INDUSTRIAL POWER AND AUTOMATION

National Institute of Technology Calicut

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About Us

Industrial Power Group is one of the leading research group in National Institute of Technology Calicut. Our group was constituted as a more Industry Oriented offshoot of the Electrical Department of NITC. As such, we specialize in new and advanced technologies such as IoT, AI, Drives, Robotics and we are focused on the application of Computer Science in the fields of Electrical, Control and Automation Engineering and in real world problem solving.

All students from Industrial Power and Automati- on are also a part of **IEEE .**

Contact Us

http://www.nitc.ac.in/electrical/ipg/ipa_index.html

OUR LABS with major facilities

DCS Application Lab
- MIMO System
- Feed Forward Controller
- Distributed Control System
- Pneumatic Stamping System
- Conveyor Sorting System
- Split - Range Controller
- Cascade Controller

Distributed Energy Research Lab
- Hybrid Microgrid Setup
- Solar Panel Based STATCOM Controller
- Three Phase FACTS Controller
- LabVIEW Setup

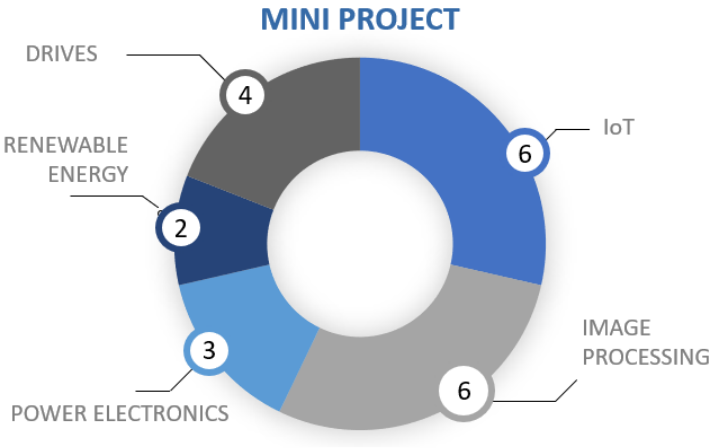
Process Automation Lab
- SCADA transmission/ Distribution System
- PLC
- dSPACE DS1104

Embedded System Lab
- ABB IRB1200 Experiment
- PMSM Drive
- SRM Drive
- BLDC Drive
- Variable Frequency Drive

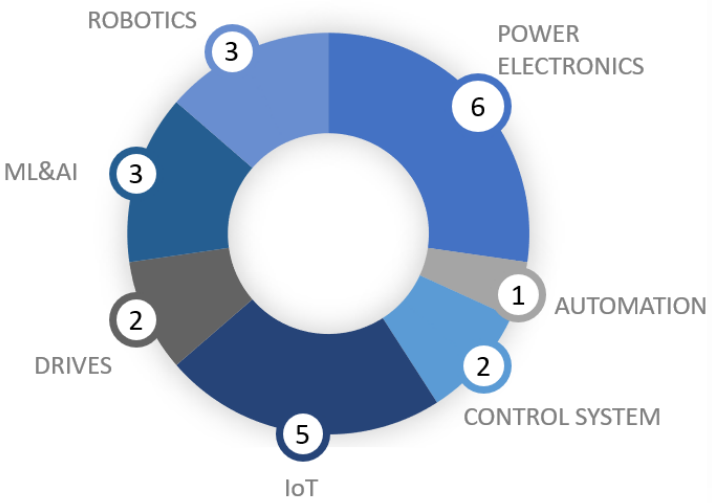
Wind Lab
- PMSG-Wind Turbine Setup

PROJECT AREA

MINI PROJECT



MAJOR PROJECT



COURSE PROJECTS in

- Pattern Recognition
- Data Science
- Internet of Things
- Artificial Intelligence

INDUSTRIAL COLLABORATION *by our group*

CPRI(R&D) NaMPET	Solid State Transformer (2019) GaN Based DC-DC Converter with multi level inverter for UPS application (2019)
DRDO(R&D)	Cost effective 3 axis intelligent platform stabilization system (2019)
KSCSTE	Smart Controller for Switched Reluctance Motor (2016)
KSCSTE(R&D)	Intelligent robot for fault diagnosis of Power line (2015)

and many more...

SUCCESS STORIES

Winners of Ideathon' Design, Build and Launch conducted by VALEO, 2020

Analysis of agro products via IoT - Semi Final, Young Innovators Programme 2019

Underwater Obstacle Detection and Imaging for flood relief Operations- Quarter Finals Texas Innovation Challenge 2019-2020

and many more...

VIRTUAL TRAINING DONE IN

- Deep Learning
- Verilog
- Analog Design
- ML & AI
- IoT
- Embedded System
- Data Science
- EV Design

NOTABLE COURSE WORK

- Internet of Things
- Artificial Intelligence
- Machine Learning
- Pattern Recognition
- Electric Drives
- Process Control & Automation
- Energy Auditing & Management
- Industrial Instrumentation
- Digital Signal Processors

SOFTWARE

LabVIEW, dSPACE, MATLAB, LTspice, VIVADO, Ansys, Code Composer Studio

LANGUAGES

C, C++, Java, python, HTML, Verilog HDL

Hands on experience in

Arduino UNO | Raspberry Pi | PIC micro controller
TMS28379D | xilinx artix 7 fpga

TOP RECRUITERS

Designed by AMAL NN & ARAVIND HS