

Dr. E. K. (EUN) PARK
Vice Provost for Research and Dean of Graduate Studies
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Profile:

1. *Experienced and accomplished academic leader, administrator as a Vice Provost for Research and Dean of Graduate Studies at a steadily growing university, CSU-Chico. Served as the Dean of Research and Graduate Studies at a rapidly growing university, CUNY-CSI. Also, served as a department chair, University of Missouri-KC.*
2. *Experienced researcher and grant generator with 15 research awards/grants. Published over 175 referred research papers in journals and conferences. Founded two top ranked world-class international conferences. Created and designed a new interdisciplinary PhD degree program (experience with developing master and doctoral level professional degree programs as well).*
3. *Multidisciplinary researcher and innovator with integrating education and research.*
4. *Leader with proven success and administrative experience in a university (as a vice provost, dean, department chair, and faculty – full professor), government (as a Program Director at the NSF) and industry partnerships with goal and vision driven, team oriented, and collaborative management (shared governance) and leadership style.*
5. *Grant and research contract administration experience (pre- and post-award, research compliance, conflict of interest, and intellectual property) as well as graduate education and research administration experience (scholarship and internal research grant committees) in higher education. Administration experience with doctoral degree programs plus master/undergrad degree programs as well as interdisciplinary programs.*
6. *Proven the ability to develop and sustain interdisciplinary (and across intellectual boundaries and beyond) education/research programs.*
7. *Active in mentoring and helping faculty to obtain grants (runs workshops regularly on “How to write winning proposals”; facilitate grant writing to the extent resources are available; partially subsidizes faculty release time for grant proposal development at CSU-Chico and CUNY).*
8. *Experience in the development of new academic degree and research programs, and expanding existing programs.*
9. *One important aspect of my learning curve since becoming Vice Provost/Dean (Chico) and Dean(CUNY) has been becoming familiar with all the disciplines in the university – I have a good understanding of their research and graduation education related aspects and matters.*

10. During my tenure as a department chair at the UMKC (Univ. of Missouri – Kansas City), faculty size and research grant amount have gone up significantly. Telecommunication Program in CSEE Department at UMKC was one of top 5 programs in the nation according to Top Performing Individual Programs 2006-2007 by Academic Analytics (see <http://www.academicanalytics.com/TopSchools/TopPrograms.aspx#5> under Computer & Information Sciences - Various categories). Also, according to the Communications of the ACM, June 2007 issue, Computer Networking program in CSEE Dept/UMKC was ranked 14th nationally and I was happy to see these rankings as I did a lot of ground work and was a big part of these programs along with all the faculty members who worked hard together.

1. EDUCATION

- (1) **Ph.D., Northwestern University**, Department of Electrical Engineering and Computer Science, Evanston, IL, USA, 1988.
- (2) M.S., Western Illinois University, Department of Computer Science, USA, 1984.
- (3) B.A, Kon-Kuk University (poli sci), Korea, 1977; Completed Computer Science requirements at Western Illinois University, Department of Computer Science, USA, 1982.

2. EXPERIENCE

2. A. ADMINISTRATIVE Experience

Vice Provost for Research and Dean of Graduate Studies (CSU-Chico), Dean of Research and Graduate School (CUNY-CSI), NSF Program Director (CCF/CNS), Dept. Chair (UMKC), Committee Chair or Member (at Departmental/School/University, Professional Society, and/or Government levels):

- (1) **Vice Provost for Research and Dean of Graduate Studies** and tenured full **Professor of Computer Science**, CSU-Chico, 2011 - present.

Responsible for all aspects of Research activities (working with faculty, staff and students of undergraduate/graduate) and Graduate Education and Degree/Certificate Programs/activities (academic administration of all grad degrees and certificate programs, program formation and review, curriculum, fellowships, scholarships, etc) including annual research conference and research competitions. Oversee Research and Sponsored Programs and administration (*grant and research contract administration: pre- and post-award, research compliance, conflict of interest, research integrity, intellectual property, etc*).

- (2) **Dean of Research and Graduate Studies** and tenured full **Professor of Computer Science**, CUNY/CSI, 2009 – present.

Responsible for all aspects of Research (undergraduate/graduate) and Graduate Education and Degree/Certificate Programs/Activities (academic administration of MS/PhD degrees and certificate programs, program formation and review, curriculum, scheduling, fellowships, scholarships, etc) including Annual CUNY-CSI Conference on Research, Scholarship, and Performance (goals: recognition of research and creative works as highly valued education, teaching and learning experiences; Celebration of academic excellence of all aspects of education, teaching, and learning).

- (3) **NSF Program Director** in CISE CCF and CNS Divisions, 2006 – 2009.

Administer, manage, and in charge of various programs in CCF and CNS Divisions under CISE Directorate. Articulate the vision for these programs in the divisions, develop plans and strategies for short and long term goals, and missions of the programs, and envision the programs' national role for these programs that I was in charge of in these divisions (see Section 2.B (3) below for more info on this).

- (4) **Chair**, CSEE Department, School of Computing and Engineering, University of Missouri at Kansas City, 1996 – 2001.

- (5) Founder (co-founder/founding member) of the following conferences:

A. **ICCCN** - International Conference on Computer Communications and Networks (founded in 1992). Sponsored by IEEE Communications Society/TCCC/etc.

B. **CIKM** - International Conference on Information and Knowledge Management (founded in 1992). Sponsored by ACM/ACM SIGs.

C. **IWCMC** - International Wireless Communications and Mobile Computing Conference (founded in 2005, founding member). Sponsored by IEEE/ACM Chapters.

- (6) University level Tenure/Promotion Committee

- (7) Graduate Officers Committee (handled Graduate Studies related admission, curriculum, activities, and issues at the school and university level) and Undergraduate Curriculum Committee (department and school levels).

- (8) School level Tenure/Promotion Committee

- (9) Faculty Senate (University level)

- (10) US Government Ada Joint Project Office (AJPO – a new computer language

design administration) committee member

(11) University Computing Long Range Planning Committee

(12) Research Committee Chair (Dept and School level)

(13) Trident Scholar Screening Committee (University level Research Award Selection Committee, USNA)

(14) Michelson Memorial Research Lecture Series Committee (University level Distinguished Lecture Series Committee, USNA)

(15) Ph.D. Committee Chair (School level)

(16) ACM USNA Student Chapter Faculty Advisor

(17) Hiring Committees (all levels)

(18) Member of the IEEE Computer Society Technical Committee on Reliability Engineering

2. B. ACADEMIC and GOVERNMENT Experience

(1) Vice Provost for Research and Dean of Graduate Studies, CSU-Chico and Professor of Computer Science, 2011 – present.

Responsible for all aspects of research (undergrad/grad levels), graduate education and degree/certificate programs including scholarships/fellowships, degree offerings (new and existing) among others. Work closely with many divisions on research and graduate education related matters to best meet the strategic goals of the Sponsored Research Program Office and Graduate Studies Office. Also, responsible for management, operation, and supervision of Sponsored Research Program Office (all aspects of pre-award and post-award processing, compliances, integrity, conflict, and managements of all research grants/contracts), administration and supervision of human and animal subjects facilities and all research centers and institutes on campus (including committees such as IRB, IACUC, Graduate Council Committee, and roles such as RIO, RCR-Officer, etc). Member of University Senior Management, Provost's Council, and Dean's Council. Work closely with college deans, department chairs, and graduate program coordinators to provide leadership and oversight for all graduate programs/degrees and certificate programs. *Active in mentoring and helping faculty/staff to obtain grants (runs workshops regularly on "How to write winning proposals" for faculty/staff).*

(2) Dean of Research and Graduate Studies, CUNY/CSI and Professor of Computer Science, 2009 – 2011.

Responsible for all aspects of research (undergrad/grad levels), graduate education

and degree/certificate programs (MS/PhD) including scholarships/fellowships, degree offerings (new and existing) among others. Work closely with the Admission and Enrollment Management Division. Also, responsible for management, operation, and supervision of Office of Sponsored Program and Research (all aspects of pre-award and post-award processing, compliances, and managements of internal and external research grants/contracts), administration and supervision of human and animal subjects/ facilities and all research centers and institutes on campus (including committees such as IRB, IACUC, Radiation Safety Committee, IBC, Graduate Studies Committee, and roles such as RIO, RCR-Officer, CIO). Member of President's Extended Cabinet, Provost's Council, and Dean's Council. Work closely with college deans, department chairs, and graduate program directors to provide oversight for all graduate degrees and certificate programs. *Active in mentoring and helping faculty to obtain grants.*

(3) Program Director, NSF (National Science Foundation)

Division of Computing and Communications Foundations (CCF) and Division of Computer and Network Systems (CNS), Computer and Information Science and Engineering (CISE) Directorate, 2006 - 2009.

Responsible for setting and developing cutting edge research plan, goals, and agenda for short-term and long-term missions of these divisions and managing their financial resources for those programs (graduate and undergraduate) that I was in charge of. Managed programs such as the Network Science and Engineering program (NetSE/CNS); Sensor and Wireless Communications Programs (NeTS/CNS); Algorithmic Foundations and Numerical Computing/Computation/Optimization (AF/CCF); and Communications and Information Foundations (CIF/CCF). Also handled the NSF/CISE's cohort and education programs (REU Site: Research Experience for Undergraduate Program – some awards were co-funded by DoD as well) and familiar with national undergraduate/graduate research/education issues and trends in STEM. Also have been involved with NSF's MPS (domestic proposals) and International Division by jointly funding collaborative proposals for creating international collaborations.

(4) Professor (tenured), Computer Science and Electrical Engineering (CSEE)

Department, University of Missouri at Kansas City, 1996 - 2009.
Research and teaching various CS undergraduate and graduate courses.

(5) Professor and Ph.D. Discipline Head/Coordinator (Interdisciplinary Ph.D. Program), CSEE Department, University of Missouri at Kansas City, 1996 – August 2004.

Management of interdisciplinary PhD degree programs and their requirements including admissions/graduations.

(6) Professor and Chair, CSEE Dept (formerly SA Dept), School of Computing and Engineering, University of Missouri at Kansas City, 1996 - 2001.

Responsibilities: Provision of leadership and vision for the dept with BS/MS/PhD degrees; degree program (including distance education) management, evaluation, and review; management of fiscal and personnel resources; strategic planning by providing vision and academic leadership; working with other department chairs, colleagues from other colleges and schools, and industry advisory board; participating in fundraising activities; student advising, recruitment, and retention; faculty and staff recruitment, evaluation, and retention; teaching, research, and advise MS/PhD students.

- (7) **Assistant/Associate Professor**, Computer Science Dept., School of Engineering, United States Naval Academy, Annapolis, Maryland. 1988 -1992 (Assistant Prof.) and 1992 -1996 (tenured Associate Prof.).
Research and teaching various CS courses.
- (8) **Research Scientist at NRL** (Naval Research Lab in DC) funded by ONR (Office of Navel Research) and NRL, 1988 - 1996.
Carried out various funded research projects during summer sessions.
- (9) **Adjunct Professor**, University of Maryland, 1990 – 1996, Baltimore, Maryland.
Research and teaching Ph.D. and graduate level CS courses, adviser of MS students, and serving as thesis committee members of PhD students.
- (10) **Adjunct Professor**, Johns Hopkins University/APL, Baltimore, Maryland, 1989 – 1995.
Teaching graduate CS courses.
- (11) **Full Time Lecturer**, EECS Department, Northwestern University, Evanston, IL. 1986 – 1988.
Teaching various undergraduate and graduate CS courses.
- (12) **Lecturer**, Northeastern Illinois University, Chicago, IL. 1984 - 1988.
Teaching various undergraduate CS courses.
- (13) **Research/Teaching Assistant**, EECS Department, Northwestern University, Evanston, IL, 1984-1985.
- (14) **Lecturer** in Computer Science and Engineering at Computer Learning Center, Chicago, IL. 1984.
Teaching various computer science courses.
- (15) **Instructor**, Western Illinois University, IL. 1982 - 1984.
Teaching various undergraduate CS courses.
- (16) Teaching Assistant, Western Illinois University, IL, 1982.

2. C. INDUSTRIAL Experience

- (17) Korean Air Lines, Seoul, Korea, 1977 – 1979. Carried out various computer system and software development related tasks.
- (18) Korea Times, Chicago, IL, 1984-1985. Designed various computer software (contract work/part-time).

3. RESEARCH FUND (funds and resources secured)

- (1) ONR/NRL Research Grant, \$45K, 1988-1990, Massively Parallel Computing, High Speed Network, and Architecture Project.
- (2) DoD/AJPO Research Grant (Co-PI), \$120K, 1991-1993, Co-PI, Software Engineering CASE Tool Design Project.
- (3) ONR/NRL Research Grant (summer research projects), 1992-1995, \$65K, Real Time System Architecture Design and Analysis Project.
- (4) DoD/DISA Research Grant, \$52K, 1995-96, TAFIM Architecture for Real Time and Information Systems Development and Management Project.
- (5) DoD/DISA Research Grant, \$95K, 1996-97, Prototyping and Network Standards and Interoperability Research Project.
- (6) Texas Instruments Grant, Engineering CASE Tools, 1997-98, \$960K.
- (7) DoD/NRaD/MTM Research Grant, \$28K, 1997-98, TAFIM TRM and PM Projects.
- (8) Extant/Dynergy Research Grant, National Backbone Architecture for Optical Network System Project, \$290K, 2000-2002, Co-PI.
- (9) Mercury Interactive Equipment Grant, Engineering Design/Analysis Tools, \$590K, 2002-2003.
- (10) DoD/NSA Research Grant, Autonomous AutoPilot Architecture Incorporating Workflow Management, System Architecture and Agents, \$3 Million, 5 yr, 1998-2003 (four campus collaborative project), Co-PI.
- (11) Research Board Grant (State of Missouri), Data Mining Project, \$37.5K, 2004-2005.
- (12) National Science Foundation (NSF) Grant, Computational Algorithm for Reconfiguration Problem in Optical Networks, \$106K, 2004-2005.
- (13) National Science Foundation (NSF), PI, IPA Grant (Communication Foundations and

and Network Systems clusters – CCF/CNS), \$510K, 2006 -2008.

- (14) National Science Foundation (NSF), Integrating and Mining Bio-Data from Multi Sources in Biological Networks, \$353,000, 2009 - 2012.
- (15) National Science Foundation (NSF), Graph-based Theoretical Models and Mining Algorithms for Bioinformatics Data Analysis, \$150,000, 2010 - 2012.
- (16) National Science Foundation (NSF), Exploiting online Social Knowledge for Adaptive Personalized Search and Recommendation, \$499,900, pending.

4. PUBLICATIONS

4. A. Refereed Journal Papers

- (1) “e-Healthcare Interconnection Networking Services,” submitted for publication in IEEE Journal on Selected Areas (JSAC) in Communications - 2012 Special Issue on Emerging Technologies in Communications.
- (2) “Exploiting the Functional and Taxonomic Structure of Genomic Data by Probabilistic Topic Modeling,” Xin Chen, Xiaohua Hu, Tze Y. Lim, Xiajiong Shen, E.K. Park, and Gail L. Rosen, IEEE/ACM Transactions on Computational Biology and Bioinformatics, to be published in 2011.
- (3) “Dynamic biclustering of microarray data by multi-objective immune optimization,” Junwan Liu, Zhoujun Li, Xiaohua Hu, Yiming Chen and EK Park’ *BMC Genomics* 2011, **12**(Suppl 2):S11.
- (4) “*Exploiting the Social Tagging Network for Web Clustering*,” accepted for publication, IEEE Transactions on Systems, Man and Cybernetics, Part A., coauthors C. Lu, X. Hu.
- (5) “Dynamic Hybrid Topology Design for Integrated Traffic Support in WDM Mesh Networks,” accepted for publication, International Journal of Computer Networks (IJCN), invited paper, coauthors B.Y. Choi and Caterina Scoglio.
- (6) “Exploratory Analysis of Protein Translation Regulatory Networks using Hierarchical Random Graphs,” BMC Bioinformatics journal, Vol.11 (Suppl 3):S2, 2010, coauthors D. Wu, X. Hu, T. He, X. Wu, X. Wang, and J. Feng.
- (7) “Integrating Real-Time Inter-Task Communication Channels into Hardware-Software Codesign,” Microprocessors and Microsystems journal (Elsevier), Vol. 34 (April/2010), coauthor SW Tak and T. Kim, pp. 182-199.
- (8) “Novel Graph-Based Model for Discovering Links from Biomedical Literatures Using Semantic-Based Text Mining,” submitted to IEEE Transactions on

Computational Biology and Bioinformatics, coauthors X. Hu, X. Zhang.

- (9) "Ontology-based Business Process Customization for Composite Web Service," accepted for publication, IEEE Transactions on Systems, Man, and Cybernetics, coauthors Q. Liang, X. Wu, Taghi M Khoshgoftaar, Chi-Hung Chi.
- (10) "Utilizing Different Link Types to Enhance Document Clustering based on Markov Random Field Model with Relaxation Labeling," accepted for publication, IEEE Transactions on Systems, Man, and Cybernetics, coauthor T. Hu.
- (11) "Flexible Frameworks for Actionable Knowledge Discovery," IEEE Transactions on Knowledge and Data Engineering, Vol. 22 No. 9, Sept. 2010, coauthors L. Cao, Y. Zhao, H. Zhang, D. Luo, C. Zhang, pp. 1299-1312.
- (12) "Distributed Virtual Backbone Construction in Sensor Networks with Asymmetric Links," accepted for publication, Journal of Wireless Communications and Mobile Computing, John Wiley & Sons, coauthors X. Chang, K. Xing, W. Cheng, S. Rotenstreich.
- (13) "Throughput Analysis for a Contention Based Dynamic Spectrum Sharing Model," accepted for publication, IEEE Trans. on Wireless Communications, coauthors Manish Wadhwa, Chunsheng Xin, Min Song.
- (14) "Minimum-Latency Gossiping in Multi-hop Wireless Networks," accepted for publication, IEEE Transactions on Parallel and Distributed Systems, coauthor S. Huang.
- (15) "Microarray Gene Cluster Identification and Annotation through Cluster Ensemble and EM based Informative Textual Summarization," IEEE Transactions on Information Technology in Biomedicine, Sept., 2009, Vol. 13, No. 5, coauthor T. Hu, pp. 832-840.
- (16) "Using RTT Variability for Adaptive Cross Layer Approach to Multimedia Delivery in Heterogeneous Networks," accepted for publication, IEEE Transactions on Multimedia, coauthor B.Y. Choi.
- (17) "Tighter Asymptotic Bounds on Critical Transmission Radius for Greedy Forward Routing in Wireless Ad Hoc Networks," under review, *IEEE Journal on Selected Areas in Communications* (JSAC).
- (18) "Dynamically Reconfigurable Hardware-Software Architecture for Partitioning Networking Functions on the SoC Platform," Journal of Systems and Software, Elsevier, 2009, coauthor Y. Kim, B. Kim, D. Lee, and S. Tak.
- (19) "Class-Attribute Mining for Biomedical Literature based on Mixture Language

Model,” under revision (accepted), IEEE Transactions on Knowledge and Data Engineering.

- (20) “Inference-Aware Broadcasting in Multi-Radio Multi-channel Mesh Networks,” IEEE Transactions on Wireless Communications, Vol. 7 No. 12, Dec. 2008, coauthor M. Song and J. Wang, and K. Xing, pp. 5473-5481.
- (21) “An Efficient Task Decomposition Technique for a Real-Time Sensor Node Platform,” accepted for publication, Telecommunication Systems Journal, Springer-Verlag, coauthor S. Tak.
- (22) “A Virtual Link Routing Scheme in the Wireless Home Network Architecture Supporting End-to-End Seamless Connectivity,” Wireless Communications and Mobile Computing, John Wiley & Sons, Vol. 7, Issue 10, Nov. 2007, coauthor B. Kim, pp. 1159-1169.
- (23) “An Efficient Technique for a Series of Virtual Topology Reconfiguration in WDM Optical Networks,” Computer Communications Journal, Elsevier Science, coauthor S. Tak and P. Prathombutr, Vol. 30, No.6, March 2007, pp. 1301-1314.
- (24) “Dynamic Key Management for Secure Routing in MANET,” Wireless Communications and Mobile Computing Journal, Wiley InterScience, Vol. 10, 2007, coauthor W. Peng, pp. 1-8.
- (25) “Evaluation of Restoration Techniques Incorporating Optimal Algorithm and Principle in WDM Optical Networks,” Computer Communications Journal, Elsevier, Vol. 29 (May 2006), coauthor S. Tak and J. Stach, pp. 1146-1162.
- (26) “Restoration Performance Study of k-Shortest Disjoint Paths in WDM Optical Networks,” Telecommunication Systems Journal, Springer-Verlag, Vol. 34, No. 1-2, Dec. 2006, coauthor S. Tak, pp. 13-16.
- (27) “Modeling and Performance Study of Restoration Framework in WDM Optical Networks,” Computer Networks journal, Elsevier Science, Vol. 49, No. 2 (Oct. 2005), coauthor SW Tak, pp. 217-242.
- (28) “Advanced Technologies in Communications and Networks - Survey and Introduction,” Telecommunication Systems Journal, Springer-Verlag, Vol. 28, Nos. 3, 4, March/April 2005, coauthor J. Li, pp. 277-278.
- (29) “An Algorithm for Traffic Grooming in WDM Optical Mesh Networks with Multiple Objectives,” Telecommunication Systems Journal, Springer-Verlag, Vol. 28 (2005), No. 3 and 4, coauthor P. Prathombutr and J. Stach, pp. 369-386.
- (30) “A Software Framework for Non-Repudiation Service based on Adaptive Secure

Methodology in Electronic Commerce,” Information Systems Frontiers (ISF) Journal, Kluwer, Vol.6, NO. 1, March 2004, coauthor SW Tak, pp. 47-66.

- (31) “An End-to-End Home Network Security Framework,” Computer Communications Journal, Elsevier Science, Vol. 27, No. 5, March 2004, coauthor SW Tak and S Dixit, pp. 412-422.
- (32) “Middleware for Location Content Services in Electronic Commerce based on the Internet,” NSF Workshop 2001 and Lecture Notes in Computer Science, LNCS 2538, Springer-Verlag, 2003, coauthor Y. Lee and N. Prabhu, pp. 173-182.
- (33) “Adaptive Secure Software Architecture for Electronic Commerce,” Software – Practice and Experience, John Wiley and Sons, Volume 33, No. 14, Oct. 2003, coauthor SW Tak, pp. 1343-1357.
- (34) “A Simulation Study of TCP Performance over IEEE 1394 Home Networks,” Computer Communications Journal, Elsevier Science, Vol.26, Issue 7, May 2003, coauthor CW Lee, JW Jang, pp. 670-678.
- (35) “Recent Advances in Computer Communications and Networks: Algorithms and Applications,” Computer Communications Journal, Elsevier Science, Vol. 26, No. 7, May 2003, pp. 637-638.
- (36) “A Software Framework for Non-Repudiation Service in Electronic Commerce Based on the Internet,” Microprocessor and Microsystems Journal, Elsevier Science, Vol. 27, June 2003, coauthor SW Tak and Y Lee, pp. 264-276.
- (37) “Secure Data Networking for Enterprises,” IJCIS (Int'l J. of Computer and Information Science), Vol. 2, No. 1, March 2001, coauthor S. Bambawale, pp. 17-23.
- (38) “A Framework for Tracing Use Case Requirements to Object Oriented Analysis Models,” Journal of Computer Science and Information Management, Vol. 3, No. 1, March 2001, coauthor J. Stach and J. Ryoo, pp. 35-46.
- (39) “Dynamic Resource Allocation for Quality of Service on a PON with Home Networks,” IEEE Communications, June 2000, Vol. 38, No. 6, coauthor JW Jang, pp. 184-190.
- (40) “TCP over IEEE 1394 Home Networks,” IJCIS, Vol.1, No. 4, 2000, ACIS Press (Association for Computer and Information Sciences), coauthor CW Lee and JW Jang, pp. 198-205.
- (41) “Visualization of a Film Sequence: A New Way of Video Modeling,” JCSIM, Vol. 2, No. 4, 1999, AoM (Association of Management), coauthor Ivan Radev, pp. 7-15.

- (42) "Performance of an Enhanced GSM Protocol Supporting Non Repudiation of Service," Computer Communications Journal, Vol. 22 (1999), Elsevier Science, coauthor Jerry Stach, pp. 675-680.
- (43) "A Secure Concurrency Control Approach for MLS Transaction Processing," Journal of Computing and Information, Vol.3, No. ICCI98/2/3, 1998, coauthor Jerry Stach, pp. 1-99.
- (44) "Encapsulation of ATM cell connections," Computer Communications Journal, Elsevier, Vol. 19, Dec. 1996, coauthor W. Liu, pp. 623-627.
- (45) "A Comparative Analysis of Entity-Relationship Diagrams," J. of Computer and Software Engineering, No.3, Vol. 4, 1995, coauthor I. Song, pp.427-459.
- (46) "NADA: A Data-Driven Programming Language," Journal of Computer and Software Engineering, Vol. 3, No. 3, 1995, coauthor G. Alaghband, pp. 319-354.
- (47) "Object-Oriented Analysis: A Study in Diagram Notations," Journal of Software and Computer Engineering, Vol. 3, No. 1 (1995), coauthor J. Lind, pp. 133-165.
- (48) "Performance Simulation of Hybrid-Ethernet," International Journal of Computer Simulation, Vol. 4, No. 3 (Fall 1994), coauthor Yahya Al-Salqan, Carl K. Chang, C.S. Kang, pp. 343-371.
- (49) "Intelligent Tools for System Analysis and Design," Journal of Software Engineering Strategy, Jan/Feb, 1994, Auerbach Publications, New York, coauthor I.Y. Song, pp.49-57.
- (50) "Checkpointing and Rollback Recovery Algorithms in Distributed Systems," Journal of Systems and Software, Vol.25, No. 1 (1994), coauthor Yong Deng, pp.59-71.
- (51) "Hypercube-like Networks with Reduced Interconnection Degrees," International Journal of Computer and Software Engineering, 1994(June), coauthor S. Zheng, K. Kwon, S. Latifi, pp. 111-133.
- (52) "Software Reuse System: An AI Based Approach," Journal of Systems and Software, Vol. 27, No. 3 (Dec. 1994), coauthor Aarthi Prasad, pp. 207-221.
- (53) "Extensions to the C Programming Language for Enhanced Failure Detection," Journal, Software - Practice and Experience, Vol. 23(6), John Wiley and Sons Ltd., June 1993, coauthor David Flater and Yelena Yesha, pp.617-628.
- (54) "Object-Oriented Database Design Methodologies: A Survey," Lecture Notes Series in Computer Science, Vol.752, Springer Verlag (November 1993), coauthor I. Song, pp. 115-142.

- (55) "An Expert System for Hybrid Ethernet Configuration Design," *Heuristics: The Journal of Knowledge Engineering*, Vol. 5, No. 1, Spring 1992, IAKE, coauthor M. Owrang and C. Kang, pp. 44-58.
- (56) "Hybrid-Token Ring: A Load Sharing Local Area Network," *Computer Communications Journal*, Vol. 14, No. 9, November 1991, Butterworth-Heinemann Ltd., coauthor C. Kang and J. Herzog, pp. 525-533.
- (57) "Quantitative Measurement of Performance Degradation in LANs," *International Journal of Mini and Microcomputers*, Vol. 12, No. 3, 1990, ACTA Press, coauthor C. Kang and J. Herzog, pp. 85-91.

4. B. Book

- (1) "Mobile and Wireless Internet: Protocol, Algorithms, and Systems," published by Kluwer Academic Publishers, July 2003 (edited book with 14 chapters and 390 pages).

4. C. Refereed Conference/Workshop/Symposium papers

- (1) "e-Healthcare Security Solution Framework," IEEE ICCCN 2012 conference, submitted for publication, Munich, Germany, coauthor Wei Liu
- (2) "Perspective Hierarchical Dirichlet Process for User-Tagged Image Modeling," ACM CIKM 2011 conference, Glasgow, Scotland, coauthors X. Chen, X. Hu, Y. An, Z. Xiong, and T. He, pp. 1341-1346.
- (3) "e-Health Service Characteristics and QoS Guarantee," IEEE ICCCN 2011, Maui Hawaii, coauthor Wei Liu.
- (4) "A Probabilistic Topic-Connection Model for Automatic Image Annotation," ACM CIKM 2010, October 2010, Toronto, Canada, coauthors X. Chen, X. Hu, Z. Zhou, C. Lu, G. Rosen, and T. He.
- (5) "An Evaluation of Diversity Ranking Methods for Query-Focused Sentence Extraction," ACM WSDM 2011, February 2011, Hong Kong, coauthors P. Achananuparp, L. Guo, and X. Hu.
- (6) "A Communication Framework for Improving an End-to-End Seamless Connections and TCP Performance in Wireless Home Networks," IEEE IC3N 2010, August 2010, Zurich, Switzerland, coauthors S. Tak and T. Kim.
- (7) "On Approximation of New Optimization Methods for Assessing Network Vulnerability," IEEE INFOCOM'2010 main conference, March 2010, San Diego, CA, USA, coauthors T. N. Dinh, Y. Xuan, My T. Thai, T. Znati.

- (8) "Emerging Platform for Healthcare IT Services," IEEE IC3N 2010, August 2010, Zurich, Switzerland, coauthor W. Liu.
- (9) "Integrating Real-Time Hybrid Task Scheduling into a Sensor Node Platform," ACM SAC'2010 (Symposium on Applied Computing), coauthor T. Kim, B. Kang and S. Tak, pp.737-741.
- (10) "Exploit the Tripartite Network of Social Tagging for Web Clustering," ACM CIKM'09, Hong Kong, coauthor Caimei Lu and Xin Chen, pp.1545-1548.
- (11) "A Novel Hardware- Software Codesign of Network Protocol Stacks on a SoC platform," IEEE ICCCN 2009, Aug. 3-6, 2009, SFO, coauthors with Y. Kim, T. Kim, SW Tak.
- (12) "Throughput Measurement-based Access Point Selection Algorithm for Multi-rate Wireless LANs," WASA2009 conference, Aug. 16-17, 2009, Boston, MA, coauthor M. Song.
- (13) "Exploiting Wikipedia as External Knowledge for Document Clustering," ACM SIG KDD 2009, July 2009, Paris, France, coauthor T. Hu, pp. 389-396.
- (14) "A High Throughput Load Balance Algorithm for Multichannel Wireless Sensor Networks," IEEE ICC 2009 conference, June 2009, Dresden Germany, M. Song.
- (15) "AskDragon: A Redundancy-Based Factoid Question Answering System with Lightweight Local Context Analysis," ACM/IEEE 2009 Joint Conference on Digital Library (JCDL 2009), June 2009, Austin, Texas, coauthor T. Hu, pp. 483-484.
- (16) "Minimum-Latency Beaconing Schedule in Multihop Wireless Networks," IEEE INFOCOM 2009 Conference, April 2009, Rio de Janeiro, Brazil, coauthor P. Wan.
- (17) "A Learning-based Multiuser Opportunistic Spectrum Access Approach in Unslotted Primary Networks," IEEE INFOCOM 2009 conference, April 2009, Rio de Janeiro, Brazil, coauthor M. Song.
- (18) "REAL Routing: Reputation Based Approach on 2.5-Layer Routing for Reliable Packet Delivery in Wireless Multi-Hop Networks," Proc. of IEEE ICCCN08, St. Thomas, VI, Aug. 2008, coauthor S. Tak, pp. 270-275.
- (19) "Dynamic Hybrid Topology Design for Multicast in Constrained WDM Networks," Proc. of IEEE ICCCN08, St. Thomas, VI, Aug. 2008, coauthor B. Choi, pp. 276-283.
- (20) "Distributed Connected Dominating Set Construction in Geometric K-Disk Graphs," Proc. of 28th IEEE ICDCS 2008, June 2008, Beijing, China, coauthor Kai Xing.

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- (116) “A Performance Study of a Token Ring with Connected Data Link(s),” Proc. of International Conf. on Computer Applications in Design, Simulation and Analysis, March 5-7, 1990, coauthor C. Kang, pp. 180-183.
- (117) “Designing Natural Language Interfaces to Logic-Based Question-Answering Systems,” Proc. of Fifth International Conference on Expert Systems and Neural Networks, August 16-18, 1989, coauthor F. Skove, pp. 108-111.
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- (119) “Software Reliability and Fault Tolerance in Distributed Systems,” Proc. of Thirty-Ninth International Symposium on Mini and Microcomputers and Their Applications, June 26-29, 1989, pp. 340-343.
- (120) “Software Fault-Tolerance in Real-Time Embedded Systems,” Proc. of 1989 ACM Seventeenth Computer Science Conference, Feb. 21-23, 1989, p. 431.

4. D. Edited Volumes

- (1) Edited the Proceedings of IEEE International Conference on Computer Communications and Networks (IC³N), 2003, 2004, 2005, 2006, and 2007, 2008.
- (2) Edited the Proceedings of IEEE International Conference on Computer Communications and Networks (ICCCN), Oct. 2002.

- (3) Edited the Proceedings of IEEE International Conference on Computer Communications and Networks (IC3N), Oct. 2001.
- (4) Tutorial on Fault Tolerant Computing, IEEE Computer Society Press, under preparation for publication.
- (5) Edited the Proceedings of IEEE International Conference on Computer Communications and Networks (IC3N), September 1994.
- (6) Edited the Proceedings of International Conference on Computer Applications in Design, Analysis and Simulation, March 10-12, 1993.
- (7) Edited the Proceedings of IEEE International Conference on Computer Communications and Networks (ICCCN), June 28-30, 1993.
- (8) Edited the Proceedings of International Conference on Computer Communications and Networks (IC3N), June 8-10, 1992.
- (9) Edited the volume of Computer Engineering and Computer Science Series, on "Fundamentals of Expert Systems Technology," May 1991, Ablex Publishing Co.
- (10) Edited the volume of Computer Engineering and Computer Science Series, on "Robot Kinematics," February 1990, Ablex Publishing Corporation.
- (11) Edited the Proceedings of International Conference on Computer Applications in Design, Simulation and Analysis, March 5-7, 1990, ACTA PRESS.
- (12) "The Computer Boom in Korea," Article in INTERFORUM magazine, May 1984.
- (13) Edited the Proceedings of Conference on Information and Knowledge Management (ACM CIKM95), Nov. 28- Dec. 2, 1995, ACM Press.

4. E. Thesis/Research Project

- (1) "A Modular Design of Fault-Tolerance Software in Distributed Computer Systems," Ph.D. Thesis, EECS Dept, Northwestern University.
- (2) "A Study of Software Development and Engineering Principles with Ada and Modula 2," Master's Project, WIU.

5. PROFESSIONAL ACTIVITIES and SERVICES

Served as General Chair, Program Chair, Technical Committee member of various conferences and workshops as well as Editor, Associate Editor, Board Member, Referee and Reviewer of various journals. Only some are listed here.

- (1) Conference Program Co-Chair, ACM CollaborateCom 2009 conference, November 2009.
- (2) External Advisory Board Member, School of Engineering and Applied Sciences, University of the District of Columbia, 2008 - present.
- (3) **Steering Committee Chair**, IEEE Intl Conf on Computer Communications and Networks, (ICCCN), 2005 – present.
- (4) **Steering Committee Chair**, ACM Conference on Information and Knowledge Management (CIKM), 2006 – present.
- (5) **Associate Editor** of Knowledge and Information Systems (KAIS): An International Journal (Springer-Verlag), 1999-2008.
- (6) **Editor-in-Chief** of the Journal of Computer and Software Engineering, 1993-1999.
- (7) **Associate Editor** of Journal of Computing and Information, 1999-2002.
- (8) CSAB/CSAC (ACM/IEEE) and ABET Accreditation Commission Member (on site Program Evaluator for Accreditation), 1990-1996. Currently, Middle States Accreditation Steering Committee member at CUNY-CSI.
- (9) Conference General Chair, International Conf. on Computer Communications and Networks (ICCCN 95 - USC, SRI, IEEE Comm. Society), September 1995.
- (10) Conference Program Co-Chair, ACM Conf. on Information and Knowledge Management (CIKM95), November 1995.
- (11) Conference Program Vice-Chair, ACM Conf. on Information and Knowledge Management (CIKM94), December 1994.
- (12) Conference Program Vice-Chair, International Conf. on Computer Communications and Networks (ICCCN 94 - IEEE Comm. Society), September 1994.
- (13) Program Vice-Chair, International Conference on Parallel and Distributed Computing Systems (PDCS94}, October, 1994, Las Vegas, Nevada.
- (14) Member of the IEEE Computer Society Technical Subcommittee on Software Reliability Engineering.
- (15) Conference General Chair, Seventh International Conference on Computer Applications in Design, Simulation and Analysis, Las Vegas, Nevada, March 19-21, 1991.

- (16) Conference Program Co-Chair, International Conf. on Design, Analysis and Simulation, March 1993.
- (17) Conference Program Co-Chair, International Conf. on Computer Communications and Networks (ICCCN 93), June 1993.
- (18) Ada Engineering Education and Software System Training Symposium Program Committee Member (Fifth Symposium), Alexandria, VA, August 14-16, 1990.
- (19) Ada Engineering Education and Software System Training Symposium Program Committee Member (Fourth Symposium), Houston, Texas, June 13-16, 1989.
- (20) ACM Computer Science Conference Program Committee Member for 18th ACM Computer Science Conference, Washington D.C., February 22-23, 1990.
- (21) **Associate Editor** of the “Series on Computer Engineering and Computer Science” (A Series of Monographs, Edited Volumes, Tutorials, Textbooks), 1990-1996.
- (22) Conference Program Chair, Sixth International Conference on Computer Applications in Design, Simulation and Analysis, New Orleans, Louisiana, March 5-7, 1990.
- (23) Highly Creative Paper Award for the paper entitled “A Graph Model for Understanding Linear Recursive Queries in Deductive Databases,” Proceedings of World Conference on Information Processing and Communication 89 (WOCON-INFOR 89), June 14-16, 1989.
- (24) Editorial Board Member for the Journal of Reliability, Quality and Safety Engineering.
- (25) Referee and Technical Reviewer for the Journal of Systems and Software.
- (26) Referee and Technical Reviewer for the IEEE Transactions on COMPUTERS.
- (27) Referee and Technical Reviewer for the IEEE Transactions on Software Engineering.
- (28) Referee and Technical Reviewer for the IEEE Transactions on Parallel and Distributed Systems.
- (29) Referee and Technical Reviewer for IEEE SOFTWARE
- (30) Referee and Technical Reviewer for IEEE Computer Society Press Tutorial Series.
- (31) Referee and Technical Reviewer for the Journal of Computer Simulation.
- (32) Referee and Technical Reviewer for the Journal of VLSI Design.

- (33) Technical Reviewer for the Journal of Microcomputer Applications.
- (34) ASEET Team Member, Professional Development Working Group (ADA language design office) at AJPO/DoD/USA.
- (35) Program Committee Member of International Conference on Parallel and Distributed Computing and Systems, October, 1991, Washington, D.C.
- (36) Program Committee Member of International Conference on Software Engineering and Knowledge Engineering (SEKE 93), June, 1993, San Francisco, CA.
- (37) Program Committee Member of International Conference on Intelligent and Cooperative Information Systems (ICICIS 93}), May, 1993, Netherland.
- (38) Program Committee Member of IEEE International Conference on Computing and Information (ICCI 93), May, 1993, Sudberry, Canada.
- (39) Program Committee Member of International Conference on Parallel and Distributed Computing Systems (PDCS93), October, 1993, Louisville, KY.
- (40) Steering Committee Member for International Conference on Information and Knowledge Management (CIKM), ACM.
- (41) Steering committee member} for International Conference on Computer Communications and Networks, IEEE.
- (42) Program Committee Member of International Conference on Reliability, Quality Control, and Risk Assessment, October, 1993, Boston, MA.
- (43) Program Committee Member of International Conference on Reliability and Maintainability, March, 1994, Seattle, WA.
- (44) Program Committee Member of International Conference on Computers and Their Applications, March, 1994, Long Beach, CA.
- (45) NSF/NASA Research Grant Proposal Reviewer and Panel Member.
- (46) Board of Regent of Louisiana State Research Grant Proposal Reviewer.
- (47) Reviewer for technical papers for the International Conference on Parallel Processing, August 1993 (ICPP93), St. Charles, IL.
- (48) Invited reviewer for Journal of Optical Networking, Optical Society of America.
- (49) Guest Editor, Computer Communications Journal, May 2003 Special Issue, Elsevier

Science.

(50) External Grant Proposal Reviewer for Hong Kong National Science Foundation.

6. SCHOLARLY ACTIVITIES

6. A. *FOUNDER (co-founder/founding member) of the Following Conferences and Program*

- (1) **ICCCN** - International Conference on Computer Communications and Networks (founded in 1992). Sponsored by IEEE Computer and Communications Society/TCCC and several companies.

One of the major conferences in Computer Communications and Networks areas. (acceptance ratio is the range of 15% and 26%).

- (2) **CIKM** - International Conference on Information and Knowledge Management (founded in 1992). Sponsored by ACM/ACM SIGs and several companies.

A premier conference in Information Retrieval/Database, Web and Knowledge Management areas (acceptance ratio is the range of 7% and 14%).

- (3) **Ph.D. Program (Interdisciplinary)** in Software Architecture.
Designed and implemented a new interdisciplinary Ph.D. degree program in Software Architecture, UMKC, 1996.

- (4) **IWCMC** - International Wireless Communications and Mobile Computing Conference (founded in 2005, founding member). Sponsored by IEEE/ACM Chapters.

6. B. *Invited Talks/Tutorials and Conference Presentations*

Gave numerous talks/presentations at various conferences/workshops and only some are listed here.

- (1) Presentations on accepted research papers at ACM CIKM 2009 in Hong Kong and IEEE IC3N 2010 in Zurich, Switzerland.

- (2) Keynote Speaker, IEEE ICTAI 2008, Dayton, OH, Nov. 4, 2008.

- (3) Dynamic Hybrid Topology Design for Multicast in Constrained WDM Networks, IEEE ICCCN08, St. Thomas, VI, Aug. 2008.

- (4) Theoretical Foundations for Computing and Communications: Major Challenges and Research Trends, NSF, December 2005.

- (5) An Algorithm for Reconfiguration in Optical Networks, IEEE IC3N05 conference, San

Diego, CA, Oct. 2005.

- (6) A Restoration Software Framework for Survivable WDM Optical Networks, IEEE ICCCN2004, Oct. 10-13, 2004, Chicago, IL.
- (7) A Scalable Architecture for Web Caching, 8th World Multi-Conference on Computer and Information Systems, Technologies, and Applications, July 18-21, 2004, Orlando, FL.
- (8) An Algorithm for Traffic Grooming in WDM Optical Mesh Networks with Multiple Objectives, IEEE ICCCN2003, Oct. 20-22, 2003, Dallas, TX.
- (9) Intelligent Knowledge Discovery in Peer-to-Peer File Sharing, ACM CIKM2002, Nov. 4 - 9, 2002, McLean, VA.
- (10) A Software Framework for No-Repudiation Services in E-Commerce on Internet, IEEE ICCCN2002, Oct. 15-17, 2002, Miami, FL.
- (11) Dynamic and Hierarchical Spatial Access Method using Integer Searching, ACM CIKM 2001, Nov. 5 - 10, 2001, Atlanta, GA.
- (12) Design and Evaluation of Adaptive Secure Protocol for E-Commerce, ICCCN2001, Oct. 15-17, 2001, Scottsdale, Arizona.
- (13) Ternary Relationship Decomposition and Higher Normal Form Structures Derived from Entity Relationship Conceptual Modeling, ACM Computer Science Conference (ACM CSC96), Philadelphia, Feb. 15-18, 1996.
- (14) Automatic Error Detection in Distributed Systems, ACM/CSC95, Nashville, TN, Feb. 1995.
- (15) Augmented Priority Ceiling Protocol: Task Synchronization for Preemptive Real-Time Systems, ACM CSC'94, Phoenix, AZ, March 1994.
- (16) Petri-net and Ada: Automatic Programming Concepts, University of Nevada, Las Vegas, December 22, 1994.
- (17) AI-Based Classification and Retrieval of Reusable Software Components, IEEE 5th Int'l Conf. on Computing and Information (ICCI93), May 27-29, 1993, Sudberry, Ontario, Canada.
- (18) Data Communication Algorithms for a Generalized Z-cube Interconnection Network, ACM/ISCA International Conf. on Computer Communications and Networks (ICCCN93), June 28-30, 1993, San Diego, CA.

- (19) Tutorial on ``Hybrid Architecture of LANs," given at the IEEE IPCCC Communications Conference, April 1992, Phoenix, Arizona, one day seminar.
- (20) A Comparative Case Study in Object-Oriented Systems Analysis Methodologies, Int'l Conf. on Computer Applications in Design, Analysis and Simulation, March 10-12, 1993, Washington, DC.
- (21) Processor Validation in Embedded Real-Time Systems, Int'l Conf. on Computer Applications in Design, Analysis and Simulation, March 10-12, 1993, Washington, DC.
- (22) An Approach to Distributed Systems Recovery and Fault Tolerance, Int'l Conf. Computer Applications in Design, Simulation and Analysis, March 11-13, 1992, Orlando, Florida.
- (23) Minimizing the Communication Cost of Updating Data-Items in Replicated Databases on a Hypercube Using the Multicast Policy, Int'l Conf. on Computer Communications and Networks (IC3N), June 8-10, 1992, San Diego, California.
- (24) Towards an Efficient Deadlock Resolution Technique, Int'l Conf. Parallel and Distributed Computing and Systems, Oct. 1-3, 1992, Pittsburgh, PA.
- (25) Translating Petri-net Model to Ada programs: An Automation, University of Maryland, November, 1991, Baltimore, MD.
- (26) Translating Petri net Model of Real-Time systems to Ada, Space Telescope Science Institute, Johns Hopkins University, November, 1991, Baltimore, MD.
- (27) Computer Virus and Protection, KSEA Washington Chapter Annual Colloquium, University of Maryland, College Park, Nov. 19, 1988.
- (28) Software Fault-Tolerance in Distributed Computer Systems, Presented for the Software Engineering Group, EECS Department, Northwestern University, December 1987.
- (29) Software Engineering and Programming Languages. Invited Colloquium for Computer Science Association, Western Ill. Univ. Chapter of Association for Computing Machinery (ACM), March 1984.
- (30) Plus over **forty-five more talks/presentations** were given based on research publications published in refereed conferences although these are not listed here (refer to Section 4 for more information).

6. C. SESSIONS ORGANIZED and/or CHAIRED AT CONFERENCES

Many sessions (over 40 sessions) are organized and chaired by me and only some are listed here.

- (1) Session Chair, Session 3.6, "Indexing/Caching," ACM CIKM94, NIST, Gaithersburg, MD, November 1994.
- (2) Session Chair, Session IV, "Deductive Databases," ACM CIKM93, Arlington, VA, November 1993.
- (3) Session Chair, Session "Software Engineering and Information Technology," IEEE 5th Int'l Conf. on Computing and Information (ICCI93), May 1993, Sudberry, Ontario, Canada.
- (4) Conference Program Co-Chair for the International Conf. on Computer Communications and Networks (IC3N), San Diego, CA, June 1993.
- (5) Conference Program Co-Chair for the Ninth International Conf. on Design, Simulation and Analysis, Washington, D.C., March 1993.
- (6) Conference Program Co-Chair for the First International Conf. on Computer Communications and Networks (IC3N), San Diego, CA, June 1992.
- (7) Session Chair, Session V, "Distributed Operating Systems," International Conf. on Parallel and Distributed Computing Systems, Pittsburgh, PA, October 1-3, 1992.
- (8) Session Chair, Session II, "Robotics and Mechanisms," International Conference on Computer Applications in Design, Simulation and Analysis, Orlando, Florida, March 11-13, 1992.
- (9) Session Chair, Session-5 "Fault-Tolerance II," International Conf. on Parallel and Distributed Computing and Systems, Washington, D.C., October 8-11, 1991.
- (10) Conference General Chairman for the Seventh International Conference on Computer Applications in Design, Simulation and Analysis, Las Vegas, March 19-21, 1991.
- (11) Conference Program Chairman for the Sixth International Conference on Computer Applications in Design, Simulation and Analysis, New Orleans, Louisiana, March 5-7, 1990.
- (12) Session Chair, Session FA-3 "Software Engineering," International Conference on Computer Applications in Design, Simulation and Analysis, Reno, Nevada, Feb. 22 - 24, 1989.
- (13) Session Chair, Session 3 "Databases, Education, and Applications," Fifth International Conference on Expert Systems and Neural Networks, Honolulu, Hawaii,

August 16-18, 1989.

- (14) Session Chair, Session TH3A “Programming Techniques,” 1990 ACM Eighteenth Computer Science Conference (ACM CSC'90), Washington D. C., Feb. 20 - 22, 1990.
- (15) Session Chair, Session 4 “Multiprocessors and LAN,” International Symposium MICRO 90, Montreal, Canada, May 22-24, 1990.
- (16) Session Chair, Session 6 “Software Engineering, Distributed and Fault Tolerant Computing,” Sixth International Conference on Computer Applications in Design, Simulation and Analysis, New Orleans, Louisiana, March 5-7, 1990.

6. D. BOOK REVIEW

Reviewed several books and some are listed here.

- (1) “An Implementation Guide for Concurrent Programming,” by James Silver, McMillan Publishing Co.
- (2) “Software Reengineering,” by Robert Arnold, IEEE Computer Society Press.
- (3) “Introduction to Pascal and Structured Design,” by Nell Dale and Chip Weems, DC Heath Publishing.
- (4) “Operating Systems,” by William Stallings, Prentice-Hall/McMillan Publishing Co.
- (5) “Software Specification: A Comparison of Formal Methods,” by John Gannon, Jim Purtilo, and Marvin Zelkowitz, Ablex Publisher.
- (6) “Psychological Perspectives on Knowledge,” by Gerhard Strube and Karl Wender, Ablex Publishing Co.
- (7) “Software Engineering - A Practitioner's Approach,” by Roger Pressman, McGraw Hill.

7. EXTRACURRICULAR ACTIVITIES

- (1) Served as a NSF Outreach Speaker
- (2) Federal Government Working Group member on Software Engineering Education and Training.
- (3) Member of Professional Working Group on Ada; Ada Joint Program Office (AJPO), DoD/US Government.
- (4) Volunteer Instructor for USNA class of 93 computer system training, August, 1989.

- (5) Volunteer Instructor for USNA class of 94 computer system training, August, 1990.
- (6) Volunteer Instructor for USNA class of 95-97 computer system training, August, 1991-1994.
- (7) ACM USNA Student Chapter Programming Contest Judge, Spring, 1989.
Made up questions for the programming contest as well.
- (8) ACM USNA Student Chapter Programming Contest Judge, Spring, 1990.
Also, made up questions for the programming contest.
- (9) ACM USNA Student Chapter Programming Contest Judge, Fall, 1991.
Also, made up questions for the programming contest.
- (10) ACM USNA Student Chapter Programming Contest Judge, Fall, 1993, 1994, and Spring 1995. Also, made up questions for the programming contest.

8. AWARDS and HONORS

- (1) **Best Paper Award** for the paper in International Conference on Wireless Algorithms, Systems and Applications (WASA'09), Aug. 16-18, 2009, Boston, MA USA,
- (2) **Best Paper Award** for the paper in International Conference on Wireless Algorithms, Systems and Applications, August 15-18, 2006, Xi'an, China.
- (3) **Outstanding Leadership and Service Award** by ACM and CIKM Conference, November 2002.
- (4) **Best Paper Award** for the paper in IEEE Int'l Conf. on Computer Communications and Networks, Oct. 1998.
- (5) Who's Who in Science and Engineering.
- (6) Member of *Upsilon Pi Epsilon*, CS Honor Society.
- (7) Outstanding Technical Contribution Award by ACM and CIKM, November 3, 1993.
- (8) US Naval Academy Faculty Excellence Award (1989 Teaching/Research).
- (9) US Naval Academy Faculty Excellence Award (1990 Teaching/Research).
- (10) US Naval Academy Faculty Excellence Award (1991 Teaching/Research).
- (11) **Highly Creative Paper Award** for the paper published in the Proceedings at the World Conference on Information Processing and Communication 89 (WOCON-

INFOR 89), June 14-16, 1989.

- (12) University Level Research Excellence Award Nominee (Naval Academy) (twice 1992 and 1995).
- (13) Outstanding Technical and Leadership Award by ICCCN (IEEE), September 22, 1995.
- (14) Service Award for Contributions to the Association for Computing Machinery, ACM/CIKM, February 1996.
- (15) ACM/CIKM Leadership Award, November 1996, Rockville, Maryland, CIKM96.
- (16) Service Award (in Appreciation for Contributions to ACM/CIKM as General Chair), ACM, Nov.1999.

9. SUPERVISION of GRADUATE STUDENTS and RESEARCH ASSOCIATES

Graduate Students (Thesis Committee and/or Projects):

Amy Tritten (1992); M. Wilson (1994); Aarthi Prasad (1994); Y. Deng (1994); P.W. Poon (1995); S. Ravada (1996); T. Cain (1997); J. Ryoo (2001); K.S. Cho (2002); C.W. Lee (2003); C. Oh (2003); D. H. Lee (2003); H.M. Chen (PhD 2003), H. Xiao (PhD 2003), S. W. Tak (PhD 2004); P. Prathombutr (PhD 2004); S. Polusani (2004); S. Mohan (2005); R. Kanchumarthy (2006); J. Ma (PhD 2006), S. Bhandari (2007); R. Dua (2007); Tongan Zhao (2007); A. Chaturvedi (2009 expected); H. Park (PhD in progress); and S. Shin (PhD in progress), J. Schott (PhD in progress), C.H. Park (PhD in progress).

Research Associates Supervision: Dr. Zongmin Su (1996-97), Dr. Y.S. Lee (1997-98); Dr. S.J. Jang (2001-02); Dr. Won Joo Hwang (2002); Dr. Kazuhiko Kinoshita (2005); Dr. Hajin Han (2006-07); and Dr. J. Nam (2008-09).

10. COURSES TAUGHT

Software Engineering, Object-Oriented Design/Analysis, Distributed Systems and Computing, Distributed Software Engineering, Software Architecture and Agents, Software Testing and Maintenance, Reliability and Maintainability, Real-Time Systems, Operating Systems, Computer Architecture, Computer Communications and Networks, Databases, Information and Knowledge Management, Data Structures, Automata Theory, Discrete Math, Programming Languages Concepts, System Analysis and Design, Programming Methods and Algorithms, File Organization, and all kinds of programming languages.

11. RESEARCH INTERESTS

Bioinformatics, Information and Knowledge Management, Data Mining, Healthcare Systems, Computer Communications and Networks, Optical Networks, Web Engineering,

E-Commerce, Software Engineering and Architecture, Object-Oriented Design and Analysis, Optimizations, Distributed Systems and Computing, Fault-Tolerance and Reliability, Formal Methods and Algorithms, Programming Methods, Expert System Analysis and Design, Real-Time System, and Databases and Information Systems.

12. PERSONAL DATA

Married (two children); *U.S. Citizen*

13. SUMMARY

Experienced leader, administrator, researcher and teacher, grant generator, and consensus builder with proven success and experience in a university (as a Vice Provost, dean, department chair, and faculty) and government (as a Program Director at NSF) with goal and vision driven, team oriented, and collaborative management and leadership style.