

Dr. Georgios Varsamopoulos

Tempe, Arizona
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Education

- Dec 2004 –**PhD** –Computer Science, Arizona State University, Tempe, Arizona.
- May 2000 –**MS** – Computer Science, Colorado State University, Ft Collins, Colorado.
- July 1997 – **BS** – Computer Engineering & Informatics, University of Patras, Patras, Greece.

Professional Experience

- May 2007 – today. Research Faculty. School of Computing and Informatics. Arizona State University. Supervisor Sandeep K. S. Gupta.
- Jan 2006 – April 2007. Computing Science Instructor. North College. Supervisor Andreas Vlachidis.
- Jan 2006 – Dec 2006. Research Associate. Institute of Telematics and Informatics. Supervisor Ioannis Gragopoulos.
- Spring 2001 – Fall 2004. Research Assistant, iMPACT lab at Computer Science & Engineering department, Arizona State University. Research Assistant and Lab Systems Administrator. Supervisor Sandeep K. S. Gupta.
- Aug 1997 – Dec 2000. Computer Science Department, Colorado State University. Junior Systems and Network Administrator. Supervisor Wayne Trzyna.
- Oct 1994 – Jun 1996. Computer Technology Institute. Patras, Greece. Computer Lab operator and administration assistant.

Teaching Experience

Instructor or Co-Instructor

- Spring 2009, CSE494/598: Mobile Health and Social Networking, ASU, Tempe, Arizona, 2008
- "Powering Your Future" (Engineering Course), Barrett Summer Scholars Program, ASU, Tempe, Arizona, 2008
- "Software Design", North College, Thessaloniki, Greece, 2006-2007
- "Object-Oriented Programming with Java", North College, Thessaloniki, Greece, 2006-2007
- Preparation in Computer Engineering and Informatics, Thessaloniki, Greece, 2006

Research Grants

- "Enhancing the performance of a Nehalem-based proxy server". Intel Corporation, 2009, US\$25,000.
- "Performance Investigation of a Harpertown-based proxy server", Intel Corporation, 2008, US\$25,000.
- "CSR-DMSS, SM: Next-Generation Thermal-Aware, Energy-Efficient Resource Management for Data Centers". National Science Foundation #0834797, September 2008 – August 2011, US\$250,000.
- "Thermal-aware Job Scheduling in Data Centers". Intel Corporation, 2008, US\$50,000.

Publications

Journal Publications

- "Offline and Online Thermal-Aware Job Scheduling to Minimize Energy Consumption in Virtualized Heterogeneous Data Centers". (Elsevier) *Computer Networks*, Special Issue on Resource Management in Virtualized Data Centers, accepted (2009).
- "Self-Managing Energy-Efficient Multicast Support in MANETs under End-to-End Reliability Constraints". (Elsevier) *Computer Networks*, Special Issue on Autonomous Systems, in press (2009).
- "Improving On-Demand Data Access Efficiency in MANETs with Co-Operative Caching". (Elsevier) *Ad Hoc Networks*, 7:(3), pp. 579–598, May 2009.

- "Energy Optimization for Proactive Unicast Route Maintenance in MANETs under End-to-End Reliability Requirements". (Elsevier) *Performance Evaluation*, 66:(3-5), pp. 141–157, March 2009.
- "Energy-Efficient Thermal-Aware Task Scheduling for Homogeneous High-Performance Computing Data Centers: A Cyber-Physical Approach". *IEEE Transactions on Parallel and Distributed Systems*, Special Issue on Power-Aware Parallel and Distributed Systems (TPDS/PAPADS), 19:(11), pp. 1458–1472, November 2008.
- "Maximizing Multicast Lifetime with Transmitter-Receiver Power Tradeoff is NP-Hard". *IEEE Communications Letters*, 12:(9), pp. 666–668, September 2008.
- "Optimal Offline and Online Registration Techniques for Location Management with Overlapping Registration Areas". *IEEE Transactions on Mobile Computing*, 4:(5) pp. 474–488, September 2005.
- "Dynamically Adapting Registration Areas To User Mobility Patterns for Efficient Location Management in PCS Networks". *IEEE Transactions on Networking*, 12:(5), pp. 837–850, October 2004.

Software and engineering projects

- Jan 2009 – today. Supervised the projects and the design of software for the Android/Dev Phone 1.
- May 2008 – today. Arizona State University. Designed experiments and research objectives. Designed scripts for automation of experiments. Recorded and analyzed the performance and thermal behavior of computing systems. Proposed various algorithms for optimizing the performance and minimizing thermal effects.
- January 2001 – September 2004. Arizona State University, Computer Science Dept, Tempe, Arizona. Assisted in the development of middleware systems for wireless sensor and *ad hoc* mobile networks. Focused in the design of location management protocols for mobile networks.
- September 1997 – May 1998. Colorado State University, Computer Science Dept, Fort Collins, Colorado. Design & implementation of a simulation testbed for mobile networks oriented to Location Management.
- May 1997 – July 1997. University of Patras, Dept. of Computer Engineering and Informatics, Patras, Greece. Implementation of BSD-Socket, TCP and IP layers of the "OS2/AM151 OS project of Harvard University" simulator (1997).
- February 1997 – July 1997. University of Patras, Dept. of Computer Engineering and Informatics, Patras, Greece. Design and implementation of an ATM network simulator oriented to CAC protocols.
- October 1994 – October 1995. Computer Technology Institute. Implemented printing and accounting software, including a document filter and a page counter for the LPRng Project.
- February 1995 – June 1995. University of Patras, Dept of Computer Engineering and Informatics, Patras, Greece. Design & implementation of a hypertext-like document DBMS under Sybase and a GUI of that DBMS for Windows95 under Visual Basic (1996).

Computer Skills

- Software Design and Formal Languages: Unified Process, UML, Linear Temporal Logic.
- Programming Languages: C/C++, Ada, Pascal, Lisp, FORTRAN, BASIC, Visual Basic, Java
- Scripting and web languages: SQL, HTML/Javascript, Perl, Python.
- Platforms: Solaris, HP-UX, Linux (Redhat), WindowsXP.
- Simulation and Math Software: NS-2, Hypermix Workbench, GNUplot, Flovent, MATLAB.
- Development Software: Microsoft Visual Studio.
- Authoring Software: L^AT_EX, Microsoft Word, Emacs, vim/gvim.

Research Interests

- Design and analysis of competitive and self-stabilizing algorithms; Topology control, localized algorithms, resource-aware algorithms; Issues on location management, routing, energy efficiency, security and privacy in mobile networks; Model-based design and analysis of Cyber-Physical computing systems; Design of performance-aware protocols.