

**School of Computer Science
M.S. Thesis Defense**

**By
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**Internet Connectivity for IPv6-Based Mobile Ad Hoc
Networks using Cross-Layer Approach**

ABSTRACT

A mobile ad hoc network (MANET) is a self-organizing network where mobile nodes can communicate with each other over multiple hops. In remote regions, MANETs are used because wireless infrastructure network is difficult to setup for maintaining communication over large areas. With the advent of the Internet, necessity for global communication is also becoming a core requirement for MANETs. Therefore, Internet connectivity in MANETs has received significant attention in the past few years. Routing packets efficiently within and outside a MANET is a challenge and much effort has been given to the design of routing protocols to achieve higher packet delivery ratio (PDR) over Intra-MANET (packet traveling within MANET) and Internet-MANET (packets traveling between MANET and Internet) traffic. However, most of these routing protocols use information available at the network layer to route packets. In this work, we have designed a cross-layered routing protocol by exploiting the information gained at the link layer in addition to the information available at the network layer to achieve higher PDR compared to existing protocols.

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Time: 10:30 a.m.

Place: Carson Engineering, room 101

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Dr. S. Radhakrishnan
Dr. K. Thulasiraman**