

B. H. W. M. VIDARSHANA W. BANDARA (MEMBER IEEE)

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EDUCATION

- Current **Doctoral** student, **Electrical and Computer Engineering**, Colorado State University, Fort Collins, Colorado, June 2008 to date, current **GPA 3.947** (coursework completed)
Dissertation advisors: Prof. Anura Jayasumana and Asst. Prof. Ali Pezeshki
Courses: Digital Signal Processing, Topics in Signal Processing, Information Theory, Applications of Random Processes, Linear Programming and Network Flows, Internet Engineering
- **Master's, Computer Science**, St. Cloud State University, St. Cloud, Minnesota, January 2007 – May 2008, **GPA 3.83**
Thesis advisor: Prof. Jayantha Herath
Thesis topic: Performance Analysis of Zonal Rumor Routing
Courses: Advanced Computer Architecture, Advanced Concepts in Operating Systems, Computer Networks, Computer Security, Artificial Intelligence, Theory of Computation
- **BSc.Eng(Hons), Electrical and Electronic Engineering**, University of Peradeniya, Sri Lanka, January 2001 – February 2005, **GPA 3.54**, First Class (Honors)

EMPLOYMENTS

- **Graduate Assistant** (Research and Teaching) (June 2008 to date), Department of Electrical and Computer Engineering, Colorado State University
– Conducted lab sessions and lectures, designed labs and homework, graded reports and homework for ECE658 - Internet Engineering, ECE456 - Computer Networks, ECE102 - Digital Circuit Logic
- **Teaching Assistant** (January 2007 to May 2008), Computer Science, St Cloud State University, Minnesota
– Conducted lectures and lab sessions, graded exams and homework for CS169 - Computers in Society
- **Temporary Assistant Lecturer** (September 2005 to December 2006) and **Temporary Instructor** (from March 2005 to August 2005), Computer Engineering, University of Peradeniya, Sri Lanka
– Conducted lectures, lab sessions and graded for CO511 - Advanced Computer Networks, CO302 - Computer and Data Networks, CO204 - Digital Design, QE106 - Introduction to Programming
– Administered the department computer network
– Involved in purchases and tender procedures
- **Pre-University Research Assistant** (May 2000 to September 2000) under Prof. Asiri Nanayakkara, Computer-aided Mathematics and Physics Department, Institute of Fundamental Studies, Sri Lanka

TECHNICAL EXPERIENCES

- Programming skills:
 - C, C++, Java, Python
 - Network programming projects: developing a peer-to-peer system (MSc), simulating network layer and transport layer functions (PhD)
 - A simulator for Zonal Rumor Routing (MSc)
 - Kernel hacking to alter i-nodes in Minix (MSc)
 - Programming telos motes and FPGA (PhD)
 - Scripting in MATLAB[®] and Mathematica[®]
- Unix and Windows network administration
 - FreeBSD based network servers for a Linux+Windows network
 - Unix (Linux/BSD) SAMBA, OpenLDAP, BIND9, Apache, Dovecot, SendMail, PostFix servers, Gentoo Linux IPv6 software routers
 - Windows server 2008

- Experience gained during teaching assistantship
 - Programming Altera boards with Quartus II
 - Linux and Windows networking tools

PUBLICATIONS

Journal Publications:

1. V. Bandara, A. P. Jayasumana, A. Pezeshki, T. H. Illangasekare and K. Barnhardt, "Subsurface Plume Tracking Using Sparse Wireless Sensor Networks," *Electronic Journal of Structural Engineering (EJSE) - Special Issue: Wireless Sensor Networks and Practical Applications*, Dec. 2010.
2. Asiri Nanayakkara and Vidarshana Bandara, Asymptotic Behavior of the Eigenenergies of Anharmonic Oscillators $V(x)=x^{2N} + bx^2$, *Canadian Journal of Physics/Revue Canadienne de Physique*, vol. 80, issue 9, Sep 2002, p959.
3. Asiri Nanayakkara and Vidarshana Bandara, Approximate energy expressions for confining polynomial potentials, *Sri Lankan Journal of Physics*, vol. 03, 2002, p17.

Conference Proceedings:

1. V. Bandara, and A. P. Jayasumana, "Extracting Baseline Patterns in Internet Traffic Using Robust Principal Components," *Proc. 36th Annual IEEE Conference on Local Computer Networks (LCN)*, Bonn, Germany, Oct. 2011.
2. V. Bandara, A. Pezeshki, and A. P. Jayasumana, "Modeling Spatial and Temporal Behavior of Internet Traffic Anomalies," *Proc. 35th Annual IEEE Conference on Local Computer Networks (LCN)*, Denver, CO, Oct. 2010.
3. V. W. Bandara, A. C. Vidanapathirana, and S. G. Abeyratne, "Contouring with DC Motors - a Practical Experience," *Proc. First International Conference on Industrial and Information Systems*, Aug. 2006, pp474-479.

Demonstrations:

1. V. Bandara, A. Pezeshki, and A. P. Jayasumana, "A MATLAB® Toolkit for Spatial and Temporal Analysis of Network Traffic Anomalies and a Simulator/Emulator for Network Traffic Anomalies," *35th Annual IEEE Conference on Local Computer Networks (LCN)*, Denver, CO, Oct. 2010.
2. Vidarshana Bandara, Roshan Godaliyadda, Duminda Ariyasingha, Newton Perera, and Aruna Gunawardena, Far Field Antenna Test Range, Annual Technical Conference - IEE Younger Members Section – Sri Lanka, 2004.
3. Vidarshana Bandara, Lasantha Jayathilaka, and Sunil Abeyrathna, PC Based Flame Cutter, Annual Technical Conference - IEE Younger Members Section – Sri Lanka, 2004.

COMMUNITY SERVICES

- Ayubowan Sri Lanka Organization, St. Cloud State University. Organized meditation programs, Sri Lankan culture sharing events, every semester.
- CSITTS (Computer Science and IT Talent Search), the largest IT and CS competition held in Sri Lanka.
- Organized Godfrey Scott memorial all-island (Sri Lanka) Physics quiz for two years.

REFERENCES

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 Relationship: Dissertation advisor

Prof. Jayantha Herath
 Head of the Department
 Computer Science, ECC-259
 St. Cloud State University, St. Cloud, MN 56301
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 Fax: 320-255-4269
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 Relationship: Thesis advisor