<b>PEO4</b>	To develop communication skills and team work and to nurture multidisciplinary approach in problem solving.

### Programme Outcomes of M. Tech Programme in Industrial Power and Automation

<b>PO1</b>	Acquire technical competence, comprehensive knowledge and understanding the methodologies and technologies of industrial / process automation, principles and practices of energy management.
<b>PO2</b>	Ability to apply the knowledge of mathematics, science, engineering and technology. Understand in detail, analyse, formulate and solve the issues pertaining to the application of automation technologies in a range of industrial settings.
<b>PO3</b>	Acquiring the ability to identify, investigate, understand and analyse complex problems pertaining to power management and automation in industries and identify effective solution strategies for implementation.
<b>PO4</b>	Inculcate the role of research in developing and maintaining knowledge of the state-of-the-art in various technologies and automation in industries. Acquire the skill to design, develop and modify systems in hardware and software platforms to meet desired needs within realistic constraints.
<b>PO5</b>	Create, select and apply appropriate techniques, resources, modern engineering and IT tools to complex engineering activities in the field of automation, control and energy management.
<b>PO6</b>	Acquire the capacity to understand and summarize complex information pertaining to various fields of engineering in industries. Function effectively as an individual, and as a member or leader in a team.
<b>PO7</b>	Acquire the skill to develop specifications, implement and critically assess projects and their outcomes. Demonstrate management, leadership and entrepreneurial skills, and apply these to one's own work, as a member and a leader in a team to manage projects in multidisciplinary environments.
<b>PO8</b>	Ability to communicate effectively in both oral and written contexts in the form of technical papers, project reports, design documents and seminar presentations.
<b>PO9</b>	Recognize the need for, and acquire the ability to engage in self-improvement through continuous professional development and life-long learning to maintain an up-to-date knowledge of contemporary issues in various fields of engineering.
<b>PO10</b>	Apply and commit to professional ethics and responsibilities of engineering practice. Understand the importance of sustainability and cost effectiveness in design and development of engineering solutions for industries and their impacts in societal and environmental context. Demonstrate awareness of societal, safety, health, legal and cultural issues relevant to professional engineering practice.
<b>PO11</b>	Impart an eagerness to conduct investigation and research on chosen field of study and thus keep moving towards being adaptive, self-reliant and self-evaluative.