

IESA Electric Mobility & Advanced Battery Training with FAME 2 Certification Process along with ARAI Lab Visit

(EV Roundtable – Maharashtra)

6th & 7th June 2019 | Pune | 2 days Non-Residential Program

India Energy Storage Alliance (IESA) along with the support from **Automotive Research Association of India (ARAI)** is organizing 2 days training program on **Electric Mobility & Advanced Battery Training with FAME 2 Certification Process with ARAI Lab Visit** on **6th & 7th June 2019**. This will be a unique platform to interact, discuss & learn advanced battery technologies, FAME II certification process and EV ecosystem in India. All participants will be part of ARAI's lab visit and will get an invitation to be part of IESA EV Roundtable-Maharashtra which will take place very soon.

India has a significant market potential for Electric Vehicles (EVs). Although we are still in the infancy of adoption of EVs, with the changes in the technology landscape as well as clear vision set by the Indian government, IESA estimates that over 7 crores EVs could be sold in India till 2030. This transition of the transportation sector from petroleum based internal combustion engines (ICEs) to EVs, would create a market of 750 GWh of advanced energy storage solutions over the next decade. The Government of India has laid down its plans and DHI is catalysing the Indian EV market with the active support from various other ministries such as NITI Aayog, MoP, MoRTH, MS&T, MoCIP for making this dream a reality. State Governments like Karnataka, Telangana, Uttar Pradesh, Uttarakhand, Kerala, Andhra Pradesh, Delhi, and Maharashtra have made promising move by announcing their own policies to promote the development of electric mobility infrastructure and providing incentives for manufacturing of EVs and energy storage

Although currently consumers have very limited choices on EVs in India, Indian automobile sector

leaders have already showcased their upcoming EVs which can hit the roads very soon. Indian companies have successfully built electric cars in the recent past and are lining up electric buses to be provided to state transportation. Many start-ups have already entered and developed market ready products in 2W and 3W segments. Batteries are a critical component for EVs and there is a big gap as currently there is no li-ion cell manufacturing taking place in India. With the objective of triggering the early adoption of EVs in India the goods and services tax (GST) Council has set a tax rate of 12% for electric vehicles, compared with 28% plus cess for petrol and diesel cars and hybrid vehicles.

NITI Aayog has already recommended certain fiscal incentives to EV manufacturers, however, the major challenge lies in creating a robust infrastructure for charging facilities along with reducing the cost to make the solutions economically viable for the end users. With the talk of EVs gaining momentum in the last few years, both Indian as well as international investors, have shown interest in capacity building for the segment thus presenting an opportunity for Indian manufacturers to enter the segment and undertake research & development in the category.

Government initiatives like recently launched the National Mission for Transformative Mobility with Phased Manufacturing Program (PMP), Ministry of Heavy Industries have launched FAME -2 (Faster Adoption and Manufacturing of Electric Vehicles) incentives with a budget of Rs 10,000 Cr will encourage adoption of EV in India. Fame 2 scheme is proposed to be implemented over a period of 3 years, w.e.f 1st April 2019. The scheme is proposed to be implemented through following verticals: a) Demand Incentives, b) Establishment of a network of charging stations, c) Administration of Scheme including Publicity, IEC

(Information, Education & Communication) activities. The fame-2 scheme will be applicable mainly to vehicles used for public transport or those registered for commercial purposes in 3W, 4W and Bus segments. However, privately owned registered 2Ws will also be covered under the scheme.

IESA launched a new initiative called MOVE (Moving Onwards Vehicle Electrification) in 2017 to help India move towards vehicle electrification and build a robust ecosystem for EV manufacturing & adoption. IESA is working with various stakeholders in the mobility sector to address barriers and focus on the aspects related to batteries for EVs and charging infrastructure. Global companies are entering in the Indian market and Indian conglomerates are diversifying in the EV space. KIA Motors have invested \$2bn in Anantapur, Andhra Pradesh spread across >500 acres. Companies like Mahindra and Tata Motors have already launched their 4 Wheeler EVs in India and others are in the race. TECO Electric will be investing \$50 million (approximately Rs 356 crore) in Devanahalli, Karnataka for the first phase of a project to develop engines for EVs. Currently number of companies are importing li-

ion batteries from China, Korea, Japan and USA, but there is a growing realization that this is an area where India has an opportunity to also build a strong domestic manufacturing ecosystem. India is expected to attract over \$3 Billion in investments to support 3+ GIGA factories for li-ion batteries over the years and is also witnessing additional investment for alternate energy storage technologies. Apart from investments in the GIGA factories, IESA is also working towards enabling involvement of various domestic component manufactures and material supply companies in the global supply chain.

IESA has set a vision to make India a global hub for R&D and manufacturing of advanced energy storage and EV systems by 2022. In the past, IESA organised two editions of EV Conclave in 2017 & 2018 along with two regional EV roundtable in Karnataka and Maharashtra with the support of state governments to encourage EV pilots in India.

We encourage all EV ecosystem players to join this programme.

Day 1 (6th June 2019)

Agenda

- ❖ 9:30 AM - 10:00 AM: - Registration & Tea
- ❖ 10:00 AM – 12:30 PM: - Module 1
- ❖ 12:30 PM – 01:30 PM: - Lunch
- ❖ 01:30 PM – 03:30 PM – Module 2
- ❖ 03:30 PM – 03:45 PM – Tea Break
- ❖ 03:45 PM – 05:45 PM – Module 3
- ❖ 05:45 PM – 06:00 PM – Day 1 Closing

Key Topics to be Covered

Module 1:

- Introduction to Indian EV Market
- Central Government & State Government EV Policies & Regulations
- EV Deployment Status in India and Worldwide
- EV Deployment Challenges
- Indian EV Ecosystem & Growth Opportunity

Module 2:

- Advanced Battery Technologies Overview
- Global Battery R&D
- Battery Assembling, Cell Manufacturing & Ecosystem Development
- Government Program to promote battery manufacturing

Module 3:

- Battery Swapping
- Charging Infrastructure & Charging Station installations in India
- Vehicle to Grid Integration & Grid Issues
- EV Business Models

Venue: CES, Wakad, Pune

Day 2 (7th June 2019)

Agenda (EV Round-table, FAME II Certification Process & ARAI Lab Visit)



- ❖ 10:30 AM - 11:00 AM: - Registration & Tea
- ❖ 11:00 AM – 11:30 AM: - Welcome address by ARAI & State Officials
- ❖ 11:30 AM – 12:00 Noon: - Indian EV Ecosystem Overview by IESA
- ❖ 12:00 Noon – 12:30 PM: - State Specific Pilot Discussion
- ❖ 12:30 PM – 1:30 PM: - FAME II Overview & Certification Process by ARAI
- ❖ 1:30 PM – 2:30 PM: - Networking Lunch
- ❖ 2:30 PM – 4:00 PM: - ARAI Lab Visit

Venue: ARAI, Kothrud, Pune

Duration: 02 Days of Non-Residential Training Program with ARAI Lab Visit on 6th & 7th June 2019

Faculty: Senior Industry Professionals and Government Representative

Target Participants:

- Senior Industry Professionals and Government Representative
- State & central Government officials
- Transport companies
- R&D Institutions
- EV Companies (2W, 3W, e-rickshaw, e-Auto, E-Bus)
- Charging Infra Companies
- Battery Swapping companies

- Battery Manufacturers
- Conventional Auto & Auto-Component Companies
- Battery ecosystem companies

Course Fee

- ✓ The Fee for the Training & Lab visit (Day 1 & Day 2) is INR 15,000 + GST (for Non-IESA Member)
- ✓ The Fee for the Training & Lab visit (Day 1 & Day 2) is INR 12,000 + GST (for IESA Member)
- ✓ The Fee for the EV Roundtable & ARAI Lab visit (Day 2 only) is INR 5,000 + GST
- ✓ *(Fee includes Course Materials, Tea/Coffee and Lunch)*

Contact Details

For Registration and enquiries, please contact

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