Course

- Medium Term Courses

Initial Description

NPTI weaves formal education with industry oriented specialized skills to cater to the needs of Power Sector and creates a pool of technically trained manpower for ready availability for recruitment to the industry.

Objective

The overall course objective is to provide a well-rounded exposure to Graduate Engineers / Utility Personnel with various aspects of Electric Vehicles, Understand Mobility and its evolutions, Smart Grid, Smart Water & Smart Gas Utility. This course is intended to be delivered through classroom session at NPTI, Faridabad with practical's/Site Visits/Projects/Internships.

Program Profile

MODULE COVERED: This training program shall broadly cover the following modules:

S. No.	Name of Module
1.	General Introduction: - Evolution of Indian Power sector & Indian Electricity Act & Regulation
2.	Various types of Power Generation (Hydro, Thermal, Nuclear & RE Sources)
3.	Basics of Power System, Traditional Grid and Micro Grid, Generation, Transmission & Distribution Challenges in India
4.	Introduction to Smart Grids, Global Roadmaps, Regulatory Aspects, Smart Grid Vision & Roadmap for India, National Smart Grid Mission, Smart Grid Maturity Models, Smart Grid Architecture, Market Mechanism & Grid Standards
5.	Advanced Meter Interface (AMI) - Overview, Smart Meters, DCUs, HES, MDM, Inter-operability, Standards, Protocols,
6.	ICT & Cyber Security and Smart Grid Security, IoT.
7.	Load Forecasting, Demand Side Management DER/DR/SCADA/EMS, WAMS
8.	Power Electronics, Reactive Power Management & Outage Management, PMU, Project, Procurement, Contract & its Financial Management

9.	GIS & Assets Management: Asset Mapping and Consumer Indexing on GIS maps; and business process reengineering for GIS
10.	Understand Mobility and its evolutions, Electric Mobility and Environmental Impact Reduction, Economic Analysis, Electric Mobility and Infrastructures: Technical and Economic Dimensions
11.	• International Standards for EVs and their impact on EV deployment, EV System • architecture and concepts, EV Drives and Controllers
12.	Energy Storage Systems and New Batteries Technologies, Potentials and Forecasts, EV Charging Systems(V2G and G2V)
13.	• Power grid and renewable energy resources interfacing for EV Development(ICT • services for EV ecosystem)
14.	Smart Cities & its Pilot projects in India, Innovative Solutions For Smart Cities, Green Environment, Smart Health, Water & Sanitation, Waste Water Management Through Innovation & Technology, Video Surveillance & Smart Lighting for Smart & Safe Cities, Adaptive Traffic Control System, Pollution Monitoring, Urban Planning, Smart Transportation
15.	Laboratory Session, Simulator, Plant Visit and On-Job Training
16.	Project Works followed by end examinations

COURSE FEE: ₹ 90,000 + 18% GST.

Candidates are required to make online payment by clicking e-payment link on www.npti.gov.in

PROGRAM VENUE: National Power Training Institute (CO), NPTI Complex, Sector-33, Faridabad – 121003, Haryana, Delhi NCR.

Training	Name of Institute	Duration	Application fee	Date of Commencement	Last Date for Application	Apply Online
	Faridabad	16 Weeks	500/- (including GST)	15/11/2019	14/11/2019	-

Who may attend

The minimum qualification for admission is a B.E/B.Tech in any branch of Engineering. This course can also be attended by the Junior and Middle Level Managers/Executives/officers.