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The Ohio State University

Columbus, Ohio

Date: Friday, Oct. 28, 2022

Time: 1 - 1:50 pm

Location: Melcher Hall 180

Techno-Economics of Decarbonizing Electricity Systems

Abstract: This talk explores two issues in decarbonizing electricity systems. The first is understanding the role of different technologies and technology advances in decarbonizing electricity production while maintaining reliable supply. The second concerns economic and market-design issues that arise from the use of different policy mechanisms to drive decarbonization of the electric power system. To this end, we present and survey the results of capacity-expansion modeling and market-modeling exercises that shed light on these questions.

Biography: Ramteen is a professor in Department of Integrated Systems Engineering and Department of Electrical and Computer Engineering, founding director of the EmPOWERment National Science Foundation (NSF) Research Traineeship (NRT) program, and an associate fellow in Center for Automotive Research at The Ohio State University. His research focuses on the integration of advanced energy technologies, including renewables, energy storage, and electric transportation, into energy systems. He works also in energy policy and electricity-market design, especially as they pertain to advanced energy technologies. He is an IEEE Fellow and served three two-year terms on Electricity Advisory Committee, a federal advisory committee to the U.S. energy secretary, and chaired its Energy Storage (Technologies) Subcommittee.