Online Training Program

ELECTRIC MOBILITY & CHARGING INFRASTRUCTURE

02 July - 05 August 2020
A. Introduction

Globally electric vehicles (EV) have emerged as the preferred route to decarbonize the transport sector. With constantly declining cost of batteries combined with impressive increase in the mileage per full charge (up to 400 to 600 km/charge) EV adoption is accelerating in many countries. EV stock touched 1 million mark in December 2015 and it doubled in next one year and the third million was added in next 10 months. The global EV stock at the end of 2019 stood above 7.5 million (excluding 2-Wheelers and 3-Wheelers). In the post Covid-19 world, most countries are contemplating green recovery plan in which electric mobility is likely to play a pivotal role.

In the recent past India has taken various initiatives to stimulate and expedite the adoption of Electric Vehicles (EVs) in the country. In 2013, Government of India (GoI) launched the ‘National Electric Mobility Mission Plan (NEMMP) 2020’, a pioneering effort to strive towards electrify road transportation. As part of this mission a scheme called Faster Adoption and Manufacturing of Electric Vehicles (FAME) was announced which gave subsidy for 395 electric buses in 11 cities besides several other incentives for EV manufacturers and buyers in 2017. The FAME-II announced in 2019 offered subsidy for 5595 electric buses in 64 cities and 2665 public charging stations. These are scheduled to be deployed in next 2-3 years. The present EV stock in India is primarily dominated by electric 3 Wheelers (E-Ricks) with lead-acid batteries while about 12,000 electric cars are sold so far in the country. In the last 2 years, several new models of EVs have been introduced in India. Ten Indian states have issued state specific EV Policies and 14 States have introduced separate electricity tariff for charging of EVs.

Government of India has set an ambitious plan to electrify the transport sector through aggressive policy interventions that would mandate phasing out manufacturing and sales of ICE based vehicles in a phased manner in the country by 2030. In order to support large scale rollout of EVs, it is necessary to build charging infrastructure and strengthen the electricity distribution infrastructure to support the EV charging load. Bureau of Indian Standards (BIS) has already published the first set of standards for EV charging infrastructure (IS:17017 series). Sustainable business models for running charging stations need to be evolved. Above all, it is important to create talent pool of professionals to build a conducive ecosystem around the entire gamut of EV business. With this background, ISGF is pleased to announce an Online Training Program on Electric Mobility and Charging Infrastructure, scheduled from 02 July to 05 August 2020.

B. Objectives

- To learn the fundamentals of EVs and Electric Vehicle Supply Equipment (EVSE)
- To understand the challenges of large scale rollout of EVs
- To learn about different types of EVSE and their standards and communication protocols
- To learn the impact of EVs on the Electricity Distribution Grid
- To learn how to plan setting up of EV Charging Stations with appropriate upgrade of the Electricity Distribution Network
- To understand the Communication Protocols between (i) EV and the EVSE, (ii) EVSE and the Electric Grid; and (iii) EVSE Operator and the EV Driver
- Provides the participants a platform for Peer to Peer discussions on technology and project experiences as well as with our expert Tutors
C. Modules Covered

- EV Deployment - Global and Indian Scenarios
- Technology Development in EV Domain
- EV Charging Infrastructure: Part 1 and 2
- Grid Enhancement for EV Charging & Vehicle - Grid Integration
- Case Studies – Part 1 and 2
- Policies and Regulations for EV & EVSE and EV Deployment Experiences in India
- Experience, Challenges and Perspectives of
  1) EV Manufactures
  2) EV Charging Station Operators
  3) EV Fleet Operators
- Evolving Technologies
- Examination and Valedictory Session

D. Target Audience/Eligibility

- Officials from Transport Department and Ministries
- R&D and Academic Institutions
- Officials from Electricity Distribution Companies
- EV & EVSE Manufacturers
- EV Charging Infrastructure Providers
- Officials from Transport Companies and Fleet Operators

E. Course Schedule

02 July - 05 August 2020

Live Sessions on Following Days
Daywise session timings will be shared with registered trainees

F. Training Methodology

- Live Lectures on ISGF WebEx Platform
- Recording of live lectures will be available on ISGF Portal to access at anytime
- Course Material/ Presentations of the session will be emailed to the participants a day in advance and will be uploaded on the ISGF Portal for reference
- Trainers will respond to queries on email

Assessment & Certification
An online examination will be conducted and Certificate of Merit will be awarded to the online trainees. Minimum 70% attendance is mandatory for Live Session to receive Certificate. Trainees undergoing Offline Training Course will receive a Certificate of Completion after examination.
H. Fee and Registration

**ONLINE TRAINING**
LIVE SESSIONS
INR 7000 + GST

**OFFLINE TRAINING**
RECORDED VIDEOS
INR 4000 + GST

**Special Offers:**
- 25% discount for current ISGF Members
- 25% discount for Bonafied Students and Faculties
- 25% discount on group registration for more than 4 persons from the same organisation

**Please note:**
- Two discount offers cannot be clubbed together
- Valid identity proof of Bonafied Students/Faculties has to be emailed at ronkini.shome@indiasmartgrid.org to avail the discount
- ISGF Members have to email at ronkini.shome@indiasmartgrid.org to avail the discount

**All Online /Offline Trainees will register following this link at ISGF Training Portal**
https://indiasmartgrid.org/onlinetrainingprogram/

All Types of Debit Card / Credit Card, Netbanking and Paytm/Google Pay/UPI Linked Payments will be accepted for registration at ISGF Training Portal

Bank details of ISGF for NEFT / Fund Transfer of ISGF as below

Account Name: India Smart Grid Forum
Address: CBIP Building Malcha Marg New Delhi – 110021
Account Number: 00031110005017
Bank Name: HDFC Bank Ltd
RTGS/NEFT/IFSC Code: HDFC0000003
Bank Address: 209-214 Kailash Building, 26 K G Marg, New Delhi – 110001

---

**About ISGF**

India Smart Grid Forum (ISGF) was established as a Public Private Partnership (PPP) initiative of Government of India for accelerated development of smart grid technologies in the Indian power sector in March 2011. It is registered under Indian Societies Registration Act (Act XXI of 1860). ISGF was set-up to provide a mechanism through which academia, industry, utilities and other stakeholders could participate in the development of Indian smart grid systems and provide relevant inputs to the government’s grid modernization program.

ISGF work closely with the Ministry of Power, Ministry of New and Renewable Energy, Department of Telecom, Ministry of Heavy Industries, Department of Science and Technology and Ministry of Urban Development and NCIIPC. With 180+ members comprising of ministries, utilities, technology providers, academia and students, ISGF has evolved as a globally reputed think tank in smart grids and smart cities.