IEEE PES Subcommittee on Big Data & Analytics for Power Systems
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IEEE BDA Tutorial Series: Big Data & Analytics for Power Systems

Learning to run a power network in a sustainable world
Part II: The RTE competition tutorial

Dr. Benjamin Donnot
RTE

9:00 am-10:00 am, Wednesday, Aug. 19, 2020, Pacific Time
(6:00 pm - 7:00 pm, Wednesday, Aug. 19, 2020, Central European Summer Time)
(12:00 am – 1:00 am, Thursday, Aug. 20, 2020, China Standard Time)

Abstract: On the way towards a sustainable future, this competition aims at unleashing the power of reinforcement learning for a real-world industrial application: controlling electricity power transmission and moving closer to truly "smart" grids using underutilized flexibilities. In track 1, develop your agent to be robust to unexpected events and keep delivering reliable electricity everywhere even in difficult circumstances. In track 2, develop your agent to adapt to new energy productions in the grid with an increasing share of less controllable renewable energies over years.
Keywords: Reinforcement Learning, Control problems, Safe Machine Learning, Representation and Transfer learning, Sample Efficient Learning.

Bio: After a master degree in applied mathematics (statistics) at ENSAE, Benjamin obtained a PhD in computer science at Universite Paris Saclay under the direction of Isabelle Guyon. Benjamin joined RTE as an R&D researcher. One of his roles is to close the gap between Artificial Intelligence academic community and industry: studying and implementing state of the art AI research into power grid as a possible tool to allow energy transition. His interests include open science, power system and machine learning. He has been the lead software developer of the Grid2Op platform and co-organizer of the L2RPN set of competitions.

Link: https://asu.zoom.us/j/5513218843