Jointly Organized by
Electronics & ICT Academies

NIT Patna & MNIT Jaipur

Electric Vehicles and Mobility

24th Jan. – 4th Feb. 2022
http://www.mnit.ac.in/eict

Online Winters Training Programme
E&ICT Academy is funded by

Ministry of Electronics and Information Technology Government of India

Ministry of Electronics & Information Technology
Government of India
meity.gov.in/content/schemes-projects

Chairman, Advisory Board, EICT Academy & Director MNIT Jaipur
Prof. A. P. S. Rathore

Honorary Academic Chair, EICT Academy
Prof. V. Sinha

Chief Investigator, EICT Academy
Prof. Vineet Sahula, ECE

Co- Chief Investigators, EICT Academy
Prof. Lava Bhargava, ECE
Prof. Pilli Emmanuel Shubhakar
Dr. C. Periasamy, ECE
Dr. S. J. Nanda, ECE
Head, ECE (Prof. V. Janyani)
Head, CSE (Dr. Dinesh Gopalani)

Preamble (Electronics & ICT Academy)
Government of India had announced a National Policy on Skill Development, which has set a target of skilling 500 million people by 2022 in the domain of Electronics & IT. Under the plan scheme of "Digital India Manpower Development". MeitY has set up seven (07) Electronics and ICT Academies as a unit in 03 IITs, 03 NITs and 01 IIIT with an objective of faculty/mentor development/up gradation in the areas related to Electronics & ICT leading ultimately to improved employability of graduates/diploma holders. MNIT Jaipur has set up such an academy for providing specialized training to faculty and industry persons in the states/UTs of Rajasthan, Gujarat, Daman & Diu, Dadra Nagar Haveli.

(A) Issues-
1. IT Hardware and Electronics Manufacturing industry- availability of properly trained, skilled and qualified manpower
2. Number of quality PhDs generated in IT / Computer Science is very low
3. In E & ICT domain- there is a very high degree of obsolescence of existing technologies and faster emergence of newer technologies

(B) Approach-
1. A focused faculty training/updation programme for IT, Electronics, and related sectors
2. Spreading up and continuous updation regarding Emerging Technology
3. Training and consultancy services for Industry
4. Design, Develop and Deliver specialized modules for specific research areas and Industry
5. Providing advice and support for technical incubation and entrepreneurial activities

The course has been designed to impart programming knowledge and skills required for being an effective researcher/teacher within domain of Electric Vehicles. The Course is open to faculty, persons from industry, doctoral and other students. The electric vehicle industry is a growing industry in India. The central and state governments have launched schemes and incentives to promote electric mobility in the country and some regulations and standards are also in place. Electric vehicles are the future of transportation. Electric mobility has become an essential part of the energy transition and will imply significant changes for vehicle manufacturers, governments, companies, and individuals. There are challenges like lack of charging infrastructure, high initial cost, and lack of electricity produced from renewable energy. Still, e-commerce companies, car manufacturers, app-based transportation network companies, and mobility solution providers have entered the sector and are slowly building up electric car capacity and visibility. Also, Electric Vehicles (EV) are one of the growing popular options for people who are conscious about environmental pollution, global warming, and health issues. The global share of Electric vehicles will increase from 2% in 2020 to 22% in 2030. The ability to deliver the technical information of this major area to the right audience at the right time is a valuable skill. This Faculty Development Program (FDP) is designed to enrich and augment the knowledge of the participants and provide a basic platform to carry out research in these fields which will further bolster the development of the country.

Experts/Speakers-
1) Dr. Akshay Kumar Rathore, Concordia University, Canada
2) Prof. Gopa Kumar IISC Bangalore
3) Prof. Vinod Khadkikar, MIT, UAE
4) Prof. B. G. Fernandes, IIT Bombay
5) Dr. Sandeep Anand IIT Bombay
6) Prof. L. Umanand, IISc Bangalore
7) Prof. Mohan Lal Kolhe P, University of Agder, Norway
8) Prof. Bhim Singh, IIT Delhi
9) Dr. Aprova Yadav IIT Roorkee

Course Contents:
- Overview of electric vehicles in India
- EV history, battery technology, and National mobility mission 2022
- Electric Propulsion System
- Vehicle subsystems: EV power-train
- Power electronics interface for EV
- EV charging and control (Unidirectional, Bidirectional, and Wireless)
- PFC Rectifier and DC-DC converter technology for EV as an application. Vehicle to Grid and Grid to Vehicle (V2G and G2V)

Principal Coordinator:

Dr. Arun Verma	arun.ee@mnit.ac.in	954 965 0188 (M)
–	seasrlab.ee@gmnit.ac.in	97175 32982 (M)

Registration:
Registration is open to graduate, postgraduate and doctoral students, faculty and industry persons. Participants will be admitted on first-come first-served basis.
Details of the programme- http://www.mnit.ac.in/eict/acad_training_prg.php
Register online at- http://online.mnit.ac.in/eict

Registration Fee:
Academic (student/faculty) India: 500/- INR
Industry/Others India/SAARC: 1000/- INR
SAARC countries (student/faculty): 500/- INR
Other countries (student/faculty/Industry persons): $ 60 /£ 50

(A) Fee once paid will not be refunded back; it may only be adjusted in future courses upon prior request.
(B) The fee covers online participation in the programme, comprehensive tutorials, practice notes & certification charges.
(C) The organizers should receive the fee through online payment gateway provided at the registration portal provided above.

→ For any other query, email us at academy[AT]mnit.ac.in