Institute for Integrated and Intelligent Systems (IIIS) and School of Information and Communication Technology (ICT) is pleased to present the SEMINAR on

"Improving the Performance of Internet by Enhancing the Routing Process"

CH. V. Satyanarayana

**Time** 12.00 midday  
**Date** 6th October 2010  
**Venue** G16 1.16 Gold Coast campus Griffith University.

**Abstract:** In recent years, Internet has emerged as the basis for day to day communications services. This demands high performance, reliability, scalability and availability of the Internet. The increase in bandwidth of last mile and huge demands for content rich applications has created bottleneck in middle mile. In addition, the most serious challenges the middle mile presents today is availability and reliability issues such as loss of path, failure of nodes, distributed denial of service (DDoS) attacks. A disruption of a link or node in the middle mile can disrupt thousands of connection oriented (TCP) sessions. Most of the network failures are short lived and quick triggering of the re-convergence process can cause route flapping with increased network instability. To avoid unnecessary routing update messages, Border Gateway Protocol (BGP) damps routing updates when potential problems arise. As a result BGP fault recovery mechanisms take many more minutes before routes converge to a consistent state. During this convergence period, packets may be dropped due to invalid routes. The result is that BGP is susceptible. Hence, the key to improving the performance of Internet lies in finding better routes for destinations with invalid routes in case of disruptions. Although, a number of studies have been carried out in optimizing the convergence of BGP routing, the convergence time remains too large for real time applications. This study focuses on improving the BGP convergence process and minimizing the effect of disruptions during the convergence process to enhance the performance of the Internet.

**Bio:** He has completed BE degree from Anna University in India and presently enrolled for a Masters (with Honours) program in the School of Information and Communication Technology at Griffith University.

Light refreshments provided.

**RSVP** to Seminar Coordinator **Dr V. Muthukumarasamy** for catering purposes. Cost: Free Lecture, Telephone: (07) 5552 8256, Email: v.muthu@griffith.edu.au