THE DEPARTMENT OF ELECTRICAL & COMPUTER ENGINEERING SPEAKER SERIES

PRESENTS

AI For Power Systems

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Georgia Institute of Technology, Atlanta, Georgia

Monday, October 30, 2023, 10:00 AM (Houston Time)
ZOOM meeting room (Meeting ID: 976 269 9678 | Passcode: K91Bwy):
https://zoom.us/j/9762699678?pwd=RUp5ZmN3cHUyQ1FvUExVQjVsc1hVUT09

LECTURE ABSTRACT

Artificial Intelligence has the potential to transform every field of engineering, by fusing machine learning, control, and optimization. This talk explores a number of research avenues in this direction, focusing on potential breakthroughs that the two technologies cannot achieve independently. It covers the concepts of optimization proxies, end-to-end learning, self-supervised learning, and compact learning. It illustrates these concepts on large-scale economic dispatch, optimal power flows, unit commitment, and real-time risk assessment.

SPEAKER BIOSKETCH

Dr. Pascal Van Hentenryck is the director of the NSF AI Institute for Advances in Optimization (AI4OPT) and the A. Russell Chandler III Chair and Professor at the Georgia Institute of Technology. Several of his optimization systems have been in commercial use for more than 20 years. His current research focuses on AI for Engineering, fusing machine learning and optimization for applications in energy systems, supply chains and manufacturing, and mobility. Dr. Van Hentenryck is a fellow of AAAI and INFORMS, and the recipients of numerous research and teaching awards. He was also a Ulam fellow at the Los Alamos National Laboratories.