

Energy Colloquium

Power Flow Optimization Through Constraints-Aware Machine Learning

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ABSTRACT:

We consider the optimal power flow problem stands for optimal power generation under given generation/line transmission limits. The problem can be viewed as NP-hard non-convex optimization problem. Thus a traditional approach to solve the problem is to write its convex relaxation and then try to come up with a solution of the original problem. The major drawbacks of this way is its bad scalability allows to work with grids of no more than 100 buses and poor accuracy guarantees. In the talk I demonstrate how modern machine learning algorithms helps to overcome both problems and a nice way to use structural information about the problem helps to better learning algorithms.

Non-Skoltech attendees should request access to the building in advance by sending their passport details to energy.colloquium@skoltech.ru

Colloquium schedule and information on how to get to the colloquium can be found at <http://www.skoltech.ru/en/energy-colloquium/>