



Lecture summary in English:

Electric Grid Performance: Challenges and Technological Opportunities

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Providing reliable electricity is an enormously complex technical challenge, it involves: Real-time assessment, control and coordination of electricity production at a great number of generators, moving electricity across an interconnected network of transmission lines, and ultimately delivering the electricity to millions of customers by means of a distribution network. That requires: trained and skilled operators, sophisticated computers and communications, careful planning and design, and deployment of supporting technological equipment and devices, e.g., reactive power compensation, power electronics-based controllers, wide area monitoring, etc.

The talk will touch base of some of the technical challenges and technological opportunities aiming at increased transmission capacity, improved controllability and reliability.