

Curriculum Vita

Ali Orooji

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Education and Degree

Ph.D. in Computer and Information Science, The Ohio State University, Columbus, Ohio, December 1984.

Experience

2006--present

CS/IT Undergraduate Coordinator and Undergraduate Committee Co-Chair,
Dept of EECS, University of Central Florida.

1991--present

Associate professor,
Department of Computer Science, University of Central Florida.

1985--1991

Assistant professor,
Department of Computer Science, University of Central Florida.

1990--1993

Undergraduate Coordinator and Undergraduate Committee Chair,
Department of Computer Science, University of Central Florida.

1989--present

Computer Programming Team Faculty Advisor.

1991--present

Local chapter of UPE (Upsilon Pi Epsilon -- Honor Society for the Computing and Information Disciplines) Faculty Advisor.

1989--1993

Local chapter of ACM (Association for Computing Machinery) Faculty Advisor.

1981--1984

Graduate Research Associate and Graduate Teaching Associate,
Department of Computer and Information Science, The Ohio State University.

1980
Computer Labs Consultant,
Department of Computer and Information Science, The Ohio State University.

Service / Professional Activities

Have served on several department/college/university committees.

Have reviewed papers for journals/conferences, and have reviewed books.

Have served on several conference program committees.

1996
ACM ICPC (International Collegiate Programming Contest)
Southeast Regional Contest Director.

1998--present
Director of North America, ACM International Collegiate Programming Contest (this worldwide contest had a participation of 80+ countries and 8,000+ teams in the 2012-2013 academic year).

1998--present
ACM ICPC International Steering Committee Member.
ACM ICPC Executive Committee Member.

2000--2003
ACM-ICPC World Finals Director.

2000--2012
National UPE Executive Council Member.

2004--2005
UPE International President.

2010--2011
UPE International President.

Awards

[1] TIP (Teaching Incentive Program) Award,
College of Arts and Sciences, University of Central Florida, 1993-94 Academic Year.

[2] Outstanding Engineer Award, Computer Chapter, IEEE Orlando Section, 1995.

[3] TIP (Teaching Incentive Program) Award,
College of Arts and Sciences, University of Central Florida, 1996-97 Academic Year.

[4] Excellence in Undergraduate Teaching Award,
College of Arts and Sciences, University of Central Florida, 1998.

[5] Presidential Award for Special Merit (for Exceptional Professional Achievements),
University of Central Florida, 2000.

[6] TIP (Teaching Incentive Program) Award,
College of Engineering and Computer Science, University of Central Florida,
2002-03 Academic Year.

[7] TIP (Teaching Incentive Program) Award,
College of Engineering and Computer Science, University of Central Florida,
2010-11 Academic Year.

[8] ACM-ICPC Measures Distinguished Service Award, April 2008.
Quoting the award description: "This is awarded to the ICPC volunteer who has played
an instrumental role in the success of the ICPC for a period of 15 years or more."
This is the highest ICPC Service Award.

[9] ACM-ICPC Award of Excellence (Presented by IBM), for the consistent and
exceptional programming team records for ten years, March 2000.

[10] ACM-ICPC Distinguished Service Award, World Finals 2000 Director.

[11] International UPE Certificate of Appreciation (for contribution to UPE as
International President), April 2005.

[12--35] ACM-ICPC Award, Southeast Regional (top three in the region every year)
First Place -- thirteen times (1989, 90, 91, 94, 96, 97, 2000, 01, 03, 06, 08, 09, 12)
Second Place -- seven times (1993, 95, 99, 2004, 05, 07, 11)
Third Place -- four times (1992, 98, 2002, 10)

[36--39] ACM-ICPC Award, World Contest Finals
Fifth Place, 1991
Seventh Place, 1992
Seventh Place, 1994
Bronze Medal, 2001

[40] International UPE Outstanding Service Award (for contribution to UPE as
International President, Executive Council Member, and Chapter Advisor),
March 2012.

[41] ACM-ICPC Distinguished Coach Award (Presented by IBM), for excellence in
Advancing Teams to the ACM-ICPC World Finals Fifteen Years or More, May 2012.

Graduate Students Supervised

Have supervised **4** Ph.D. students.

Have supervised **26** M.S. students.

Honor Society Memberships

Upsilon Pi Epsilon -- Honor Society for the Computing and Information Disciplines

Sigma Xi -- The Scientific Research Society

Phi Kappa Phi -- The Honor Society

Publications (Journals/Books)

[1] "The Implementation of a Multi-Backend Database System (MDBS): Part I -- Software Engineering Strategies and Efforts Towards a Prototype MDBS," Chapter 10, *Advanced Database Machine Architectures*, Prentice-Hall, 1983.

[2] "The Implementation of a Multi-Backend Database System (MDBS): Part II -- The First Prototype MDBS and the Software Engineering Experience," Chapter 11, *Advanced Database Machine Architectures*, Prentice-Hall, 1983.

[3] "A Message-Oriented Implementation of a Multi-Backend Database System (MDBS)," Pages 242--266, *Database Machines*, Springer-Verlag, 1983.

[4] "Experiments with Data Access and Data Placement Strategies for Multi-Computer Database Systems," Pages 429--442, *Database Machines and Knowledge Base Machines*, Kluwer Academic Publishers, 1988.
This paper also appeared in *Proceedings of the International Workshop on Database Machines*, October 1987.

[5] "Independent Revocation of Access Rights in Database Management Systems," *Information Systems Journal*, Volume 14, Number 5, 1989.

[6] "Application of SLAM in the Design and Performance Analysis of a Multi-Processor Database System," *Computers and Industrial Engineering Journal*, Volume 18, Number 1, 1990.

[7] "Predictive Performance Analysis of a Multi-Computer Database System," *Information Systems Journal*, Volume 15, Number 4, 1990.

[8] "Supporting Temporal Capabilities in a Multi-Computer Database System," *Databases: Theory, Design, and Applications*, pp. 139-150, IEEE Computer Society Press, 1991.

This paper also appeared in *Proceedings of the IEEE International Conference on Databases, Parallel Architectures, and their Applications*, March 1990.

[9] "Extending A Primary-Memory-Based Terminological Reasoning System With Database Capabilities," *International Journal of Computers & Applications*, Volume 20, Number 2, 1998, pp. 61-67.

[10] "Parallel Database Systems," *Encyclopedia of Electrical and Electronics Engineering*, Volume 15, 1999, pp. 609-618, John G. Webster, Editor, John Wiley & Sons, Inc.

[11] "Simulation Results for an Adaptable Attribute Replication Mechanism to Support Inheritance in Large Knowledge-Bases," *Simulation Journal*, Volume 73, Number 3, September 1999, pp. 149-158.

[12] "System Software Knights," 600 pages (compiled from several sources), published by Pearson, 2008.

I (and another professor) compiled this textbook (for our COP 3402) using several sources since there was not any existing suitable textbook.

[13] "C Knights - An Introduction to Programming in C," 440 pages (compiled from several sources), published by Pearson, 2009.

I (and another professor) compiled this textbook (for our COP 3223) using several sources since there was not any existing suitable textbook.

Publications (Conferences)

[1] "Experiments with Data Access and Data Placement Strategies for Multi-Computer Database Systems," *Proceedings of the International Workshop on Database Machines*, October 1987.

This paper also appeared in *Database Machines and Knowledge Base Machines*, Kluwer Academic Publishers, 1988.

[2] "An Object-Oriented Relational Database System," abstract paper, *Object-Oriented Database Workshop*, held in conjunction with *Conference on Object-Oriented Programming Systems, Languages, and Applications (OOPSLA)*, October 1987.

[3] "A Relational Object-Oriented Management System," abstract paper, *Object-Oriented Database Workshop*, held in conjunction with *Conference on Object-Oriented Programming Systems, Languages, and Applications (OOPSLA)*, September 1988.

[4] "Supporting Temporal Capabilities in a Multi-Computer Database System," *Proceedings of the IEEE International Conference on Databases, Parallel Architectures, and their Applications*, March 1990.

This paper also appeared in *Databases: Theory, Design, and Applications*, IEEE Computer Society Press, 1991.

- [5] "A Relational Object-Oriented Management System," *Proceedings of the IEEE International Phoenix Conference on Computers and Communications*, March 1990.
- [6] "A Symmetrical Approach to Granting and Revoking Access Rights in Database Management Systems," *Proceedings of the IEEE International Computer Software & Applications Conference*, October 1990.
- [7] "The Case for Encapsulated Inheritance," *Hawaii International Conference on System Sciences*, January 1991.
- [8] "Extending a Scientific Text Comprehender into a Database System," *International Conference on Computer Application in Science, Technology and Medicine*, December 1991.
- [9] "Software Reuse Library for Object-Oriented Programming Environments," *Software Engineering Research Forum*, November 1993.
- [10] "A Database Architecture for a Terminological Reasoning System," *Artificial Intelligence and Expert Systems Conference*, July 1994.
- [11] "Effects of Attribute Replication in Inheritance Systems: Some Empirical/Simulation Results," *International Symposium on Methodologies for Intelligent Systems*, October 1994.
- [12] "ORR: Object-Relational Rapprochement," *International Computer Software and Applications Conference*, October 1999.
- [13] "A Database Subsystem for a Learning Delivery System," *International Conference on Internet Computing*, June 2001.
- [14] "An Adaptive Integration Architecture for Software Reuse," *International Conference on Software Engineering and Applications*, August 2001.
- [15] "Application Portfolio Interoperability: Applying an Adaptive Integration Architecture to the Telecom OSS Problem," *International Conference on Software Engineering and Applications*, August 2001.
- [16] "Enabling Adaptive Enterprise Services Oriented Architectures with Distributed Object-Oriented Middleware," *International Conference on Communications in Computing*, June 2002.
- [17] "A Mathematical Formalism for Specifying Design Patterns," *International Symposium on Computer and Information Sciences*, October 2002.
- [18] "Routing Protocols for Sensor Networks," *International Conference on Wireless Networks*, June 2006.
- [19] "A Next-Generation Transportation Information Network," *International Conference on Wireless Networks*, June 2006.

- [20] “A Web-Based System for Programming Team Practice Management,” *International Conference on Information and Knowledge Engineering*, July 2008.
- [21] “A Web-Based System for Programming Contest Registration and Management,” *International Conference on Internet Computing*, July 2009.
- [22] “A Web-Based System for Problem Solving Course and Programming Contest Judging and Management,” *International Conference on Information and Knowledge Engineering*, July 2010.
- [23] “Metrics for Web Programming Frameworks,” *International Conference on Semantic Web and Web Services*, July 2011.
- [24] “A Team Registration System to Support Tracking Training and Enhancing Performance,” *International Conference on Internet Computing*, July 2011.
- [25] “A Progress Reporting System to Advance Experiential Learning and Administrative Student Activities,” *International Conference on E-Learning, E-Business, Enterprise Information Systems, and E-Government*, July 2012.
- [26] “A Submission and Adjudication System to Track Training and Enhance Performance,” *International Conference on Internet Computing*, July 2012.
- [27] “Software Development Education,” being submitted to *International Conference on Frontiers in Education: Computer Science and Computer Engineering (FECS)*, July 2013.

Publications (Technical Reports)

- [1] “The Implementation of a Multi-Backend Database System (MDBS): Part III – The Message-Oriented Version with Concurrency Control and Secondary-Memory-Based Directory Management,” Technical Report, NPS-52-83-003, Naval Postgraduate School, Monterey, California, March 1983.
- [2] “The Implementation of a Multi-Backend Database System (MDBS): Part IV – The Revised Concurrency-Control and Directory-Management Processes and the Revised Definitions of Inter-Process and Inter-Computer Messages,” Technical Report, NPS-52-84-005, Naval Postgraduate School, Monterey, California, February 1984.
- [3] “Software Engineering Techniques for Large-Scale Database Systems as Applied to the Implementation of a Multi-Backend Database System,” Technical Report, NPS-52-84-012, Naval Postgraduate School, Monterey, California, August 1984.
- [4] “RRDS -- A Relational Replicated Database System,” Technical Report, CS-TR-86-07, University of Central Florida, Orlando, Florida, February 1986.

- [5] “A Data Manipulation Language for a Relational Replicated Database System (RRDS),” unpublished Technical Report, University of Central Florida, Orlando, Florida, June 1986.
- [6] “Query Processing in a Relational Replicated Database System (RRDS),” unpublished Technical Report, University of Central Florida, Orlando, Florida, November 1986.
- [7] “A Taxonomy of Database Systems,” Technical Report, CS-TR-87-10, University of Central Florida, Orlando, Florida, June 1987.
- [8] “Experiments with Hardware Organizations for Multi-Computer Database Systems,” Technical Report, CS-TR-88-20, University of Central Florida, Orlando, Florida, July 1988.
- [9] “An ER-DBMS Using an Underlying Relational System,” Technical Report, CS-TR-90-03, University of Central Florida, Orlando, Florida, May 1990.
- [10] “Communication Topology and Disk I/O Effects on a Multi-Processor Database System,” Technical Report, CS-TR-92-01, University of Central Florida, Orlando, Florida, January 1992.
- [11] “Extending GemStone to a Relational Object-Oriented Database Management System,” Technical Report, CS-TR-97-14, University of Central Florida, Orlando, Florida, October 1997.

Research Grants

- [1] “Rapidly Reconfigurable Object-Oriented Databases for Simulation,” DOD/NTSC (ARI-PM-TRADE-BAA), \$29,175, August 1988 -- August 1989.
- [2] “An Object-Oriented Rule-Based Approach to Product Data Exchange and Specification, FHTIC (Florida High Technology and Industry Council), \$10,962, January 1991 -- December 1991.
- [3] “An Object-Oriented Rule-Based Approach to Product Data Exchange and Specification,” FHTIC (Florida High Technology and Industry Council), \$6,000, January 1992 -- December 1992.
- [4] “Simulation and Training R&D for UCF Fire Training Facility,” UCF Special Grants, Division of Sponsored Research and Training (DSRT), \$10,000, June 1993 -- June 1994.
- [5] “REU Supplement for RET: Research Experience for Teachers in Computer Vision,” NSF, \$25,000 (funding to support two high school teachers), summer 2006.
- [6] “Property Management System -- Room Assignment Module,” Walt Disney

World Co - IT Department, \$18,000, spring, summer, fall 2008.

[7] “Property Management System -- Room Assignment Module,” Walt Disney World Co - IT Department, \$20,000, spring, summer, fall 2009.

[8] “UCF Programming Team to the World Top Ten: Students, Facilities, and Training Process,” \$1,400,000, Five years, starting fall 2008.

[9] “Software Development Education Pathway,” Associate in Science (AS) Computer Programming and Analysis Articulated to a New Bachelor of Applied Science (BAS) Software Development. NSF (NSF Advanced Technological Education), \$570,348, Three years, starting 7/1/10.

[10] “Property Management System -- Guest Tracking Module,” Walt Disney World Co - IT Department, \$20,000, spring 2012 - fall 2013.

[11] “UCF Programming Team – Next Leap,” to be submitted, \$2,500,000, Five years, starting fall 2013.

I have received correspondence to submit this continuation proposal.

[12] “BP: CookieDough: Cooperative Learning for Female Recruitment and Retention,” submitted to NSF (Computing Education for the 21st Century – CE21), \$600,000.