Biographical Sketch

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PROFESSIONAL EXPERIENCE

8/01 to present	**Southern Illinois University Edwardsville – Edwardsville, IL** Associate Professor in Department of Computer Science – teaching graduate and under-graduate courses in introductory and advanced computer networks, computer architecture and operating systems.
9/96 – 7/01	**University of South Florida – Tampa, FL** Graduate Teaching Assistant in Department of Computer Science - taught undergraduate networks operating systems and assembly programming.
5/95 – 8/95	**Hannme Software – Seoul, KOREA** Technical Researcher – conducted research for Microsoft IME (Input Method Editor) to support a trilingual word processor (Chinese, Japanese and Korean) and developed a technical reference document for the trilingual word processor project.

EDUCATION

- Ph.D. in Computer Science – August 2001; University of South Florida; Dissertation title: "Performance Evaluation of Multicast Routing Algorithms to Trade-off Path Length and Bandwidth Consumption and of a Protocol to Reduce Messaging Overhead" (GPA: 3.62 of 4.00)
- M.S. in Computer Science – May 1995; Illinois Institute of Technology (GPA 4.00 of 4.00)
- B.A. in Economics – March 1991; Meiji University (Tokyo/JAPAN) (GPA: 3.15 of 4.00)

PUBLICATIONS

- Hiroshi Fujinoki, "Analyses on Ideal Network Structures to Improve Reliability by Multi-path and Multi-homing BGP Routing in the Internet," to appear in *the Proceedings of International Conference on Ultra Modern Telecommunications*, October 2009.
- Hiroshi Fujinoki, "Improving Reliability for Multi-Home Inbound Traffic: MHLB/I Packet-Level Inter-Domain Load-Balancing", *Proceedings of the International Conference on Availability, Reliability and Security*, pp. 248-256, Fukuoka/JAPAN, March 2009.
- Hiroshi Fujinoki, "Multi-Path BGP (MBGP): A Solution for Improving Network Bandwidth Utilization and Defense against Link Failures in Inter-Domain Routing", *Proceedings of the 16th IEEE International Conference on Networks*, pp. 1-6, New Delhi/INDIA, December 2008.
- Hiroshi Fujinoki; "On the Support for Heterogeneity in Networked Virtual Environment;" *Proceedings of 5th ACM Workshop on Network and System Support for Games 2006*; Singapore; October 2006.
- Ravi Kumar Boyapati and Hiroshi Fujinoki; "Performance Studies of the Server-Side Access Control for SYN-Flooding Distributed Denial of Service Attacks Using Real Systems;" *Proceedings of the IASTED International Conference on Communication, Network, and Information Security*; MIT Cambridge, Massachusetts; October 2006; pp. 172-178.
- Y. Guo and H. Fujinoki; "Tree-based Server-Middleman-Client Architecture: Improving Scalability and Reliability for Voting-Based Network Games in Ad-Hoc Wireless Networks;" *Proceedings of SPIE*,

Multimedia Systems and Applications IX; Vol. 6391, 63910I-1 – 63910I11; Boston, Massachusetts; October 2006.

- Hiroshi Fujinoki; "Cached Guaranteed-Timer Random-Drop against TCP SYN-Flood Attacks and Flash Crowds;" *Proceedings of the IASTED International Conference on Communication, Network, and Information Security*; Phoenix, Arizona; November 2005; pp. 162-169.

- A. K. Pandey and H. Fujinoki; "Study of MANET Routing Protocols by GloMoSim Simulator;" *International Journal of Network Management 2005*; Vol. 15, No. 6; November 2005; pp.393-410.

- Kevin L. Nilson, Sreekanth Peyyeti and Hiroshi Fujinoki; "An Efficient Load Balancing Algorithm for Web Server Clusters: MOLL (Migration-Optimized Least Loaded) Load-Balancing Algorithm;" *Proceedings of Networks and Communication System*s (NCS); Krabi, Thailand; April 2005.

- Hiroshi Fujinoki, Murugesan Sanjay, and Chintan Shah; "Web File Transmission by Object Packaging - Performance Comparison with HTTP 1.0 and HTTP 1.1 Persistent Connection;" *Proceedings of the IEEE 28th Conference on Local Computer Networks*; Bonn/Konigswinter, Germany; October 2003; pp. 71-80.

- K. Christensen, D. Rundus, H. Fujinoki, and D. Davis; "A Crash Course for Preparing Students for a First Course in Computing: Did It Work?;" *ASEE Journal of Engineering Education*; Vol. 91, No. 4; October 2002; pp. 409-413.

- H. Fujinoki and K. Gollamudi; "Web Transmission Delay Improvement for Slow and Busy Web Servers;" *Proceedings of the IEEE 27th Conference on Local Computer Networks*; Tampa, Florida; October 2002; pp. 345-347.

- D. Panchal, K. Schuh and H. Fujinoki; "On the Degree of Multicast Bandwidth Sharing in Existing Internet Routing;" *Proceedings of the 16th International Workshop on Communications Quality and Reliability (IEEE CQR) 2002*; Okinawa, Japan; May 2002; pp. 187-191.

- H. Fujinoki and K. Christensen; "The Directed Reverse Path Join (DRPJ) Protocol: An Efficient Multicast Routing Protocol;" *Computer Communications*; Vol. 24, No. 12; July 2001; pp. 1121-1133.

- H. Fujinoki and K. Christensen; "A Routing Algorithm for Dynamic Multicast Trees with End-to-End Path Length Control;" *Computer Communications*; Vol. 23, No. 2; January 2000; pp. 101-114.

- H. Fujinoki and K. Christensen; "The New Shortest Best Path Tree (SBPT) Algorithm for Dynamic Multicast Trees;" *Proceedings of the IEEE 24th Conference on Local Computer Networks*; Boston, Massachusetts; October 1999; pp. 204-211.

GRANTS

- SIUE Summer Research Fellowship; "Robust Transmission and Improved Resilience Against DDoS Attacks by Innovative Multi-Path Internet Routing;" Summer 2008; $8,000.

- SIUE Excellence in Undergraduate Education; "Develop Network Security Labs and Open Seminars as a part of CS 490 Network Security Course;" April 2007; $4,000

- SIUE Excellence in Graduate Education; "Developing a Project-Oriented Graduate Level Course on Wireless Networks for Spring 2007;" April 2006; $3,000.

- SIUE Summer Research Fellowship; "Examining Network Load Reduction by Multicast Data Transmissions;" Summer 2003; $6,000.

- SIUE Summer Research Fellowship; "An Innovative Internet Routing Method for Real-Time Applications;" Summer 2002; $6,000.