

Subrata Acharya

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RESEARCH INTERESTS

Networks, Security and Distributed Systems

EDUCATION

2004-Current	University of Pittsburgh	Pittsburgh, PA
	Doctoral Candidate in Computer Science	
	GPA 3.80/4.00	
2002-2004	Texas A&M University	College Station, TX
	M.S. in Computer Sc., Major: Computer Engineering	
	GPA 3.90/4.00	
1997-2001	University College of Engineering	Burla, India
	B.Engg.(Hons), Computer Science and Engineering	
	GPA 4.00/4.00	

PUBLICATIONS

PATENTS

Methods and Apparatus for Optimizing a Firewall, Subrata Acharya, Jia Wang, Zihui Ge and Albert Greenberg, US patent pending, June 2006.

REFERRED JOURNALS

A Dynamic Slack Management Technique for Real-Time Distributed Embedded System, with R. N. Mahapatra, IEEE Transactions on Computers, 2006.

A Partitioning Algorithm for Power constrained Reconfigurable Real-Time Systems, with Pramod K. and R. N. Mahapatra, Journal of Microprocessor and Microsystems, 2005.

CONFERENCES

OPTWALL: A Traffic-Aware Hierarchical Firewall Optimization, accepted to Network and Distributed Systems Symposium, 2007.

Traffic Aware Firewall Optimization Strategies, S. Acharya, J. Wang, Z. Ge, A. Greenberg, T. Znati, in the IEEE International Conference on Communications, Istanbul, Turkey, June, 2006.

Simulation Study of Firewalls to Improve Performance, S. Acharya, J. Wang, Z. Ge, A. Greenberg, T. Znati, 39th Annual Simulation Symposium, Alabama, April, 2006.

A Traffic Aware Framework and Optimization Strategy for Large Scale Enterprise Networks, S. Acharya and J. Wang and Z. Ge and T. Znati and A. Greenberg,

Computer Science Dept., Univ. of Pittsburgh, Pittsburgh, PA, September 2005.

AWARDS AND ACHIVEMENTS

Selected to participate in 1st Google Workshop for Women Engineers, California, 2006.

Best Incoming Doctoral Student Fellowship, Department of Computer Science, University of Pittsburgh, 2004-2005.

Outstanding AHF Fellowship, Department of Computer Science, Texas A&M University, 2003-2004.

Secured 92 percentile in English Proficiency Examination, Texas A&M University, 2003.

Ranked 1st amongst all undergraduates (1200), University College of Engineering, Burla, India, 1997- 2001.

Talent Scholar, National Talent Search Examination, India, 1995-1997.

Ranked 21st in national level amongst 50,000 students in Higher Secondary Examination, India, 1997.

PROJECTS

Dynamic Collaborative Defense Model for Enterprise Networks, University of Pittsburgh, Fall /2006-onwards.

Centralized and Hierarchical Firewall Optimization, with AT&T Research Labs, NJ, Fall/2005-Summer/2006.

Automatic Stress Testing for BGP implementation, with Dr. Hui Zhang, CMU, 2004/Fall-onwards.

Joint project with IBM Austin Research Lab, Austin, working with Dr. T. Chen on Networks on Chip design, 2003/Summer- 2003/Fall.

Trust Management Model for the design of Wireless Adhoc Networks for Secure-CITI project, University of Pittsburgh, 2004/Fall-2005/Spring.

Implementation of cluster based ad-hoc networking environment for low Power devices, Secure-CITI , Univ. of Pittsburgh, 2004/Fall – 2005/Spring
Provide efficient search methods for pattern matching using TCAM cells, TAMU, 2004/Summer.

Master's Thesis: A Dynamic Slack Management Technique for Real-Time Distributed Embedded System, TAMU, 2003/Fall - 2004/Summer.

An Adaptive Branch History Guided Prefetching Scheme, TAMU, 2004/Spring.

Maintaining Peak-Power Constraints with Energy Efficient Scheduling in Distributed Real-Time Embedded Systems, TAMU, 2003/Fall.

Delay and Power Analysis and Implementation on Network On Chip, TAMU, 2003/Summer-2003/Fall.

Dynamic Memory Management for Real-Time Applications on SoCs, TAMU, 2002/Fall.

Dynamic Scheduling of Traffic for Improvement in Power Performance Characteristics, TAMU, 2003/Spring.

iSCSI Performance Measurement, TAMU, 2003/Spring.

Design of a Real Time Scheduler, TAMU, 2002/Fall.

IP Address to Geographical location mapping tool, TAMU, 2002/Fall.

Software Reliability Prediction Using Artificial Neural Networks, UCE Burla, 2001/Spring.

ACADEMIC

EXPERIENCE

Instructor for Teaching Languages Institute (TLI) program for Minority African Americans, Summer 2006.

Graduate Research Assistant, Fall 2005, working on Firewall Optimization, Joint project with AT&T Research Labs, NJ.

Teaching Assistant, Graduate Networks, Fall 2005.

Teaching Assistant, Operating Systems for Undergraduates at University of Pittsburgh, 2004/Fall.

Teaching Assistant, Computer Architecture (MIPS Assembly, Verilog) for Undergraduates at TAMU, 2002/Fall-2004/Summer.

Graduate Researcher in Computer Science Department -Texas A&M University, under Prof. R. N. Mahapatra, working in the field of real time scheduling and power aware System on Chip design, 2002/Fall-2004/Summer.

Conducted a series of seminars on Network protocol design and real time operations during Undergraduate study, 2000/Spring 2001/Summer.

INDUSTRIAL EXPERIENCE

Summer Intern at AT&T Research Labs, NJ, Summer/2005.

Member IEEE, ACM and Grace Hopper Women in Computing.

Summer Intern, Texas Instruments, Bangalore, India, 2001/Summer-2001/Fall.

Summer Intern, Hindustan Aeronautics Limited, Bangalore, India, 2000/Summer.

Tata Consultancy Services, Calcutta, India, 1999/Summer.