Title: Digitalised, Intelligent, Reliable, Affordable and Sustainable Energy Systems

The ever increasing urgency to decarbonise the electricity grids worldwide necessitates adoption of energy solutions that are environmentally friendly, without compromising security, availability and reliability of supply and at an affordable cost for all. Integrating sustainable energy generation at large scale such as wind and solar photovoltaic systems with electricity grids requires paradigm shift in thinking due to the nature and complementarity of the resources. The continuous evolution of the loads to being transformed to electronic ones and the forthcoming electrification of the transportation sector present new challenges and opportunities for system integration. If that was not enough as a challenge, energy storage is progressing nicely to complete the ever-changing landscape of modern electricity grids albeit it is still an expensive proposition at this stage. These disruptive technologies also need new components and new system design, management and operation approaches. In a digital society, where information. connectivity and machine intelligence prevail, everything is challenged including the way electricity is generated, traded, exchanged and utilized and everyone’s role is redefined. This keynote speech will discuss an innovation framework required to deliver society's expectations for the technologies of the future digitalised, intelligent, reliable, affordable, and sustainable energy systems.