



**THE EMRSSS AREA SEMINAR
(EE 500 GRADUATE COLLOQUIUM)
Fall 2009**

You are cordially invited to

The EMRSSS Area Seminar

Entitled

**“Developing a Ubiquitous Infrastructure for
Smart Space Initiatives”**

By

Dr. Chao-Hsien Chu and Zang Li

The talk will take place on

**September 29, 2009
4:00 pm**

At

225 EE West Building

Talk Abstract:

In this presentation, we will first survey the issues related to smart spaces research, based upon which we justify the need to develop an ontology and infrastructure for smart spaces project. We will then discuss and demonstrate the ubiquitous infrastructure, Sensip that we developed for smart spaces initiative. The key elements that we examined include (1) the ontology for specification and information sharing, (2) the middleware for data and device management, (3) the complex event processor (CEP) for data fusion, processing and inference for timely action, and (4) the VoIP / SIP technologies to communicate and pull/push information by text, voice, map, etc. Finally, we discuss the potential applications that can use the proposed infrastructure and prototype.

Speaker's Bio:

Chao-Hsien Chu is a Professor of Information Sciences and Technology (*IST*), Professor of Management Science (affiliated with the Smeal College of Business), Senior Academic Director of the Online Program, Director of the Center of Information Assurance, and Director of the Radio Frequency Identification (*RFID*) Lab at the College of *IST*, The Pennsylvania State University (Penn State), USA. His current research focuses on (1) Information Assurance and Security, especially in wireless security, privacy preserving data mining, cyber forensics and risk management; (2) *RFID* Technologies and Applications, especially in enterprise integration, security and privacy issues, and their applications in supply chain, healthcare/hospitals and smart spaces; (3) Emerging Information/ Intelligent Technologies, especially for communication networks design, data mining, and business intelligence; and (4) Operations and Technology Innovation, especially in cellular manufacturing, lean manufacturing, strategic quality management, supply chain integration and supply chain management. He has published more than 150 papers in top-tier journals and major conference proceedings, has served as editorial review board for more than 10 journals and as program committee member or track chair for more than 25 international conferences.

Zang Li is a Ph.D. candidate in Information Sciences and Technology at Penn State. Prior to start his doctoral study, he spent one year in China Mobile Communication Co., Ltd working on technology planning issues. Li received a Master of Science in computer sciences from Peking University and a Bachelor of Science degree in material sciences from the University of Sciences Technology Beijing, China. Li's research interests are in Human Sensing / Smart Space, RFID / Wireless Sensor Network Deployment, VoIP/IMS, Peer-to-Peer / Grid Computing, Software Engineering, Data Mining, XML Query and Access Control, and Supply Chain Optimization.