

IPU ONSITE: INTRODUCTION TO THE POWER GRID

MICHIGAN STATE UNIVERSITY ■ INSTITUTE OF PUBLIC UTILITIES REGULATORY RESEARCH AND EDUCATION

Introduction to the Power Grid (Mitra)

Morning	90 min	Fundamentals of the power grid and grid components <ul style="list-style-type: none">- Grid interconnection, loop flows, balancing authorities, and operation- Abnormal operation and grid protection- Grid reliability and standards- Supply-side efficiency and reliability- Generation capacity expansion and system interconnection- Smart grids- Microgrids
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90 min

Afternoon 90 min

90 min



Joydeep Mitra [mitraj@msu.edu] Prof. Mitra, Associate Professor of Electrical and Computer Engineering. Joydeep Mitra joined the Department of Electrical and Computer Engineering as an Associate Professor. Prior to this appointment he held academic positions at New Mexico State University and North Dakota State University, and was a senior consulting engineer with LCG Consulting, Los Altos, Calif. He acquired his PhD in electrical engineering from Texas A&M University, College Station, and his bachelor's degree, also in electrical engineering, from Indian Institute of Technology, Kharagpur. His research interests include power system reliability and security, and distributed and renewable energy resource planning. He has received research support from electric utilities, Sandia National Laboratories, the Department of Energy, and the National Science Foundation, including an NSF CAREER Award. He is a senior member of the IEEE and contributes to the Power and Energy Society, the Industrial Applications Society, and the Standards Association