



Ministry of Electronics and Information Technology (MeitY)

Govt. of India supports its

Electronics and ICT Academies to organize Faculty Development Programme on

**Electric Vehicle** during **28<sup>th</sup> May– 01<sup>st</sup> June, 2018** at

IIT Guwahati, IIT Roorkee, IIITDM Jabalpur, MNIT Jaipur, NIT Patna and NIT Warangal

### About Summer Courses

Faculty Development Programmes in core areas of Electronics and Information & Communication Technology (ICT) streams have been planned by academies for delivery during Summer (i.e., May - June 2018). All these summer courses will be offered through National Knowledge Network (NKN) by inviting experts from IITs, NITs, IIITs and other premier institutes/industries. In addition, local course coordinators at respective academies /identified remote centers will take care of sessions on design oriented/activity linked problems/ assignments/ case studies and quiz test(s).

These courses will be delivered at E & ICT Academies/identified centers through NKN infrastructure. Candidates could apply for training at academy locations or identified centers as per the convenience.

### Course 3: Electric Vehicle

Principal Coordinator Academy	Support Coordinator Academy	Participating Academies and Local Coordinator Details
<b>Prof. Praveen Kumar</b> praveen_kumar@iitg.ernet.in IIT Guwahati	<b>Dr. Arun K. Verma</b> arun.ee@mnit.ac.in MNIT Jaipur	IIT Guwahati & IIT Madras - <b>Dr. Praveen Kumar &amp; praveen_kumar@iitg.ernet.in</b>
		IIT Madras - <b>Dr. Prabhjot Kaur</b>
		MNIT Jaipur - <b>Dr. Nitin Gupta</b> nitingupta.ee@mnit.ac.in
		IIT Roorkee - <b>Dr. Sanjeev Manhas</b> samanfec@iitr.ac.in
		NIT Patna - <b>Dr. Mala De &amp; Dr. Vimlesh Verma</b> mala@nitp.ac.in & vimlesh.verma@nip.ac.in
		IIITDM Jabalpur - <b>Prof. V.K. Gupta</b> vkgupta@iiitdmj.ac.in
		NIT, Warangal - <b>Dr. D. Sreenivasa Rao</b> srinudee@nitw.ac.in

### Module details of Electric Vehicle:

S.No.	Module Name	Topics
1.	Introduction to Electric Vehicle (EV)	EV history, Well to Wheel Analysis, EV architectures and drivetrains, Vehicle drive cycle analysis on sizing of EV drivetrains, and Motors and their suitability for EVs Hands-on: a) Well to wheel analysis for various electricity generation scenarios and b) Drive cycle analysis and extraction of information.
2.	EV Control and Storage Systems	EV control systems, Storage Systems and new battery technologies, potential and forecasting, Impact of EVs on the grid Hands-on: a) Sizing EV subsystems for an application and b) Simulation of speed control of PM Motor.

S.No.	Module Name	Topics
3.	Antennas in 5G	Modulation techniques and waveform design for 5G communication Hands-on: Modulation techniques and waveform design for 5G communication.
4.	V2G and G2V Technologies	Discussion on V2G and G2V technologies
5.	Current Trends in EV	Policies, R&D and deployment roadmap for India, and End of life and recycling of EVs.

**Registration Fee:** No Registration fee is charged for attending this programme planned at any designated academies/Remote centers. However, candidate should submit a refundable Demand Draft of Rs.1000/- along with application and the same will be handed over to participant on the last day of the training. Satisfactory Certificate will be given subject to fulfillment of attending all sessions, submission of assignments and clearing the test(s).

**Last Date of Registration: 25<sup>th</sup> May'2018.**

**Lodging and Boarding will be provided free of cost at the Academy.**

**Participants can also attend the course at the following Remote Nodal Center**

**1.Maulana Azad National Institute of Technology (MANIT), Bhopal, Madhya Pradesh.**

**Remote Center Coordinator: Dr. Lalita Gupta**

**Email: [gupta.lalita@gmail.com](mailto:gupta.lalita@gmail.com)**

**2. DSPM- International Institute of Information Technology (DSPM-IIIT), Naya Raipur, Chhattisgarh**

**Remote Center Coordinator: Dr. Rajrishi Mahapatra & Dr. Debanjan Das**

**Email: [rajarshi@iiitnr.edu.in](mailto:rajarshi@iiitnr.edu.in), [debanjan@iiitnr.edu.in](mailto:debanjan@iiitnr.edu.in)**