

SEMINAR ANNOUNCEMENT

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

Area: Power and Energy Systems (PES)

Host: Assoc Prof Jimmy Chih-Hsien Peng

TOPIC	:	Analyzing Evolving Forms of Power System Dynamic Behaviour
SPEAKER	:	Prof Ian Hiskens Vennema Professor of Engineering, Department of Electrical Engineering and Computer Science, University of Michigan
DATE	:	Monday, 24 August 2026
TIME	:	2:00PM-3:00PM
VENUE	:	E7-03-09

ABSTRACT

As power systems transition from centralized to highly distributed generation profiles, evolving forms of dynamic behaviour are calling into question the concepts, tools and techniques that underpin system analysis. Traditional definitions of stability-related phenomena are no longer adequate. Existing tools and techniques have trouble replicating newer forms of behaviour. The talk will consider a variety of challenges, including definitions for system strength, subtleties arising from rigorous hybrid dynamical system modelling, and nonlinear analysis of sustained sub-synchronous oscillations.

BIOGRAPHY

Ian A. Hiskens is Vennema Professor Emeritus in the Department of Electrical Engineering and Computer Science, University of Michigan, Ann Arbor. He has held prior appointments with the Queensland electricity supply industry, and various universities in Australia and the United States. His research interests lie at the intersection of power system analysis and systems theory. Dr. Hiskens is Editor-in-Chief of IEEE Transactions on Power Systems and a member of the Editorial Board of the Proceedings of the IEEE. He has twice been the recipient of the IEEE Power and Energy Society Prize Paper Award. Dr. Hiskens is a Life Fellow of IEEE and a Fellow of Engineers Australia. He is a Chartered Professional Engineer in Australia, and the 2020 recipient of the M.A. Sargent Medal, the highest award of the Electrical College board of Engineers Australia.

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