THE DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING SPEAKER SERIES

Latest Developments in Vehicle Electrification



Dr. Tomy Sebastian

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Monday, **21 September 2020**, 9.55 AM Room: **Zoom*** (Join URL: <u>https://uofh.zoom.us/j/3956910556</u>; Meeting ID# 395-691-0556)

LECTURE ABSTRACT

Electrification of automotive Systems is accelerating at a faster rate due to environmental considerations and for improving driver comfort, convenience and safety. Last few decades have witnessed significant increase in electrical components in terms of both hardware and software controls. We also have seen the introduction of electric vehicles by most traditional OEMs and by several new players. The Electric Vehicle penetration has impact on the power system in terms of charging infrastructure. The talk will focus on some of the latest challenges and opportunities for the engineering community in dealing with this growth.

SPEAKER BIOSKETCH

Dr. **Tomy Sebastian** received the B.Sc. (Eng.) degree from Regional Engineering College Calicut (presently National Institute of Technology, NIT Calicut), India, the M.S. degree from Indian Institute of Technology Madras, MA.Sc. and Ph.D. degrees from the University of Toronto, Canada. He worked with R&D Center of KELTRON, Trivandrum, India, Black and Decker Corporation, Baltimore, USA, Delphi Saginaw Steering Systems and Nexteer Automotive in Saginaw, Michigan. Currently he is the Director of Motor Drive Systems at Halla Mechatronics in Bay City, Michigan, USA.

Dr. Sebastian has done extensive research in the area of permanent magnet motor design and control issues and applications in steering systems. In 2003 he was elected as a Fellow of IEEE. He is the recipient of the 2019 IEEE Nikola Tesla award. He was the General Chair for the First IEEE Energy Conversion Congress and Exposition (IEEE ECCE 2009) held in San Jose, CA. During 2017-2018 he served as the President of the IEEE Industry Applications Society (IAS).

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