

# Special Seminar



## Smart Grid Cyber Security

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2:00 PM Hamerschlag D210

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### ABSTRACT:

In recent years, evaluating smart grid cyber-physical security has become a critical research direction due to several recent cyber-attacks in different countries. Cyber-attacks can affect operations and decision-making at energy management systems. They can effectively destroy the critical components or even shut down power system operations. Inaccurate information can trigger inappropriate actions by the operators. Cyber-attacks can either directly target a power component of the smart grid system or can be triggered indirectly through the communication network. In this talk, I will discuss (i) a tool to assess cyber-physical security for situational awareness, and (ii) solutions to defeat cyber-attacks over the smart grid and vehicle-to-grid networks.

### BIO:

Neetesh Saxena is working as a Post-Doctoral Researcher in the School of Electrical and Computer Engineering at Georgia Institute of Technology. Prior to this, he was with the Department of Computer Science, The State University of New York (SUNY) Korea, South Korea as a Post-Doctoral Researcher and a Visiting Scholar at the Department of Computer Science, Stony Brook University. He earned his PhD in Computer Science and Engineering from Indian Institute of Technology, Indore, India. In 2013-14, he was a Visiting Research Student and a DAAD Scholar at Bonn-Aachen International Center for Information Technology (B-IT), Rheinische-Friedrich-Wilhelms Universität, Bonn, Germany. He was also a TCS Research Scholar during Jan. 2012 - Apr. 2014. He works in the area of security and privacy. His current research interests include cyber security and cyber-physical security in the smart grid network, vehicle-to-grid security and privacy, security and privacy in the cellular networks, and secure mobile applications. He is an editorial member of Springer Plus and a reviewer of several international journals and conferences, such as IEEE TMC, IEEE TC, IEEE SJ, IEEE TII, IEEE WOCN, IEEE ICUFN, etc. He also serves as a TPC member of IEEE SmartGridCom'16, IEEE TrustCom'16, IEEE TENCON'16, IEEE WiMob'16, IEEE PIMRC'16, and IEEE/CIC ICC'16. He has published several research papers in international peer-reviewed journals and conferences. He is a member of IEEE and ACM.