

Curriculum Vitae

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Last Updated: December 2011

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1 BRIEF BIOGRAPHY

Dr. Helal is a Professor at the Computer and Information Science and Engineering Department (CISE) at the University of Florida (UF), USA, and a Finland Distinguished Professor (FiDiPro) at Aalto University and the EIT ICT Labs, Finland. He is a pioneer and a recognized leader in the field of Pervasive and Ubiquitous Computing. He is well known, worldwide, for his interdisciplinary research on smart spaces and Health Telematics in support of Health Care, and Aging, Disabilities and Independence (ADI). He directs the Mobile and Pervasive Computing Laboratory in the CISE department at UF. He is co-founder and director of the Gator Tech Smart House, an experimental home for applied research in the domains of elder care and health telematics. He led and directed the NIDRR-funded Rehabilitation Engineering Research Center (RERC) on Successful Aging (2001-2007), and is currently leading a continuation project on smart home based personal health and independence, funded by the National Institutes of Health (NIH).

Dr. Helal is well published with over 200 books, book chapters, Journals/transactions, and conference and workshop articles. Among his most recent books are: *"The Engineering Handbook of Smart Technology for Aging, Disability and Independence,"* (2009), *"The Landscape of Pervasive Computing Standards,"* (2010), and the *"Mobile Platforms and Development Environments,"* (April 2011).

Dr. Helal secured significant grants (both federal and industrial) to fund his research on the use of Smart Homes as Assistive Environments for the elderly. As PI or Co-PI, he raised over \$8.5M since he joined UF in 1998 (not counting equipment grants). He has funded, supervised and graduated 13 Ph.D. students and 50 Masters thesis students in the past 11 years. Among the funding agencies and companies who funded (or currently fund) his research are: National Science Foundation, NIH, DARPA, the US Special Operation Command, IBM, Motorola, Harris Corporation, Microsoft Research, Citrix Systems, Sun Microsystems, Nokia Research Labs, and the National Institute on Disability and Rehabilitation Research. He has also been funded several times by ETRI, Korea.

Dr. Helal is a technologist at heart. Some of his research led to the creation of emerging technologies, mostly centered on delivering human care and maintaining wellbeing. He is highly experienced in matters of intellectual property and technology protection (15 patent applications, and 7 issued patents), business development, launching technology startups, incubation, technology management, and policies and procedures of modern science and technology parks (STP). He is the founder of two companies: Phoneomena, Inc., a mobile application and middleware company (2002-2007), and Pervasa, Inc., focused on platform and middleware products for sensor based systems and the enablement of creating smart spaces (2006-2011).

Dr. Helal has been invited to give numerous Keynote speeches in prestigious conferences around the world including the 3rd International Conference on Intelligent Environments (IE07), Ulm, Germany, September 2007; the 31st Annual IEEE International Computer Software and Applications Conference (COMPSAC), Beijing, China, July 2007; the 5th International Conference on Smart Homes and Health Telematics (ICOST07), Nara, Japan, 2007; the Second International ICST Conference on Sensor Systems and Software (S-Cube), Miami, Florida, December 2010; the 7th International Conference on Ubiquitous Intelligence and Computing (UIC 2010), October 2010, Xi'an, China; and the IEEE International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems, Miami, Florida, August 2010. He has also been invited by top research centers around the world to give invited talks, including, Microsoft Research Redmond, Microsoft Research Beijing, Nokia Research Labs, Palo Alto, Motorola Research, Plantation, IBM TJ Watson Research labs, GE Global Research labs, Bell Labs (which is Alcatel-Lucent Research labs in Antwerp, Belgium), ETRI, Korea,

among others. He also was invited as speaker in Distinguished Series Lectures in University of Minnesota, Queens University, Canada, Singapore Management University, and the A*STAR, Institute for Infocom Research, Singapore.

Professionally, Dr. Helal has been a committed volunteer in several leadership positions for the past 18 years. He organized over 20 conferences or workshops, mostly IEEE and ACM, in the capacity of Program/General Chair/Co-Chair. Most recently, he organized and chaired UbiComp 2009, the premier International conference on Ubiquitous Computing (www.ubicomp.org). Editorially, he is currently the associate Editor-in-Chief of IEEE Computer, the flagship magazine of the IEEE Computer Society. He is also the Editor of Computer's newly established column on Industry Perspective. Dr. Helal is also co-founder and an editorial board member of the IEEE Pervasive Computing magazine. He has been the Editor of the magazine's column on Standards, Tools and Emerging Technologies since the magazine's inception in 2002. He serves or served on the editorial boards of numerous journals and IEEE transactions. He has been a senior member of the Institute of Electrical and Electronics Engineers (IEEE) since October 2000, and is a member of the Association for Computing Machinery (ACM) and the USENIX Association.

Recognized as a leader and an expert by the international community, Dr. Helal has been recruited by Nomura Research Institute (NRI), Japan, in 2008, to conduct preliminary research into the open services platform project undertaken by the Taiwanese government. Dr. Helal has also been retained by the Singaporean Agency for Science, Technology and Research (A*STAR) as scientific advisor, and has been visiting Singapore annually from 2005 to 2009. He served as a member of the Technical Advisory Board of Microsoft Innovation Lab in Cairo, Egypt. He also served as an Electoral Board Advisor to the founder recruitment committee of the Digital Health Institute recently established at the University of Warwick, UK. He was retained as an expert advisor to The World Health Organization (WHO) on technology matters surrounding the 2011 World Report on Disability - a joint project of WHO and the World Bank. He has in the past been invited to advise and evaluate programs by the Portuguese Foundation for Science and Technology (2004), the FWF Austrian Science Fund, Austria (2006) and the Soumen Akatemi (Finland Academy) (2008), Sweden Knowledge Foundation (2011), Qatar Foundation (2010-2011)

Dr. Helal continuously receives close media attention and coverage (2001-2011). This includes the New York Times, the Chicago Tribune (twice), the Cover Story of the USA Today, the Discovery Channel TV program, and many other newspapers and famous computer magazines. In March 2010, Dr. Helal was featured as the cover story highlight in the Florida Trends Magazine, the premier business magazine of the state of Florida. He was described in this cover story as the "King of Invisible Tech," – a line that he often finds gratifying to quote 😊. Details of all media coverage of Dr. Helal and his research findings can be accessed online at: <http://www.icta.ufl.edu/media.htm>



Born in Suez, Egypt, Dr. Helal earned his B.E. and M.E. degrees summa cum laude in Computer Engineering and Automatic Control from Alexandria University, Egypt, in 1982 and 1985 respectively. He earned his Ph.D. in Computer Sciences from Purdue University in 1991.

Dr. Helal's latest news can be followed at: <http://www.icta.ufl.edu/news.htm>

2 EDUCATION

- Purdue University, West Lafayette, Indiana, Computer Sciences, Ph.D., 1991
- Purdue University, West Lafayette, Indiana, Computer Sciences, MS, 1989
- Alexandria University, Alexandria, Egypt, Computer Eng. & Automatic Control, ME, 1985
- Alexandria University, Alexandria, Egypt, Computer Eng., & Automatic Control, BE, 1982 (Summa Cum Laude)

3 PROFESSIONAL EXPERIENCE

2004–Present. Professor, Computer and Information Science and Engineering Department, University of Florida, Gainesville, Florida (www.cise.ufl.edu/~helal).

2011-2015. Finland Distinguished Professor (FiDiPro), Aalto University and EIT ICT Labs, Smart Space Thematic Action Line, Finland (www.fidipro.fi)

2006–2011. Founder, Pervasa, Inc. (www.pervasa.com) A wireless Sensor integration technology company (Winner of Best of Sensors Expo Silver Award 2007).

2005–Present. Co-Founder and Director of the Gator Tech Smart House at the University of Florida (www.icta.ufl.edu/gt.htm).

2000–Present. Director of the Mobile and Pervasive Computing and Networking Laboratory at the University of Florida (www.icta.ufl.edu).

2002–2007. Founder, Phoneomena, Inc. (www.phoneomena.com) A mobile middleware company.

2001–2007. Director of Technology Development of the NIDRR funded Rehabilitation Engineering Research Center (RERC) on Successful Aging, the University of Florida.

2001–2004. Tenured Associate Professor, Computer and Information Science and Engineering Department, University of Florida, Gainesville, Florida.

1998–2001. Associate Professor, Computer and Information Science and Engineering Department, University of Florida, Gainesville, Florida.

2000–2000. Academic Visitor, IBM T.J. Watson Research Center, Hawthorne, NY.

1996–1998. Member of the Technical Staff, Microelectronics and Computer Technology Corporation (MCC), Austin, Texas.

1995–1996. Visiting Assistant Professor of Computer Science, Department of Computer Sciences, Purdue University, West Lafayette, Indiana.

1991–1995. Assistant Professor, Computer Science Engineering Department, University of Texas at Arlington, Arlington, Texas.

1994–1994. Visiting Researcher, Hughes Research Laboratory, Malibu, California.

1989–1991. David Ross Research Fellow, Department of Computer Sciences, Purdue University, West Lafayette, Indiana.

1987–1989. Purdue University Research Fellowship, Department of Computer Sciences, Purdue University, West Lafayette, Indiana.

1987–1987. Teaching Assistant, Department of Computer Sciences, Purdue University, West Lafayette, Indiana.

1982–1985. Lecturer, Department of Computer Science and Automatic Control, College of Engineering, Alexandria University, Alexandria, Egypt.

4 ACTIVE AREAS OF RESEARCH

- **Pervasive Computing:** Fundamental research on Programmable Pervasive Spaces (sensor/actuator based systems); The Atlas sensor platform and middleware project: architectures, middleware, programming models including safety-oriented models, device description language or DDL, Service Oriented Device Architectures (SODA), self-integration mechanisms; Self-sensing spaces (real-world modeling); programmable and scalable knowledge based human activity recognition; context-driven simulation of human activities in pervasive spaces; cloud-sensor system architectures and energy optimization.
- **Pervasive Computing Applications:** The Gator Tech Smart House: a real-life smart space for innovating, experimenting with, and validating cyber-physical technologies (mainly based on the Atlas sensor platform) in support of Aging, Disability and Independence. Unencumbered indoor location tracking; Blind-pedestrian positioning and navigation on campus environments. TouchView: A Cognitive Assistant for MPS Children.
- **Mobile Computing:** Mobile computing models including adaptations of wireless thin client and mobile caching and cache invalidation; Ubiquitous data access (protocols and algorithms for “any data on any device” concept with implementation using the CODA system); Mobile transactions models; Mobile ad-hoc collaboration groupware; Adaptive mobile video delivery.
- **Mobile Networking:** Ghost IP - network protocols for rapid mobility; RAMON – rapid mobility network emulator; Inter-layer collaboration model for wireless transport protocols. Mobile service discovery (the uJini project and Context Attributes); Protocols and systems implementing ad-hoc service discovery and delivery (the Konark project);
- **Internet Computing:** Almost zero infrastructure mobile agents (aZiMa); User-level information fusion using web services; Self-organizing Info agent communities; Web services and workflows; Data replication protocols (doctoral research).

5 HONORS

- Finland Distinguished Professor (FiDiPro) 2011-2014. Only a handful of international scholars from all fields of science and engineering are awarded FiDiPro annually.
- University of Florida 2011 Technology Innovator of the Year award, recognizing faculty with successfully licensed IP.

- Best Paper Award: C. Chen Y. Xu, K. Li and A. Helal, "Reactive Programming Optimizations in Pervasive Systems," in Proceedings of the IEEE/IPSJ Symposium on Applications and the Internet, July 2010, Seoul, Korea.
- Best Paper Award: C. Chen and A. Helal, "Device Integration in SODA using the Device Description Language," in Proceedings of the IEEE/IPSJ Symposium on Applications and the Internet, July 2009, Seattle, Washington, USA.
- ACM Recognition of Service Award in appreciation for contributions to ACM as Chair of the 11th International Conference on Ubiquitous Computing, Sept 30-Oct 3, 2009.
- IPSJ (Information Processing Society of Japan) Certificate of Appreciation for distinguished service to the IPSJ/IEEE Symposium of Applications and the Internet, 2010.
- IEEE Computer Society Certificate of Appreciation for outstanding service and contributions to the COMPSAC 2009 Conference.
- IEEE Computer Society Certificate of Appreciation for service on the 2009 Chapters Activities Board
- IEEE Computer Society Certificate of Appreciation for achievements as General Chair of IEEE International Performance, Computing and Communication Conference (IPCCC), held in April 2002.
- Awarded the Senior Membership grade in the Institute for Electrical and Electronics Engineers (IEEE), October 2000.
- David Ross Fellowship Recipient, Purdue University, 1989 -1991
- Purdue Foundation Fellowship Recipient, 1987 - 1989
- Awarded the Alexandria University Model Student title, May 1982

6 PUBLICATIONS

6.a Books

1. A. Helal, R. Bose and W. Li, "Mobile Platforms and Development Environments," A Synthesis Book In Preparation for Morgan & Claypool Publishing Company. To appear early 2012.
2. A. Helal, "The Landscape of Pervasive Computing Standards," A Synthesis Book Submitted to Morgan & Claypool Publishing Company. ISBN 978-1598299267, May 2010.
3. A. Helal, B. Haskell, J. Carter, R. Brice, D. Woelk, and M. Rusinkiewicz, "*Any Time Anywhere Computing: Mobile Computing Concepts and Technology*," Kluwer Academic Publishers. ISBN 0-7923-8610-8, Published October 1999. 192pp.
4. A. Cichocki, A. Helal, M. Rusinkiewicz, and D. Woelk, "*Workflow and Process Automation: Concepts and Technology*," Kluwer Academic Publishers. ISBN 0-7923-8099-1, Published November 1997. 121pp.

5. A. Elmagarmid, H. Jiang, A. Helal, A. Joshi, and M. Ahmed, "*Video Database Systems: Issues, Products, and Applications*," Foreword by *Aref Ghafoor*. Kluwer Academic Publishers. ISBN 0-7923-9872-6, Published January 1997. 178pp.
6. A. Helal, A. Heddaya, and B. Bhargava, "*Replication Techniques in Distributed Systems*," Foreword by *Jim Gray*. Kluwer Academic Publishers. ISBN 0-7923-9800-9, Published August 1996. 156pp.

6.b Edited Books

1. A. Helal, M. Mokhtari and B. Abdulrazak, "The Engineering HANDBOOK of Smart Technology for Aging, Disability, and Independence," John Wiley & Sons. ISBN 978-0-471-71155-1, Computer Engineering Series, September 2009.
2. A. Helal, S. Mitra, J. Wong, C. Chang and M. Mokhtari, "Smart Homes and Health Telematics," Lecture Notes in Computer Science (LNCS 5120), Springer, 2008.
3. W. Mann and A. Helal, "Promoting Independence for Older Persons with Disabilities," Assistive Technology Research Series, IOS Press, ISBN 1-58603-587-8, Copyright 2006.
4. M. Deithelm, A. Helal, D. Long, L. Wilson, and L. Xu, Editors, "Proceedings of the 2002 IEEE International Performance, Computing, and Communications Conference," Phoenix, Arizona, April 2002. Approx. 600 pp.
5. N. Ullah, H. Clausen, M. Deithelm, N. Malik, A. Helal, and L. Wilson, Editors, "Proceedings of the 2001 International Performance, Computing, and Communications Conference," Phoenix, Arizona, April 2001. Approx. 500 pp.
6. J. Agrawal, A. Helal, and Linda Wilson, editors, "*Proceedings of the 19th International Performance, Computing, and Communications Conference (IPCCC)*," IEEE Computer Society Press, February 2000. 603pp.
7. A. Joshi and A. Helal, editors, "*Proceedings of the 10th International Workshop on Research Issues in Data Engineering (RIDE)*," IEEE Computer Society Press, February 2000. 77pp.
8. H. El-Rewini and A. Helal, editors, "*Proceedings of the 33rd Hawaii International Conference on System Sciences*," IEEE Computer Society Press, January 2000. 350pp.
9. A. Helal and K. Aberer, editors, "*Proceeding Editor of the first IFCIS International Conference on Cooperative Information Systems (CoopIS)*," IEEE Computer Society Press, October 1996. 249 pp.

6.c Book Chapters

1. A. Helal, J. King, H. Zabadani and Y Kaddourah, "The Gator Tech Smart House: An Assistive Environment for Successful Aging," Book Chapter in "Advanced Intelligent Environments," H. Hagra, Editor, Springer Verlag. To appear 2008.

2. H. Yang, R. Bose, A. Helal, J. Xia, and C. Chang, "Fault-resilient Pervasive Service Composition", Book Chapter in "Advanced Intelligent Environments," H. Hagrass, Editor, Springer Verlag. To appear 2008.
3. W. Mann and A. Helal, "Technology and Chronic Conditions in Later Years: Reasons for New Hope," in Hans-Werner Wahl, Clemens Tesch-Romer and Andreas Hoff, Editors, "New Dynamics in Old Age - Individual, Environmental and Societal Perspectives," Baywood Publishing Company, Inc. ISBN: 0-89503-322-4, 2007.
4. A. Helal and C. Lee, "Pervasive Computing," in "The Practical Handbook of Internet Computing," Munindar Snigh, Editor, Chapman & Hall/CRC Computer and Information Science Series, CRC Press, 2005, Pp37-1 to 37-14, ISBN 1-58488-381-2.
5. A. Helal, W. Mann and C. Lee, "Assistive Environments for Individuals with Special Needs," D. Cook and S. Das, Editors, Smart Environments, John Wiley and Sons, Inc., 2005, Pp 361-383. ISBN 0-471-54448-5.
6. A. Helal, S. Balakrishnan, M. Dunham and Y. Liu, "A Survey on Mobile Transaction Models," Imad Mahgoub, Editor, Handbook of Mobile Computing, CRC Press. January 2005, Pp839-874, ISBN 0-8493-1971-4.
7. A. Abukmail and A. Helal, "Power Awareness and Management Techniques," Imad Mahgoub, Editor, Handbook of Mobile Computing, CRC Press. January 2005, Pp731-743, ISBN 0-8493-1971-4.
8. B. Mann and A. Helal, "Technology and Chronic Conditions in Later Years: Reasons for New Hope," Book Chapter in Baywood Series - Aging and Society, Edited by Hans Werner Wahl, 2004.
9. A. Helal, J. Jing, A. Elmagarmid, "Supporting Transaction Service Handoff in Mobile Environments," A book chapter in Mobile Networks and Computing, DIMACS series in Discrete Mathematics and Theoretical Computer Science. Edited by: S. Rajasekaran, P. Pardalos and F. Hsu. DIMACS book series, Volume 52, The American Mathematical Society, 2000. Pp123-147.
10. A. Heddaya and A. Helal, "Recovery-Enhanced Reliability, Dependability and Performability," A book chapter in: Recovery in Database Management Systems, Edited by V. Kumar, Foreword by Phil Bernstein. Prentice-Hall, January 1998. ISBN 0-13-614215-X, pp. 56-70.
11. A. Helal, Y. Kim, M. Nodine, A. Elmagarmid, and A. Heddaya, "Transaction Optimization Techniques," A book chapter in: Advanced Transaction Models and Architectures, Edited by Sushil Jajodia and Larry Kreschberg, Kluwer Academic Publishers, August 1997. ISBN 0-7923-9880-7, pp. 237-255.

6.d Refereed Journal Articles

1. C. Lee, J. Yi, A. Helal, E. Kim, and W. Lee, "Exploiting Whole-Network Mobility for Mobile Service Discovery," Submitted for publication.

2. D. Nguyen, N. Nguyen, M. Thai, and A. Helal, "Coverage Hole Healing in Hybrid Sensor Networks," Accepted for publication in the International Journal of Sensor Networks (IJSNet). To appear 2012.
3. E. Cho and A. Helal, "Expressive Exceptions for Safe Pervasive Spaces," Submitted to the Journal of Information Processing Systems (JIPS), August 2011.
4. A. Helal, C. Chen, E. Kim and C. Lee "Towards an Ecosystem for Developing and Programming Assistive Environments," Submitted to the Proceedings of the IEEE. Submitted July 2011.
5. S. Cadavid, M. Abdel-Mottaleb and A. Helal, "Exploiting Visual Quasi-Periodicity for Real-time Chewing Event Detection using Active Appearance Models and Support Vector Machines," Accepted for publication June 2011. To appear in Personal and Ubiquitous Computing Journal, Springer Publishing.
6. C. Chen, A. Helal, "System-wide Support for Safety in Pervasive Spaces," Journal of Ambient Intelligence and Humanized Computing (AIHC), ISSN 1868-5137, Springer Berlin / Heidelberg, pp1-11, December 2011.
7. D. Lee and A. Helal, S. Anton, S. De Deugd, and A. Smith, "Participatory and Persuasive Tele-Health," The International Journal of Experimental, Clinical, Behavioral, Regenerative and Technological Gerontology. August 2011, DOI: 10.1159/000329892. Karger AG, Basel, Switzerland.
8. D. Jo, A. Helal, E. Kim W. Lee and C. Lee, "Adaptive Push/Pull Protocols for P2P Based Video Streaming," Accepted for publication July 2011. To appear in the IEICE Transactions on Communications.
9. A. Helal, R. Bose, C. Chen, A. Smith, S. de Deugd and D. Cook, "STEPSTONE: A SODA Case Study in Personal Tele-Health Management," the Journal of Computing Science and Engineering (JCSE), KIISE. Accepted August 2011.
10. M. Thai, R. Bose, R. Tiwari, A. Helal, "Detection and Tracking of Phenomena Clouds," Submitted to the ACM transactions on Sensor Networks, March 2010.
11. H. Yang, C. Chen, A. Bessam, A. Helal, "A Framework for Evaluating Pervasive Systems," International Journal of Pervasive Computing and Communications (IJPCC), Vol 6, issue 4 (2010), November 2010.
12. S. Lim, L. Chung, A. Helal, and H. Yang, "Framework Design of Pervasive Computing System for Inter Space Interactions between Private and Public Smart Spaces," International Journal of Fuzzy Logic and Intelligent Systems, vol. 9, no. 3, September 2009, pp. 198-205.
13. A. Abukmail and A. Helal, "Energy Outsourcing for Mobile Devices in Pervasive Spaces", International Journal of Computational Intelligence: Theory and Practice. Vol.4, No.1. July 2009.
14. A. Helal, D. Cook, M. Schmalz, "Smart Home-based Health Platform for Behavioral Monitoring and Alteration of Diabetes Patients," Journal of Diabetes Science and Technology, Volume 3, Number 1, January 2009. Pp 141-148.

15. A. Helal, R. Bose, S. Lim and H. Kim, "Networked Robots using Atlas Service-Oriented Architecture in Smart Spaces," *International Journal of Fuzzy Logic and Intelligent Systems*, v.8, no.4, 2008, pp.288-298
16. J. Zhang and A. Helal, "Mobile Network Adaptation in the UbiData Mobile File System", the *International Journal of Computers and Applications*. Volume 30, Number 2, 2008.
17. C. Lee, S. Helal, and D. Nordstedt, "Impromptu Service Discovery and Delivery in Mobile Environments," *Journal of Information Science and Engineering*, vol.24, no.6, 2008
18. M. Al-Turkistany and A. Helal, "Adaptive Wireless Thin-client Model for Mobile Computing," *International Journal on Wireless Communications and Mobile Computing*, Wiley & Sons, 9(1), 2009, pp. 47-59.
19. J. Tian and A. Helal, "Speed Adaptive MIP over Wireless LAN," *Journal of Wireless Communications and Mobile Computing*. Wiley & Sons, 8(10), 2008, pp. 1355-1364.
20. R. Davenport, H. Elzabadani, J. Johnson, A. Helal and W. Mann, "Pilot Live-in Trial at the GatorTech Smart House," *Topics in Geriatric Rehabilitation*, 23(1), 2007, pp. 73-84.
21. A. Helal and B. Abdulrazak, "TeCaRob: Tele-Care using Telepresence and Robotic Technology for Assisting People with Special Needs," *International Journal of Human-friendly Welfare Robotic Systems*, VOL. 7, NO. 3, September 2006.
22. J. Meng, S. Su, A. Helal, and H. Lam, "DynaFlow: A Dynamic Inter-Organizational Workflow," *The International Journal of Business Process Integration and Management (IJBPIIM)*. Vol. 1, No.2, pp. 101 – 115, 2006.
23. A. Helal, H. Zabadani, J. King, Y. Kaddoura and E. Jansen, "The Gator Tech Smart House: A Programmable Pervasive Space," *Cover Feature, IEEE Computer*, Volume 38, Number 3, March 2005, pp. 64-74.
24. A. Helal, J. Lu and E. Jansen, "A Web Services Based Personal Information Integration Framework," *The International Journal of Web Services Research*, Vol. 2, No. 3, 2005.
25. W. Mann, A. Helal, P. Belchoir, M. Tomita, B. Kemp, B. "Computer Use By Middle-Aged and Older Adults with Disabilities," *Technology & Disability*, 17(1), 1-9, 2005.
26. A. Helal and J. Hammer, "UbiData: Requirements and Architecture for Ubiquitous Data Access," *SIGMOD RECORD*, Vol 33, No. 4, December 2004.
27. W. Mann, A. Helal, R. Davenport, M. Justiss, M. Tomita and B. Kemp, "Use of Cell Phones by Elders with Impairments: Overall Appraisal, Satisfaction and Suggestions," *Journal on Technology and Disability*, IOS Press, 16(2004), pp49-57.
28. W. Mann, A. Helal, "Smart Technology – A Bright Future for Independent Living," *The Society for Certified Senior Advisors Journal*, Volume 21, December 2003.
29. S. Su, J. Meng, R. Krishnavasen, S. DegWekar, and A. Helal, "Dynamic Inter-Enterprise Workflow Management in a Constraint-Based E-Service Infrastructure," *Electronic Commerce Research*, 3: 9–24 (2003), Kluwer Academic Publishers.

30. C. Lee, A. Helal, N. Desai, V. Verma, and B. Arslan, "Konark – A System and Protocols for Device Independent, Peer-to-Peer Discovery and Delivery of Mobile Services," the IEEE Transaction on Systems, Man and Cybernatics, Volume 33, Number 6, November 2003, pp682-696.
31. A. Elmagarmid, J. Jing, A. Helal, and C. Lee, " Scalable Cache Invalidation Algorithms for Mobile Data Access," IEEE Transactions on Knowledge and Data Engineering. Nov-Dec 2003, Volume 15, Number 6, 26, pp 1498-1511.
32. J. Meng, R. Krithivasan, S. Su and A. Helal, "Flexibility and Dynamism in E-Service based Workflow Management Systems," Kluwer Electronic Commerce Research Journal (special issue on "Business Process Integration and E-Commerce Infrastructure). January - April 2003, Volume 3, Issue 1-2, pp. 9-24.
33. A. Helal, L. Sampath, K. Birkett, and J. Hammer, "Adaptive Delivery of Video Data over Wireless and Mobile Environments," International Journal on Wireless Communication and Mobile Computing. John Wiley and Son. Volume 3. 23-36pp.
34. M. Lee and A. Helal, "*HiCoMo: High Commit Mobile Transactions*," The International Journal of Parallel and Distributed Database Systems. Kluwer Academic Publisher. Volume 11, No. 1, pp: 73-92, January 2002.
35. A. Helal, S. Shah and E. Hernandez, "Mobility Benchmarking In Ad-Hoc Networks," The IPSJ Journal, Vol.43, No.11, June 2002. Approx. 15 pp.
36. A. Helal and Mei Wang, "Service-Centric Brokering in Dynamic E-Business Agent Communities", the Journal of Electronic Commerce Research (JECR), Special Issue on Intelligent Agents in e-Commerce. Baltzer Science Publisher. Volume 2, Number 1, ISSN: 15266133. February 2001. Approx. 12 pp.
37. C. Lee, A. Helal, "*Protocols for Service Discovery in Dynamic and Mobile Networks*," in the International Journal of Computer Research, Special issue on Wireless Systems and Mobile Computing. September 2000. 18pp.
38. Y. Taha, A. Helal, K. Ahmed, and J. Hammer, "*Managing Multi-Task Systems Using Workflows*," ISMM Mini and Microcomputer Journal, Volume 21, Number 3, November 1999. pp. 69-78.
39. J. Jing, A. Helal, and A. Elmagarmid, "*Client-Server Computing in Mobile Environments*," ACM Computing Surveys, volume 31, Number 2, June 1999, pp. 117-157.
40. X. Liu, A. Helal, and W. Du, "*Multi-view Access Protocols for Large-Scale Replication*," ACM Transactions on Database Systems (TODS), Volume 23, Number 2, June 1998, pp. 158-198.
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115. R. Bayardo, B. Bohrer, R. Brice, A. Cichocki, J. Fowler, A. Helal, V. Kashyap, T. Ksiezyk, G. Martin, M. Nodine, M. Rashid, Rusinkiewicz, R. Shea, C. Unnikrishnan, A. Unruh, and D. Woelk, "InfoSleuth: Semantic Integration of Information in Open and Dynamic Environments," Proceedings of the 1997 ACM International Conference on the Management of Data (SIGMOD), Tucson, Arizona, May 1997. Also appeared as a book chapter in "Readings in Agents," Michael Huhns and Munindar Singh, Editors, Foreword by Les Gasser, Morgan Kaufman Publishing Inc., ISBN 1-55860-495-2, Published October 1997.

116. M. Ahmed, A. Helal, A. Belal, and K. Ahmed, "*Optimized Tree Structure for Associative Queries*," Proceedings of the Third ACM Joint International Conference on Computer Science and Informatics, Research Triangle Park, North Carolina, March 1997.
117. J. Meyer, H. El-Rewini, and A. Helal, "*WinMPI: An MPI Port for Windows*," Proceedings of the IASTED International Conference on Parallel and Distributed Computing and Systems, Chicago, Illinois, October 1996.
118. A. Helal, Y. Kim, A. Elmagarmid, and A. Heddaya "*Transaction Optimization*," Proceedings of the ATMA Workshop on Advanced Transaction Models and Architectures, In conjunction with VLDB'96, Goa, India, September 1996. A more elaborate and expanded version of this paper appeared as a book chapter.
119. A. Helal and J. Fortner, "*ScaleTool: A GUI-Based Database Scalability Evaluation Tool*," Proceedings of the IASTED International Conference on Modeling and Simulation, Pittsburgh, Pennsylvania, April 1996.
120. A. Helal, D. Yuan, F. Gherfal, and A. Elmagarmid, "*Evaluating Data Allocation Schemes in Shared-Nothing Parallel Databases*," the IEEE International Conference on Electronics, Circuits and Systems, Amman, Jordan, December 1995.
121. A. Helal, S. Balakrishnan, S. Ramachandra, and M. Dunham, "*A Generic Architecture for Data Access in Mobile Environments*," The Second Annual ACM Joint Conference on Information Sciences (JCIS'95), Wrightsville Beach, North Carolina, September 1995.
122. A. Helal and K. Khalil, "*Traffic Analysis and Characterization of A Local Area Network with Different Classes of Users*," The 8th International Conference on Parallel and Distributed Computing Systems, Orlando, Florida, September 1995.
123. A. Helal, B. Welch, and R. Elmasri, "*A Resilient Application-Level Failure Detection System for Distributed Computing Environments*," Proceeding of the IEEE Symposium on Advances in Computers and Communications, Alexandria, Egypt, June 1995.
124. A. Helal and B. Bhargava, "*Performance Evaluation of The Quorum Consensus Replication Method*," Proceedings of the IEEE International Computer Performance and Dependability Symposium (IPDS'95), Erlangen, Germany, April 1995.
125. A. Helal, T. Ku, and J. Fortner, "*Quasi-Dynamic Two-Phase Locking*," Proceedings of the Third International Conference on Information and Knowledge Management (CIKM'94), Washington D.C., November 1994.
126. A. Helal, "*Large-Scale Global Naming Services*," Proceedings of the ISMM International Conference on Intelligent Information Management Systems, Washington D.C., June 1994.
127. A. Helal, T. Ku, and R. Elmasri, "*Comparative Performance Analysis of Exclusive and Balanced Concurrency Control Algorithms*," Proceedings of the International Conference on Parallel and Distributed Systems, Taipei, Taiwan, December 1993.
128. A. Helal, T. Ku, R. Elmasri, and S. Mukherjee, "*Adaptive Transaction Scheduling*," Proceedings of the International Conference on Information and Knowledge Management (CIKM'93), Washington D.C., November 1993.

129. B. Bhargava and A. Helal, "*Efficient Availability Mechanisms in Distributed Database Systems*," Proceedings of the International Conference on Information and Knowledge Management (CIKM'93), Washington D.C., November 1993.
130. A. Helal, Y. Zhang, and B. Bhargava, "*Surveillance for Controlled Performance Degradation During Failures*," Proceedings of the 25th Hawaii International Conference on System Sciences, January 1992.
131. B. Bhargava and A. Helal, "*Replication Experiments in the RAID Distributed Database System*," Proceedings of the Indian Computing Conference, Hyderabad, India, November 1990.
132. B. Bhargava, K. Friesen, A. Helal, and J. Riedl, "*Adaptability Experiments in the RAID Distributed Database System*," Proceedings of the 9th IEEE Symposium on Reliable Distributed Systems, Huntsville, Alabama, October 1990.
133. A. Helal, J. Srinivasan, and B. Bhargava, "SETH: A Quorum-Based Replicated Database System for Experimentation with Failures," Proceedings of the 5th IEEE International Conference on Data Engineering, Los Angeles, February 1989.
134. A. Elmagarmid and A. Helal, "Supporting Updates in Heterogeneous Distributed Database Systems," Proceedings of the 4th IEEE International Conference on Data Engineering, Los Angeles, February 1988.
135. M. Nagi, A. Helal, and A. Elmagarmid, "Optimistic vs. Pessimistic Concurrency Control: A Comparative Study," Proceedings of the 15th International Conference on Parallel Processing, St. Charles, Illinois, August 1986.
136. A. Helal, A. Elmagarmid, and A. Hurson, "A Paradigm for Concurrency Control Performance Evaluation," Workshop of Future Directions on Computer Architecture and Software, Charleston, South Carolina, May 1986. pp. 228-235.

6.f Non-Refereed Publications

1. Sumi Helal, "IT Footprinting – Groundwork for Future Smart Cities," Guest Editor Introduction to the Smart City Special Issue of IEEE Computer, June 2011.
2. Sumi Helal, "University-Industry Synergy: An Eclectic Dialog for Revised Relationships," Industry Perspective Column, IEEE Computer, September 2009.
3. E. Kim, A. Helal and D. Cook, "Human Activity Recognition and Pattern Discovery," IEEE Pervasive Computing Magazine, Oct-Dec 2009.
4. Duckki Lee, Sumi Helal, Tatsuya Yamazaki, "Robotic Companions for Smart Space Interactions", IEEE Pervasive Computing Magazine, April-June 2009
5. D. Cook, H. Hagaras, V. Callaghan, and A. Helal, Making our environments intelligent. Journal of Pervasive and Mobile Computing, 2009.
6. Chao Chen and Sumi Helal, "Sifting through the Jungle of Sensor Standards," the Standards, Tools and Emerging Technologies Department, IEEE Pervasive Computing Magazine, Sumi Helal, Editor, Volume 7, Number 4, Oct-Dec 2008

7. Paolo Bellavista, Axel Küpper and Sumi Helal "Location Based Services – Back to the Future," the Standards, Tools and Emerging Technologies Department, IEEE Pervasive Computing Magazine, Sumi Helal, Editor, Volume 7, Number 2, April-June 2008
8. H. Hagaras, V. Callaghan, D. Cook, and A. Helal, "The Fourth International Conference on Intelligent Environments (IE 08): A Report," AI Magazine, 2008.
9. Choonhwa Lee, Sumi Helal, and Wonjun Lee "Universal Interactions with Smart Spaces," the Standards, Tools and Emerging Technologies Department, IEEE Pervasive Computing Magazine, Sumi Helal, Editor, Volume 5, Number 1, January-March 2006.
10. Sumi Helal, "Programming Pervasive Spaces," the Standards, Tools, and Emerging Technologies Department, IEEE Pervasive Computing magazine, Sumi Helal, Dept. Editor, Volume 4, Number 1, January-March 2005.
11. C. Lee, D. Nordstedt and A. Helal, "OSGi for Pervasive Computing," the Standards, Tools and Best Practice Department, IEEE Pervasive Computing, Sumi Helal, Dept. Editor, Volume 2, Number 3, Sept 2003.
12. Sumi Helal, "Service Discovery Standards", the Standards, Tools and Best Practice Department, IEEE Pervasive Computing, Sumi Helal, Dept. Editor, Volume 1, Number 3, Sept 2002.
13. Sumi Helal, "Pervasive Java –Part II", the Standards, Tools and Best Practice Department, IEEE Pervasive Computing, Sumi Helal, Dept. Editor, Volume 1, Number 2, June 2002.
14. Sumi Helal, "Pervasive Java", the Standards, Tools and Best Practice Department, IEEE Pervasive Computing, Sumi Helal, Dept. Editor, Volume 1, Number 1, March 2002.
15. W. Mann and A. Helal, "Smart Phones for the Elders: Boosting the Intelligence of Smart Homes," the AAAAI Workshop on Automation as Caregiver: The Role of Intelligent Technology in Elder Care, Edmonton, Canada, July 2002.
16. J. Zhang and A. Helal, "*A Survey on the LinuxCE Operating System Developments*," The IEEE Computer Society TCOS Bulletin on Operating Systems. Summer issue of 2000. An electronic publication.
17. M. Dunham and A. Helal, "*Mobile Computing and Databases: Anything New?*" ACM SIGMOD Record, Vol. 24, No. 4, December 1995.
18. A. Helal and R. Badrachalam, "*COM Versus CORBA: Will Microsoft Come Out on Top?*" IEEE Computer, Vol. 28, No. 10, October 1995.
19. A. Helal, "*A Sophisticate's Introduction to On-Line Transaction Processing*," A book review, IEEE Software, 1(11), January 1994.

6.g Other Publications

1. A. Helal, Foreword to the book: "Next Generation Intelligent Environments: Ambient Adaptive Systems," by Tobias Heinroth and Wolfgang Minker, Springer 2011.

2. A. Helal and E. Brewer, "Guest Editors Introduction," The ACM-Baltzer Journal on Mobile Networks and Applications (MONET). Special issue on Wireless and Mobile Software Architecture. Volume 5, Number 4, December 2000.
3. H. El-Rewini and A. Helal, "Introduction to the Software Technology Track," Proceedings of the 33d Hawaii International Conferences on System Sciences (HICSS-33), January 2000.
4. M. Rusinkiewicz and A. Helal, "Introduction to the special issue of the Journal of Intelligent Information Systems," Issue theme: Workflow Management, Volume 10, Number 2, March 1998.
5. A. Helal, "Introduction to the Fall 1996 special issue of the IEEE TC on Operating Systems' Bulletin," Issue theme: Operating System Education. Vol. 8, No. 3, December 1996.
6. D. Long and A. Helal, "Technical Activities Forum: TC on Operating Systems and Application Environments," IEEE Computer, Vol. 29, No. 2, February 1996.
7. M. Dunham and A. Helal, "Guest Editors Introduction," ACM SIGMOD Record, Vol. 24, No. 4, December 1995.
8. M. Bright, A. Helal, and A. Hurson, Minitrack on Parallel and Distributed Database Systems, "Track Coordinators' Introduction," Proceedings of the 27th Hawaii International Conference on System Sciences, January 1994.

7 ISSUED PATENTS

	Patent Title	Proprietor	Country	Publication Date	US Patent Application / Patent No.
1	Modular Platform Enabling Heterogeneous Devices, Sensors and Actuators to Integrate Automatically into Heterogeneous Network	U. of Florida	US & PCT	10/11/2007 (published)	US Patent No: 7,895,257 Issued: Feb 22, 2011
2	<i>System, Apparatus and Methods for Proactive Allocation of Wireless Communication Resources.</i>	U. of Florida	US	03/17/05	US Patent No: 7,697,508 Issued: April 13, 2010
3	<i>Daily Task And Memory Assistance Using a Mobile Device</i>	U. of Florida	US	7/12/04	US Patent No: 7,397,346 Issued: July 8, 2008
4	<i>Multimedia Controller</i>	Sumi Helal	US	7/12/04	US Patent No: 7,339,493 Issued: March 4, 2008
5	<i>Rapid Mobility Network Emulator Method and System.</i>	U. of Florida	US	8/2/04	US Patent No: 7,231,330 Issued: June 12, 2007

6	<i>Portable Device Medical Assistant</i>	Sumi Helal	US	7/12/04	US Patent No: 7,155,202 Issued: Dec 26, 2006
7	<i>Remote Surveillance And Assisted Care Using A Mobile Communication Device</i>	U. of Florida	US	7/12/04	US Patent No: 7,098,788 Issued: Aug 29, 2006

8 CONTRACTS AND GRANTS

8.a Funded at the University of Florida [1998-Present]

(Percentages of grant amounts dedicated to and managed by Dr. Helal are shown in parenthesis).

1. \$10,000, "Investigating Mobile Device Interoperability with Smart Homes for improving Resident Quality of Life," (Principle Investigator), Nokia Research Center, Palo Alto, CA, Oct 2009-Oct 2010. (100%)
2. \$20,000, "Ubiquitous Computing 2009 Doctoral Colloquium," (Principle Investigator), National Science Foundation, Sept 2009 – May 2010. (100%)
3. \$80,000, "A Sentient User Interface Framework for RUPI (Robot Unified Platform Initiative) Server," (Principle Investigator), Electronics and Telecommunication Research Institute (ETRI), Korea, March 2008-March 2009. (100%)
4. \$1,189,075, "Smart House Based Health Platform for Behavioral Monitoring and Alteration for Diabetic and Obese Individuals," (Principle Investigator), National Institutes of Health, National Institute on Drug Abuse, Sept 2007-Aug 2011. (82%).
5. \$100,000, "Programmable Sensor Framework for a Ubiquitous Robotic Companion, Year 2" (Principle Investigator), Electronics and Telecommunication Research Institute (ETRI), Korea, April 2007 – April 2008. (100%)
6. \$67,062, "An Implementation of the SODA Architecture Using ATLAS," (Principle Investigator), IBM Emerging Standards Division, March 2007 – March 2008. (100%)
7. \$40,219, "Programmable Sensor Framework for a Ubiquitous Robotic Companion, Year 1" (Principle Investigator), Electronics and Telecommunication Research Institute (ETRI), Korea, September 2006 – March 2007. (100%)
8. \$10,000, "Gator Tech Smart House," (Principle Investigator), The University of Florida Foundation, January 2005. (100%)
9. \$200,000, "RDE-FRI: Indoor/Outdoor Blind Navigation and Awareness System for Blind Students," (Principle Investigator), National Science Foundation, August 2004-July 2007. (100%)
10. \$4,500,000, "Rehabilitation Engineering Research Center (RERC) National Center on Technology for Successful Aging," (Co-Principle Investigator and Center Director for Technology Development), Department of Education, October 2001 – September 2006. (30%)

11. \$750,000, "Interdisciplinary Rehabilitation Research Postdoctoral Program," (Co-Principle Investigator), National Institute on Disability and Rehabilitation Research (NIDRR), August 2002 – July 2007. (25%)
12. \$700,000, "Low ADL Patient Technology in Home Care Demonstration," (Co-Principle Investigator), Department of Veteran Affairs, July 2002 – June 2004. (15%)
13. \$54,000, "Workshop on Aging, Disability and Independence," (Principle Investigator), National Science Foundation, June 2003-May 2004. (100%)
14. \$4,000, "Pervasive Computing Research for Elder Needs – Dementia," (Principle Investigator), Intel Research. July 2003, Cash donation. (100%)
15. \$20,046, "Mobile Computing Killer App Competition III," (Principle Investigator), Motorola, Oct 2002 - Oct 2003. (100%)
16. \$15,000, "Mobile and Wireless Remote Camera Control System," (Principle Investigator), USSOCOM and Battelle, August 2001-May 2002. (100%)
17. \$150,000, "Adaptive Synchronization Framework Supporting Device-independent Mobile Computing," (Principle Investigator), National Science Foundation, June 2001 – May 2003. (60%)
18. \$21,080, "Mobile Computing Killer App Competition II," (Principle Investigator), Motorola, May 2002 – May 2003. (100%)
19. \$70,000, "Mobile Computing Research," (Principal Investigator), Microsoft Corporation, March 2001, Cash donation. (100%)
20. \$21,987, "Mobile Computing Killer App Competition I," (Principle Investigator), Motorola, May 2001 – May 2002. Includes IDC to UF. (100%)
21. \$15,000, "Mobile 3-D Navigation System," (Principal Investigator) Harris Corporation, August 2000 to May 2001. (100%)
22. \$82,979, "The JiniDEN Smart Phone Project," (Principal Investigator) Motorola Corporation, May 2000 to May 2001. (100%)
23. \$73,150, "Exploiting Jini Technology for Ubiquitous Computing," (Principal Investigator), Equipment Grant from Sun Microsystems, January 2000. (100%)
24. \$25,000, "Mobile Computing Research," (Principal Investigator) Microsoft Corporation, March 2001, Cash donation. (100%)
25. \$15,000, "Wireless Navigation System for the Blind," (Principal Investigator) Microsoft Corporation, November 1999, Cash donation. (100%)
26. \$100,000, "Mobile Computing Laboratory," (Co-Principle Investigator) Harris Corporation. Cash Donation for renovation (partially matched by state funds). (100%)
27. \$51,938, "Wireless Thin Client Architecture," (Principal Investigator) Citrix Corporation, May 1999 to May 2000. (100%)
28. \$3,489, "Wireless Classroom Development," (Principal Investigator) Proxim Corporation, Equipment Grant, May 1999. (100%)

8.b Funded at other Institutions [1991-1998]

29. \$481,639, "Surveillance of Complex Events Using Active Agents," (Co-Principal Investigator and Program Manager) DARPA ITO Planning and Decision Aids Program, June 1997 to December 1998. Funded at MCC, Austin, Texas.
30. \$200,000, "Cognitive Integration of Heterogeneous Information Sources," (Co-Principal Investigator) DARPA ITO Intelligent Information Integration (I3) Program, February 1997 to February 1998. Funded at MCC, Austin, Texas.
31. \$20,015, "Research on Multimedia Databases II," (Principal Investigator) Department of Higher Education of Egypt, August 1996 to August 1997. Funded at Purdue University. (100%).
32. \$25,430, "Research on Data Warehousing II," (Principal Investigator) Department of Higher Education of Egypt, July 1996 to July 1997. Funded at Purdue University. (100%).
33. \$120,000, "Project Purdue On-Line," (Co-Principal Investigator) IBM Corporation, January 1996, Equipment Grant. Funded at Purdue University (10%).
34. \$3,040, "Mobile Transactions," (Principal Investigator) Software Engineering Research Center (SERC), August 1995 to May 1996. Funded at Purdue University (100%).
35. \$20,015, "Research on Multimedia Databases I," (Principal Investigator) Department of Higher Education of Egypt, August 1995 to August 1996. Funded at Purdue University (100%).
36. \$25,430, "Research on Data Warehousing I," (Principal Investigator) Department of Higher Education of Egypt, July 1995 to July 1996. Funded at Purdue University (100%).
37. \$160,061, "Designing Information Services for Mobile Computing Environments," (Principal Investigator) The State of Texas Higher Education Coordination Board. Advanced Research Program (ARP). This Grant was awarded on August 1995. Funded at the University of Texas at Arlington (70%).
38. \$10,000, "Heterogeneous Transaction Processing," (Principal Investigator) Hughes Aircraft Corporation, September 1994 to May 1995. Funded at University of Texas at Arlington (100%).

9 TEACHING EXPERIENCE

9.a Courses taught

- Undergraduate level. Operating Systems (several times), Information Systems (once), Programming Languages (once), C++ (once), Discrete Mathematics (several times), Senior Project Design (several times), Integrated Products and Process Design (IPPD) (several times).
- Graduate level. Operating Systems (several times), Distributed Database Systems (several times), Formal Methods for Research (once), Mobile and Pervasive Computing (many times), Wireless Sensor Networks (once).

9.b Educational Software / Hardware Tools by Dr. Helal

- Designed and implemented RAINBOW, a distributed database system and its lab setup and assignments for use in teaching Distributed Database Systems and Distributed System classes. RAINBOW was used at the University of Florida in teaching COP 6755: Distributed Database Systems, and was published and demonstrated in the Very Large Data Bases Conference (VLDB 2000)
- Designed and implemented VDS, a Virtual Distributed System and its lab setup and assignments for use in teaching Distributed Operating System classes. It emphasizes several aspects of synchrony, coordination, and control in distributed systems. VDS has been used several times at UF in teaching COP5615 (graduate OS) and COP 4600 (undergraduate OS).
- Jointly with my students, designed and developed an educational toolkit for sensor platforms called Atlas. The toolkit is used in the laboratory to develop sensor-based systems and pervasive spaces. Atlas toolkits have been commercialized and made available to many universities worldwide. Atlas has been used repeatedly in CNT 5517 (Mobile Computing).
- Jointly with my students, designed and implemented an ad-hoc service discovery and delivery infrastructure called KONARK. KONARK has been used several times in CNT 5517 (Mobile Computing).

10 ADVISING EXPERIENCE

10.a Summary

- Graduate Advisement.
 - Advised and graduated 15 Ph.D. students, 13 of which at the University of Florida
 - Advised and graduated 57 Masters students (all thesis option), 48 of which at the University of Florida
 - Advised and graduated 5 undergraduate Honor thesis students.
 - Currently advising 4 Ph.D. students. I am also a member of several Ph.D. Committees.
- Postdoc Advisement. Supervised and trained 8 Postdocs and Visiting Scholars with one or multiple years appointments through the CISE department.

10.b Master of Science Students

Master of Science Students					
<p>UFL: Advisement activities at the University of Florida (Aug 1998 to date) UTA: Advisement at the University of Texas at Arlington (Aug 1991 to Aug 1996)</p> <p>In the capacity of Chair of the Advisory Committee, graduated a total of: 57 Masters thesis students.</p>					
My Role	Student Name	Research Topic	Graduated	Dept/Univ.	Grad. Date
Chair	Shantonu Hussein	PerSim: Pervasive System Simulator and Dataset Synthesis.	No	CISE/UFL	Spr 2010

Chair	Aneel Mola	Query optimization in Atlas sensor Networks	Yes	CISE/UFL	Fall 2007
Chair	Raja Bose	Scalable Query Processing Architecture using the Atlas sensor platform.	Yes	CISE/UFL	Fall 2006
Chair	Ed Kouch	Wireless Power enablement in the Atlas Sensor platform.	Yes	CISE/UFL	Fall 2006
Chair	Younghyun Park	Transaction Processing in the UbiData Mobile Database System	Yes	CISE	Spring 2005
Chair	James Russo	OSGi based Sensor Networks for Pervasive Computing	Yes	CISE/UFL	Fall 2004
Chair	Mihir Patel	YCAB.net – Wireless, Ad-hoc Collaboration using .NET Compact Framework	Yes	CISE/UFL	Spr 2004
Chair	Andiputranto Sukuju	Smart Kitchens for the Elder Population	Yes	CISE/UFL	Spr 2004
Chair	Satish Veerapuneni	A Robotic Approach to Benchmarking Elder Daily Activity in a Pervasive Space	Yes	CISE/UFL	Summer 2003
Chair	YingChun (Lisa) Ran	Integrated Indoor/Outdoor Navigation System for the Blind	Yes	CISE/UFL	Spring 2003
Chair	Baldeep Singh	Security enhancement to Bluetooth	Yes	CISE/UFL	Spring 2003
Chair	Corneliu Manescu	Audio Streaming over Wireless Channels	Yes	CISE/UFL	Spring 2003
Chair	Pushkar Pradhan	Maintaining Consistent Group Membership in Ad Hoc Networks	Yes	CISE/UFL	Fall 2002
Chair	Peter Handle	Multimedia Delivery in Wireless Environments	Yes	CISE/UFL	Fall 2002
Chair	Subramanian Arumugam	aZiMA Mobile Agent System	Yes	CISE/UFL	Fall 2002
Chair	Sapan Anand	BlueSec – A Bluetooth Stack Extension for Secure Service Access	Yes	CISE/UFL	Fall 2002
Chair	Sasidah Parvatham	A Bluetooth LAN Access Profile Simulator	Yes	CISE/UFL	Fall 2002
Chair	Yanli Xia	Currency based Dynamic Database Design and Reconfiguration	Yes	CISE/UFL	Fall 2002
Chair	Jingting Lu	Web Service based User Centric Information Fusion	Yes	CISE/UFL	Summer 2002
Chair	Ajay Kang	Algorithms for Reduced Content Document Synchronization	Yes	CISE/UFL	Summer 2002
Chair	Bryon Winkler	High Precision Indoor Location/Positioning Tracking Systems	Yes	CISE/UFL	Summer 2002
Chair	Sree Charan Kuchibhotla	An OSGi based infrastructure for the Smart Homes of the future	Yes	CISE/UFL	Summer 2002
Chair	Dushiant Kochhar	Proxy Gator – A Server-side Wireless Toolkit	Yes	CISE/UFL	Summer 2002
Chair	Steve Moore	Drishti – Wireless and Mobile Navigation System for the Blind	Yes	CISE/UFL	Summer 2002

Chair	Varun Verma	KONARK – A ServiceDelivery Protocol for Ad-hoc Networks	Yes	CISE/UFL	Spring 2002
Chair	Madhav Chinta	ILC-TCP: An Interlayer Collaboration Protocol for TCP Performance Improvement in Mobile and wireless Environments	Yes	CISE/UFL	Spring 2002
Chair	Nitin Desai	KONARK – An Ad-Hoc Service Discovery Protocol	Yes	CISE/UFL	Spring 2002
Chair	Michael Procopio	Ycab.NET: Ad-Hoc Groupware API and Framework for Mobile Collaboration	Yes	CISE/UFL	Spring 2002
Chair	Kyung Joo Suh	CRYPTO-AD-HOC Network: An Ad hoc Network Protocol Embedded Cryptography	Yes	CISE/UFL	Fall 2001
Chair	David Nordstedt	uJini – A Service Discovery and Delivery Infrastructure for Pervasive Computing	Yes	CISE/UFL	Fall 2001
Chair	Vidya Renganarayanan	Web Agents Programming Model	Yes	CISE/UFL	Fall 2001
Chair	Tapan Divekar	PEMOCO –An Infrastructure for Personal M-Commerce using Java Enabled Smart Phones	Yes	CISE/UFL	Summer 2001
Chair	Kevin Birkett	Implementation of a Mobile / Wireless Video Delivery System	Yes	CISE/UFL	Summer 2001
Chair	Rajanikanth Kanyaboina	e-Staurant: A Software Infrastructure for restaurant management	Yes	CISE/UFL	Summer 2001
Chair	Arun Jagatheesan	Architecture and Protocols for Sangam Communities and E-Service Brokering	Yes	CISE/UFL	Summer 2001
Chair	Raja Krithivasan	BIZBUILDER: An E-services Framework for Internet Workflow	Yes	CISE/UFL	Summer 2001
Chair	Amar Nalla	AZIMAS – Almost Zero Infrastructure Mobile Agents System	Yes	CISE/UFL	Summer 2001
Chair	Subodh Shah	CAD-HOC: A CAD Like Tool for Generating Mobility Benchmarks in Ad-Hoc Networks	Yes	CISE/UFL	Spring 2001
Chair	Abhinav Khshraj	IncCoda: Incremental Hoarding and Reintegration in Mobile Environments	Yes	CISE/UFL	Spring 2001
Chair	Sam Coons	Virtual Wireless Thin Client	Yes	CISE/UFL	Spring 2001
Chair	Rick Loy	Active Mode Power Management in Mobile Devices	Yes	CISE/UFL	Spring 2001
Chair	Latha Sampath	Wireless and Mobile Video Delivery	Yes	CISE/UFL	Fall 2000
Chair	Wei-Hsing (Dan) Lee	Decentralized, Ad-Hoc Groupware API and Framework for Mobile Collaboration	Yes	CISE/UFL	Fall 2000

Chair	Siva Ramamurthy	Optimizing Thin Clients for Wireless Computing via Localization of Keyboard Activities During High Network Latency.	Yes	CISE/UFL	Summer 2000
Chair	Dominik Buzsko	Light Weight API for Ad-Hoc Mobile Collaboration	Yes	CISE/UFL	Summer 2000
Chair	Cumhur Aksoy	Wireless Thin Client Optimizations for Multimedia Applications	Yes	CISE/UFL	Spring 2000
Chair	Mei Wang	Service-oriented Brokering in Dynamic e-Business Communities.	Yes	CISE/UFL	Fall 1999
Chair	Hua Li	Modernization of The Rainbow Distributed Database System	Yes	CISE/UFL	Fall 1999
Chair	Santosh Balakrishnan	Location-Sensitive Naming Service for Mobile Computing Environments	Yes	CSE/UTA	Summer 1996
Chair	Jamie Patterson	A Workflow-based Management of Data Warehouses	Yes	CSE/UTA	Summer 1996
Chair	Mike Pafford	Distributed Transaction Processing Standards and a Proposal for Mobile X/Open XA	Yes	CSE/UTA	Fall 1995
Chair	Ravi Badrachalam	Enterprise Modeling Using Distributed Interoperable Objects	Yes	CSE/UTA	Fall 1995
Chair	Yuan (David) Yaowu	Dynamic Data Allocation Strategies in Parallel Database Systems	Yes	CSE/UTA	Spring 1995
Chair	Bob Welch	A Resilient Application-Level Failure Detection System for Distributed Computing Environments	Yes	CSE/UTA	Fall 1994
Chair	Judson Fortner	Scalability of Database Systems, A Performance Evaluation Approach	Yes	CSE/UTA	Summer 1994
Chair	Vinay Rao	Message Scheduling and Integrated Task-Message Scheduling in Distributed Real-Time Systems	Yes	CSE/UTA	Spring 1994
Chair	Tunghui Ku	Adaptive Concurrency Control and Transaction Scheduling	Yes	CSE/UTA	Spring 1993
Member, Masters Committee					
Member	Ataur Katebi	Thesis title information not available	Yes	CISE/UFL	Fall 2004
Member	Nam Kyu Lim	Thesis title information not available	Yes	CISE/UFL	Summer 2004
Member	Gargi Sur	Thesis title information not available	Yes	CISE/UFL	Summer 2003
Member	Kristian Damkjar	Thesis title information not available	Yes	CISE/UFL	Summer 2003
Member	Nicky Joshi	Thesis title information not available	Yes	CISE/UFL	Fall 2002
Member	Richard Bean	Thesis title information not available	Yes	CISE/UFL	Fall 2002
Member	Mark Fraser	Thesis title information not available	Yes	CISE/UFL	Fall 2002

Member	Rajesh Kana	Thesis title information not available	Yes	CISE/UFL	Fall 2002
Member	Amit Date	Thesis title information not available	Yes	CISE/UFL	Fall 2002
Member	Mark Conner	Thesis title information not available	Yes	CISE/UFL	Fall 2002
Member	Jing Huo	Thesis title information not available	Yes	CISE/UFL	Spring 2002
Member	Brennan Folmer	Thesis title information not available	Yes	CISE/UFL	Spring 2002
Member	Ryan Donahue	Thesis title information not available	Yes	CISE/UFL	Spring 2002
Member	Minho Park	Thesis title information not available	Yes	CISE/UFL	Spring 2002
Member	Chandra Olson	Integrating Jini and TINI into a Pervasive Computing Infrastructure	Yes	CISE/UFL	Fall 2001
Member	Younghun Kim	A Generalized Active Agent System for Extending the Active Capabilities of RDBMS	Yes	CISE/UFL	Fall 2000
Member	Jiong-Hua Ji	Semi-Automatic Ontology-based Knowledge Extraction	Yes	CISE/UFL	Fall 2000
Member	S. Balasubraman	Architecture for Protection from Denial of Service Attacks	Yes	CISE/UFL	Summer 2000
Member	Lan Huang	Parallel Speedup and Scale-up in Asynchronous Trigger Systems	Yes	CISE/UFL	Summer 2000
Member	Jagadah Sivan	Researching the Use of Mobile Agents for trading in Electronic Marketplace	Yes	CISE/UFL	Summer 2000
Member	Mike Ruby	Mobile Knowledge Based System for Medical Applications	Yes	CISE/UFL	Summer 1999
Member	Surabh Chadha	Catalog, Constraints, and Algorithms for Schema Evolution in Temporal Object-Oriented Databases	Yes	CSE/UTA	Summer 1995
Member	B. Krishnamsetty	Analysis and Simulation of Replication Protocols Using Logical Structures	Yes	CSE/UTA	Spring 1995
Member	Jeff Spiess	Fuzzy-Based 2-D String Matching For Image Retrieval	Yes	CSE/UTA	Spring 1995
Member	Shaona Berry	An Object-Oriented Model For Schema Versioning in an Epilepsy Patient Database	Yes	CSE/UTA	Fall 1994
Member	Chris Turbeville	Mask Generation From VHDL Behavioral Descriptions	Yes	CSE/UTA	Summer 1994
Member	Suman Janardan	A Hybrid Hash Join Algorithm For The Query Execution Engine of the Open OODB	Yes	CSE/UTA	Spring 1994
Member	Ram Kovelmudi	An Evaluation of Feasible Solutions to Inference Threats In Multilevel RDBMS's	Yes	CSE/UTA	Fall 1993
Member	Shian Fernando	Representing Temporal Relationships in an Object Oriented Database Model	Yes	CSE/UTA	Fall 1993
Member	Narendra Kanar	Design and Implementation of Cooperative Spreadsheet	Yes	CSE/UTA	Fall 1993
Member	Medhat Saleh	An Object-Oriented Architecture For Managing Manufacturing Resources	Yes	CSE/UTA	Spring 1993
Member	Han-Chien Wei	Implementation of Concurrency Control and Recovery For The OOSS System	Yes	CSE/UTA	Spring 1993
Member	Yuanmin Ku	Distributed Query Decomposition and Optimization: Algorithms For GORDAS	Yes	CSE/UTA	Spring 1993
Member	Ranjini Das	A Gordas Processor to Translate EER Queries	Yes	CSE/UTA	Fall 1992

10.c Doctoral Students

Doctoral Students					
UFL: Advisement activities at the University of Florida (Aug 1998 to date) UTA: Advisement at the University of Texas at Arlington (Aug 1991 to Aug 1996) PU: Advisement at Purdue University (Aug 1995-August 1997)					
Role	Student Name	Research Topic	Graduated?	Dept/Univ.	Grad. Date
Chair	Chao Chen	Pervasive Transactions for Safer Pervasive Spaces	No	CISE/UFL	Expected Spring 2012
Chair	Eunju Kim	Scalable Activity and Behavior Recognition Algorithms in Smart Spaces	No	CISE/UFL	Expected Fall 2012
Chair	Duckki Lee	Persuasion-Aware Computing	No	CISE/UFL	Expected Sum 2012
Chair	Jae Wong Lee	Scalable, Context-driven Simulation of Human Activities in Pervasive Spaces	No	CISE/UF	Expected Fall 2012
Chair	Yi Xu	Cloud-Sensors System Architecture, Optimization and Performance	No	CISE/UFL	Expected Fall 2012
Chair	Raja Bose	Scalable Query Processing in Sensor Networks	Yes	CISE/UFL	Fall 2008
Chair	Hen-I Yang	Safety-Oriented Programming Models for Pervasive Computing	Yes	CISE/UFL	Summer 2008
Chair	Jeffrey King	The Atlas Sensor Platform for Pervasive Sensor Networks	Yes	CISE/UFL	Spring 2007
Chair	Hicham El-Zabadani	Self-Sensing Spaces	Yes	CISE/UFL	Summer 2006
Chair	Erwin Jansen	Context Driven Programming Model for Pervasive Spaces	Yes	CISE/UFL	Fall 2005
Chair	Mohammad Turkistany	Adaptive Thin Client Computing in Wireless and mobile Networks	Yes	CISE/UFL	Spring 2006
Chair	Jun Tian	Speed-Adaptive Mobile Networks	Yes	CISE/UFL	Fall 2004
Chair	Ahmed Abukmail	A Pervasive Computing Approach to Power Saving in Mobile Computing Environments	Yes	CISE/UFL	Fall 2005
Chair	Wenzheng Gu	Web caching algorithms for Ubiquitous Web Access	Yes	CISE/UFL	Spring 2004
Chair	Choonhwa Lee	Mobile Service Discovery Protocols	Yes	CISE/UFL	Summer 2003
Chair	Edwin Hernandez	RAMON- Rapid Mobility Network Emulation	Yes	CISE/UFL	Summer 2002
Chair	Jinsuo Zhang	Scalable Mobile File Service	Yes	CISE/UFL	Spring 2002
Co-Chair	Jie Meng	Adaptive and Dynamic Workflow Automation	Yes	CISE/UFL	Spring 2002
Co-Chair	Magdy Ahmed	Optimal Searching and Insertion in Multi-Dimensional Data with Skewed Access Distribution	Yes	CS/Purdue	Summer 1997
Co-Chair	Yousry Taha	Managing Data, Task Dependency, and Consistency in Data Warehousing	Yes	CS/Purdue	Summer 1997

Member, Ph.D. Committee					
Member	Jeffery Depree	Dissertation title information not available	No	CISE	-
Member	Christan Grant	Dissertation title information not available	No	CISE	-
Member	Virupaksha Kanjilal	Dissertation title information not available	No	CISE	-
Member	Daniel Nieten	Dissertation title information not available	Yes	CISE	Summer 2011
Member	Ganesh Vithwanathan	Dissertation title information not available	Yes	CISE	Fall 2011
Member	Sanghyun Jeon	Dissertation title information not available	Yes	CISE	Fall 2010
Member	Zhen Ning Low	Dissertation title information not available	Yes	ECE	Summer 2009
Member	Jungmin Shin	Dissertation title information not available	Yes	CISE	Summer 2009
Member	Hyunju Shim	Dissertation title information not available	Yes	CISE	Summer 2006
Member	Joong-Seok Park	Dissertation title information not available	Yes	CISE	Summer 2005
Member	Shangwoo Youn	Dissertation title information not available	Yes	CISE	Summer 2005
Member	Gilliean Lee	Dissertation title information not available	Yes	CISE	Summer 2005
Member	Jin-ho Lee	Dissertation title information not available	Yes	CISE	Summer 2005
Member	Min-Ho Park	Dissertation title information not available	Yes	CISE	Spring 2005
Member	Zhenbiao Li	Dissertation title information not available	Yes	ECE	Fall 2004
Member	Mark Foster	Dissertation title information not available	Yes	CISE	Fall 2004
Member	Oguz Onbilger	Dissertation title information not available	Yes	CISE	Fall 2004
Member	Qianhui Liang	Dissertation title information not available	Yes	ECE	Summer 2004
Member	Carlos Oliveira	Dissertation title information not available	Yes	ISE	Summer 2004
Member	Hyoungjin Kim	Generalized Active Agent System for Extending Active Capabilities of RDBMS	Yes	CISE/UFL	Not Available
Member	Taewoo Kim	A 3-D Modeling Approach for the Unified Modeling Language	Yes	CISE/UFL	Spring 2002
Member	Jaeyong Lim	Dissertation title info not available	Yes	CISE/UFL	Spring 2002
Member	Haifei Li	Automated Negotiation for e-Commerce	Yes	CISE/UFL	Fall 2001
Member	Youzhong Liu	Business Rule Warehouse: Services, Architectures and Applications	Yes	CISE/UFL	Summer 2001
Member	C. Pluempitiwiriya	A New Hierarchical Clustering Model for Efficient Reconciliation of XML-Based, Semistructured Data in Mediated Systems	Yes	CISE/UFL	Spring 2001
Member	Hankil Yoon	Efficient Algorithms and Software for Mining Sparse, High-dimensional Data	Yes	CISE/UFL	Spring 2000
Member	Chunbo Huang	A Replicable Web-based Automated Negotiation Server for Electronic Commerce Systems	Yes	CISE/UFL	Spring 2000
Member	Minsoo Lee	Event and Rule Services for Achieving a Web-based Knowledge Network	Yes	CISE/UFL	Spring 2000
Member	Byung-Kown Chung	Improving Processor Performance with Multiple-Access Caches and Early Resolution of Branches and Loads	Yes	CISE/UFL	Fall 1999

Member	Haito Jiang	Scene Change Detection in Video Databases	Yes	CS/ PU	Summer 1998
Member	Shunge Li	Distributed Multimedia Systems	Yes	CS/ PU	Summer 1997
Member	Jin Jing	Data Consistency Management in Wireless Client-Server Information Systems	Yes	CS/ PU	Spring 1996
Member	Gyung-Lee Park	Roll-forward Recovery Schemes in Tightly Coupled Multiprocessors	Yes	CSE/UTA	Fall 1995
Member	Choong Gun Oh	Efficient Fault-Tolerance Approaches For Parallel Architectures	Yes	CSE/UTA	Spring 1995
Member	V. Koramajan	Temporal Databases: Access Structures, Search Methods, Migration Strategies, and De-clustering Techniques	Yes	CSE/UTA	Spring 1994

11 SCHOLARLY EDITORIAL ACTIVITIES

11.a Editor-in-Chief

1. Associate Editor-in-Chief, IEEE Computer. June 2009- present. Computer is the flagship publication of the IEEE Computer Society.
2. Editor-in-Chief of the Bulletin of the IEEE Technical Committee on Operating Systems and Application Environments. January 1995 - March 1997.

11.b Editorial Board Memberships

1. Editorial Board Member of the IEEE Pervasive Computing Magazine, IEEE Computer Society Press, March 2002-present.
2. Editor of the “Standards, Tools and Emerging Technologies” department of the IEEE Pervasive Computing Magazine, March 2002-2011.
3. Editor of the Industry Perspective department, IEEE Computer magazine, May 2009 – present
4. Member of the Editorial Advisory Board, the International Journal of Pervasive Computing and Communications (IJPCC) Emerald Publishing Company, UK, Dec 2010 – present.
5. Editorial Board Member of GERONTOLOGY – The International Journal of Experimental, Clinical, Behavioral and Technological Gerontology, November 2009 – present.
6. Associate Editor and the Networking Area Chair, IEEE Computer magazine, 2008 –2009.
7. Editor of the “Web Technologies” Department of the IEEE Computing Magazine, 2002-2004.
8. Editorial Board Member, IEEE Transaction on Mobile Computing, 2005 – 2007.
9. Editorial Board Member, Pervasive and Mobile Computing Journal, Elsevier Publishing Company, September 2004 – September 2006. [Http://www.elsevier.com/locate/pmc](http://www.elsevier.com/locate/pmc)
10. Editorial Board Member, Journal of Ambient Intelligence and Smart Environments, 2009 – present.

11. Editorial Board Member, *Wireless Communications and Mobile Computing Journal*. John Wiley & Sons, 2000-2005.
12. Editorial Board Member, *International Journal on Distributed and Parallel Databases*. Kluwer Academic Publisher, 1999-2004.
13. Editorial Board Member for the *International Journal of Web Services (IJWS)*, 2003–2007.
14. Editorial Board Member, *Journal of Ubiquitous Computing and Intelligence*, 2005 – present.

11.c Guest Editor of Special Issues of Journals and Periodicals

1. *IEEE Computer*, Thematic issue editor, June 2011: Smart Cities.
2. *IEEE Computer*, Thematic issue editor, June 2010: Healthcare and Web 2.0.
3. *IEEE Pervasive Computing Magazine*. Editor of a special Issue on Pervasive Computing for Successful Aging. Volume 3, Number 2, April-June 2004.
4. *The Baltzer Science Journal on Cluster Computing*. Special issue on “Advances in Distributed and Mobile Systems,” (Guest Editor: Sumi Helal). January 2002. Five articles.
5. *The ACM-Baltzer Journal on Mobile Networks and Applications (MONET)*. Special issue on “Wireless and Mobile Software Architectures,” (Guest Editors: Sumi Helal and Eric Brewer) Volume 5, Number 4, December 2000. Six articles.
6. *Journal of Intelligent Information Systems (JIIS)* Special Issue on Workflow Management Systems, (Guest Editor: Sumi Helal) Volume 10, Number 2, March 1998. Five articles.
7. *The ACM SIGMOD RECORD*, Special Issue on Mobile Databases. (Guest Editor: Sumi Helal) Volume 24, Number 4, December 1995. Six articles.

12 TALKS, LECTURES AND SPEECHES

12.a Keynote Speaker / Distinguished Lecture Series Speaker

1. Keynote Speaker of the International Workshop on Situation, Activity and Goal Awareness (SAGAware), in conjunction with ACM Ubicomp Conference, September 2011, Beijing, China.
2. Invited Speaker in Workgroup 9 in the European Forum Alpbach Technology Forum, Alpbach, the Tyrol, Austria, August 2011.
3. Keynote Speaker of the 11th IEEE/IPSJ SAINT Workshop on Semantic Interoperability in Smart Spaces, Munich, Germany, July 2011.
4. Keynote Speaker of the 8th International Conference on Wearable, Micro and Nano Technologies for Personalized Health (pHealth), Lyon, France, June 2011.
5. Keynote Speaker of the AIT Workshop on Ambient Assisted Living – Smart Homes and Beyond. Austrian Institute of Technology, May 2011.

6. Keynote Speaker of the European Union South East Europe (SEE) Conference on Efficient Technology Transfer in Industrial Informatics and Embedded Systems, Vienna, Austria, May 2011.
7. Keynote Speaker of the Second International ICST Conference on Sensor Systems and Software (S-Cube). Keynote title: "Programming Pervasive Spaces," Miami, Florida, December 13, 2010.
8. Keynote Speaker of the 7th International Conference on Ubiquitous Intelligence and Computing (UIC 2010). Keynote title: "Programming Pervasive Spaces," Xi'an, China, October 28, 2010.
9. Keynote Speaker of the 18th Annual Meeting of the IEEE International Symposium on Modeling, Analysis and Simulation of Computer and Telecommunication Systems. Keynote title: "The Cloud, the Edge and Beneath," Miami Beach, Florida, August 18, 2010.
10. Joint CMU/Pitt Quality of Life Technologies Center Lecture Series: "Gator Tech Smart House: A Smart Home in a Box," Pittsburg, PA, November 12, 2009.
11. Keynote Speaker of the 3rd IET International Conference on Intelligent Environments (IE07). Keynote title: "Assistive Environments for Successful Aging," Ulm, Germany, September 24-25, 2007.
12. Keynote Speaker of the 31st Annual IEEE International Computer Software and Applications Conference, Keynote title: "Software Foundation for Critical Pervasive Computing," Beijing, China, July 23-27, 2007.
13. Keynote Speaker of the 5th International Conference on Smart Homes and Health Telematics (ICOST07). Keynote title: "Assistive Environments for Successful Aging," Nara, Japan, June 21-23, 2007.
14. Distinguished Lecture Series, School of Computing, Queen's University, Talk title: "Programmable Pervasive Spaces," Kingston, Ontario, Canada, May 2006.
15. Plenary Speaker of the 23rd Biennial Symposium on Communications, hosted by Queen's University, Keynote title: "*Plug and Play Sensor Networks*," Kingston, Ontario, Canada, May 2006.
16. Keynote Speaker: The International Conference on Aging, Disability and Independence, Keynote title: "*Smart Homes for Successful Aging*," St. Petersburg, Florida, February 2006.
17. Keynote Speaker of the Institute for InfoComm Research Horizon Conference, Keynote title: "*Programmable Pervasive Spaces for Aging, Disabilities and Independence*," Singapore, September 2005.
18. Keynote Speaker of the IEEE International Conference on Information and Computer Science, Keynote title: "*Pervasive Computing: Promise and Challenges*," Dammam, Kingdom of Saudi Arabia, November 2004.
19. Distinguished Lecture Series: Unisys Distinguished Lecture series, University of Minnesota, Computer Science Department. Lecture title: "*Pervasive Computing for Successful Aging*," October 4, 2004
20. Keynote Speaker of the IEEE Workshop on Wireless Local Networks (WLN), Keynote title: "*Pervasive Computing = Service Discovery + Wireless Local Connectivity*," Tampa, Florida, November 2002.
21. Keynote Speaker of the AAAI Workshop on Automation as Caregiver, Keynote title: "*The Role of Intelligent Technology in Elder Care*," Edmonton, Canada, July 2002.

12.b Conference Tutorials

1. "Mobile Client/Server Computing", Sumi Helal, The ACM Fourth Annual International Conference on Mobile Computing and Networking (MobiCom'98), Dallas, Texas, October 1998.
2. "Mobile Computing and Communications: Overview, Limitations, and State of Technology," Sumi Helal, The IEEE International Performance, Computing, and Communications Conference (IPCCC), Phoenix, Arizona, February 1998.
3. "Computing and Transacting in the Mobile Environment," Sumi Helal, The 6th IEEE International Symposium on High Performance Distributed Computing (HPDC'97), Portland, Oregon, August 1997.
4. "Portability and Interoperability Standards for Database Systems and Applications," Sumi Helal and Ramez Elmasri, The 12th International Conference on Data Engineering, Louisiana, New Orleans, February 1996.
5. "Building Enterprise-Wide Client/Server Applications," Sumi Helal, The 29th Hawaii International Conference on System Sciences, Maui, Hawaii, January 1996.
6. "*Distributed and Object-Oriented Database Systems*," the 9th Brazilian Database Symposium, Sao Carlos, Sao Paulo, Brazil, September 1994.
7. "Distributed and Object-Oriented Database Systems," Sumi Helal and Ramez Elmasri, The 6th IEEE Symposium on Parallel and Distributed Processing, Arlington, Texas, October 1994.
8. "Distributed and Object-Oriented Database Systems," Sumi Helal and Ramez Elmasri, The 26th Hawaii International Conference on System Sciences, Maui, Hawaii, January 1993.
9. "Reliability and Performance Evaluation of Distributed Database Systems: A Practical Approach," Sumi Helal, The IEEE 11th Symposium on Reliable Distributed Systems, Houston, Texas. October 1992.
10. "Standards for Database Portability and Interoperability," Sumi Helal and Ramez Elmasri, The 22nd International Conference on Very Large Data Bases (VLDB'96), Bombay, India, September 1996.
11. "Portability and Interoperability Standards In Databases: CORBA, ODMG-93, and SQL-3 Information Systems," Ramez Elmasri (presenter) and Sumi Helal, The 1st IFCIS International Conference on Cooperative (CoopIS), Brussels, Belgium, June 1996.
12. "Interoperability Standards for Applications and Systems," Sumi Helal, The 10th Brazilian Database Symposium, Recife, Brazil, October 1995.

12.c Invited Speaker

1. "Programming Pervasive Spaces," Microsoft Research Beijing, China, October 2010.
2. "Programming Pervasive Spaces," Nokia Research Labs, Palo Alto, California, May 2010.
3. "Programmable Pervasive Spaces," Bell Labs (Alcatel-Lucent Research), Antwerp, Belgium, May 2010.
4. "The Gator Tech Smart House," The Future Design Conference, Seoul, Korea, Oct 2007.

5. "The Atlas Middleware for Pervasive Spaces," General Electric Global Research Laboratory, New York, USA, March 2007.
6. "Smart Homes as Platforms for Personal Health," IBM Emerging Standards Group, Raleigh, North Carolina, USA, Dec 2007.
7. "The Gator Tech Smart House," Iowa State University, Ames, Iowa, June 2006.
8. "Programming Pervasive Spaces," School of Information Systems, Singapore Management University, September 30, 2005.
9. "Pervasive Computing and Sensor Networks," Motorola Labs, Plantation, Florida, September 20, 2005.
10. "Pervasive Computing for Successful Aging," IEEE Computer Society Jacksonville Chapter, July 17, 2004.
11. "Wireless LANs/WANs abridged," Motorola iDEN R&D group, Plantation, FL, May 12, 1999.
12. "The Wireless Thin Client Architecture," CITRIX Systems Corporation, Ft. Lauderdale, FL, May 11, 1999.
13. "Mobile and Ad-Hoc Service Discovery," Auburn University, Auburn, Alabama, April 2002.
14. "The Internet Enterprise," University of Louisville, Louisville, Kentucky, April 2002.
15. "Exploiting Thin Clients for Mobile and Pervasive Computing," Microsoft Mobile and Wireless Computing Research, Redmond, Washington, October 27, 2000.
16. "Mobile Databases," IBM T.J. Watson Research Center, Hawthorn, Invited by the Data Management Professional Impact Committee (PIC), NY, Aug 25, 1999.
17. "Ubiquitous Computing: How?" IBM Watson Research Center, Mobility Software group, Yorktown Heights, NY, May 21, 1999.
18. "Heterogeneous Workflow Integration for the Virtual Enterprise," IBM Watson Research Center, e-Business group, Yorktown Heights, NY, May 20, 1999.
19. "Transaction Service Handoff in Mobile Environments," DIMACS Workshop on Mobile Networks and Computing, Rutgers, NJ, March 1999.
20. "A Data Warehousing Approach to Mobile Data Management," Panasonic Information and Networking Technologies Lab (PINTL), Princeton, NJ, March 26, 1999.
21. "Mobile Computing R&D in the US", colloquia talk, Department of Computer Science, University of Helsinki, Sept 1997.
22. "Large Scalable Database Design," the Center for Innovation of Padova University, Padova, Italy, January 1995.
23. "Research in Distributed Database Systems" the 25th Anniversary of the Computer Science Department, Alexandria University, Alexandria, Egypt, December 1994.
24. "Large-Scale Database Design," N. American Phillips Corp., Briarcliff Manor, NY. November 1994.

25. "ScaleTool: Analyzing High Contention Systems," Hewlett Packard Research Laboratory, Palo Alto, CA, Oct 1994.
26. "Research on Distributed Database Systems," Bell Northern Research, Richardson, Texas. Mar 1994.
27. "Distributed Database Systems: Living with Failures and Surviving Catastrophes," *The State of the Art Talks*. 12th IEEE Symposium on Reliable Distributed Systems, October 1993.
28. "Wireless Thin Clients: A Universal Mobility Middle-ware Infrastructure", Cairo University, Summer 2001.
29. "Mobile Computing Research," the Computer Science Department of University of Helsinki, Helsinki, Finland, September 1997.

13 PROFESSIONAL ACTIVITIES AND SERVICES

13.a Memberships and Activities

1. IEEE Computer Editor-in-Chief Search Committee member, 2010 and 2012.
2. IEEE Transactions on Services Computing Editor-in-Chief Search Committee member, 2010.
3. Member of the IEEE Industrial Advisory Board (IAB) Subcommittee on Publications (2009-present).
4. Coordinator of IEEE Computer Society Area 3 Activities, 2009.
5. Chair of the IEEE Computer Society Technical Committee on the Internet, <http://computer.org/tab/TCI>. Elected for two years term (Sept 2000- April 2003)
6. Vice Chair and member of the executive committee of the IEEE Computer Society Technical Committee on the Internet (March 1998 - August 2000)
7. Member of the Executive Committee of the IEEE Computer Society Technical Committee on Operating Systems and Application Environment (TCOS), <http://www.hpdc.syr.edu/tcos> (Jan 1995 - present)
8. Senior Member of the IEEE and a member of the IEEE Computer Society and the IEEE Communication Society (Student/full Member since 1980, Senior Member since October 2000)
9. Member of the IEEE CS Technical Committees on the Internet, Operating Systems, Distributed Processing and Data Engineering (1995 to date)
10. Member of the USENIX Association (June 1998 to date)
11. Serving as the University of Florida Liaison to the USENIX Association (April 1999 to date).
12. Member of the Association of Computing Machinery (ACM) (member since 1990)
13. Member of the ACM Special Interest Group in Management of Data (SIGMOD) (member since 1990)

13.b Program/General Chair of Conferences/Workshops

Organized and chaired over 20 conference, workshop or symposia in the capacity of General or Program Chair or Co-Chair.

1. General Co-Chair of the 37th IEEE International Computer Software and Applications Conference (COMPSAC) which will be held in Kyoto, Japan, July 2013.
2. Chair of the Domotics and robotics for supporting seniors Symposium, in conjunction with the 7th ISG World Conference of Gerontechnology, Vancouver, BC, Canada, May 27-30, 2010.
3. General Chair of the 11th ACM International Conference on Ubiquitous Computing, Orlando, Florida, Sept 29-Oct 3, 2009
4. General Co-Chair of 6th International Conference on Ubiquitous Intelligence and Computing (UIC-09): July 7 - 10, 2009, Brisbane, Australia
5. Conference Development Co-Chair of the 5th International Conference on Intelligent Environments (IE 2009), Barcelona, Spain, July 2009.
6. General Co-Chair of the 4th IET International Conference on Intelligent Environments (IE08), Seattle, Washington, September 2008.
7. Program Co-Chair of the 6th International Conference on Smart Homes and Health Telematics (ICOST-2008) Ames, Iowa, June 2008.
8. Chair of the Scientific Committee of the 5th International Conference on Smart Homes and Health Telematics (ICOST-2007) Nara, Japan, June 2007.
9. Chair of the Research Themes of the Third EU/US International Conference on Aging, Disability, and Independence (ICADI), St. Petersburg, Florida, February 2006.
10. General Co-Chair of the 23rd IEEE Symposium on Reliable Distributed Systems (SRDS) to be held October 2005 in Orlando, Florida.
11. General Co-Chair of the 4th IEEE/IPSJ International Symposium on Applications and the Internet (SAINT), Tokyo, Japan, 2004.
12. Chair of the Smart Technology track of the EU/US International Conference on Aging, Disability, and Independence (ICADI), to be held in Washington, D.C., December 2003.
13. Program Co-Chair of the NSF-supported Preparatory Workshop for the EU/US International Conference on Aging, Disability, and Independence (preICADI), Royal Academy of Engineering, London, England, June 2003.
14. Program Co-Chair of the 3rd IEEE/IPSJ International Symposium on Applications and the Internet (SAINT), <http://www.saint2003.org>, Orlando, Florida, January 2003.
15. General Co-Chair of the 21th IEEE International Performance, Computing, and Communications Conference (IPCCC 2002), <http://ipccc.org/>, Phoenix, Arizona, April 2002.
16. General Vice Chair. The 20th IEEE International Performance, Computing and Communications Conference (IPCCC), Phoenix, Arizona April 2001.

17. Program Co-Chair. The 10th IEEE Workshop on Research Issues in Data Engineering (RIDE), San Diego, California, February 2000.
18. Track Co-Chair. The Software Technology Track of the 33rd International Conference on System Sciences (HICSS-2000), Maui, Hawaii, January 2000.
19. Program Chair. The 19th IEEE International Performance, Computing and Communications Conference (IPCCC), Phoenix, Arizona, February 2000.
20. General Chair. Second IEEE Workshop on Mobile Computing Systems and Applications (WMCSA'99), New Orleans, Louisiana, February 1999.
21. Program Co-Chair The Minitrack on Parallel and Distributed Database Systems of the Hawaii International Conference on Systems Sciences, January 1994.
22. Program Vice-Chair. The IEEE Workshop on Advances in Parallel and Distributed Systems, Princeton, New Jersey, October 1993.

13.c Member (or Chair) of Steering/Advisory Committee/Advisory Board

1. Chair of the Advisory Committee of the 8th International Conference on Ubiquitous Intelligence and Computing (UIC-2011).
2. Member of the International Advisory Board of the International Conference on Wearable, Micro and Nano Technologies for Personalized Health (pHealth), 2011- present.
3. Member of the Steering Committee of the ACM International Conference on Ubiquitous Computing (UbiComp), 2009 – present.
4. Member of the Steering Committee of the IEEE/IPSJ Symposium on Applications and the Internet, SAINT - www.saintconference.org, (1999-present).
5. Chair of the Steering Committee of the IEEE/IPSJ Symposium on Applications and the Internet, SAINT - www.saintconference.org, (2006-2008 and 2010-2012).
6. Member of the Steering Committee of the IEEE COMPSAC Conference (www.compsac.org), (2008 – present).
7. Member of the International Advisory Committee. The International Conference on Ubiquitous Intelligence and Computing, (2006-2008)
8. Member of the steering committee, the IEEE Workshop on Internet Applications, WIAPP, (1999 to 2005).
9. Member of the steering committee, the IEEE Workshop on Mobile Computing Systems and Applications, WMCSA, (1998 to 2003).
10. Member of the International Advisory Committee, the IEEE International Conference on Industrial Technology (ICIT), December 2001.
11. Member of the steering committee, the IEEE International Symposium on Performance Analysis of Systems and Software, ISPASS, (2000 to 2004).
12. Member of the Advisory committee. The Software Technology Track of the 31st and 32nd Hawaii International Conferences on System Sciences (HICSS), 1998-1999.

13.d Panelist / Panel Chair

1. Chair of the Panels Program of the 35th Annual IEEE International Computer Software and Applications Conference (COMPSAC), Munich, Germany 2011.
2. Panel Chair: "Towards New Roles and System Architecture Supporting the Full Life Cycle of Smart Spaces," the 34th Annual IEEE International Computer Software and Applications Conference (COMPSAC), Seoul, S. Korea.
3. Panel Chair: "Location based services – Back to the future," the 32nd Annual IEEE International Computer Software and Applications Conference (COPSAC), Turku, Finland, July/Aug 2008
4. Panelist: "Future Trends – Computing as a Core Discipline," the 31st Annual IEEE International Computer Software and Applications Conference (COMPSAC), Beijing, China, July/Aug 2007.
5. Panelist in the closing panel of the IEEE Pervasive Computing Conference, Fort Worth, Texas, March 2003.
6. Panelist in the 3rd IEEE/IPSJ International Symposium on Applications and the Internet (SAINT). Panel title: "The Future of the Internet", Orlando, Florida, January 2003.
7. Panelist: "The Future of the Internet," The 2nd IEEE/IPSJ International Symposium on Applications and the Internet (SAINT), held in Nara, Japan, January 2002.
8. Panel Chair: "Mobility Middleware: What is lacking?," The 10th IEEE Workshop on Research Issues in Data Engineering (RIDE-2000), San Diego, California, February 2000.
9. Panelist: "The Future of the Internet," The Fourth IEEE Symposium on Computers and Communications, Sharm El-Sheikh, Red Sea, Egypt, July 1999.
10. Panelist: "Does database research have a role in workflow management?," Panel Chair: Amit Sheth. Other panelists: C. Mohan and Friedemann Schwenkreis. ATMA Workshop on Advanced Transaction Models and Architecture. In conjunction with VLDB'96, Goa, India, September 1996.
11. Panel Chair: "Standards for Interoperability," ACM International Conference on Information and Knowledge Management, Washington, DC, November 1994.

13.e Session Chair

1. "Second International Conference on Smart Homes and Health Telematic (ICOST)," Singapore, September 2004.
2. "First International Conference on Smart Homes and Health Telematic (ICOST)," Paris, September 2004.
3. "Fourth IEEE/IPSJ Symposium on Applications and the Internet (SAINT), Tokyo, Japan, January 2004.
4. "Agent-Oriented Workflow," the 2000 International Conference on Artificial Intelligence (IC-AI), Monte Carlo Resort, Las Vegas, Nevada, June 26-29, 2000.
5. "Client-Server Systems," the ISMM Int'l Conference on Intelligent Information Management Systems, Washington D.C., June 1994.

6. "Large Scale Distributed Systems and Wide Area Networks," the IEEE Workshop on Advances in Parallel and Distributed Systems, Princeton, N.J., October 1993.
7. "Data Modeling," the International Conference on Entity-Relationship Approach, Arlington, Texas, April 1993.

13.f Program Committee Member

Information regarding last 5 years of PC membership is not included.

1. IEEE International Conference on Data Engineering, to be held April 2007 in Istanbul, Turkey.
2. IEEE International Conference on Pervasive Computing, (PerCom), Kuawi, Hawaii, March 2005.
3. IEEE/ACM International Conference on Mobile Data Management (MDM), Cyprus, May 2005.
4. ACM Workshop on Performance Evaluation of Wireless Ad Hoc, Sensor, and Ubiquitous Networks (PE-WASUN' 2004)
5. IEEE/ACM International Conference on E-business and Telecommunication Networks (ICETE), Setubal, Portugal, August 2004.
6. International Workshop on Ubiquitous Computing IWUC'04, April 2004, Porto, Portugal.
7. Workshop on Pervasive Computing Education, In conjunction with the IEEE Conference on Pervasive Computing, April 2004.
8. International Computer Engineering Conference (ICENCO2004), Cairo, Egypt, December 2004.
9. The 2003 ACM Workshop on Modeling and Simulation of Wireless and Mobile Systems (MSWIM '03).
10. The 2003 International Conference on Enterprise Information Systems, France, August 2003.
11. The 2003 IEEE Semiannual Vehicular Technology Conference (VTC), Orlando, Florida, October 2003.
12. The 2003 IEEE Workshop on Internet Applications (IEEE WIAPP'03), San Jose, CAL, June 2003.
13. The First IEEE Conference on Pervasive Computing, Fort Worth, Texas, April 2003.
14. The 2003 Parallel and Distributed Computing Systems (PDCS), Reno, Nevada, Aug 2003.
15. The 2003 IEEE Local Computing Networks (LCN), Bonn, Germany.
16. The 2003 IEEE Conference on E-Commerce, New Port Beach, CA, June 2003.
17. The 2003 International Conference on Web Services (ICWS'03) – on the Technical Advisory Board of the conference. Las Vegas, Nevada, June 2003.
18. ACS/IEEE International Conference on Computer Systems and Applications (AICCSA'03) Tunisia, July 2003.
19. The 2002 Pacific Rim International Symposium on Dependable Computing, Tsukuba City, Japan, December 16-18, 2002.
20. The 2nd ACM International Workshop on Mobile Commerce, to be held in conjunction with MobiCom 2002. Atlanta, GA, September 2002.

21. IEEE 11th International Workshops on Enabling Technologies: Infrastructure for Collaborative Enterprise, June 2002, Pittsburgh, PA, USA.
22. IEEE Workshop on Wireless Local Networks (WLN), to be held in conjunction with IEEE Local Computer Networks, Tampa, Florida, November 2002.
23. MDB: the Workshop on Mobile Databases to be held in conjunction with the 31st International Conference on Parallel Processing, Vancouver, British Columbia, Canada, August 2002.
24. The 2002 IFIP Workshop on Internet Technologies, Applications, and Societal Impact (WITASI'02), Wroclaw, Poland, October 2002.
25. The 4th International Conference on Data Warehousing and Knowledge Discovery (DaWaK 2002), to be held in Aix-en-Provence, France, September 4-6, 2002.
26. The 2002 Pacific Rim International Symposium on Dependable Computing, Tsukuba City, Japan, December 16-18, 2002.
27. The 4th International Conference on Data Warehousing and Knowledge Discovery (DaWaK 2002), to be held in Aix-en-Provence, France, September 4-6, 2002.
28. The third ACM Conference on Ubiquitous Computing (UbiComp), Atlanta, GA, October 2001.
29. The 20th International Conference on Conceptual Modeling (ER2001), Yokohama, Japan, November 2001.
30. Second Asian International Mobile Computing Conference (AMOC 2002), Indonesia, May 2002.
31. The 12th IEEE International Workshop on Research Issues on Data Engineering (RIDE 2002), San Jose, CA, February 2002.
32. The 2001 Pacific Rim International Symposium on Dependable Computing (PRDC), Seoul, Korea, December 17-19, 2001.
33. NSF International Workshop on an Infrastructure for Mobile and Wireless Systems, Scottsdale, Arizona, October 2001.
34. The ACS International Conference on Computer Systems and Applications, Beirut, Lebanon, June 26-29, 2001.
35. Third International Conference on Data Warehousing and Knowledge Discovery (DaWak'01), Munich, Germany, September 5-7, 2001.
36. The ACS International Conference on Computer Systems and Applications, Beirut, Lebanon, June 26-29, 2001
37. The 21st IEEE International Conference on Distributed Computing Systems (ICDCS-2001), Phoenix, AZ, April 2001
38. IEEE 11th International Workshop on Research Issues on Data Engineering (RIDE'01). Heidelberg, Germany, April 1-2, 2001
39. The First Workshop on Advanced Software for Pervasive Environments and Information and Server Appliances (ASPEISA), to be held in Hsinchu, Taiwan, December 29, 2000.
40. The 12th International Conference on Parallel and Distributed Computing and Systems (PDCS'2000) Las Vegas, Nevada, November 6-9, 2000.

41. Asian International Mobile Computing Conference (AMOC 2000), Penang, Malaysia, 1-3 November 1-3, 2000.
42. ADBIS-DASFAA-2000 Symposium on Advances in Databases and Information Systems. Special Session on Mobile Database Technology, Prague, Czech Republic, September 5-8, 2000.
43. Third International Workshop on Mobility in Databases and Distributed Systems. In conjunction with the 11th International Conference on Database and Expert Systems Applications (DEXA'2000), Greenwich, UK, September 6-8, 2000.
44. The 26th Very Large Data Bases Conference (VLDB) in Cairo, Egypt, September 10-14, 2000.
45. The Workshop on Pervasive Computing (in conjunction with the 29th International Conference on Parallel Processing (ICPP 2000)), Toronto, Canada, August 21-24, 2000.
46. The Workshop on Wireless Networks and Mobile Computing (WMNC), Taipei, Taiwan, Republic of China, (in conjunction with ICDCS), June 2000.
47. Third IEEE Symposium on Application-Specific Systems and Software Engineering and Technology (ASSET), Richardson, Texas, March 24-25, 2000.
48. Second IEEE Symposium on Application-Specific Systems and Software Engineering Technology, Richardson, Texas(ASSET), March 1999.
49. The International Conference on Advances in Databases and Information Systems (ADBIS), Poland, 1998.
50. International Workshop on Mobility in Databases and Distributed Systems, (in conjunction with DEXA), U.K., 1998.
51. IEEE Symposium on Reliable Distributed Systems (SRDS), West Lafayette, Indiana, 1998.
52. IEEE International Conference on Data Engineering (ICDE), Orlando, Florida, 1998.
53. ACM Symposium on Applied Computing (SAC), Atlanta, GA, 1998.
54. IEEE Symposium on Reliable Distributed Systems (SRDS), Durham, North Carolina, 1997.
55. IASTED First Int'l Conference on Parallel and Distributed Systems (EURO-PDS), IEEE Symposium, Vienna, Austria, 1997.
56. IEEE Symposium on Reliable Distributed Systems (SRDS), Ontario, Canada, 1996.
57. First IFCIS International Conference on Cooperative Systems (CoopIS), Brussels, Belgium, 1996.
58. IEEE Workshop on Research Issues on Data Engineering (RIDE), New Orleans, Louisiana, 1996.
59. IEEE First International Conference on Complex Computer Systems, Ft Lauderdale, Florida, 1995.
60. International Conference on Entity-Relationship Approach, Dallas, Texas, 1993.
61. ACM International Conference on Information and Knowledge Management (CIKM), Gaithersburg, MD, 1993.
62. IEEE International Conference on Distributed Computing Systems (ICDCS), Pittsburgh, PA, 1993.

13.g Reviewer for Scholarly Journals

Repeat reviewer for the following journals (1985 to date)

1. IEEE Transaction on Mobile Computing
2. IEEE Pervasive Computing
3. IEEE Transactions on Computers
4. IEEE Computer
5. IEEE Transactions on Software Engineering
6. IEEE Transactions on Knowledge and Data Engineering
7. IEEE Transactions on Parallel and Distributed Systems
8. IEEE Parallel Distributed Technology (currently renamed as: IEEE Concurrency)
9. The Journal of Parallel and Distributed Computing
10. IEEE Software
11. Information Systems: An International Journal
12. ACM SIGBIT Database Journal (db)
13. Distributed and Parallel Databases Journal, Kluwer Publishing Company
14. The Journal of Brazilian Computer Society
15. The European Data and Knowledge Engineering Journal
16. Journal of Intelligent Information Systems, Kluwer Publishing Company
17. ACM-Baltzer Mobile Networks and Applications Journal
18. The Software: Practice and Experience Journal, John Wiley and Sons

13.h Reviewer for Grants & Tenure and Promotion Cases

1. National Science Foundation, Reviewer on numerous Panels [1997-present].
2. National Institutes of Health (NIH) [2010-present].
3. National Science Foundation, several site visits: Princeton in 2001 and Columbia in 2004, CMU 2005, 2007 & 2008.
4. Natural Sciences and Engineering Research Council of Canada, several proposals, [1996-2006].
5. National Institute on Disability and Rehabilitation Research (NIDRR), Reviewer on several Panels [2007-2010].
6. Over 30 promotion or tenure & promotion cases in the US, Canada and the Middle East [1987-2011].

14 UNIVERSITY GOVERNANCE AND SERVICE

1. CISE Faculty Awards Committee (2006 -2010), Chair 2006-2008.
2. CISE Systems Facilities Committee (2001, 2002, 2003, 2004, 2005, 2006)
3. CISE Industrial Advisory Board (IAB) Committee (1998, 1999, 2000 (Chair), 2001 (Chair), 2002, 2003 (Chair), 2004, 2005, 2006, 2008, 2009, 2010).
4. CISE Faculty Search Committee (2002, 2003, 2004, 2005, 2006 (Chair), 2008, 2009, 2010)
5. CISE Space Facilities Committee (2001, 2002)

6. CISE Facilities Violations and Appeals Subcommittee (2000, 2001)
7. CISE Graduate Students Affairs Committee (1999, 2000, 2001, 2002, 2003, 2004, 2005, 2006)
8. CISE Ph.D./MS Exam Committee (2000, 2001, 2003)
9. Search Committee of the BellSouth Chair in Telecommunication Position (1998, 1999, 2000, 2001)
10. Search Committee for the CISE Department Chair position (2001)
11. NERDC University-wide Instruction and Research Users' Group Committee (I&R) (1999, 2000, 2001)
12. CISE Colloquium Committee (2000, 2008-2009, 2010, 2011 (Chair), 2012 (Chair))
13. Member of UF Information Technology Advisory Council (ITAC): Network Infrastructure Subcommittee (2001 – 2006)
14. Led the Wireless UF Campus initiative (2001-2002)

15 ENTREPRENEURSHIP

1. Founded Phoneomena, Inc., a mobile middleware and application software firm. June 2001-2007. (www.phoneomena.com)
2. Founded Pervasa, Inc., to commercialize the Atlas Sensor Platform, a Sensor Integration Platform and Middleware. January 2006-2011. Pervasa won the Best of SensorExpo Silver Award in 2007. (www.pervasa.com)

16 INTERNATIONAL ADVISING / CONSULTING

1. International Mentor for the Qatar Foundation's Stars of Science Program (finalist candidates mentor), 2010-present.
2. Member of the Technical Advisory Board, Microsoft Innovation Lab in Cairo (CMIC), Cairo, Egypt, 2009 – present.
3. Electoral Board Advisor, Founder recruitment committee, Digital Health Institute, the University of Warwick, UK 2009.
4. Expert Advisor to The World Health Organization (WHO) on the technical matters surrounding the World Report on Disability - a joint project of WHO and the World Bank, 2009.
5. Agency for Science, Technology and Research (A*STAR), Singapore, 2005-2009. Assist as an advisor and an annual external reviewer of research programs.
6. Nomura Research Institute (NRI), Japan, June 2008, preliminary research into the open services platform project undertaken by the Taiwanese government.
7. Soumen Akatemi (Finland Academy) – review joint Japanese-Finnish research collaborations, 2008.
8. NTT DoCoMo Research Labs, San Jose, CA, 2003-2006, Recruiter of members of technical staff in the networking and operating systems' areas.

9. Portuguese Foundation for Science and Technology. 2004. Review research funding program, Lisbon, Portugal, May 2003.
10. FWF Austrian Science Fund, Austria – review technology commercialization programs, 2006.
11. Sweden Technology Foundation – review research funding programs, 2011.

17 VISITING PROCESSOR

1. Finland Distinguished Professor - Aalto University and the EIT ICT Labs, 2011-2015.
2. University of Ulster, Northern Islands. January 2011-January 2012, visiting the Smart Environments Research group at the Computer Science Research Institute. Program review and collaborative research.
3. American University in Cairo. Summer 2010. One week visit to participate in a series of lectures and review curriculum.
4. Edinburgh University, Edinburgh, Scotland. Summer 2009. Participated in the MATCH (Mobilizing Advanced Technologies for Care at Home) summer school. MATCH is a collaborative research project funded by the Scottish government, focused on technologies for care at home.

18 LOCAL CONSULTING

1. Iowa State University, 2011. External reviewer of the Department of Computer Science, reporting to the Dean of the College of Liberal Arts and Sciences.
2. Auburn University IT Center of Excellence, Strategic Plan Evaluation Committee member, March 2004.
3. SHANDS Hospital, Florida, Jan 2002. Guided IT department in its Wireless Pilot Trail in which mobile devices were used and integrated with the hospital existing Workflow.
4. Motorola, Plantation, Florida, May 2000. Designed Architectures for Motorola's future Smart Phones utilizing impromptu service discovery, Sun Microsystem's Jini and dual RF/local connectivity.
5. Sarnoff Corporation, Princeton, N.J., April 2000. Evaluated existing design schemes for scalable Home Multimedia Storage Servers and provided a comprehensive survey of the current developments and research.
6. Motorola, Austin, Texas, May-Aug 1998. Consulted for the Remote Computing Project and provided performance evaluation studies to a wireless thin/client setup over Nextel's iDEN network.
7. MCC, Austin, Texas, April 1996. Conducted a research study on Mobile Transactions prior to joining MCC in June 1996.
8. Skill Dynamics: IBM Educational Center, Atlanta, May 1994. Georgia. Designed and taught a short course on the Design and Implementation of a Client-Server system.

19 MEDIA COVERAGE AND HONORABLE MENTIONS

Dr. Helal's Research received significant media coverage especially his work on pervasive and mobile computing and their applications to proactive health, aging, disability and independence. Details are available at: <http://www.icta.ufl.edu/media.htm> but a quick list is provided below.

1. Die Presse, Austria, August 2011, covering an article discussing the use of technology to help the Baby Boomer generation live independently as they age.
2. Der Standard, Austria, June 2011, an article about the use of smart homes and domestic robots in support of health aging and proactive health.
3. Cover story of the Florida Trends magazine (www.floridatrend.com), March 2010 issue.
4. A series of press releases and TV coverage of joint development between University of Florida and IBM on Open Standards for Smart Home & Future Connected Health Services (May-September 2007): These include an IBM press release concurrent with a University of Florida press release, Eclipse Foundation, InfoWorld magazine, PC World magazine, Linux World magazine, Computer World magazine, Information Week magazine and the WESH (NBC) regional TV station in Florida.
5. Discovery Channel, Beyond Tomorrow TV Show, August 2006. 15 minutes program covering the Gator Tech Smart House, aired around the world.
6. The MIT Technology Review, August 2006. An article on Blind Navigation Technologies and systems.
7. The Sun Sentinel, August 2004. Article title: "Smart Home Thinks for Itself."
8. Herald Tribune, May 2004. Article title: "The Smart House: at UF, Matilda the Mannequin is Helping Seniors Stay at Home, Independently."
9. Chicago Tribune, September 2004. Article title: "Tapping technology for elder care."
10. Chicago Tribune, May 2004. Article title: "A Smart Home for the Elderly."
11. Chicago Tribune, March 2004. Article title: "A Robot may Help Improve your Senior Home Life."
12. The Orlando Sentinel, March 2004. Article title: "Computers and Sensors find a Home in a UF Seniors Project."
13. The Robb Report, March 2004. Article title: "Smart & Wired: Safe At Home."
14. UF Today – The Alumni Magazine for The Gator Nation, February 2004, Article titled: "For the Elderly, UF's Experimental House is a Smart Idea."
15. Explore Magazine: Research at UF, January 2004. Article titled: "Smart House – Keeps Tabs on Elderly," by Aaron Hoover.

16. The Gainesville Sun (local newspaper), November 2003. Article title: "House with a Brain – UF Researchers Develop House for Aging People."
17. New York Times, October 17, 2002 (Technology Circuit Section), covering the Drishti project on blind navigation. Article title: "Step-by-Step Prompts Put the Blind on Track," by Thomas J. Fitzgerald.
18. Al-Shark Al-Awsat, October 23, 2002, covering the Drishti project on blind navigation. Based on the NYT coverage on October 17, 2002.
19. The Gainesville Sun (local newspaper), April 2001, covering Dr. Helal's Mobile Computing Killer App Competition sponsored by Motorola. Article title: "UF Students Designing Gadgets to Sell Phones."
20. The Gainesville Sun (local newspaper), January 1999, reporting on the first wireless classroom trial at UF led by Dr. Helal. Article title: "UF Class is Going Wireless."
21. Quoted as provider of expert opinion in several newspapers including the Gainesville Sun (local, several times), The Miami Sun Sentinel, The Miami Herald, The Seattle Post Intelligencer, and the Canadian Edmonton Star newspaper.