

Preface

The ongoing transition of the electrical power system to a more distributed generation structure demands new ideas and solutions for the design of a safe and reliable energy supply.

We call the NEIS event “Conference on Sustainable Energy Supply and Energy Storage Systems”. That should express that the future power system design demands a sustainable approach with several contributions and ideas from different application fields.

The NEIS 2018 was the sixth conference event, it provides a yearly occasion for scientists to present their current work. It is organised by the Chair of Electrical Power Systems of the Helmut Schmidt University/ University of the Bundeswehr Hamburg. In 2018, the NEIS was technically co-sponsored by the IEEE Germany Section and the German Chapter of the IEEE Power and Energy Society.

I really appreciate the two inspiring keynote speeches of **Prof. Dr. Janusz Bialek** from Skolkovo Institute of Science and Technology (Skoltech) Moscow and **Dr. Wilhelm Winter** from Tennet TSO GmbH in Bayreuth.

Prof. Dr. Janusz Bialek held a speech about “Corrective power system control: stability analysis of Unified Controller combining frequency control and congestion management”.

Dr. Wilhelm Winter talked about „Dynamic and Operational Challenges in future Power Systems“.

Their expertise gave great inputs and impulses to the discussions in the conference sessions. I am grateful for the commitment of the session chairs, the reviewers, the scientific advisory board and the presenting authors. They ensured again the quality of the conference contributions and discussions. Our always very engaged team of scientists and assistants guaranteed a trouble-free course of the conference. Last but not least, I thank the team of the local distribution system operator Stromnetz Hamburg GmbH for the organization of the interesting visit to the modernized 110 kV switchgear station in Hamburg-Jenfeld.

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