

Stony Brook News

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For Immediate Release

NSF Funds Project Exploiting Spatial and Channel Diversity in Ad Hoc Networks

Computer Science professor Samir Das receives \$229,991 to fund a wireless communications project that will exploit spatial and channel diversity in ad hoc networks to optimize multi-path routing and forwarding.

STONY BROOK, NY - July 28, 2003 Computer Science professor Samir Das receives \$229,991 from the National Science Foundation for a wireless communications project that will exploit spatial and channel diversity in ad hoc networks. Mobile ad hoc networks are multi-hop wireless networks, with dynamically changing network topology. This project investigates improving network capacity via the exploitation of a combination of spatial and channel diversity. For spatial diversity multi-path routing techniques will be developed, where multiple disjoint routes will be computed on demand in a distributed fashion. Multiple routes not only provide a higher degree of fault tolerance, but also a better load balance. For channel diversity, multi-channel multiple access protocols will be developed that reduce interference between multiple transmitting nodes in radio vicinity, making multi-path routing and forwarding more effective.

This important research program comes at a critical time for Stony Brook's newly unveiled Center of Excellence in the Wireless Internet and Information Technology proclaimed by Governor Pataki on August 2, 2002 at a special press conference at Stony Brook University. The industry-driven Center represents a total investment of \$230M from state, federal and private sources and is expected to create thousands of high tech jobs throughout New York State.