

Curriculum Vitae

S. Masoud Sadjadi **Associate Professor of Computer Science**

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RESEARCH AREA

Distributed Systems, Software Engineering, Middleware Systems, Cloud Computing, Autonomic Computing, High-Performance Computing, Grid Computing, Pervasive Systems, Mobile Computing.

EDUCATION

<u>Degree</u>	<u>Institution</u>	<u>Field</u>	<u>Dates</u>
Ph.D.	Michigan State University	Computer Science	01/00 – 08/04
M.S.	Azad University (Tehran)	Software Engineering	09/95 – 02/99
B.S.	University of Tehran	Hardware Engineering	09/90 – 08/95

AWARDS

- Recipient of the First TeraGrid Pathway Fellowship for the pioneering work on the Grid Enablement of Scientific Applications on TeraGrid, 2009.
- Excellence in Mentoring Award, School of Computing and Information Sciences, Florida International University, 2007.
- IBM Shared University Research (SUR) Award, 2005.
- IWQoS 2004 Best Student Paper Award, the Twelfth IEEE International Workshop on Quality of Service (IWQoS 2004), Montreal, Canada, 2004.
- Outstanding Graduate Student Award, Department of Computer Science and Engineering, Michigan State University, 2004.
- Highest Score in 2001 Qualifying Examination, Department of Computer Science and Engineering, Michigan State University, 2001.

EMPLOYMENT

Aug. 2010 – present: Associate Professor, School of Computing and Information Sciences, Florida International University

Aug. 2004 – Aug. 2010: Assistant Professor, School of Computing and Information Sciences, Florida International University

Full-Time Academic Experience

<u>Institution</u>	<u>Rank</u>	<u>Field</u>	<u>Dates</u>
Florida International University	Associate Professor	Computer Science	08/10 – present
Florida International University	Assistant Professor	Computer Science	08/04 – 08/10

Part-Time Academic Experience

<u>Institution</u>	<u>Rank</u>	<u>Field</u>	<u>Dates</u>
Michigan State University	Graduate Research Assistant	Computer Science	05/01 – 08/04
Michigan State University	Graduate System Administrator	Computer Science	05/00 – 05/01
Michigan State University	Graduate Teaching Assistant	Computer Science	01/00 – 05/00

Non-Academic Experience

<u>Place of Employment</u>	<u>Title</u>	<u>Dates</u>
Iran University Press	Head of the Computer Department & Project Manager	01/96 – 12/99
Tebb Va Rayaneh Co.	Software Developer	02/92 – 12/95

RESEARCH

Topics of Interest: Distributed Systems, Software Engineering, Middleware Systems, Cloud Computing, Autonomic Computing, High-Performance Computing, Grid Computing, Pervasive Systems, Mobile Computing.

Summary: The main focus of my multi-disciplinary, and internationally spanned research lies in *automating the information technology* and providing *the right level of abstraction* for scientists and engineers of different disciplines (e.g., meteorologists, biologists, physicists, chemists, bio-medical engineers, mechanical engineers, etc.) to be able to perform their research in their own areas, where they are more comfortable, without the need to be distracted by and in some cases lost in the details of information technology. Currently, successful scientists and engineers who are working on complex problems are those who are also up-to-speed with the latest advances in information technology in general and specifically are experts in high performance computing; an area characterized as moving target.

I vision a day when scientists and engineers can perform their experiments in a timely manner without the need to constantly spend (or waste) their time on learning the latest high-performance computing technologies available out there. To make this vision a reality, as a PI or Co-PI, I have been involved in several small and large sponsored research projects in the past five years. To promote this vision through training new generations of engineers and scientists, I have included an educational and workforce training component in almost all my research projects. This new workforce can benefit from the results of my research and become more efficient in their areas of research by getting less and less involved with the unnecessary details of information technology.

Specifically, to provide *the right level of abstraction* to the meteorologists who conduct research in hurricane forecasting and to the weather officers who run weather simulations in a real-time fashion four times a day, we have developed a Hurricane Mitigation Portal that allows the weather researchers and officers to spend their time on the science part of weather research and forecasting, rather than on tedious and error-prone tasks of compiling, installing, and configuring the forecasting software as is currently the case. In addition, the portal enables the system administrators to easily add or remove computational resources (e.g., clusters, supercomputers, and virtual machines) that can be allocated dynamically to the various simulation tasks based on preplanned high-level policies, or pressing emergent needs.

This portal is supported by our self-managing and Cluster-, Grid-, and Cloud-enabled workflow managers, meta-schedulers, resource managers, and application profilers. Unlike other approaches, our research in workflow management investigates distributed algorithms and peer-to-peer protocols that dynamically partition, map, and execute workflows and their corresponding subflows while providing cross-layer fault-tolerant and quality-of-service. We have a prototype based on BPEL and JSDL. Our research in meta-scheduling investigates interoperable protocols that allow existing meta-schedulers to interact. We have a prototype that enables interoperation of IBM's TDWB, BSC's eNanos, and Globus' GridWay. We have also developed an application-agnostic

methodology to mathematically model and predict the execution time of long-running applications. We have a primitive but highly usable model for one of the most popular Weather and Research Forecasting (WRF) simulators that quickly estimate the execution time of WRF on currently available clusters.

In summary, my research has been supported by governmental, industrial, academic organizations (e.g., NSF, IBM, Kaseya, TeraGrid, and FIU) for a total of \$4.7 million (\$1.7M as PI and \$3M as Co-PI). I have published 61 papers (3 book chapters, 9 journal papers, 49 conference/workshop proceeding papers) mostly in premier journals and conferences in my research area. I have presented my research to the community through 34 conference and invited lecture presentations and also through numerous poster presentations. Currently, my students and I are actively collaborating and publishing papers with researchers from eight different countries (Argentina, Brazil, China, France, India, Japan, Mexico, and Spain).

Below is a selected list of my sponsored research projects:

- [NSF PIRE: A Global Living Laboratory for Cyberinfrastructure Application Enablement](#) (PI; \$2.3M; 9/15/07–8/31/11; Co-PI for the first 2 years)

Project Summary: The goal of this PIRE project (<http://pire.fiu.edu/>) is to conduct research and provide international research and training experiences to its participants in the area of *Transparent Cyberinfrastructure Enablement* by leveraging the Latin American Grid's (LA Grid) established international collaborative programs, resources, and community. CyberInfrastructure (CI) aims to radically simplify the manner by which scientific and business domain experts develop, use, and maintain software applications over distributed computing resources. Our research aims to develop methodologies, platforms, and tools for better enabling CI applications in a way that eases the application development process and make resulting applications more adaptive to future changes of CI. Our approach is characterized as application-driven by basing and focusing our investigation on (1) supporting CI-enablement for a few carefully chosen critical application domains, e.g. weather modeling, life sciences, and healthcare, and (2) developing common methodologies, services and tools for developing CI-enabled applications in these domains. We hypothesize an enabling application development paradigm called Transparent Cyberinfrastructure Enablement (TCE), whose goal is to allow domain experts to effectively express the logic and software artifacts of domain applications while hiding the details of the CI architecture, software, and hardware stack.

Results: This project is just finishing its second year. During the first year, 18 students traveled to 5 countries (Argentina, China, India, Mexico, and Spain), conducted research in 16 TCE-related projects, and published 19 papers (two journals, one book chapter, and 16 conference/workshop papers). They also, presented 18 posters during the FIU-FAU PIRE 2008 workshop. During the second year, 19 students traveled (or still travelling) to 5 countries (Brazil, China, France, India, and Spain).

- [NSF CI-TEAM: Global CyberBridges](#) (Co-PI; \$765K; 10/2/06-6/31/10)

Project Summary: The goal of the GCB project (<http://cyberbridges.net/>) is to produce a new generation of minority scientists and engineers capable of fully integrating

cyberinfrastructure (CI) into the research, education, professional, and creative processes of scientific disciplines. It establishes a base of sustainability through geographically expanding participation. It is designed to create a network of scientists and researchers that spans six research institutions spread over four regions and three countries: USA, China, Hong Kong, and Brazil.

Results: Results from first-year External Assessment Committee Report: Concluded that GCB program participation had been advantageous for the research of each team, and the program structure and classes worked well. The external assessment report says, “clear prospect for more rapid and computationally advanced research production.” The assumptions about research problems and needs that justified the GCB project were validated by the experience of the teams. GCB has supported over sixty students as either fellows or team members. GCB has produced twenty-six peer-reviewed publications co-authored by GCB students at USA, Brazil, and China. Finally, the “Grid Enablement of Scientific Applications” course was developed and institutionalized by Dr. Sadjadi during the course of this GCB project.

- [Latin American Grid](#) (PI for three IBM-sponsored research projects; \$80K in total; 9/1/06-present)

Project Summary: *LA Grid*, pronounced "lah grid," is an international multi-disciplinary research community and virtual computing grid enabling institutions and industry to extend beyond their individual reach to facilitate collaborative IT research, education and workforce development. *LA Grid* is the first-ever comprehensive computing grid to link faculty, students, and researchers from institutions across the United States, Latin America and Spain to collaborate on complex industry applications for business and societal needs in the context of healthcare, life sciences and disaster mitigation.

Under this umbrella project, I got three grants from IBM for the following projects:

- Transparent Grid Enablement of the Weather Research and Forecast code (PI; \$20K; 9/1/06-8/31/07)
Project Summary: To mitigate the impacts of hurricanes, we need to provide users (e.g., residents, homeowners, business owners, and local, state, and federal governments) with sufficiently accurate information to allow them to plan accordingly. The WRF model Version 2.1.2 software distribution comprises about 360000 lines of source code.
- Design and development of the LA Grid MetaScheduler at FIU (PI; \$20K; 9/1/06-8/31/07)
Project Summary: There is a need for matching and managing jobs on available resources in heterogeneous Grid computing environments.
Our Solution: We are investigating a hierarchical and peer2peer approach to meta-scheduling and meta-brokering. Also, we have developed an adaptive framework for the execution of BPEL workflow processes for job flow management.
- Grid Enablement of Hurricane Mitigation Applications (PI; \$40K; 6/1/06-5/31/07)

Results: We have been able to successfully develop a prototype for the following components of our overall solution to Grid Computing:

- A Prototype for a Web-Based Portal for WRF Ensemble Forecast.
 - A Prototype for a Job-Flow Management in Grid Computing Environments.
 - A Prototype for a Meta-Scheduling in Grid Computing Environment.
 - A Prototype for a Modeling the Execution Time of WRF.
 - A Prototype for a Transparent Grid Enabler for Java Program.
- IT Automation (Sole PI.; \$290K in total supported by Kaseya International Shared Services, Sarl; 10/01/08-06/01/10)

Project Summary: The increasing reliance of industrial, academic, and governmental organizations to their information technology (IT) supported services and the need for the high availability of these services in today's globalized market have led to an increasing demand for IT professionals who are capable of administrating and managing these services efficiently. The conventional and reactive approaches to IT management such as *break-fix* and *block-time*, which respond to IT-related problems only after they already interrupted services, are being replaced by preventive and proactive *IT automation* approaches, which monitor and prevent/correct potential problems before they occur. Currently our curriculum does not include such a course to instill IT automation knowledge to our undergraduate IT students. I propose to develop a course that trains our IT students how to proactively monitor, manage and maintain distributed IT infrastructure remotely, easily, and efficiently by using available integrated Web-based IT automation utilities. Example IT automation tools will be used to give students hands-on experience on auditing, assets and change management, network monitoring, OS imaging, patch management, help desk, remote control, user state management, end-point security, backup, and disaster recovery. In general, this IT Automation course prepares our IT students with a deep understanding of system administration tasks, comprehensive knowledge of different aspects of IT management and automation, and state-of-the-art solutions to remote and automated IT management.

Results: A new IT Automation course was proposed by Dr. Sadjadi and was approved by FIU and is currently in the process of getting a permanent course number to be added to the FIU Course Catalog. This class was offered for the first time in Spring 2009 and was overwhelmingly well received by our IT students. I consider this class a success for the following reasons: out of the 30 students, seven of them could get a prestigious and paid internship with Kaseya, five of them got approved to the PIRE program and spent 8 weeks of their PIRE internship in Brazil (all expenses paid), two student were hired by Kaseya, several are currently being interviewed, and two more have been taking an independent study with me during summer working on some interesting IT Automation research projects.

- NSF REU: Autonomic Computing Research at FIU (Sr. Inv.; \$300K; 03/15/06-03/14/09)

Project Summary: The overriding objective of the REU site (<http://www.cis.fiu.edu/reu/>) at Florida International University is to strengthen

the pipeline of underrepresented students to graduate work in Computer Science. The Site provides REU students with a venue to directly participate in state-of-the-art research by exposing them to research opportunities, graduate school life, and work in large research collaboration settings. REU students participate in team-oriented projects involving several areas of autonomic computing, including self-management in mobile & grid computing, testing of autonomic systems, autonomic communication systems, autonomic storage systems, data mining, and network monitoring and management. The Site's faculty continues their mentoring relationships with students after the completion of the summer program to ensure that each project is completed and that each participant has the support needed to make the transition to graduate school.

Results: Each year, this REU site provided 10 undergraduate students (4 from FIU; 6 from other universities) with a venue to directly participate in state-of-the-art research while exposing them to graduate school life and work in academia and industrial research labs for 12 summer weeks. The students participated in team-oriented projects involving various areas of autonomic computing and establish meaningful mentoring relationships with faculty, which continue well beyond the 12 weeks of summer research program. Over 50% of 2006 and 2007 participants have co authored at least one article in a variety of journals, conferences and workshops (10 publications) and 40% of students have either presented at a conference. Additional publications are under preparation as a part of follow through activities. Our REU site has achieved its goals in that 100% of our students have experienced the daily life in graduate school.

PUBLICATIONS

Summary: I have 71 publications in total: 1 edited book, 5 book chapters, 11 journal papers, 54 conference/ workshop proceeding papers, and numerous posters. Note that, in computer science, conferences are usually at least as important as journals. On 37 of these papers, I am either the first or second author of the paper. Some papers appeared in top ranked CS conferences in their respective areas (i.e., very competitive with 3 or more rigorous reviews per paper; e.g., ICAC, ICDCS, IWQoS, ICSOC, CCGrid, etc.) and low acceptance rate (e.g., 16.23%, 17%, 17.7%, 20.4%, 21%, etc.). Some of my journal articles were published in IEEE Computer, IEEE Transactions on Computers, Elsevier Computer Networks Journal, Elsevier Future Generation Computer Systems, Journal of Systems and Software, IEEE Transactions on Network and System Management, and Elsevier Software, Practice and Experience. According to Google Scholar, my article on Composing Adaptive Software in IEEE Computer was cited 228 times. I have presented my research to the community through 34 conference and invited lecture presentations. In addition, I have one pending patent.

Edited Books

Bing Xie, Juergen Branke, **S. Masoud Sadjadi**, Daqing Zhang, and Xingshe Zhou.
Autonomic and Trusted Computing, 2010.

Journal Articles

1. Onyeka Ezenwoye, M. Brian Blake, Gargi Dasgupta, Liana Fong, Selim Kalayci, and S. Masoud Sadjadi. Managing faults for distributed workflows over Grids. *THE IEEE INTERNET COMPUTING*, pages 84-88, 2010.
2. Chi Zhang, **S. Masoud Sadjadi**, Weixiang Sun, Raju Rangaswami, and Yi Deng. A user-centric network communication broker for multimedia collaborative computing. *The The International Journal of Multimedia Tools and Applications*, 2009. (in press; 19 pages; single-spaced).
3. Ivan Rodero, Francesc Guimb, Julita Corbalan, Liana Fong, and **S. Masoud Sadjadi**. Grid broker selection strategies using aggregated resource information. *The Elsevier Future Generation Computer Systems, the International Journal of Grid Computing and eScience*, 2009. (in press; 34 pages; single-spaced).
4. **S. Masoud Sadjadi** and Philip K. McKinley. Transparent Autonomization in CORBA. *The Elsevier Computer Networks Journal, special issue on autonomic and self-organizing systems*, 53:1570-1586, 2009.
5. **S. Masoud Sadjadi** and Fernando Trigoso. TRAP.NET: A realization of transparent shaping in .NET. *International Journal of Software Engineering and Knowledge Engineering*, 2008. (accepted for publication).
6. Onyeka Ezenwoye and **S. Masoud Sadjadi**. A proxy-based approach to enhancing the autonomic behavior in composite services. *the Journal of Networks (ISSN 1796-2056)*, 2008. (accepted for publication).
7. Yi Deng, **S. Masoud Sadjadi**, Peter J. Clarke, Vagelis Hristidis, Raju Rangaswami, and Yingbo Wang. CVM - a communication virtual machine. *The Elsevier Special Issue of the Journal of Systems and Software (JSS)*, 2008. (accepted for publication).
8. Farshad A. Samimi, Philip K. McKinley, **S. M. Sadjadi**, Chiping Tang, Jonathan K. Shapiro, and Zhinan Zhou. Service Clouds: Distributed infrastructure for adaptive communication services. *IEEE Transactions on Network and System Management (TNSM), Special Issue on Self-Managed Networks, Systems and Services*, (in press), expected date of publication is 2007.
9. **S. M. Sadjadi**, Philip K. McKinley, Eric P. Kasten, and Zhinan Zhou. Metasockets: Design and operation of run-time reconfigurable communication services. *Software: Practice and Experience (SP&E). Special Issue: Experiences with Auto-adaptive and Reconfigurable Systems*, 36:1157-1178, 2006.
10. Philip K. McKinley, **S. M. Sadjadi**, Eric P. Kasten, and Betty H. C. Cheng. Composing adaptive software. *IEEE Computer*, 37(7):56-64, July 2004. For more information, please refer to the technical report.
11. P. K. McKinley, U. I. Padmanabhan, N. Ancha, and **S. M. Sadjadi**. Composable proxy services to support collaboration on the mobile internet. *IEEE Transactions on Computers (Special Issue on Wireless Internet)*, pages 713-726, June 2003.

Conference and Workshop Proceedings

1. Xabriel J Collazo-Mojica, **S. Masoud Sadjadi**, Fabio Kon, and Dilma Da Silva. Virtual environments: Easy modeling of interdependent virtual appliances in the cloud. In *Proceedings of the SPLASH 2010 Workshop on Flexible Modeling Tools (SPLASH 2010)*, Reno, Nevada, October 2010.

2. Selim Kalayci, Gargi Dasgupta, Liana Fong, Onyeka Ezenwoye, and **S. Masoud Sadjadi**. Distributed and adaptive execution of Condor DAGMan workflows. In *Proceedings of the 22nd International Conference on Software Engineering and Knowledge Engineering (SEKE 2010)*, San Francisco Bay, CA, July 2010.
3. Javier Delgado, João Gazolla, Esteban Clua, and **S. Masoud Sadjadi**. An incremental approach to porting complex scientific applications to GPU/CUDA. In *Proceedings of the IV Brazilian e-Science Workshop*, Minas Gerais, Brazil, July 2010.
4. Javier Delgado, **S. Masoud Sadjadi**, Hector Duran, Marlon Bright, and Malek Adjouadi. Performance prediction of weather forecasting software on multicore systems. In *Proceedings of the 24th IEEE International Parallel & Distributed Processing Symposium (IPDPS-2010), 11th Parallel and Distributed Scientific and Engineering Computing (PDSEC) workshop*, Atlanta, Georgia, April 2010.
5. Onyeka Ezenwoye, Salome Busi, and **S. Masoud Sadjadi**. Dynamically reconfigurable data-intensive service composition. In *Proceedings of the 6th International Conference on Web Information Systems and Technologies (WEBIST 2010)*, Valencia, Spain, April 2010.
6. Onyeka Ezenwoye, Balaji Viswanathan, **S. Masoud Sadjadi**, Liana Fong, Gargi Dasgupta, and Selim Kalayci. Task decomposition for adaptive data staging in workflows for distributed environments. In *Proceedings of the 21st International Conference on Software Engineering and Knowledge Engineering (SEKE 2009)*, pages 16-19, Boston, MA, July 2009.
7. Ingrid Buckley, Eduardo B. Fernandez, Gustavo Rossi, and **S. Masoud Sadjadi**. Web services reliability patterns. In *Proceedings of the 21st International Conference on Software Engineering and Knowledge Engineering (SEKE 2009)*, pages 4-9, Boston, MA, July 2009.
8. **S. Masoud Sadjadi**, Sandie Kappes, and Laura F. McGinnis. Grid enablement of scientific applications on TeraGrid. In *Proceedings of the TeraGrid 2009 Conference*, Arlington, Virginia, June 2009.
9. Yanbin Liu, David Villegas, Norman Bobroff, Liana Fong, Ivan Rodero, Seetharami Seelam, and **S. Masoud Sadjadi**. An experimental system for grid meta-broker evaluation. In *Proceedings of the Large-scale System and Application Performance workshop (LSAP2009) of the International Symposium on High Performance Distributed Computing (HPDC 2009)*, Munich, Germany, June 2009.
10. Juan C. Martinez, Lixi Wang, Ming Zhao, and **S. Masoud Sadjadi**. Experimental study of large-scale computing on virtualized resources. In *Proceedings of the 3rd International Workshop on Virtualization Technologies in Distributed Computing (VTDC 2009) of the 6th International Conference on Autonomic Computing and Communications (ICAC-2009)*, Barcelona, Spain, June 2009.
11. Javier Delgado, Mark Joselli, Silvio Stanzani, **S. Masoud Sadjadi**, Esteban Clua, and Heidi Alvarez. A learning and collaboration platform based on SAGE. In *Proceedings of the 14th Western Canadian Conference on Computing Education (WCCCE 2009)*, Simon Fraser University, Vancouver, Canada, May 2009.
12. **S. Masoud Sadjadi**, Shu-Ching Chen, Borko Furht, Pete Martinez, Scott Graham, Steve Luis, Juan Caraballo, and Yi Deng. Pire: A global living laboratory for cyberinfrastructure application enablement. In *Proceedings of the Tapia Celebration of Diversity in Computing 2009 (Tapia'09)*, Portland, Oregon, April 2009.

13. Masoud Milani, **S. Masoud Sadjadi**, Raju Rangaswami, Peter Clarke, and Tao Li. Research experiences for undergraduates: Autonomic computing research at fiu. In *Proceedings of the Tapia Celebration of Diversity in Computing 2009 (Tapia'09)*, Portland, Oregon, April 2009.
14. Selim Kalayci, Onyeka Ezenwoye, Balaji Viswanathan, Gargi Dasgupta, **S. Masoud Sadjadi**, and Liana Fong. Design and implementation of a fault tolerant job flow manager using job flow patterns and recovery policies. In *Proceedings of the 6th International Conference on Service Oriented Computing (ICSOC'08)*, Sydney, Australia, December 2008. Accepted for publication (acceptance rate 20.4%).
15. Gargi Dasgupta, Onyeka Ezenwoye, Liana Fong, Selim Kalayci, **S. Masoud Sadjadi**, and Balaji Viswanathan. Design of a fault-tolerant job-flow manager for grid environments using standard technologies, job-flow patterns, and a transparent proxy. In *Proceedings of the 20th International Conference on Software Engineering and Knowledge Engineering (SEKE'2008)*, pages 814-819, San Francisco Bay, USA, July 2008. (36% acceptance rate for Full Papers.)
16. Onyeka Ezenwoye and **S. Masoud Sadjadi**. A language-based approach to addressing reliability in composite web services. In *Proceedings of the 20th International Conference on Software Engineering and Knowledge Engineering (SEKE'2008)*, pages 649-654, San Francisco Bay, USA, July 2008. (36% acceptance rate for Full Papers.)
17. Hector A. Duran Limon, **S. Masoud Sadjadi**, Raju Rangaswami, Shu Shimizu, Liana Fong, Rosa M. Badia, Pat Welsh, Sandeep Pattnaik, Anthony Praino, Javier Figueroa, Javier Delgado, Xabriel J. Collazo-Mojica, David Villegas, Selim Kalayci, Gargi Dasgupta, Onyeka Ezenwoye, Khalid Saleem, Juan Carlos Martinez, Ivan Rodero, Shuyi Chen, Javier Muñoz, Diego Lopez, Julita Corbalan, Hugh Willoughby, Michael McFail, Christine Lisetti, and Malek Adjouadi. Grid enablement and resource usage prediction of weather research and forecasting. In *Proceedings of the Collaborative and Grid Computing Technologies Workshop*, page 4, Cancun, Mexico, April 2008.
18. Ricardo Koller, Raju Rangaswami, Joseph Marrero, Igor Hernandez, Geoffrey Smith, Mandy Barsilai, Silviu Necula, **S. Masoud Sadjadi**, Tao Li, and Krista Merrill. Anatomy of a Real-time Intrusion Prevention System. In *Proceedings of the International Conference on Autonomic Computing (ICAC'08)*, Chicago, IL, June 2008 (25% acceptance rate).
19. Khalid Saleem, **S. Masoud Sadjadi**, and Shu-Ching Cheng. Towards a Self-Configurable Weather Research and Forecasting System. In *Proceedings of the International Conference on Autonomic Computing (ICAC'08)*, Chicago, IL, June 2008 (accepted for publication as short paper, 38% acceptance rate including the full papers).
20. Yanbin Liu, **S. Masoud Sadjadi**, Liana Fong, Ivan Rodero, David Villegas, Selim Kalayci, Norman Bobroff, and Juan Carlos Martinez. Enabling Autonomic Meta-Scheduling in Grid Environments. In *Proceedings of the International Conference on Autonomic Computing (ICAC'08)*, Chicago, IL, June 2008.
21. Gargi Dasgupta, Onyeka Ezenwoye, Liana Fong, Selim Kalayci, **S. Masoud Sadjadi**, and Balaji Viswanathan. Runtime Fault-Handling for Job-Flow Management in Grid Environments. In *Proceedings of the International Conference on Autonomic Computing (ICAC'08)*, Chicago, IL, June 2008.

22. Norman Bobroff, Liana Fong, Selim Kalayci, Yanbin Liu, Juan Carlos Martinez, Ivan Rodero, **S. Masoud Sadjadi**, and David Villegas. Enabling interoperability among meta-schedulers. In *Proceedings of 8th IEEE International Symposium on Cluster Computing and the Grid (CCGrid-2008)*, Lyon, France, 2008.
23. **S. Masoud Sadjadi**, Shu Shimizu, Javier Figueroa, Raju Rangaswami, Javier Delgado, Hector Duran, and Xabriel Collazo. A modeling approach for estimating execution time of long-running scientific applications. In *Proceedings of the 22nd IEEE International Parallel & Distributed Processing Symposium (IPDPS-2008), the Fifth High-Performance Grid Computing Workshop (HPGC-2008)*, Miami, Florida, April 2008.
24. **S. Masoud Sadjadi**, Liana Fong, Rosa M. Badia, Javier Figueroa, Javier Delgado, Xabriel J. Collazo-Mojica, Khalid Saleem, Raju Rangaswami, Shu Shimizu, Hector A. Duran Limon, Pat Welsh, Sandeep Pattnaik, Anthony Praino, David Villegas, Selim Kalayci, Gargi Dasgupta, Onyeka Ezenwoye, Juan Carlos Martinez, Ivan Rodero, Shuyi Chen, Javier Muñoz, Diego Lopez, Julita Corbalan, Hugh Willoughby, Michael McFail, Christine Lisetti, and Malek Adjouadi. Transparent grid enablement of weather research and forecasting. In *Proceedings of the Mardi Gras Conference 2008 - Workshop on Grid-Enabling Applications*, Baton Rouge, Louisiana, USA, January 2008.
25. **S. Masoud Sadjadi**, Selim Kalayci, and Yi Deng. A self-configuring communication virtual machine. In *Proceedings of the 2008 IEEE International Conference on Networking, Sensing and Control (ICNSC-08)*, Sanya, China, April 2008.
26. Xing Hang, David Villegas Castillo, **S. Masoud Sadjadi**, and Heidi Alvarez. Formative assessment of the effectiveness of collaboration in GCB. In *Proceedings of the International Conference on Information Society (i-Society 2007)*, Merrillville, Indiana, USA, October 2007.
27. Onyeka Ezenwoye, **S. Masoud Sadjadi**, Ariel Carey, and Michael Robinson. Grid service composition in BPEL for scientific applications. In *Proceedings of the International Conference on Grid computing, high-performAnce and Distributed Applications (GADA'07)*, Vilamoura, Algarve, Portugal, November 2007.
28. I. Rodero, J. Corbalan F. Guim, L. L. Fong, Y. G. Liu, and **S. Masoud Sadjadi**. Looking for an evolution of grid scheduling: Meta-brokering. In *Proceedings of the Second CoreGRID Workshop on Middleware at ISC2007 (CoreGRID-2007)*, Dresden, Germany, June 2007.
29. **S. Masoud Sadjadi**, J. Martinez, T. Soldo, L. Atencio, R. M. Badia, and J. Ejarque. Improving separation of concerns in the development of scientific applications. In *Proceedings of The Nineteenth International Conference on Software Engineering and Knowledge Engineering (SEKE'2007)*, pages 456-461, Boston, USA, July 2007.
30. **S. Masoud Sadjadi** and Fernando Trigoso. TRAP.NETTRAP: A realization of transparent shaping in .NET. In *Proceedings of The Nineteenth International Conference on Software Engineering and Knowledge Engineering (SEKE'2007)*, pages 19-24, Boston, USA, July 2007.
31. Heidi L. Alvarez, David Chatfield, Donald A. Cox, Eric Crumpler, Cassian D'Cunha, Ronald Gutierrez, Julio Ibarra, Eric Johnson, Kuldeep Kumar, Tom Milledge, Giri Narasimhan, Rajamani S. Narayanan, Alejandro de la Puente, **S. Masoud Sadjadi**, and Chi Zhang. Cyberbridges: A model collaboration infrastructure for e-Science. In

Proceedings of the the 7th IEEE International Symposium on Cluster Computing and the Grid (CCGrid'07), Rio de Janeiro, Brazil, expected date of publication is May 2007.

32. Raju Rangaswami, **S. Masoud Sadjadi**, Nagarajan Prabakar, and Yi Deng. Automatic generation of user-centric multimedia communication services. In *Proceedings of the 26th IEEE International Performance Computing and Communications Conference (IPCCC)*, (in press), New Orleans, Louisiana, USA, expected date of publication is April 2007.
33. Onyeka Ezenwoye and **S. Masoud Sadjadi**. TRAP/BPEL: A framework for dynamic adaptation of composite services. In *Proceedings of the International Conference on Web Information Systems and Technologies (WEBIST 2007)*, (in press), Barcelona, Spain, expected date of publication is March 2007.
34. Onyeka Ezenwoye and **S. Masoud Sadjadi**. RobustBPEL2: Transparent autonomization in business processes through dynamic proxies. In *Proceedings of the 8th International Symposium on Autonomous Decentralized Systems (ISADS 2007)*, (in press), Sedona, Arizona, expected date of publication is March 2007.
35. Chi Zhang, **S. Masoud Sadjadi**, Weixiang Sun, Raju Rangaswami, and Yi Deng. A user-centric network communication broker for multimedia collaborative computing. In *Proceedings of the Second International Conference on Collaborative Computing (CollaborateCom 2006)*, Atlanta, Georgia, USA, November 2006.
36. Yi Deng, **S. Masoud Sadjadi**, Peter J. Clarke, Chi Zhang, Vagelis Hristidis, Raju Rangaswami, and Nagarajan Prabakar. A communication virtual machine. In *Proceedings of the 30th Annual International Computer Software and Applications Conference (COMPSAC 2006)*, Chicago, U.S.A., September 2006.
37. Farshad A. Samimi, Philip K. McKinley, and **S. Masoud Sadjadi**. Mobile Service Clouds: A self-managing infrastructure for autonomic mobile computing services. In *Proceedings of the Second International Workshop on Self-Managed Networks, Systems & Services (SelfMan 2006, LNCS 3996)*, volume 3996 of *Lecture Notes in Computer Science (LNCS)*, pages 130-141, Dublin, Ireland, June 2006. Springer-Verlag.
38. Onyeka Ezenwoye and **S. Masoud Sadjadi**. Enabling robustness in existing BPEL processes. In *Proceedings of the 8th International Conference on Enterprise Information Systems (ICEIS 2006)*, Paphos, Cyprus, May 2006.
39. Onyeka Ezenwoye and **S. Masoud Sadjadi**. Composing aggregate web services in BPEL. In *Proceedings of the 44th ACM Southeast Conference (ACMSE 2006)*, Melbourne, Florida, March 2006.
40. **S. Masoud Sadjadi** and P. K. McKinley. Using transparent shaping and web services to support self-management of composite systems. In *Proceedings of the International Conference on Autonomic Computing (ICAC'05)*, Seattle, Washington, June 2005 (17% acceptance rate).
41. **S. Masoud Sadjadi**, Philip K. McKinley, and Betty H.C. Cheng. Transparent shaping of existing software to support pervasive and autonomic computing. In *Proceedings of the first Workshop on the Design and Evolution of Autonomic Application Software 2005 (DEAS'05)*, in conjunction with ICSE 2005, St. Louis, Missouri, May 2005.
42. Farshad A. Samimi, Philip K. McKinley, **S. Masoud Sadjadi**, and Peng Ge. Kernel middleware interaction to support adaptation in pervasive computing environments.

- In *Proceedings of the Second International Workshop on Middleware for Pervasive and Ad-Hoc Computing, a Companion Proceedings of the fifth International Middleware Conference (Middleware'04)*, Toronto, Ontario, Canada, October 2004.
43. **S. Masoud Sadjadi**, Philip K. McKinley, Betty H.C. Cheng, and R.E. Kurt Stirewalt. TRAP/J: Transparent generation of adaptable Java programs. In *Proceedings of the International Symposium on Distributed Objects and Applications (DOA'04)*, Agia Napa, Cyprus, October 2004.
 44. Z. Zhou, P. K. McKinley, and **S. M. Sadjadi**. On quality-of-service and energy consumption tradeoffs in fec-enabled audio streaming. In *Proceedings of the 12th IEEE International Workshop on Quality of Service (IWQoS 2004)*, Montreal, Canada, June 2004. Winner of the IWQoS 2004 best student paper award.
 45. **S. M. Sadjadi** and P. K. McKinley. Transparent self-optimization in existing CORBA applications. In *Proceedings of the International Conference on Autonomic Computing (ICAC-04)*, pages 88-95, New York, NY, May 2004 (21% acceptance rate).
 46. **S. M. Sadjadi**, P. K. McKinley, R. E. K. Stirewalt, and B. H.C. Cheng. Generation of self-optimizing wireless network applications. In *Proceedings of the International Conference on Autonomic Computing (ICAC-04)*, pages 310-311, New York, NY, May 2004 (21% acceptance rate).
 47. **S. M. Sadjadi** and P. K. McKinley. ACT: An adaptive CORBA template to support unanticipated adaptation. In *Proceedings of the 24th IEEE International Conference on Distributed Computing Systems (ICDCS'04)*, Tokyo, Japan, March 2004.
 48. **S. M. Sadjadi**, P. K. McKinley, and E. P. Kasten. Architecture and operation of an adaptable communication substrate. In *Proceedings of the Ninth IEEE International Workshop on Future Trends of Distributed Computing Systems (FTDCS'03)*, pages 46-55, San Juan, Puerto Rico, May 2003.
 49. Philip K. McKinley, **S. M. Sadjadi**, E. P. Kasten, and R. Kalaskar. Programming language support for adaptive wearable computing. In *Proceedings of International Symposium on Wearable Computers (ISWC'02)*, pages 205-214, Seattle, Washington, October 2002.
 50. P. K. McKinley, **S. M. Sadjadi**, and E. P. Kasten. An adaptive software approach to intrusion detection and response. In *Proceedings of the 10th International Conference on Telecommunication Systems, Modeling and Analysis (ICTSM10)*, pages 91-99, Monterey, California, October 2002.
 51. P. K. McKinley, E. P. Kasten, **S. M. Sadjadi**, and Z. Zhou. Realizing multi-dimensional software adaptation. In *Proceedings of the ACM Workshop on Self-Healing, Adaptive and self-MANaged Systems (SHAMAN), held in conjunction with the 16th Annual ACM International Conference on Supercomputing*, New York City, NY, June 2002.
 52. Z. Yang, B. H.C. Cheng, R. E. K. Stirewalt, J. Sowell, **S. M. Sadjadi**, and P. K. McKinley. An aspect-oriented approach to dynamic adaptation. In *Proceedings of the ACM SIGSOFT Workshop on Self-healing Software (WOSS'02)*, November 2002.
 53. **S. M. Sadjadi**, P. K. McKinley, and E. P. Kasten. Metasockets: Run-time support for adaptive communication services. In *the Addendum to the Proceedings of the International Symposium on Distributed Objects and Applications (DOA)*, pages 42-45, Irvine, CA, November 2002.

54. E. P. Kasten, P. K. McKinley, **S. M. Sadjadi**, and R. E. K. Stirewalt. Separating introspection and intercession in metamorphic distributed systems. In *Proceedings of the IEEE Workshop on Aspect-Oriented Programming for Distributed Computing (with ICDCS'02)*, pages 465-472, Vienna, Austria, July 2002.

Chapters in Books

1. David Villegas, Ivan Rodero, Liana Fong, Norman Bobroff, Yanbin Liu, Manish Parashar, and **S. Masoud Sadjadi**. *Handbook of Cloud Computing*, chapter The Role Of Grid Computing Technologies in Cloud Computing, pages 183-218. Springer, 2010. (in press; 35 pages; single-spaced).
2. Onyeka Ezenwoye and **S. Masoud Sadjadi**. *Developing Effective Service Oriented Architectures: Concepts and Applications in Service Level Agreements, Quality of Service and Reliability*, chapter Applying Concept Reuse for Adaptive Service Composition. IGI Global, 2010. (in press; 25 pages; single-spaced).
3. Kasturi Chatterjee, **S. Masoud Sadjadi**, and Shu-Ching Chen. *Multimedia Services in Intelligent Environments - Integrated Systems*, chapter A Distributed Multimedia Data Management over the Grid. Springer, 2009. (accepted for publication.).
4. Rosa Badia, Gargi Dasgupta, Onyeka Ezenwoye, Liana Fong, Howard Ho, Sawsan Khuri, Yanbin Liu, Steve Luis, Anthony Praino, Jean-Pierre Prost, Ahmed Radwan, **Seyed Masoud Sadjadi**, Shivkumar Shivaji, Balaji Viswanathan, Patrick Welsh, and Akmal Younis. *High Performance Computing and Grids in Action*, chapter Innovative Grid Technologies Applied to Bioinformatics and Hurricane Mitigation. IOS Press, Amsterdam, 2007. (accepted for publication).
5. **S. Masoud Sadjadi** and Philip K. McKinley. *Autonomic Computing: Concepts, Infrastructure, and Applications*, chapter Transparent Autonomization in Composite Systems. CRC Press, Taylor & Francis Group, 6000 Broken Sound Parkway, NW, Suite 300, Boca Raton, FL 33487, pages 169-188, 2007.

Posters

1. Michael Robinson, Camilo A. Silva, **S. Masoud Sadjadi**, Guangyuan Liu, and Dr. Giri Narasimhan. Finding repeats and signatures in dna sequences using mpi clusters. In *the 5th International Symposium on Bioinformatics Research and Applications (ISBRA09)*, Nova Southeastern University, Ft. Lauderdale, Florida, USA, May 2009.
2. Michael Robinson, Guangyuan Liu, Camilo A. Silva, **S. Masoud Sadjadi**, and Dr. Giri Narasimhan. Finding repeats and signatures in dna sequences using mpi clusters. In *the 16th Annual FGLSAMP EXPO*, University of Miami, Florida, Feb. 2009. (winner of the third place in the poster competition.).
3. Michael Robinson, Guangyuan Liu, Camilo A. Silva, **S. Masoud Sadjadi**, and Dr. Giri Narasimhan. Finding repeats and signatures in dna sequences using mpi clusters. In *the 23rd National Conference on Undergraduate Research*, University of Wisconsin – La Crosse, Wisconsin, April 2009.
4. Marlon Bright, Javier Delgado, Javier Figueroa, and **S. Masoud Sadjadi**. Application performance profiling and prediction in grid environment. In *the 19th Annual Argonne Symposium for Undergraduates in Science, Engineering and Mathematics*, Argonne, IL, November 2008.

5. Camilo A. Silva, Michael Robinson, Guangyuan Liu, **S. Masoud Sadjadi**, Dr. Giri Narasimhan, and Hector Alejandro Durán Limón. Finding repeats and signatures in dna sequences using mpi clusters. In *the poster presentation session of the 6th Latin American Grid (LA Grid) Summit*, Florida Atlantic University, Boca Raton, FL, U.S.A., October 2008.
6. Allison Lanager, Sean Leslie, Seychelles Martinez, Elias Rodriguez, **S. Masoud Sadjadi**, and Hector Alejandro Durán Limón. A web-based portal for hurricane mitigation. In *the poster presentation session of the 6th Latin American Grid (LA Grid) Summit*, Florida Atlantic University, Boca Raton, FL, U.S.A., October 2008.
7. Marlon Bright, Javier Delgado, **S. Masoud Sadjadi**, and Rosa Badia. International experience: From 0 to 6 foreign countries in 9.5 weeks. In *the poster presentation session of the 6th Latin American Grid (LA Grid) Summit*, Florida Atlantic University, Boca Raton, FL, U.S.A., October 2008. Students: Marlon Bright and Javier Delgado; and Mentors: **S. Masoud Sadjadi** and Rosa Badia.
8. Marlon Bright, Javier Delgado, **S. Masoud Sadjadi**, and Rosa Badia. Application profiling and prediction in the grid environment. In *the poster presentation session of the 6th Latin American Grid (LA Grid) Summit*, Florida Atlantic University, Boca Raton, FL, U.S.A., October 2008.
9. Selim Kalayci, **S. Masoud Sadjadi**, and Gargi S. Dasgupta. Pattern based fault-tolerance at workflow management systems. In *the poster presentation session of the 6th Latin American Grid (LA Grid) Summit*, Florida Atlantic University, Boca Raton, FL, U.S.A., October 2008.
10. **S. Masoud Sadjadi**, Javier Muñoz, Diego Lopez, Javier Figueroa, Xabriel J. Collazo-Mojica, Alex Orta, Michael McFailand, David Villegas, Rosa Badia, Pat Welsh, Raju Rangaswami, Shu Shimizu, and Hector A. Duran Limon. Transparent grid enablement of WRF using a profiling, code inspection, and modeling approach. In *Poster Presented in the 5th Lating American Grid (LA Grid) Summit*, The IBM T.J. Watson Research Center, NY, U.S.A., September 2007.
11. **S. Masoud Sadjadi**, Steve Luis, Khalid Saleem, Donald Llopis, Javier Munoz, Diego Lopez, Javier Figueroa, David Villegas Castillo, Selim Kalayci, Pat Welsh, Shu-Ching Chen, Anthony Praino, and Hugh Willoughby. The latin american (la) grid weather research and forecast (WRF) portal. In *Poster Presented in the 5th Lating American Grid (LA Grid) Summit*, The IBM T.J. Watson Research Center, NY, U.S.A., September 2007.
12. Liana Fong, **S. Masoud Sadjadi**, Yanbin Liu, Ivan Rodero, David Villegas, Selim Kalayci, Norman Bobrof, and Julita Corbalan. The la grid meta-scheduling project. In *Poster Presented in the 5th Lating American Grid (LA Grid) Summit*, The IBM T.J. Watson Research Center, NY, U.S.A., September 2007.
13. Gargi B Dasgupta, Liana Fong, **S. Masoud Sadjadi**, Onyeka Ezenwoye, Balaji Viswanathan, Selim Kalayci, and David Villegas Castillo. Fault-tolerant job-flow management in grid environment. In *Poster Presented in the 5th Lating American Grid (LA Grid) Summit*, The IBM T.J. Watson Research Center, NY, U.S.A., September 2007.
14. **S. M. Sadjadi**, J. C. Martinez, L. Atencio, T. Soldo, R. Badia, and J. Ejarque. Transparent grid enablement using transparent shaping and grid superscalar. In *Poster*

Presented in the IBM Technology Leadership Conference, Florida International University, Miami, FL 33199, October 2006.

15. Tao Li, **S. M. Sadjadi**, Charles Perng, and Abdi Salahshour. Data mining for autonomic system management: A case study at fiu-scis. In *Proceedings of the NON Confidential Poster at The 4th Proactive Problem Prediction, Avoidance and Diagnosis Conference (PPPADC 2006)*, IBM T. J. Watson Research Center, Yorktown Heights, New York, April 2006.
16. Zhenxiao Yang, Zhinan Zhou, and **S. M. Sadjadi**. M2: Middleware support for collaborative adaptation. In *The 2004 Department of Computer Science and Engineering Poster Workshop*, East Lansing, Michigan, May 2004.
17. **S. M. Sadjadi**, P. K. McKinley, and E. P. Kasten. Metasockets: Run-time support for adaptive communication services. In *In Addendum to the Proceedings of the International Symposium on Distributed Objects and Applications (DOA)*, pages 42-45, Irvine, CA, November 2002.

Presented Papers and Invited Lectures

1. Global CyberBridges: A Model Global Collaboration Infrastructure for E-Science Between the United States and International Partners. ELI Web Seminar, July 20, 2009.
2. Task decomposition for adaptive data staging in workflows for distributed environments. *Presented at the 21st International Conference on Software Engineering and Knowledge Engineering (SEKE 2009)*, Boston, MA, July 2009.
3. Web services reliability patterns. *Presented at the 21st International Conference on Software Engineering and Knowledge Engineering (SEKE 2009)*, Boston, MA, July 2009.
4. Grid enablement of scientific applications on TeraGrid. *Presented at the TeraGrid 2009 Conference*, Arlington, Virginia, June 2009.
5. Experimental study of large-scale computing on virtualized resources. *Presented at the 3rd International Workshop on Virtualization Technologies in Distributed Computing (VTDC 2009) of the 6th International Conference on Autonomic Computing and Communications (ICAC-2009)*, Barcelona, Spain, June 2009.
6. A learning and collaboration platform based on SAGE. *Presented at the 14th Western Canadian Conference on Computing Education (WCCCE 2009)*, Simon Fraser University, Vancouver, Canada, May 2009.
7. PIRE: A global living laboratory for cyberinfrastructure application enablement. *Presented at the Tapia Celebration of Diversity in Computing 2009 (Tapia'09)*, Portland, Oregon, April 2009.
8. Research experiences for undergraduates: Autonomic computing research at FIU. *Presented at the Tapia Celebration of Diversity in Computing 2009 (Tapia'09)*, Portland, Oregon, April 2009.
9. Global CyberBridges: A Model Global Collaboration Infrastructure for E-Science between the United States and International Partners. ELI 2009 Annual Meeting Workshop, Orlando, Florida, Jan. 22, 2009.
10. Design of a fault-tolerant job-flow manager for grid environments using standard technologies, job-flow patterns, and a transparent proxy. *Presented at the 20th*

International Conference on Software Engineering and Knowledge Engineering (SEKE'2008), San Francisco Bay, USA, July 2008.

11. A language-based approach to addressing reliability in composite web services. *Presented at the 20th International Conference on Software Engineering and Knowledge Engineering (SEKE'2008)*, San Francisco Bay, USA, July 2008.
12. Grid-Based WRF Modeling. *Invited Talk at the first Taylor Engineering Research Institute Workshop*, University of North Florida, March 25, 2008.
13. Transparent grid enablement of weather research and forecasting. *The Mardi Gras Conference 2008 - Workshop on Grid-Enabling Applications*, Baton Rouge, Louisiana, USA, January 2008.
14. LA Grid Research Outlook for 2008: Utilizing and Integrating Four LA Grid Projects to Support On-Demand Multi-Scale Weather Modeling. *Invited Talk at Universitat Politècnica de Catalunya, Barcelona, Spain, December 21, 2007.*
15. Form LA Grid to PIRE: Building an Ecosystem for Collaborative Computing Research and Education. *Invited Talk at Universidad Complutense de Madrid, Madrid, Spain, December 20, 2007.*
16. Formative assessment of the effectiveness of collaboration in GCB. *Presented at the International Conference on Information Society (i-Society 2007)*, Merrillville, Indiana, USA, October 2007.
17. Improving separation of concerns in the development of scientific applications. *Presented at the Nineteenth International Conference on Software Engineering and Knowledge Engineering (SEKE'2007)*, Boston, USA, July 2007.
18. TRAP.NET: A realization of transparent shaping in .NET. *Presented at the Nineteenth International Conference on Software Engineering and Knowledge Engineering (SEKE'2007)*, Boston, USA, July 2007.
19. A communication virtual machine. *Presented at the IBM Technology Leadership Conference*, Florida International University, Miami, FL 33199, October 2006.
20. Transparent grid enablement using transparent shaping and grid superscalar. *Presented at the IBM Technology Leadership Conference*, Florida International University, Miami, FL 33199, October 2006.
21. A user-centric network communication broker for multimedia collaborative computing. *Presented at the Second International Conference on Collaborative Computing (CollaborateCom 2006)*, Atlanta, Georgia, USA, November 2006.
22. A communication virtual machine. *Presented at the 30th Annual International Computer Software and Applications Conference (COMPSAC 2006)*, Chicago, U.S.A., September 2006.
23. Grid Enablement of Hurricane Mitigation Applications. *Presented at the Second Latin American Face-2-Face Meeting*, Florida International University, Miami, May 2006.
24. MetaScheduling and Jobflow in Grid Computing Environments. *Presented at the Second Latin American Face-2-Face Meeting*, Florida International University, Miami, May 2006.
25. Transparent Autonomization: A Practical Approach to Pervasive and Autonomic Computing. *Presented at the UTEP Computer Science Colloquium*, University of Texas, El Paso, August 2005.

26. Using transparent shaping and web services to support self-management of composite systems. *Presented at the International Conference on Autonomic Computing (ICAC'05)*, Seattle, Washington, June 2005.
27. Transparent shaping of existing software to support pervasive and autonomic computing. *Presented at the first Workshop on the Design and Evolution of Autonomic Application Software 2005 (DEAS'05), in conjunction with ICSE 2005*, St. Louis, Missouri, May 2005.
28. Transparent Shaping: A Practical Approach to Pervasive and Autonomic Computing. *Presented at the School of Computer Science Colloquium*, Florida International University, Miami, February 2005.
29. Transparent self-optimization in existing CORBA applications. *Presented at the International Conference on Autonomic Computing (ICAC-04)*, pages 88-95, New York, NY, May 2004.
30. Generation of self-optimizing wireless network applications. *Presented at the International Conference on Autonomic Computing (ICAC-04)*, pages 310-311, New York, NY, May 2004.
31. Transparent Shaping of Software for Pervasive and Autonomic Computing. *Presented at the School of Computer Science Colloquium*, Florida International University, Miami, April 2004.
32. Transparent Shaping of Software for Adaptable Pervasive Computing. *Presented at CIS Seminar Series*, University of Michigan, Dearborn, March 2004.
33. Transparent Shaping of Software for Adaptable Pervasive Computing. *Presented at the NEC Americas Laboratory*, Princeton, NJ, February 2004.
34. Metasockets: Run-time support for adaptive communication services. *Presented at the International Symposium on Distributed Objects and Applications (DOA)*, Irvine, CA, November 2002.

GRANT SUPPORT

Summary: In the past five years, as a PI or Co-PI, I have contributed in 36 proposals (i.e., one proposal submitted every seven weeks) to academic, industrial, state, and federal agencies with a success rate of more than %38 (13 out of 34; two proposals are pending). Currently, I am serving as the PI for the highly prestigious, competitive, and complex NSF Partnership for International Research and Education (2007-12 for \$2300K with less than 4% acceptance rate; I was a Co-PI for the first two years of this award), a Co-PI of NSF CREST Subproject (2008-13 for \$825K), and a Co-PI of NSF CI-TEAM (2006-10 for \$765K). As a sole PI, I have received several prestigious awards from industry: IBM Research Award (2006-07 for \$40K), IBM Research Award (2007-08 for \$40K), Kaseya Research & Education Award (2008-09 for \$122K in kind), and Kaseya Research & Education Award (2009-10 for \$147K in kind and \$20K in cash). As a Co-PI, I have also received a NSF CREST Supplement (2006-07 for \$100K), a NSF REU (2006-09 for \$300K; indicated as Sr. Inv. for limited number of PI & Co-PI), and an IBM Shared University Research Award (2005-06 for \$50K). Finally, I received some small, but prestigious grants from TeraGrid Pathway Fellowship (2009 for \$12K and 200,000 unit hours or TeraGrid resources) and FIU RUGS (2008-09 for \$3K) as sole PI. In total, as a PI or Co-PI, I have attracted a total of \$4.7 million (\$1.7M as PI and \$3M as Co-PI) to support research and education at my school.

Funded Research

1. Sponsor: Kaseya International Shared Services, Sarl
Title: IT Automation Certificate Portal
PI: **S. M. Sadjadi**
Amount: **\$167,200**
Duration: 04/27/09-06/01/10
2. Sponsor: TeraGrid
Title: Grid Enablement of Scientific Applications on TeraGrid
PI: **S. M. Sadjadi**
Amount: **\$12,000**; 200,000 resource hours; one month of consulting; one year of technical support. I recently received a supplement award for TeraGrid Roaming.
Duration: 12/1/08-11/30/09
3. Sponsor: Kaseya International Shared Services, Sarl
Title: IT Automation Research and Education
PI: **S. M. Sadjadi**
Amount: **\$122,000**
Duration: 10/1/08-9/30/09
4. Sponsor: National Science Foundation (NSF), CREST
Title: CREST: Center for Innovative Information Systems Engineering
Subproject 5 – Complex System Modeling, Analysis and Realization (CS-MAR)
PI: Xudong He; Co-PIs: **S. M. Sadjadi**, Shu-Ching Chen, Peter Clarke, Jason Liu
Award Number: HRD-0833093

Account Number:
Amount: **\$825,000**
Duration: 8/1/08-7/31/13

5. Sponsor: Florida International University, University Graduate School, RUGS
Title: A Student-Driven Distinguished Lecture Series at the School of Computing and Information Sciences at FIU
PI: **S. M. Sadjadi**
Account Number: 202200601
Amount: **\$3,000**
Duration: 8/14/08 – 8/13/09

6. Sponsor: National Science Foundation (NSF), PIRE
Title: A Global Living Laboratory for Cyberinfrastructure Application Enablement
PI: **S. M. Sadjadi**; Co-PIs: Yi Deng (PI for the first 2 years of this project), S. Chen, B. Furht, and P. Martinez

Amount: **\$2.27 million**
Duration: 9/15/07 – 8/31/11
Note: After an internal competition at FIU (one of the three winners with the score of %96.3) and a two-stage competition with 500 proposals, only 20 or 4% were selected for award.

7. Sponsor: IBM, Award for Research Support
Title: Transparent Grid Enablement of the Weather Research and Forecast code.
PI: **S. M. Sadjadi**
Amount: **\$20,000**
Duration: 9/1/07- 8/31/08
Account: 202200101

8. Sponsor: IBM, Award for Research Support
Title: Design and development of the LA Grid MetaScheduler at FIU.
PI: **S. M. Sadjadi**
Amount: **\$20,000**
Duration: 9/1/06- 8/31/07

9. Sponsor: National Science Foundation (NSF), CI-TEAM Implementation Project,
Title: Global CyberBridges (GCB): A Model Global Collaboration Infrastructure for e-Science between US and International Partners
Award Number: OCI-0636031
PI: Heidi Alvarez; Co-PI: P. W. Arzberger, J. Ibarra, K. Kumar, and **S. M. Sadjadi**
Amount: **\$765,000**
Duration: **10/2/06 - 12/31/09**
Note: S. Masoud Sadjadi is the sole PI of the sub award to the School of Computing and Information Sciences.

10. Sponsor: National Science Foundation (NSF), CREST Supplement

Title: Development of New Simulation Software for Advanced Energy Systems
PI: Xudong He; Co-PI: **S. M. Sadjadi**, N. Monroe, and C. Haynes
Amount: **\$100,000**
Duration: 7/1/06 - 6/30/07

11. Sponsor: National Science Foundation (NSF), REU
Title: Autonomic Computing Research at FIU
PI: M. Milani; Co-PI: T. Li; Senior Investigators: **S. M. Sadjadi**, R. Rangaswami, P. Clarke, and C. Zhang
Amount: **\$300,000**
Duration: 03/15/06 - 03/14/09
Note: NSF limited only one PI and one Co-PI for REU proposals.

12. Sponsor: IBM, Award for Research Support
Title: Grid Enablement of Hurricane Mitigation Applications
PI: **S. M. Sadjadi**
Amount: **\$40,000**
Duration: 6/1/06- 5/31/07
Note: A check for the amount of \$40K was awarded to the School of Computing and Information Sciences at FIU to support Sadjadi's students working on the Grid Enablement Project, which is one of the major projects of the Latin American Grid (LA Grid) initiative.

13. Sponsor: IBM, Shared University Research (SUR)
Title: Combining Knowledge Discovery and Adaptive Software Techniques to Build Autonomic Systems
PI: T. Li; Co-PI: **S. M. Sadjadi**
Amount: **\$50,000**
Duration: 6/1/05- 5/31/06
Note: Brand new computer facilities including two servers, one storage, and ten desktop computers were awarded to FIU to establish the Autonomic Computing Research Laboratory (ACRL). See the attached documents for the details of the equipments.

Patent Disclosures

- Yi Deng, S. Masoud Sadjadi, P. Clarke, V. Hristidis, C. Zhang, R. Rangaswami, and S. Luis. Communication Virtual Machine (CVM). Pending.

CREATIVE WORK

Software Packages, Frameworks, and Prototypes:

- **A Prototype for a Web-Based Portal for WRF Ensemble Forecast.**
- **A Prototype for a Job-Flow Management in Grid Computing Environments.**
- **A Prototype for a Meta-Scheduling in Grid Computing Environment.**
- **A Prototype for a Transparent Grid Enabler for Java Program.**
- **A Prototype for CVM (Communication Virtual Machine):** This software enables on-demand generation of communication applications from high-level specification of communication needs (Summer 2005 to present).
- **TRAP/BPEL (Transparent Reflective Aspect Programming in Business Processes Execution Language):** A software toolkit that enables dynamic and transparent adaptation in BPEL processes using Generic Proxies.
 - This software is developed by Onyeka Ezenwoye (2004 – 2007)
- **TRAP.NET (Transparent Reflective Aspect Programming in .NET):** A software toolkit that enables transparent and dynamic adaptation in existing .NET applications.
 - The original version is developed by Masoud Sadjadi (2003 – 2004)
 - Twelve of Sadjadi's students have contributed in the recent versions of this software (2004 – 2007)
 - Currently is being used to adapt scientific applications to Grid Computing environments
- **TRAP/J (Transparent Reflective Aspect Programming in Java):** A software toolkit that enables transparent and dynamic adaptation in existing Java applications.
 - The original version is developed by Masoud Sadjadi (2002 – 2003)
 - Five of Sadjadi's students have contributed in the recent versions of this software (2006 – 2007)
 - Originally used for adapting distributed applications to mobile computing environments.
 - Recently has been integrated with GRID superscalar from Barcelona Supercomputing Center to provide a Grid Enablement Toolkit.
- **ACT (Adaptive CORBA Template):** A framework that enables interoperation among otherwise incompatible middleware frameworks, including CORBA, Web Services, and Java RMI.
- **MetaSockets :** Meta-morphic sockets in Java that enable dynamic adaptation in existing Java applications with minimum modification.
- **AdaptiveJava:** A prototype language that extends Java with behavioral reflection.

All the above mentioned software packages are available for download from <http://www.cs.fiu.edu/~sadjadi/>. To date, above 100 downloads of collectively all the above mentioned software packages have been made from all over the world (mostly Europe and USA).

PROFESSIONAL ACTIVITIES

Summary: I have served as an Editorial Board Member for one journal (the International Journal of Computing & Information Technology, IJCIT), the Conference Program Chair for SEKE 2011, a conference Program Co-Chair for two conferences (the IEEE International Conference on Networking, Sensing and Control and the International Conference on Software Engineering and Knowledge Engineering), Registration Chair for IEEE ICNSC-2006, Steering Committee Member for LA Grid (2006-2009), Demo/Exhibit Chair for HPDC-2008, Publicity Co-Chair for 9 conferences (e.g., ICAC, CCGrid, SEKE, ICCS), and served as a member of Florida LambdaRail Research Advisory Council (2007 & 2008) and Kaseya Influencer Committee (2008 & 2009). In addition, I have served on the Program Committees for more than 40 international conferences including major conferences in Autonomic Computing, High-Performance Computing, Grid and Cloud Computing, Software Engineering, and Distributed System. I have also been a reviewer for more than 20 top quality journals and books (e.g., TSE, TPDS, SP&E, JPDC, JSS, etc.). Additionally, I have served as a panelist and proposal reviewer or National Science Foundation (NSF), The Luxembourg National Research Fund (FNR), and Florida Sea Grant.

Panelist and Remote Reviewer for Proposals Submitted to:

- National Science Foundation (NSF)
- The Luxembourg National Research Fund (FNR)
- Florida Sea Grant

Journal Editorial Board Member:

- International Journal of Computing & Information Technology (IJCIT), { ISSN: 0974-696X }, 2009.

Conference and Workshop Organizing Committee Member:

- Program Committee Chair of [the 23rd International Conference on Software Engineering and Knowledge Engineering \(SEKE\)](#), 2011.
- Program Committee Chair for [the 8th Latin American Summit \(LA Grid\)](#), 2010.
- Program Committee Co-Chair of [the 22nd International Conference on Software Engineering and Knowledge Engineering \(SEKE\)](#), 2010.
- Publicity Co-Chair for [the 10th IEEE/ACM International Symposium on Cluster, Cloud and Grid Computing \(CCGrid 2010\)](#) to be held in Melbourne, Australia in May 2010.
- Publicity Chair for [the International Conference on Autonomic Computing \(ICAC\)](#), 2010.
- Session Organizer for [the 21st International Conference on Software Engineering and Knowledge Engineering \(SEKE\)](#), 2009: “[Software Engineering of Autonomic Grid Computing Systems and Applications](#)”.
- Publicity Co-Chair for [the Second International Conference on Contemporary Computing](#), 2009.

- Publicity Co-Chair for [the 21st International Conference on Software Engineering and Knowledge Engineering \(SEKE\)](#), 2009.
- Publicity Co-Chair for [the International Conference on Autonomic Computing \(ICAC\)](#), 2009.
- Program Co-Chair for [the IEEE International Conference on Networking, Sensing and Control \(ICNSC\)](#), 2008.
- Steering Committee Member for LA Grid, 2008.
- Kaseya Influencer Committee Member, 2008-09.
- Member of [Florida LambdaRail Research Advisory Council](#), 2008.
- Demo/Exhibits Co-Chair for [the Seventeenth International Symposium on High-Performance Distributed Computing \(HPDC\)](#), 2008.
- Publicity Co-Chair for [the CCGrid Workshop on Autonomics for Grids and Datacenters](#), 2008.
- Publicity Co-Chair for [the 20th International Conference on Software Engineering and Knowledge Engineering \(SEKE\)](#), 2008.
- Publicity Co-Chair for [the International Conference on Autonomic Computing \(ICAC\)](#), 2008.
- Session Organizer for [the 20th International Conference on Software Engineering and Knowledge Engineering \(SEKE\)](#), 2008: “[Software Engineering of Autonomic Grid Computing Systems and Applications](#)”.
- Member of [Florida LambdaRail Research Advisory Council](#), 2007.
- Steering Committee Member for LA Grid, 2007.
- Registration Chair for the 2006 IEEE International Conference on Networking, Sensing and Control (ICNSC), Ft. Lauderdale, 2006.
- Steering Committee Member for LA Grid, 2006.

Referee for Journals, Magazines, Books, Conferences, and Workshops:

- Program Committee Member for [the International Conference on Autonomic Computing \(ICAC\)](#), 2011.
- Program Committee Member for [the International Conference on Autonomic Computing \(ICAC\)](#), 2010.
- Program Committee Member for [the 5th International Conference on Grid and Pervasive Computing \(GPC\)](#), 2010.
- Program Committee Member for [the 3rd International Workshop on Latin American Grid \(LA Grid\)](#), 2010.
- Program Committee Member for [the 10th IEEE International Symposium on Cluster Computing and the Grid \(CCGrid\)](#), 2010.
- Program Committee Member for [the ICSE 5th International Workshop on Software Engineering for Adaptive and Self-Managing Systems \(SEAMS 2010\)](#), 2010.
- Program Committee Member for [the 23rd International Conference on Software Engineering and Knowledge Engineering \(SEKE\)](#), 2011.
- Program Committee Member for [the 3rd International Workshop on Latin American Grid \(LA Grid\)](#), 2009.

- International Program Committee Member for [Software Engineering Research, Management and Applications \(SERA 2009\)](#), Haikou, Hainan Island, China, December 2-4, 2009.
- Program Committee Member for [the 7th International Conference on Service Oriented Computing \(ICSOC 2009\)](#) will be held jointly with ServiceWave 2009 in Stockholm (Sweden), November 17 - 20, 2009.
- Program Committee Member for [the First International Conference on Emerging Network Intelligence \(Emerging\)](#), 2009.
- Referee for Springer Journal of Mobile Networks and Applications (MONE), 2009.
- Program Committee Member for [the 13th International Conference on Software Engineering and Applications \(SEA\)](#), 2009.
- Program Committee Member for [the 2nd International Conference on Computer Science and its Applications \(CSA-09\)](#), 2009.
- Book on Software Engineering for Self-Adaptive Systems, SEfSAS 2008 LNCS.
- Program Committee Member for [the ICSE 4th International Workshop on Software Engineering for Adaptive and Self-Managing Systems \(SEAMS 2009\)](#), 2009.
- Program Committee Member for [the International Workshop on Cloud Computing \(Cloud 2009\)](#), 2009.
- Program Committee Member for [the 21st International Conference on Software Engineering and Knowledge Engineering \(SEKE\)](#), 2009.
- Referee for Elsevier Journal of Parallel and Distributed Computing (JPDC), 2009
- Program Committee Member for [the 9th IEEE International Symposium on Cluster Computing and the Grid \(CCGrid\)](#), 2009.
- Program Committee Member for [the 11th IEEE International Conference on High Performance Computing and Communications \(HPCC\)](#), 2009.
- Program Committee Member for [the International Conference on Autonomic Computing \(ICAC\)](#), 2009.
- Program Committee Member for [the 4th International Conference on Grid and Pervasive Computing \(GPC\)](#), 2009.
- Program Committee Member for [the 12th International Conference on Software Engineering and Applications \(SEA\)](#), 2008.
- Program Committee Member for [the Fifth International Conference on Distributed Computing and Internet Technology \(ICDCIT-08\)](#), 2008.
- Program Committee Member for [the IEEE International Workshop on Autonomic Service Discovery and Management \(ASDM'08\)](#), 2008.
- Program Committee Member for [the 20th International Conference on Software Engineering and Knowledge Engineering \(SEKE\)](#), 2008.
- Program Committee Member for [the International Conference on Autonomic Computing \(ICAC\)](#), 2008.
- Program Committee Member for [the 3rd International Workshop on Software Engineering for Adaptive and Self-Managing Systems \(SEAMS-2008\)](#), 2008.
- Program Committee Member for [the Fifth High-Performance Grid Computing Workshop \(HPGC-2008\)](#), 2008.
- Program Committee Member for [the 3rd International Conference on Grid and Pervasive Computing \(GPC'08\)](#), 2008.

- Referee for the Journal of High Speed Networks (JHSN), 2007.
- Program Committee Member for [Middleware 2007 Workshop on Modeling Software Architectures of Middleware-intensive Applications \(MoSAMinA 2007\)](#), 2007.
- Program Committee Member for [the International Conference of Software Engineering & Knowledge Engineering \(SEKE\)](#), 2007.
- Program Committee Member for the 2nd International Workshop on Software Engineering for Adaptive and Self-Managing Systems (SEAMS), 2007.
- Program Committee Member for the 5th International Workshop on Self-Adaptive and Autonomic Computing Systems (SAACS), 2007.
- Program Committee Member for the 4th International Conference on Autonomic and Trusted Computing (ATC), 2007.
- Program Committee Member for the 3rd International Conference on Autonomic and Trusted Computing (ATC), China, September 3-6, 2006.
- Program Committee Member for the ICSE-SEAMS 2006 Workshop on Software Engineering for Adaptive and Self-Managing Systems (SEAMS), May 21-22, 2006, Shanghai, China.
- Program Committee Member for the fourth ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-06), Dubai/Sharjah, UAE, March 8-11, 2006.
- Program Committee Member for the CSICC 2006, the first International Conference on Computer Society of Iran Computer Conference (CSICC), Tehran, Iran, January 24-26, 2006.
- Referee for Elsevier Journal of Parallel and Distributed Computing (JPDC), 2008
- Referee for Elsevier Journal of Systems and Software (JSS), 2008
- Referee for IEEE Journal on Systems, Man, and Cybernetics (SMCC), 2008
- Referee for Journal of Supercomputing, 2008
- Referee for International Journal of Software Engineering and Knowledge Engineering (IJSEKE), 2008
- Referee for IEEE's Transactions on Parallel and Distributed Systems (TPDS), 2008
- Referee for Journal of High Speed Networks (JHSN), 2008
- Referee for Iranian Journal of Electrical and Computer Engineering (IJECE), 2008
- Referee for the International Journal of Computers and Applications, 2006.
- Referee for the Journal of Autonomic and Trusted Computing (JoATC), 2006.
- Referee for the Journal of High Speed Networks (JHSN), 2006.
- Referee for the Journal of Systems and Software (JSS), 2006.
- Referee for the IEEE Transactions on Software Engineering (TSE), 2005.
- Referee for the Elsevier Journal of System and Software (JSS), 2005.
- Referee for the Special Issue of Wiley InterScience "Software, Practice and Experience" (SP&E) journal on "Experiences with Auto-adaptive and Reconfigurable systems", 2004-2005.

External reviewer for Conferences and Workshops:

- [The IEEE International Conference on Communications \(ICC\)](#), 2009.
- The Conference on Self-Managing Systems and Context-Aware Computing (CASEMANS), 2008

- The Middleware Conference, 2006.
- The 6th International Conference on Quality Software (QSIC), 2006.
- The IEEE International Conference on Distributed Computing Systems (ICDCS), 2006.
- The 2005 IEEE International Conference on Information Reuse and Integration, IEEE IRI-2005 (Knowledge Acquisition and Management), August 15-17, 2005, Hilton, Las Vegas, Nevada, USA.
- The Fifth International Workshop on Software Engineering and Middleware (SEM 2005), Lisbon, Portugal, 5-6 September 2005, Co-located with ESEC/FSE'05.
- The 7th International Symposium on Distributed Objects and Applications (DOA), Agia Napa, Cyprus, Oct 31 - Nov 4, 2005.
- The International Conference of Software Engineering & Knowledge Engineering (SEKE), 2005.
- The IEEE International Conference on Autonomic Computing (ICAC), 2005.
- The IEEE International Conference on Distributed Computing Systems (ICDCS), 2005.
- The IEEE SoutheastCon, Fort Lauderdale, Florida, 2005.
- The IEEE International Conference on Distributed Computing Systems (ICDCS), 2004.
- The IEEE International Workshop on Future Trends in Distributed Computing Systems (FTDCS), 2004.
- The IEEE International Conference on Pervasive Computing and Communications, 2004.
- The IEEE International Workshop on Future Trends in Distributed Computing Systems (FTDCS), 2003.
- The IEEE International Conference on Distributed Computing Systems (ICDCS), 2003.

Member of IEEE and ACM.

SERVICE TO THE UNIVERSITY COMMUNITY

Summary: In the past seven years, I have served as a member of Recruitment Committee for four years at our school and during my service we successfully hired four new faculty members. I served as a member of Graduate Committee for three years and among other tasks, I evaluated many graduate student applications. I was also a member of the first MS in IT committee and developed two course proposals; both accepted. I served as the first Colloquium Coordinator of our school in 2004-05 and again served in 2008-09. At the university level, I have served as a FIU Honors Society Faculty Advisor and advised a number of undergraduate honor students.

Departmental Committee Assignments

- Year 2004-2005 Recruitment Search Committee & Colloquium Coordinator
- Year 2005-2006 Recruitment Search Committee & Graduate Committee & MS in IT

- Year 2006-2007 Recruitment Search Committee & Graduate Committee
- Year 2007-2008 Graduate Committee
- Year 2008-2009 Recruitment Search Committee & Colloquium Coordinator
- Year 2009-2010 Graduate Committee & Subject Area Coordinator
- Year 2010-2010 CS Curriculum Review Committee & FIU's CIO Consultant

University Committee Assignments

- Year 2006-now FIU Honors Society Faculty Advisor

TEACHING

Summary: I believe that teaching is the most rewarding part of my job as it gives me an opportunity to share the most recent results of my research with my students and challenge their young and talented minds with the most recently developed knowledge in the field. I have a passion to keep the curriculum of our school up-to-speed with the new areas of Computer Science and Information Technology. During the past seven years, I have successfully developed five new courses (two undergraduate and three graduate courses); all have been approved and added to the FIU Course Catalog. I have taught 12 different courses for the first time. I have received high teaching evaluations by my students throughout my academic career (4.42 out of 5 on average) and have been enjoying the numerous thank-you letters from my past students. Moreover, I have supervised more than 40 graduate and undergraduate students during semester-long individual independent studies. In addition, to support our undergraduate IT students, I have served on the MS in IT committee for one year and participated in the development of the MS in IT proposal and two of its core courses.

Course Proposals

I have served on the MS in IT committee for one year and participated in the development of the MS in IT proposal. Also, I developed the following course proposals. All these courses are now part of the FIU Course Catalog:

- COP 4990: IT Automation
- CEN 5082: Grid Enablement of Scientific Applications
- CEN 4023: Component-Based Software Development
- CIS 5027: Computer Systems Fundamentals
- COP 5716: Software and Data Modeling (together with Dr. Xudong He)

Course Taught

- CEN 5082 Grid Enablement of Scientific Applications: Spring 2007, 2008, 2009.
- COP 4990 IT Automation: Spring 2009, 2010, 2011.
- CEN 4010 Software Engineering I: Spring 2005, Spring 2006, Summer 2006.
- CEN 4021 Software Engineering II: Spring 2006, Spring 2010, Spring 2011.
- CEN 5011 Advanced Software Engineering: Fall 2004, 2005, 2006, 2010, 2011.
- CEN 4023 Component-Based Software Development: Fall 2005 and 2006.
- CEN 4500 Data Communications: Spring 2007.
- COP 4610 Operating Systems Principles: Fall 2006.
- CDA 4101 Structured Computer Organization: Summer 2006.
- CIS 6612 Autonomic Grid Computing: Summer 2006.
- COP 4225 Advanced UNIX Programming: Summer 2007.

Teaching Evaluations

- Year 2004-2005 4.52/5.00
- Year 2005-2006 4.35/5.00
- Year 2006-2007 4.34/5.00
- Year 2007-2008 4.85/5.00
- Year 2008-2009 4.04/5.00

Advising

Summary: In December 2007 I received the Excellence in Mentoring Award by the School of Computing and Information Sciences at FIU. I have graduated one Ph.D. student (Onyeka Ezenwoye; defended in Summer 2007; currently an Assistant Professor at the Electrical Engineering and Computer Science Department of South Dakota State University) and one Master Student with Thesis (Fernando Trigo; defended in Fall 2007; currently a Software Architect at Ultimate Software). Currently, I am advising seven PhD students (one has defended his proposal, five have passed their candidacy exam, and one is ready to take his candidacy exam). I am expecting that two of my current PhD students be graduated by Summer 2010. I have also served in the PhD Dissertation Committee of 10 PhD students and MS Thesis Committee of three MS students. In addition, in the past five years, I have advised more than 35 undergraduate students through NSF REU, NSF REU Supplement, NSF PIRE, and other industry supported research and educational programs.

Major Advisor:

Graduated with PhD:

1. **Onyeka Ezenwoye**, "Enabling Adaptability in Service Aggregates Using Transparent Shaping Techniques," **Ph.D., July 2007**, Assistant Professor, Software Engineering, South Dakota State University.

Graduated with MS:

1. **Fernando Trigo**, "TRAP.NET: A REALIZATION OF TRANSPARENT SHAPING IN .NET," **M.S. Thesis, May 2007**, Software Architect, [Strategic Healthcare Management Systems](#).
2. Allison Lanager, "Web-Based Portal for Hurricane Turbulence Study", PIRE-2008, (Expected to graduate in Dec. 2008, non-thesis/coursework)
3. Allen Lee, "TRAP.NET", (Graduated, non-thesis/coursework)
4. Dany Guevara: Fall 2006 to present (*Non-thesis option*, expected to graduate in May 2007)
5. David Villegas: Fall 2006 to present (*Thesis option*, started in Fall 2006)
6. Eric Sanchez: Fall 2005 to Spring 2006 (Graduated, non-thesis/coursework)
7. Yasmery Hernandez: Fall 2005 to Fall 2006
8. Ana Rodriguez: Summer 2005 to Summer 2006
9. Robert Redway: Fall 2005
10. Shakil Seddique: Fall 2004 to Spring 2005 (Graduated, non-thesis/coursework)

Current Ph.D. Students:

1. **Selim Kalayci**, “Peer to Peer MetaScheduling and MetaBrokering in Grid Computing,” current Ph.D. student.
2. **Juan Carlos Martinez**, “Transparent Grid Enablement of Existing Scientific Applications,” current Ph.D. student.
3. **David Villegas Castillo**, “Virtual Environment Provisioning,” current Ph.D. student.
4. **Javier Delgado**, “Modeling the Execution Time of Complex Scientific Applications,” current Ph.D. student, co-advised together with Dr. Malek Adjouadi.
5. **Leonard Reisman**, “TBD,” current Ph.D. student.
6. **Eric Meyer**, “TBD,” current Ph.D. student.
7. **Khalid Saleem**, “TBD,” current Ph.D. student.

Undergraduates:

- TRAP/J
 - Luis Atencio, REU 2006, graduated in May 2007, currently with Citrix.
 - Tatiana Soldo, REU 2006, graduated in May 2007, currently with IBM.
 - Javier Torres
 - Evy Peralta
 - Danil Flores
 - Sebastian Gonzalez
- TRAP.NET
 - Javier Ocasio, REU-2006
 - Enrique Villa
 - Frank Suero
 - Etnan Gonzalez
 - Edwin Garcia
 - Alain Rodriguez
 - Lazaro Millo
 - Jose Humberto Cifuentes
 - German Moran, Honors College
- Profiling and Modeling the Behavior of WRF
 - Marlon Bright, REU-2007
 - Javier Figueroa, REU-2007
 - Xabriel Collazo, REU-2007, University of Puerto Rico, Mayagüez (UPRM)
 - Alex Orta, REU-2007
 - Michael McFail, REU-2007, Indiana University of Pennsylvania (IUP)
- Communication Virtual Machine
 - Jon Corrales, graduated with BS in CS in 2006, Patent Office in Virginia since 2006
 - Eduardo Monteiro

- Farid Husseini, Graduated with BS in CS, currently with Microsoft
- MotoWaveZ
 - Luis Sanchez
 - Lazaro Martinez, graduated with BS in CS, currently an Oracle Database Manager, City of Miami
 - Eduardo Monzon
 - Mavis Franco
- RootSense
 - Krista Merrill
 - Joseph Marrero
 - Igor Hernandez
- WRF Web-Based Portal
 - Elias Rodriguez, REU-2008, Polytechnic University of Puerto Rico (PUPR)
 - Seychelles Martinez, REU-2008
 - Donald Llopis
- Finding Discriminating DNA Probe Sequences
 - Camilo Silva, REU-2008
 -

Member on Thesis Committee:

PhD Dissertation Committee:

1. Tariq King: Fall 2005 to July 2008 (graduated in July 2008). Major advisors: Dr. Peter Clarke.
2. Yingbo Wang: Spring 2005 to July 2008 (graduated in July 2008). Major advisors: Dr. Yi Deng and Dr. Peter Clarke.
3. Gonzalo Argote: Fall 2004 to Spring 2008 (graduated in Spring 2008). Major advisor: Dr. Xudong He
4. Fu Yujin: Fall 2005 to Spring 2008 (graduated in Spring 2008). Major advisor: Dr. Xudong He.
5. Shu Gao: Fall 2004 to July 2005 (graduated in July 2005). Major advisors: Dr. Yi Deng and Dr. Xudong He.
6. Ying Huang: Fall 2005 to present (proposed in December 2005). Major advisor: Dr. Xudong He.
7. Miaohua Xu: Spring 2005 to present. Major advisor: Dr. Xudong He.
8. Djuradj Babic: Summer 2006 to present. Major advisor: Dr. Peter Clarke.
9. Jonathan Alva: Summer 2006 to present. Major advisor: Dr. Peter Clarke.
10. Lily Chang: Fall 2006 to present. Major advisor: Dr. Xudong He.

MS Thesis Committee:

1. David Crowther: Graduated in Summer 2005. Major advisor: Dr. Peter Clarke.
2. Jose Osorio: Fall 2005 to present. Major advisor: Dr. Raimund Ege.
3. Javier Delgado: Summer 2006 to present. Major advisor: Dr. Adjouadi.