

Omid Ardakanian

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Education

2009 - 2011 MMath, Computer Science, University of Waterloo, [GPA: 92.5/100].

Supervisor : Prof. Keshav

Thesis: Resource Provisioning in the Electrical Grid

2005 - 2009 B.S., Computer Engineering, Sharif University of Technology, [GPA: 18.02/20].

Advisor : Prof. Rabiee

Thesis: Design and Implementation of a Framework for Simulation and Evaluation of Mobility Aware Distributed Topology Control Protocols in Mobile Ad-Hoc Networks

Research Interests

Energy Management, Smart Grid

Wireless Networking

Data Mining

Research & Work Experience

Research Assistant, **ISS4E Laboratory**, University of Waterloo, 2009 - 2011.

Major projects include:

Mobile energy monitoring and control - Microsoft HomeOS project

Sizing the Electrical Grid - an application of the Teletraffic analysis

Indoor energy management using a wired sensor network

Research Associate, Asset Management-Asset Strategies & Standards, **Hydro One Inc.**, Summer 2010.

Major projects include:

Utility scale applications of energy storage

Research Assistant, **Digital Media Laboratory**, Sharif University of Technology, 2008.

Major projects include:

Topology control in wireless ad hoc networks

Network Administrator, **NUDC**, Sharif University of Technology, Fall and Winter 2006.

Teaching Experience

Teaching Assistant, Computer Architecture, University of Waterloo, Winter 2011.

Teaching Assistant, Management Information Systems, University of Waterloo, Fall 2010.

Teaching Assistant, Computer Organization and Design, University of Waterloo, Winter 2010.

Teaching Assistant, Introduction to Computer Science, University of Waterloo, Fall 2009.

Teaching Assistant, Advanced Programming in Java, Sharif University of Technology, Winter 2008.

Publications

Omid Ardakanian, S. Keshav, Catherine Rosenberg, “Markovian Models for Home Electricity Consumption”, SIGCOMM Workshop on Energy and IT, August 2011.

Omid Ardakanian, S. Keshav, Catherine Rosenberg, “Sizing the Electrical Grid”, University of Waterloo Technical Report CS-2011-18, July 2011.

Omid Ardakanian, “Autonomous Thermal Control System”, University of Waterloo Technical Report CS-2010-16, September 2010.

Omid Ardakanian, S. Keshav, “Using Decision Making to Improve Energy Efficiency of Buildings”, ICAPS-10 POMDP Practitioners Workshop, May 2010.

Khaledi, MH., S. M. Mousavi, H R. Rabiee, A. Movaghar, MJ. Khaledi, and O. Ardakanian, “Mobility Aware Distributed Topology Control in Mobile Ad-hoc Networks Using Mobility Pattern Matching”, IEEE WiMob 2009, Morocco, pp. 453-458, 2009.

Selected Projects

Development of a simulation framework for topology control in wireless ad hoc networks

Linux system programming: writing TTY device drivers for Linux

Design and implementation of an online shopping system in JSP

Design and implementation of an enterprize application software in Java, a joint work with a team of software developers. This software is comprised of Accounting, Payroll and Compensation, Inventory, Delivery, Order Processing, and Management subsystems.

Development of web applications in PHP

Development of an application for confidential and authenticated communication

Honors & Awards

Mathematics Graduate Experience Award, University of Waterloo, 2009-2011.

International Master Student Award (IMSA), University of Waterloo, 2009-2011.

Granted the award of ”Brilliant Student”, Sharif University of Technology, 2006.

Ranked 39th in National University Entrance Examination among 400,000 students, 2005.