

Koojana Kuladinithi

Nationality

Sri Lankan

Contact Details

ComNets, University of Bremen,
Otto-Hahn-Allee (FB1),
D-28359, Bremen, Germany
Tel. +49 421 218-8264
Fax. +49 421 218-3601
Email. koo@comnets.uni-bremen.de
WWW: <http://www.comnets.uni-bremen.de/~koo>

Education

2002 - Present Day - University of Bremen, Germany

- PhD on Network layer solutions for mobility management in IP centric networks: specific focus on Mobile IP and Ad-hoc networking to cater for multi-paths. Expected time of completion 2006

2002 - University of Moratuwa, Sri Lanka

- M. Eng in Electronics & Telecommunications
- Highest average in the batch for the taught course

2000 Chartered Institute of Management Accountants (CIMA) - Stage I

- Two (2) A s & Two (2) Bs

1998 - University of Moratuwa, Sri Lanka

- B.Sc. Eng. (Honors) in Electronics & Telecommunication Engineering
- Second Upper Class (GPA. 3.71)

Research Experience

Sound knowledge of the Internet Protocol suite specializing in Mobile IP and Ad hoc routing protocols. Experience with designing and implementing protocol handlers for above specialized protocols in Linux and MS Windows platforms. Skills on using network utilities (tcpdump, ethereal, iperf, web100) for performance analysis and evaluation of these protocols and suggesting improvements through the Internet Engineering Task Force (co-author of multiple IETF drafts)

Research Projects

2002 - 2004 European Union funded NOMAD Project

- Designed, implemented and continues to maintain a mobile test-bed for the NOMAD project. Mobile test-bed is used to demonstrate the Mobile IP and ad hoc networking capabilities and performance analysis of TCP/UDP. It consists of a set of notebooks and PDAs. The network is configured to use and perform handoffs between homogeneous and heterogeneous bearer technologies (Ethernet, 802.11b, GPRS, UMTS and GSM)

2000 – 2002 Graduate Projects

Main Project

- *Enabling Wireless Banking*: In this project, A WAP based prototype banking application was designed and developed for the

Commercial Bank of Ceylon, in Sri Lanka. Application was developed based on a set of Java servlets. Finally, two deployment options of the developed solution were evaluated in terms of commercial as well as technical feasibility. The first deployment option was based on WAP gateway with the mobile operator and was tested successfully on a real environment made available by the mobile operator, Dialog GSM in Sri Lanka

Mini Projects

- *Location Based Services*: This is the submission of a detail analysis of technologies and applications currently in use for location based services.
- *Calculation Tool for Terrestrial & Satellite Links*: Developed a suite of computer programs in Microsoft Visual Basic and Crystal Report to compute and display information related to Terrestrial & Satellite Links, which was used by Sri Lankan Airport & Aviation Authority.

1997 Undergraduate Project

- Analysis of a thin wire antenna of arbitrary shape: This was implemented as a software package using C language and MathLab. When a user feeds thin wire antenna dimensions (geometry, diameter of wire), the package will provide radiation pattern of the antenna and its input impedance.

Computer Literacy

- Research experience on Linux and Windows based programming, specifically in the area of networking
- Working experience in developing applications to be executed on Windows/Windows NT based environments, using SQL Server/Oracle as the database engine accessed through ODBC, implemented using object-oriented technologies such as Visual Basic, Object COBOL & DCOM
- Programming Languages, C/C++, Pascal, Java, Visual Basic, Object COBOL, Crystal Reports
- WML, HTML, XML

Working Experience

2002 – Present day Research Associate, University of Bremen, Germany

- Involved in NOMAD and WearIT@Work EU projects in the area of technical research related to networking and mobility support in wearable computing environment.
- Supervision of ICT MSc student master/mini projects
- Lab instructing and demonstration of IP testbed

2001 - 2002 Temporary Lecturer, University of Moratuwa, Sri Lanka

- Conducting an undergraduate course in sensors for 2nd year mechanical engineering students
- Java course for final year electronics engineering undergraduate students
- Supervising labs in computer and electronics

1997 - 2000 Systems Engineer, DMS Software Engineering (pvt) Ltd, Sri Lanka

- Held the position of Product Support /Development Team Leader for the Leasing Application of DMS-CuPROBE, the Financial Services Environment designed and developed by DMS Software

Engineering

- Held the responsibility of total management of leasing system from customer interaction to final product implementation
- Extensive involvement on systems implementation management as Team Leader in business systems study, acceptance testing & implementation of the Leasing system at DFCC, People's leasing & Bank of Ceylon
- Product design & development Team Leader for the Leasing system & other secondary systems of DMS CuPROBE such as Inward Clearing & Treasury Bill/Bond Bidding
- Extensive involvement on conversion of DMS CuPROBE to year 2000 compliance
- Involvement in setting documentation standards for all system activities of the Leasing system

Professional Affiliations

Member of the Institute of Electrical and Electronics Engineers (IEEE)

Languages

Native Sinhalese speaker, Excellent knowledge of using English both written and oral and Basic knowledge of German

- 2003 Grundstufe III , Goethe Institute
- 2001 TOEFL – 213 (Computer Based Test)

Scholarships & Awards

- 2000 – ADB (Asian Development Bank) scholarship to continue M.Eng at University of Moratuwa, Sri Lanka, on full time
- 1990 – Gold Medal for the Best Student of Advance Level – Southlonds College, Galle, Sri Lanka
- 1994 – 1996 University colors for Netball, Basketball & Rowing

Interests

Reading, trying to learn in-line skating

References

Mrs. Carmelita Görg,
Prof. Dr. rer. nat. habil,
ComNets, University of Bremen,
Otto-Hahn-Allee (FB1),
D-28359, Bremen, Germany

Tel. +49 421 218-2277

Fax. +49 421 218-3601

Email. cg@comnets.uni-bremen.de

Publications

- K. Kuladinithi, A. Udugama, C. Görg, On demand self organising ad hoc networks - Implementation architectures, 12th WWRP meeting 2004, Toronto, Canada, Nov 2004
- K. Kuladinithi, A. Udugama, N.A. Fikouras, A. Timm-Giel, C. Görg, Experimental Evaluation of AODV Implementations, CEWIT 2004, New york, USA, Oct 2004
- N. A. Fikouras, K. Kuladinithi, C. Görg, C. Bormann, A. Timm-Giel, Multiple Access Interface Management and Flow Mobility, 13th IST Mobile and Wireless Communications Summit 2004,

Lyon, June 2004

- K. Kuladinithi, A. Timm-Giel, and C. Görg. Mobile Ad hoc communication in AEC Industry. IT-Con Journal 2004, published in April 2004.
- K. Kuladinithi, N. A. Fikouras, A. Könsgen, A. Timm-Giel, and C. Görg. Enhanced Terminal Mobility through the use of Filters for Mobile IP. In Proceedings of the Summit on Mobile and Wireless Communications (IST Summit), Aveiro, Portugal, June 2003. IST.
- K. Kuladinithi, A. Timm-Giel, and C. Görg. Potential Productivity Gains in the Field through Wireless Technologies. In Proceedings of the Tenth International Conference on Concurrent Engineering: Research and Applications (CE), Madeira, Portugal, July 2003.
- K. Kuladinithi, A. Könsgen, S. Aust, N. Fikouras, C. Görg, and I. Fikouras. Mobility Management for an Integrated Network Platform. In Proceedings of the Mobile and Wireless Communications Networks Conference (MWCN 2002), Stockholm, Sweden, September 2002.
- I.J. Dayawansa, J.A.K.S. Jayasinghe, M.T. Ranasinghe, K. Kuladinithi, U.A.C. Piyaratna, "Analysis of Thin Wire Antenna of Arbitrary Shape", Transactions of the IEE Sri Lanka Centre, Volume 2, December 1997

Tutorials

- K. Kuladinithi and C. Görg. Tutorial on Mobile Ad hoc Networks. 1st Regional Conference on ICT and E-paradigms, Colombo, Sri Lanka June 2004

Internet Drafts

- N. A. Fikouras, A. Udugama, K. Kuladinithi C. Görg and W. Zirwas. Filters for Mobile IP Bindings (NOMAD). Internet Draft, draft-nomad-mobileip-filters-05.txt, Work in Progress, October 2003.
- K. Kuladinithi, N. A. Fikouras, and C. Görg. Filters for Mobile IPv6 Bindings (NOMADv6). Internet Draft, draft-nomadv6-mobileip-filters-02.txt, Work in Progress, May 2004.
- K. Kuladinithi, N. A. Fikouras, and C. Görg. Filters for Mobile Ad hoc networks (NOMADHOC). Internet Draft, draft-nomadhoc-manet-filters-01.txt, Work in Progress, May 2004.
- N. A. Fikouras, K. Kuladinithi, C. Görg and C. Bormann. Mobile IPv4 Flow Mobility Problem Statement. Internet Draft, draft-nomad-mip4-flow-mobility-problem-statement-00.txt, Work in Progress, February 2004.
- T. Ernst, N. Montavont, R. Wakikawa, E. Paik, C. Ng, K. Kuladinithi and T. Noel. Goals and Benefits of Multihoming. Internet Draft, draft-ernst-generic-multihoming-pb-statement-00.txt, Work in Progress, July 2004.