

**Report on Distinguished Lecture on  
Electric Vehicles as Energy Storage in Smart Grids  
by Professor Sivaneasan Bala Krishnan**

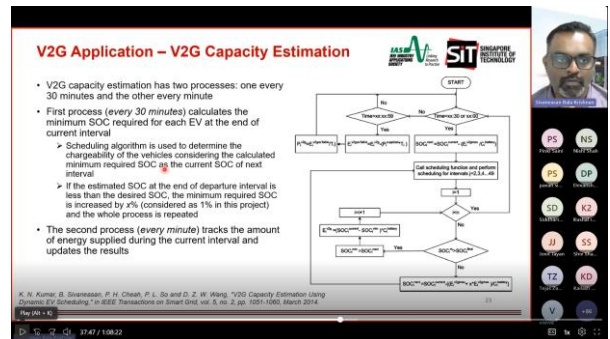
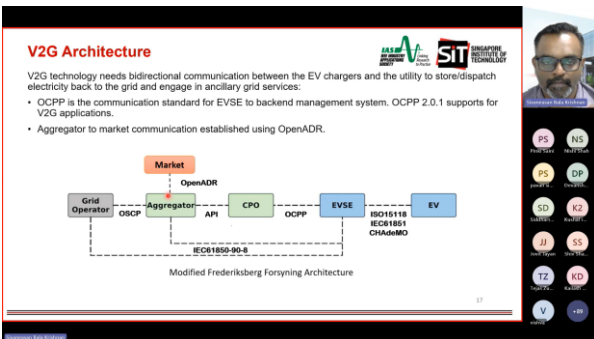
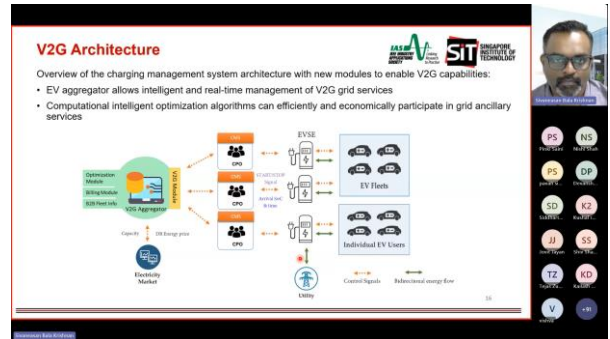
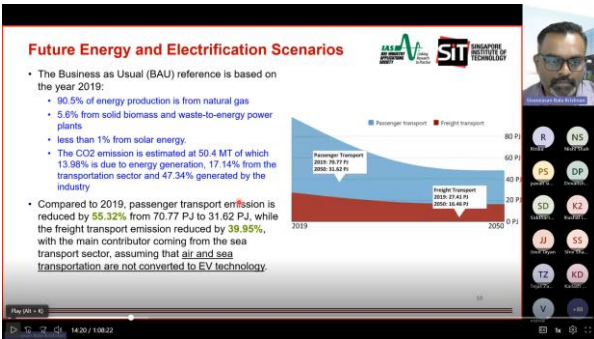
**Abstract of the lecture:**

The presentation, "Electric Vehicles as Energy Storage in Smart Grids," explores the role of electric vehicles (EVs) in decarbonizing the transport sector and how they can be leveraged as distributed energy storage systems through Vehicle-to-Grid (V2G) technology. The talk covers the impact of EVs on reducing carbon emissions, the architecture and communication protocols necessary for V2G integration, and the V2G estimation required for demand response and peak load management. Case studies illustrate how aggregated EVs can contribute to grid stability through V2G application while ensuring that user mobility needs are met.

**Brief Biography**

Dr Sivaneasan received the B.Eng. and Ph.D. degrees in Electrical and Electronic Engineering from Nanyang Technological University, Singapore, in 2007 and 2012 respectively. In 2019, he joined Singapore Institute of Technology as an Assistant Professor and subsequently promoted to an Associate Professor in 2023. He also concurrently holds the Deputy Director appointment for SIT Teaching and Learning Academy. He is registered as Chartered Engineer with UK Engineering Council. Dr Sivaneasan conducts research and development in the areas of power engineering particularly microgrids, smart grid technologies and electric vehicle management system.

## Pictures During the Lecture:



As a part of the **Industry Applications Society (IAS)** celebration, we hosted a distinguished lecture by **Professor Sivaneasan Bala Krishnan** on the topic “**Electric Vehicles as Energy Storage in Smart Grids**” online mode. The event was scheduled for **November 7th at 12:30 PM IST**. For this Distinguished lecture, 183 participants registered and 103 participants attended the meeting. Most attendees are students from the Indian Institute of Technology Gandhinagar and other institutes. Many faculty from various institutes and industry professionals attended the event alongside students. Of 103 attendees, around 72 were students from IIT Gandhinagar and other institutes while the rest were faculty members and industry professionals. 78 attendees were male, while 25 attendees were female.