



**The Institute of Electrical and Electronics Engineers
(IEEE)**



Galveston Bay Section Meeting

Organized by Joint Societies Chapters

October 18th, 2018 (Thursday) Luncheon Meeting

**TOPIC: "Power Conversion Systems for Subsea Systems:
Challenges and opportunities"**

SPEAKER: Dr. Kaushik Rajashekara, University of Houston

PRESENTATION: The subsea industry has become more significant in recent years because most of the new oil fields are located in deep water, a term often used to describe offshore projects located in water depths greater than about 600 feet. In order to extract the subsea oil and gas, a number of electrical systems are deployed. Many of these electrical systems need high-reliability power grid and power control units located on the seabed. The power electronics plays a major role in providing the required power to the various electrical systems. But there are many challenges for deploying power converters under the seabed. This seminar presents the requirements and challenges of power electronics systems operating in subsea environment, use of power electronics for efficient transmission of power from the offshore platform or from onshore to the subsea electrical loads; variable speed drive systems for subsea processing; and research areas related to power electronics for subsea electrical systems. In addition to the above topic, the power systems and power electronics research and education in University of Houston will also be presented.

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. ongoing neuroimaging data analysis project on Gulf War Illness. He also continues his research interests in fundamental signal and image processing, remote sensing, optimal data sampling, and signal/data analysis. His research has been funded by US AFOSR/AFRL, US DoD, and also by the industry.

Gilruth Recreation Center NASA-JSC, Discovery Room (downstairs)

Free parking. No security processing required. Easy drive in off Space Center Blvd. See website below for map.
Interested non-IEEE engineers, technicians, scientists, IEEE Members and guests alike are welcome!

12:00 PM – 1:00 PM - Program and Q&A

11:30 AM - Light Lunch with reservation (\$10.00 donation). Complimentary for IEEE student members with reservation. INDICATE IF YOU TAKE VEGGIE ONLY.

Please RSVP Before Noon Tuesday October 16th, 2018

Number of lunches is limited. Please reserve early

Reservations for lunch or to attend this meeting should be made by email to:

d.k.rutishauser@ieee.org

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