

UNIVERSITA' CAMPUS BIO-MEDICO DI ROMA

Facoltà Dipartimentale di Ingegneria

Not only smart grid: the many links between electronics, software and power systems

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Abstract:

The power system, including generation, transmission, distribution, and utilization of electric power, is the most complex machine ever built. However, many of the subtleties in its inner workings remain hidden but to those directly working in its operation. Even electronic engineers and computer scientists sometimes neglect the many aspects in which information and energy technologies overlap. On the other hand, power engineers sometimes give information technologies for granted, and don't appreciate their specific needs and contributions.

This lecture aims to contribute filling this gap, providing some examples of technological challenges where electronics, computing hardware and software are essential to make power systems work: from control of power electronics to fault protection, from optimization of power plant operations to predictive maintenance. The electrical system can provide computer and software engineers endless problems which are interesting (and fun) to work on, and at the same time give power engineers new directions in which the power grid can evolve.

Short-Bio

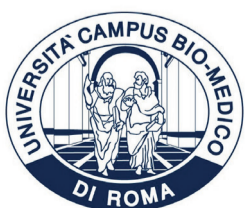
Enrico Ragaini graduated in Electronics Engineering at Politecnico di Milano in 1991, and in 1996 he obtained a PhD in Electrical Engineering from the same institution.

After serving 2 years as a Professor at Universidad de Piura, Peru, he joined ABB, first in Corporate Research and then in the Low Voltage Products division.

He held various positions including Product Manager for Low Voltage Circuit Breakers, focusing on electronic protection units, embedded communication and system supervision. He has then been in charge of Technical Training for the ABB Low Voltage Breakers global factory (2004 - 2010), and then Cyber Security manager for the ABB Low Voltage Products division (2011-2014). He currently is with the R&D of ABB Low Voltage Circuit Breakers and Switches business unit, in charge of Systems and Applications.

He is also professor of Electrical Switching Devices at Politecnico di Milano. His research interests include electrical measurements, protection and supervision systems and applications of digital technology to power systems.

Seminario



Student Branch

Mercoledì 27 novembre 2019 - ore 16:30

Aula R3 - PRABB

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