



AICTE Training and Learning (ATAL) Academy Sponsored One Week

Online Faculty Development
Programme
On

Power Electronics and its Control in Electric Mobility and Energy Storage

January 17-21, 2022

Organized by

Department of Electrical
Engineering
College of Engineering Pune
Pune 411 005,
Maharashtra
INDIA

Patron

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About COEP

The College of Engineering (COEP) is one of the oldest colleges in Asia founded in 1854. The college started with a course in civil engineering and therefore became "Poona Civil Engineering College". Subsequently, in the year 1911, the nomenclature was changed to "The College of Engineering, Poona". The degree programs in civil engineering, mechanical engineering, and electrical engineering were started in 1908, 1912, and 1932 respectively. Since then, the college has gone on expanding and adding new departments and new wings by the year.

In 2003, the college was awarded autonomous status, thus giving it the freedom to set its own curricula and manage its own finances. Post autonomy the institute has demonstrably progressed in leaps and bounds, in terms of its academics, research, outreach, networking, and rankings. Known for its intense and persistent bondage with industry and galaxy of alumni, the campus, in recent years, has established technologyspecific schools/ Centers of Excellence and minimum two state-of-the-art laboratories at every academic department, all from magnanimous contributions of industry/corporate and alumni. 'Bajaj School of Mechanical Engineering', 'K. R. Natu School of Electrical Engineering', 'Gauri Shah School of Computer Firodia Engineering', School of Metallurgical Engineering', Vinod Doshi Memorial Manufacturing Workshop', are a few exemplary establishments that are proving as temples of knowledge for our budding engineers. COEP is ranked first at the national level in the Atal Ranking of Institutions on Innovation Achievements (ARIIA) 2020 under the category of Govt. / Govt. aided institutions and 50th amongst the top 100 engineering institutions across the country as per the results of NIRF announced by Hon'ble Minister of Human Resource Development competing with IITs and NITs.

The institute has around 3500 students on roll pursuing undergraduate, postgraduate, and doctoral programs in various disciplines of engineering. The hallmark of COEP education is its strong and widespread alumni network.

About Electrical Engineering Department

Department of Electrical Engineering has a legacy of quality education since 1932. It is recognized by its well established laboratories, excellent computational facilities, collaboration with industries and research organizations, devoted learned faculty, and a culture of strengthening knowledge and research.

The Department of Electrical Engineering is running UG program since 1932 and PG programs in "Power Electronics and Power Systems" and "Embedded Control Systems" since 1952. In 2016 department also started the new PG program "Power Electronics and Machine Drives". department had a PhD program under SPPU which recently got an autonomous status. The department runs a PG Diploma in Electric Mobility with the support of Mechanical Department. All programs run by the department have received NBA accreditation. The department has developed excellent laboratories in the domain of electrical machines, power system simulation, and control systems. The excellent computational facilities and simulation platforms such as Maxwell, PSCAD, Labview, dSPACE, PSIM are very useful for engineering education and research.

Few faculty members are engaged in industrial consultancy with companies like Emerson, L&T, Bosch, etc. Special training programs for industry persons are organized by the department. The department hosts Center of Excellence in Smart Renewable Energy Systems and has industry supported Hella Frugal Innovation Laboratory. The department has also established the K. R. Natu School of Electrical Engineering through its alumnus support.

The indigenously developed laboratory setups are attracting the attention of elite institutes including the IITs. Some of these setups are first-of-its-kind in the country.

About FDP

Development of Electric mobility (EM) and Energy Storage (ES) have gained considerable importance and attention due to increasing impact of green house effect. This has accelerated the research and development activities of Power electronics and its control in electric vehicle and energy storage management system.

The major objective of this FDP is to train the g is faculties, researchers and practitioners in recent developments in power converters, drive systems, and energy management systems used in electric vehicle. The analog and digital controller of power electronics systems for efficient EM & ES is the The main focus of the course.

Course Contents

- Recent development in automotive Power Electronics and energy storage devices.
- Design of efficient and reliable electric drives for EV.
- Modeling and control of electric drives.
- V2G/V2X and G2V technology for EV and HEV.
- Battery Management System and Charging Infrastructure.
- Embedded Controllers for EV applications.
- 48V architecture in automotive applications.

Resource Persons

Dr. Kamlesh Hatua, IIT Madras
Dr. Anandarup Das, IIT Delhi
Dr. Dipankar Debnath, IIT Kharagpur
Dr. Rajendra Kumar Sharma, SPEL Pune
Dr. P. N. Tekwani, Nirma University Ahmedabad
Dr. Shashank Wekhande, Avantgarde Sol. Pune
Dr. B. N. Chaudhari, Principal, SPIT Mumbai

Mr. Durvankur Raut, Wipro Ltd. Pune
Dr. Arbindkumar Upadhyay, DRDO Pune
Dr. Y. S. Rao, Emtron Tech. Pvt. Ltd. Mumbai
Mr. Abhijit Mulay, ARAI Pune
Dr. R. R. Sawant, SPIT Mumbai

Registration Guidelines

- The registration is open to the faculty members of AICTE approved institutions, research scholars, PG scholars, participants from Government and Industry institutions.
- Participants interested to attend the FDP are required to register themselves on the webpage of ATAL Academy.
- Seats are limited and selection will be based on first come first serve basis.
- The e-certificates shall be issued to those participants who are registered on ATAL portal www.aicte-india.org/atal and attend the program with minimum 80% attendance and score minimum 60% marks in the test.
- Registration Fees: Nil
- All the participants are requested to register using following link http://atalacademy.aicteindia.org/login

Contact Details

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