Conference Report: Networks and Communication Systems (NCS 2005)
Krabi, Thailand, 18-20 April 2005

Mayank Keshariya

I wish to express my sincere thanks to the University of Canterbury and Lucent Technologies, whose cooperation and generous funding offered me a chance to attend and present our research papers at Networks and Communication Systems (NCS 2005) at Krabi, Thailand, a Multinational conference organised by the International Association of Science and Technology for Development (IASTED), Canada, 18-20 April 2005.

The conference mainly focused towards research in Wireless Networking, Network Security and Telecommunication Technologies, which was very relevant to my present research area and interest. With Associate Prof. Ray Hunt, we presented two research papers: 'Implementation of an Integrated Secure Mobile Wireless Architecture' (464-057) and 'Proposal for an Automated Algorithm for Optimised Handoff in Integrated Wireless Networks (464-058). These papers primarily focus on providing transparent and smooth handoff between WLAN and CDMA2000 interfaces .

We presented the results of an optimised system while providing security and authentication to Hotspot users and Road Warriors (464-057). Also, we presented an algorithm and introduced other parameters for deciding optimum network and optimum time for the handoff to provide Always Best Connected state (464-058). Our test results and improved handoff performance in throughput and reduced dropped packets, received a warm welcome.

The quality of research work and the presentation style was appreciated during the conference. There was an extensive questionnaire session for both the papers and various researchers expressed their interest. Similar research ideas such as reviewing different layers for communications, use of IPv6 and introducing real time traffic, might provide us a better direction to proceed further. We also received an invitation to write a paper for a special edition on Mobile Communications from Prof. D. Al-Dabass, Editor-in-Chief, International Journal of Simulation Systems, Science and Technology, Nottingham, UK.

During the conference, we came across various other similar research works. Keynote presentation on 'Ubiquitous Broadband Mobile Communications' covering 4G technology was of particular interest. Other research works on adhoc networking, a new approach to authentication and security for mobile networks and, CDMA communication systems, was exciting and gave a larger scope to review our research work. Exchange of academic ideas with many researchers, especially with Dr. Varadharajan (Australia) on SNOOP, Dr. Misra (India) on simulated CDMA environment and Dr. Lee (Korea) on different authentication model, is a benefit. We are going further to interact with Dr. Winston and Dr. Tanks (Singapore) to precede our research work towards introducing policy based network management.

Tutorial presentation by my colleague Ray Hunt on 'Security in Wireless and Mobile Networks', received particular interest. It extensively covers different security issues for wireless networks and critically analyses various presently available solutions. The tutorial was particularly useful to understand different aspects of security in wireless networking and various issues to practically deploy them. Also, my colleague Mark Gu presented a paper on 'WLAN attacks and Vulnerabilities', which covers various practical attacks on wireless networks and exposes the security threats.

Summarising, the conference was of a particular interest and certainly gave me excellent guidance. The presented papers were of high research quality. Their research material, presentation style, comments and discussions with other researchers, proved to be very beneficial for the quality of my research work.