POWER, ENERGY & CLEAN TECHNOLOGIES seminars

Date and Time:

Friday 21 April 2023

12:00pm (AEST) – start
12:55 – conclusion
Time will be allocated for questions after the presentation

This seminar will only be delivered by livestream Zoom:

Zoom Delivery: Join by Zoom Password: 442144

The Energy Researchers at QUT are pleased to invite you to an online PECT Seminar given by Dr Georgios Konstantinou from UNSW

From Real-time Synthetic Grids to Modular Power System Digital Twins

Abstract

This presentation covers the development of real-time synthetic grids and their role in the development of modular power system digital twins (PSDTs). It demonstrates how synthetic networks offer an open platform for power systems dominated by power electronics, and their expansion to real-life equivalent models, with the S-NEM2300-bus benchmark model as a prime example. It also highlights the transition from benchmark models to digital twins, the adoption of a modular development approach and how an integration with AI-based applications expands PSDT capabilities across various domains and services.

Biography

Dr Georgios Konstantinou
Senior Lecturer, School of Electrical Engineering and Telecommunications, UNSW Sydney

Dr Georgios Konstantinou is a Senior Lecturer with the School of Electrical Engineering and Telecommunications at UNSW Sydney where he runs the real-time digital simulation laboratory (RTS@UNSW).

His research is at the nexus of power electronics with power systems working on projects related to multilevel converters, HV and MV DC systems, integration of renewable energy and energy storage systems to grids.

He received his PhD degree from UNSW Sydney, Australia in 2012 and the B.Eng. from Aristotle University of Thessaloniki, Greece in 2007.

Speaker's contact details

Email: g.konstantinou@unsw.edu.au

RSVP via Eventbrite
COB Thursday 20 April 2023