

E-MOBILITY IN INDIA: SAFETY AND THE WAY FORWARD

SEPTEMBER 27-28, 2022

CENTRE FOR SAFETY ENGINEERING
INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR

SAFETY ISSUES IN ELECTRIC VEHICLES



Safety Engineering

Programme Schedule DAY 1

Sept 27-28, 2022 Venue: AB1/101, IIT Gandhinagar

TIME	PROGRAMME	SPEAKER
09:00 am - 09:30 am	REGISTRATION AND NETWORKING TEA	
09:30 am - 09:40 am	Welcome and Inaugural Address	 Prof Amit Prashant, Director, IIT Gandhinagar Shri Giridhar Aramane (IAS), Secretary, Ministry of Road Transport & Highways, Government of India
09:40 am - 10:15 am	 Introduction Government interventions Role of key stakeholders in EV growth 	 R.A. Venkitachalam, Adviser - IIT Gandhinagar Innovation and Entrepreneurship Center Dr. Rahul Walawalkar, President, India Energy Storage Alliance (IESA) Karthick Athmanathan, Professor of Practice, IIT Madras
10:15 am - 10:45 am	Technology • Battery Technologies and Challenges • Current status of Battery Management System (BMS)	 Dr. Judy Jeevarajan, Vice President & Executive Director, Electrochemical Safety Research Institute (ESRI), UL Research Institutes (ULRI) Dr. Rashi Gupta, Founder & Managing Director, Vision Mechatronics
10:45 am - 11:15 am	TEA BREAK	
11:15 am - 01:00 pm	Technology Readiness for the market Introduction to India 's EV Ecosystem Current Status of EV Market Safe Design, manufacturing on experience of EV sellers	 Abhishek Ranjan, Sr. VP Strategy & Head - Utilities & Retail, ReNew Power Suraj Vallamkonda, Team Lead Battery Engineering, Ather Energy Rajesh Mekkat, Director - Lithium-ion Cell Development, Ola Electric Dr. Petra Andersson, Senior Researcher, RISE Research Institutes of Sweden
01:00 pm - 02:00 pm	LUNCH BREAK	
02:00 pm - 03:15 pm	PANEL DISCUSSION Advancing EVs in INDIA • Technology improvement relevant to India market • Initiatives on EV safety standards in Indian Market • Giga factories in the making – Safety during cell manufacturing	 Kislay Pankaj, CTO, Micelio Mobility Akash Verma, Research Associate, Log9 Materials Subham Mishra, Founder & CEO, E-Vega Mobility Labs Gopi Sankar, Chief Engineer – New Energy Vehicles, Ashok Leyland
03:15 pm - 03:30 pm	TEA BREAK	
03:30 pm - 04:30 pm	Standards & Technologies India and International Experience & Learnings Firefighter planning and International codes	 Sean De Crane, Staff Engineering Associate, Built Environment, UL Solutions Michael Greiner, President, Hazard Control Inc, USA
04:30 pm - 05:00 pm	OPEN DISCUSSION	Discussion with all speakers and audience and open the floor for Q&A





Safety Engineering

Programme Schedule DAY 2

Sept 27-28, 2022 Venue: AB1/101, IIT Gandhinagar

TIME	PROGRAMME	SPEAKER
09:00 am - 09:30 am	NETWORKING TEA	
09:30 am - 09:45 am	Welcome and Brief Remarks	Dr. M.K. Jain, Scientist-G/Associate Director, CEEFS DRDO, Ministry of Defence, Delhi
09:45 am - 11:30 am	Testing Facilities & the Standardization • Testing-Approach/Facilities (especially in Indian Context) • Characterization of EV and ESS fires • ESS fire testing • Comparative Account of Safety in Redox Flow Batteries	 Dr. Judy Jeevarajan, Vice President & Executive Director, ESRI, ULRI Dr. Daniel Juarez-Robles, Research Scientist, ESRI, ULRI Sean De Crane, Staff Engineering Associate, Built Environment, UL Solutions Dr. Jonna Hynynen, Research Scientist, Fire and Safety, RISE Research Institutes of Sweden Dr. S. Sundar Manoharan, Director General, Pandit Deendayal Energy University
11:30 am - 12:30 pm	Response to EV Fires • Standards and Regulations of EV Fires • Challenge of Implementation vs Regulations	 Kurt Vollmacher, Expert, Alternative Energy Michael Greiner, President, Hazard Control Inc, USA Abhishek Bagwe, CEO, Firetech Pvt Ltd
12:30 pm - 01:30 pm	LUNCH BREAK	
01:30 pm - 02:45 pm	Public Event - Open House • Presentation of three teams • Panel Discussion – Open House	 R.A. Venkitachalam, Adviser - IIT Gandhinagar Innovation and Entrepreneurship Center Dr. Judy Jeevarajan, Vice President & Executive Director, ESRI, ULRI Dr. Pravinray Gandhi, Guest Professor, Mechanical Engineering, IIT Gandhinagar
02:45 pm - 03:15 pm	TEA BREAK	
03:15 pm - 03:45 pm	Way Forward - Next Steps	 Prof Chinmay Ghoroi, Chemical Engineering, IIT Gandhinagar Prof Gaurav Srivastava, Civil Engineering, IIT Gandhinagar
03:45 pm - 04:15 pm	Concluding Remarks and Acknowledgements	UL Research Institutes and IIT Gandhinagar

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Shri Giridhar Aramane, IAS Secretary, Ministry of Road Transport &







Abhishek Bagwe CEO, Firetech Pvt Ltd



Karthick Athmanathan **Professor of Practice, IIT Madras**



Kurt Vollmacher Expert, Alternative Energy, USA



Dr. Jonna Hynynen Research Scientist, Fire and Safety, **RISE Research Institutes of Sweden**



Dr. M.K. Jain Scientist-G/Associate Director, CEEFS DRDO, Ministry of Defence, Delhi



Dr. Rahul Walawalkar India Energy Storage Alliance (IESA)



Dr. Rashi Gupta Founder & Managing Director, **Vision Mechatronics**



Shubham Mishra Founder & CEO, E-Vega Mobility Labs



Suraj Vallamkonda Team Lead, Battery Engineering, **Ather Energy**



R.A. Venkitachalam Advisor - IIT Gandhinagar Innovation and Entrepreneurship Centre



Prof Gaurav Srivastava Civil Engineering, IIT Gandhinagar



Prof Amit Prashant Director, IIT Gandhinagar



Dr. Judy Jeevarajan Vice President & Executive Director, Electrochemical Safety Research Institute (ESRI), UL Research Institutes (ULRI), USA



Daniel Juarez Robles Research Scientist at UL Research Institutes, UK



Gopi Sankar Chief Engineer- New Energy Vehicles, **Ashok Leyland**



Kislay Pankaj CTO, Micelio Mobility



Akash Verma Research Associate, Log9 Materials



Michael Greiner President, Hazard Control Inc, USA



Dr. Petra Andersson Chair, Senior Researcher, **RISE Research Institutes of Sweden**



Rajesh Mekkat Director - Lithium-ion Cell Development, Ola Electric



Sean De Crane Staff Engineering Associate, **Built Environment, UL Solutions, USA**



Dr. S. Sundar Manoharan Director General, **Pandit Deendayal Energy University**



Dr. Pravinray Gandhi **Guest Professor,** Mechanical Engineering, IIT Gandhinagar



Prof Chinmay Ghoroi Chemical Engineering, IIT Gandhinagar