



UAA College of Engineering
UNIVERSITY of ALASKA ANCHORAGE



UAA Professional Development Seminar Series

Dynamic Power System Modeling for a Changing Electrical Grid

Presented by Dr. Phylicia Cicilio,
Research Assistant Professor, UAF

Dr. Cicilio will talk about electrical grids, the types of changes they are undergoing, and how dynamic power system modeling is performed in this space. There are numerous scenarios and problems that require dynamic power system modeling to understand their impacts and to develop mitigations, from spinning reserves needed for variable resource smoothing to power system protection to power converter harmonic instability. Understanding the problem space and time frame of these power system scenarios and problems is key to addressing them. This presentation will discuss the different problem spaces ranging from transmission systems to isolated microgrids and their dynamic phenomena whose time step can range from several seconds down to micro-seconds. Examples, tools, models, and who works on these types of problems will be discussed.

Dr. Phylicia Cicilio is a power systems engineer by training and a Research Assistant Professor at the Alaska Center for Energy and Power at the University of Alaska Fairbanks since 2020. Phylicia's interests are in power system dynamics, stability, and reliability with applications in isolated microgrids, rural electrification, and transmission stability with integration of inverter-based resources and distributed energy resources. Phylicia earned her PhD in electrical engineering from Oregon State University in 2020, and during her studies she worked with transmission operators and reliability coordinators in the United States, a minigrd company in Lesotho, and Idaho National Laboratory.

Friday, February 19, 2021

11:45 am-12:45 pm

Online Via [YouTube Live](#)