SEMINAR ANNOUNCEMENT

DEPARTMENT OF ELECTRICAL AND COMPUTER ENGINEERING
COLLEGE OF DESIGN AND ENGINEERING
Website: https://cde.nus.edu.sg/ece

Area: Power & Energy Systems

Host: Associate Professor Sanjib Kumar Panda

Jointly organized by:
IEEE Joint IAS/PELS Student Branch Chapter, NUS and
NUS ECE Department

IEEE PELS Regional Distinguished Lecture (RDL) Program

TOPIC	:	**Advances in Wireless Power Transfer Technology**
SPEAKER	:	**Professor Udaya K Madawala** **Department of Electrical, Computer & Software Engineering** **The University of Auckland, New Zealand**
DATE	:	**Friday, 25 November 2022**
TIME	:	**4:00PM to 5:00PM**
VENUE	:	**EA-02-14 Executive Room** **NUS College of Design and Engineering, NUS** **Alternatively,** **Join Webinar: Microsoft Teams link**
REGISTRATION		**Please register here for attendance and logistic purposes.**

ABSTRACT

Wireless Power Transfer (WPT) systems, based on inductive power transfer (IPT) technology, are becoming increasing popular in many applications. As research in this area is progressing at a rapid rate, this seminar will introduce some of the recent advances in IPT based WPT technology. New circuit and magnetic modelling techniques that can be employed to investigate different types of compensation circuits and coil structures will be discussed, test results would be presented. The concepts of an optimal control strategy that allow for regulated power transfer with impedance matching for maximum efficiency, regardless of large variations in coupling and load, will also be presented with the key advantages.

BIOGRAPHY

Udaya K. Madawala graduated with a B.Sc. (Electrical Engineering) (Hons) degree from The University of Moratuwa, Sri Lanka in 1987, and received his PhD (Power Electronics) from The University of Auckland, New Zealand in 1993 as a Commonwealth Doctoral Scholar. At the completion of his PhD, he was employed by Fisher & Paykel Ltd, New Zealand, as a Research and Development Engineer to develop new technologies for motor drives. In 1997 he joined the Department of Electrical and Computer Engineering at The University of Auckland and, at present as a Full Professor, he focuses on a number of power electronics projects related to bi-directional wireless EV charging systems for V2X applications.

Udaya is a Fellow of the IEEE and was a Distinguished Lecturer of the IEEE Power Electronic Society (PELS), and has over 30 years of both industry and research experience in the fields of power electronics and energy. He has served both the IEEE Power Electronics and Industrial Electronics Societies in numerous roles, relating to editorial, advisory, conference, technical committees and chapter activities. Currently, Udaya is an Associate Editor for IEEE Transactions on Power Electronics, and a member of both the Administrative Committee and Membership Development Committee of the IEEE Power Electronics Society. He was the General Chair of the 2nd IEEE Southern Power Electronics Conference (SPEC)- 2016, held in New Zealand, and is also the Chair of SPEC Steering Committee. Udaya, who has over 300 journal and conference publications, holds a number of patents related to wireless power transfer (WPT) and power converters, and is a consultant to industry.

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