

# Welcome

Seminar Series of the Department of Computer Science Electrical Engineering  
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## Dynamic Data Replication Schemes for Mobile Ad-hoc Network Based on Aperiodic Updates

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### Abstract

Traditional replication schemes are passive in nature, and rarely consider the characteristics of mobile ad hoc network environment. This talk will present three dynamic data replication schemes for mobile ad-hoc networks. It proposes replication algorithms by considering aperiodic updates and integrating user profiles consisting of mobile users' mobility schedules, access behavior and read/write patterns. These schemes actively reconfigure the replicas to adjust to the changes in user behavior and network status. The talk will discuss replication algorithms and their performance in an environment where data items are updated aperiodically. The talk also considers the frequency of access to each data objects from mobile hosts and the status of network connection. Some new consistency measures in this new environment will also be presented.

**Bio:** Sanjay Kumar Madria received his Ph.D. in Computer Science from Indian Institute of Technology, Delhi, India in 1995. He is an Associate Professor, Department of Computer Science at the University of Missouri-Rolla, USA. Earlier he was a Visiting Assistant Professor in the Department of Computer Science, Purdue University, West Lafayette, USA. He has also held appointments at Nanyang Technological University in Singapore. He has published more than 120 Journal and conference papers in the areas of mobile and sensor data management. He has organized International conferences, workshops and presented tutorials in the areas of mobile computing. He has given invited talks and served as panelists in National Science Foundation, USA and Swedish Research Council. His research is supported by NSF, DOE, UMRB and industrial grants for over \$1.6M. He was awarded JSPS fellowship in 2006. He is IEEE Senior Member and IEEE CS Distinguished Speaker.