



The Institute of Electrical and Electronics Engineers
(IEEE)



Galveston Bay Section Meeting

Organized by Joint Societies' Chapters

November 7th, 2019 THURSDAY Luncheon Meeting

TOPIC: “Advances in Transportation Electrification for CO2 Emission Reduction”

SPEAKER: Dr Kaushik Rajashekara, University of Houston,
IEEE VTS Distinguished Speaker

PRESENTATION: The Transportation industry is facing challenges and increasing regulations to improve fuel economy and reduce emissions. To meet these challenges in the automotive industry, significant work has been done in the areas of electric, hybrid, and fuel cell vehicles. In the case of airplanes, more electric architecture and hybrid propulsion are the emerging trends. The intent is to move as many aircraft loads as possible to electrical power, resulting in simpler aircraft systems leading to the potential for lower fuel consumption, reduced emissions, and reduced maintenance. In addition to more electric aircraft, recently there is an increased focus on electric and hybrid electric propulsion strategies for aircrafts similar to electric and hybrid vehicles. Also, many companies are developing flying cars and vertical take-off and landing vehicles (VTOL) for urban air mobility, which in turn is expected to reduce significant urban emissions. Even in Marine industry, the electrification of boats and ships is growing rapidly, although diesel and gasoline-powered vessels currently dominate maritime transportation. This industry is also facing restrictions surrounding emissions of NO_x and SO_x, as well as greenhouse gases such as CO₂. This presentation examines the current trends in various types of land, air, and sea transportation technologies that would significantly reduce the greenhouse gas emissions.

SPEAKER Dr. Kaushik Rajashekara is a Distinguished Professor in the Department of Electrical & Computer Engineering, University of Houston. Prior to that, he was a distinguished professor in University of Texas at Dallas for 4 years, Chief Technologist for Electrical Systems in Rolls-Royce for 6 years, and Chief Scientist in Delphi/General Motors for 17 years. He received his PhD from Indian Institute of Science, Bengaluru, India. His research interests are in the area of power electronics, drives, transportation electrification, renewable energy, and energy management of microgrid systems. Dr. Rajashekara is a member of the US National Academy of Engineering and Fellow of the National Academy of Inventors. He is a recipient of the IEEE Richard Harold Kaufmann award for outstanding contributions to the advancement of electrical systems in transportation; IEEE Industry Applications Society Outstanding Achievement Award, and IEEE IAS Gerald Kliman award for contributions to the advancement of power conversion technologies through innovations and their applications to industry. He is a Distinguished Alumnus of Indian Institute of Science, Fellow of IEEE, and a Fellow of SAE International.

University of Houston Clear Lake, Delta Building, Room D136,

11:30 AM – 1:00 PM - Program and Q&A, 12:00 PM – 1:00 PM

Complimentary Pizza lunch with reservation

Please RSVP to Dr Zafar Taqvi at Z.TAQVI@IEEE.Org before Tuesday November 5th NOON.

PARKING: IF YOU DO NOT HAVE VALID UHCL PARKING PERMIT, PLEASE INDICATE WHILE REGISTERING. We will provide you with parking details.

Reservations to attend this meeting should be made by email to:
Z.Taqvi@IEEE.ORG