

Distinguished Lecturer Program on Industry Trends and Innovations for the Grid of the Future

21st May 2018, Lecture Theatre 6 (LT6), Engineering Block E4, NUS.

Qualified for 03 PDUs by Professional Engineers Board (PEB)

Registration is mandatory, visit: [https://www.ece.nus.edu.sg/gems/Seminar\(DLP_2\).html](https://www.ece.nus.edu.sg/gems/Seminar(DLP_2).html)

Abstract:

Reliable and efficient electrical grid operation is critical to society. The electrical power and energy industry in the next decades is changing rapidly to meet the demands of the society and address challenges. New technology trends include development of more efficient, reliable, and cost-effective renewable generation and Distributed Energy Resources (DER), energy storage technologies, Electric Vehicles (EV), monitoring, protection, automation, and control devices, and communications that offer significant opportunities for realizing a sustainable energy future. We are at a crossroads in making business and technical decisions that will allow us to optimally and cost-effectively manage the grid.

This lecture will address some of the challenges and opportunities facing modern grids and how industry trends and innovation will shape the future grid. Topics included are:

- Industry Trends and Transformation Drivers
- Opportunities and challenges with distributed energy resources, microgrids, electrical vehicles and the role of storage
- Technologies for the changing nature of the grid
- Need for grid modernization and grid modernization roadmap
- Practical examples of applying storage for various applications, including comparison of wire and non-wire solutions, such as storage, and procedure and tools for identifying cost-benefit analysis
- Education and workforce needs
- Key success factors to prepare for the grid of the future

It will also address how IEEE provides technical leadership by tapping volunteers to offer an unbiased and independent service to the industry, benefiting from synergies between private and public sectors (utilities, vendors, academia, national labs, regulatory organizations, and other industry participants).

Program Schedule:

09:00 – 09:15 – Registration

09:15 – 10:45 – Industry Trends, Transformative Drivers, Opportunities & Challenges

10:45 – 11:00 – Tea Break and Networking

11:00 – 12:30 – Innovations for the Grid for the Future

Speaker Bio:



Dr. Damir Novosel
IEEE PES Immediate Past President
President, Quanta Technology LLC

Damir Novosel is president of Quanta Technology, a subsidiary of Quanta Services, a Fortune 500 company. Previously, he was vice president of ABB Automation Products and president of KEMA T&D US. Dr. Novosel is also an adjunct professors of Electrical Engineering at North Carolina State University. Damir, an IEEE Fellow, is elected to National Academy of Engineers in 2014. He served as IEEE Power and Energy Society President (2016-2017) and Vice President of Technical Activities (2011-2012). He is also a member of the CIGRE US National Committee and received the CIGRE Attwood Associate award. He holds 17 US and international patents and published over 100 articles in Transactions, Journals and Proceedings, receiving IEEE PES 2011 and 2013 Prize Paper Awards. Damir holds PhD and MSc, BSc degrees in electrical engineering from Mississippi State University (where he was a Fulbright scholar), the University of Zagreb, Croatia, and the University of Tuzla, Bosnia and Herzegovina. Dr. Novosel was selected Mississippi State University Distinguished Engineering Fellow in 2015.

Organizers:

