

Thursday, October 1st

Scaife Hall Auditorium

Room 125

4:30 p.m.

Refreshments at 4:00 p.m.

**Professor Dagmar Niebur****Associate Professor****Electrical & Computer Engineering
Drexel University**

Dagmar Niebur received her Diploma in Mathematics and Physics from the University of Dortmund, Germany in 1984. She received her Diploma in Computer Science (1987) and her Ph.D. in Electrical Engineering (1994) from the Swiss Federal Institute of Technology, Lausanne, Switzerland.

From March 2007 to September 2009 Dagmar Niebur served as a Program Director for the Power, Controls and Adaptive Networks (PCAN) Program of the Electrical, Communications and Cyber Systems (ECCS) Division in the Directorate for Engineering (ENG) at the National Science Foundation. Her responsibilities within the PCAN program included Power and Energy Networks as well as Alternate Energy Sources.

Dr. Niebur was at NSF on an IPA assignment from Drexel University, where she served as the assistant department head of planning and development from September 2004-March 2007 and where she is an associate professor in the Department of Electrical and Computer Engineering. Prior to her position at Drexel, she held research positions at the Jet Propulsion Laboratory, Pasadena, CA, and the Swiss Federal Institute of Technology as well as a computer engineering position at the University of Lausanne.

Her research has been funded by the National Science Foundation, the US Department of Energy, the Office of Naval Research and others. Awards and honors include the NSF CAREER award in 2000 and the Drexel ECE Research Achievement Award in 2002.

As an active member of IEEE she currently serves as associate editor of the IEEE Transactions on Power Systems. Other international conference and committee activities include technical vice-chair and proceedings editor of the International Conference on Intelligent Systems for Power Systems 2005 and 2007 and associate editor for the 2009 and 2010 American Control Conference. She is a member of the Editorial Advisory Board of the International Journal of Engineering Intelligent Systems for Electrical Engineering and Communications.

Electric Power Managements for Microgrids

Microgrids are electric power networks comprising of distributed generation, controllable loads and energy storage devices that can operate in interconnected or stand-alone mode with advanced sensing, control and communication technologies for enabling a 'smart' grid operation. Distributed energy management including dynamic reconfiguration is viewed as an essential technology for realizing the smart grid infrastructure. The discrete switching and continuous dynamics can be effectively described in the hybrid systems framework. This talk discusses the design of optimal control systems for hybrid systems, for dynamic reconfiguration of microgrids.

ECE Seminar HostsJeyanandh Paramesh paramesh@ece.cmu.eduOnur Mutlu onur@cmu.eduGabriela Hug ghug@ece.cmu.edu