

Curriculum Vitae

Shou-Hsuan Stephen Huang

Department of Computer Science
University of Houston
Houston, Texas 77204-3010

Phone: (713) 743-3338
Fax: (713) 743-3335
E-Mail: shuang@cs.uh.edu

Research Interests

Cybersecurity, Intrusion Detection, Data Structures and Algorithms, Bioinformatics

Education

1981 Ph.D. in Computer Science, University of Texas-Austin
1979 M. A. in Computer Science, University of Texas-Austin
1976 M. S. in Mathematics, Southern Illinois University-Carbondale
1973 B. S. in Mathematics, National Cheng Kung University, Taiwan

Experience:

1998-Present Professor, Department of Computer Science, University of Houston (UH)
2001-04 Interim Chair, Department of Computer Science, UH
2000-01 Director of Graduate Studies and Associate Chair, Computer Science, UH
1993-96 Director of Graduate Studies, Department of Computer Science, UH
1987-98 Associate Professor, Department of Computer Science, UH
1981-87 Assistant Professor, Department of Computer Science, UH
1989-90 National Research Council-NASA Senior Research Associate
NASA Goddard Space Flight Center, Greenbelt, Maryland
1976-81 Teaching/Research Assistant/Assistant Instructor
Department of Computer Science, University of Texas-Austin

Professional Societies:

- Association for Computing Machinery (ACM),
- ACM SIGACT,
- ACM SIGMOD,
- ACM SIGAPP,
- IEEE Computer Society,
- IEEE Data Engineering Technical Committee,
- IEEE Parallel Processing Technical Committee,
- Society for Design and Process Science (SDPS),
- International Association of Science and Technology for Development,
- American Association of University Professors (AAUP),
- Phi Kappa Phi.
- ASME International

Professional Activities:**[1] Conference Organization**

- Session Chairman, AACP Science Engineering and Technology Seminar, Information Technology Session, May 1992.
- Program Committee Member, ACM Symposium on Applied Computing (SAC), Indianapolis, Indiana, March 1993.
- Program Committee Member, ACM Symposium on Applied Computing, 1994.

- Program Organizer, AACP Science Engineering and Technology Seminar, Information Technology Session, May 1993.
- Program Committee Member, The 7th international Conference on Artificial Intelligence and Expert Systems Applications, San Francisco, California, Nov. 9-10, 1995.
- Committee Member and Finance Chair, The 12th International Conference on Data Engineering, New Orleans, Louisiana, Feb. 26-March 1, 1996.
- Session Organizer and Chair, ETCE'96 Computers in Engineering Symposium, Houston, Texas, Jan. 28 - Feb. 2, 1996, The American Society of Mechanical Engineers.
- Editor, Proceedings of the 1996 AACP Science, Engineering and Technology Seminar, May 1996.
- Program Committee Member, ETCE Computers in Engineering Symposium, ASME Petroleum Division, 1995-97.
- International Advisory Committee Member, The First Annual International Conference on Industrial Engineering Applications and Practice, Dec. 4-7, 1996, Double Tree Guest Suites, Houston, Texas.
- Session Organizer and Chair, ETCE'97 Computers in Engineering Symposium, 1997, The American Society of Mechanical Engineers.
- Session Chairperson, IASTED Parallel and Distributed Computing and Networks (PDCN), Singapore, August 11-13, 1997.
- International Advisory Committee Member, The Second Annual International Conference on Industrial Engineering Applications and Practice, Nov. 12-15, 1996, Double Tree Hotel, San Diego, California.
- Conference Chair, ETCE'98 Computers in Engineering Symposium, 1998, The American Society of Mechanical Engineers and ACM, Houston, Texas, Feb. 2-4, 1998.
- Program Committee Member, the 2nd World Multiconference on Systemics, Cybernetics and Informatics (SCI 98) jointly with the 4th International Conference on Information Systems Analysis and Synthesis (ISAS 98), Orlando, FL, July 12-16, 1998.
- International Conference on Industrial Engineering Applications and Practice, Dec. 28-30, 1998, International Advisory Committee Member, sponsored by International Journal of Industrial Engineering.
- Program Committee Member, IEEE Symposium on Application-Specific Systems and Software Engineering Technology (ASSET'98), Richardson, TX, March 26-28, 1998.
- Conference Chair, ETCE'99 Computers in Engineering Symposium, 1999, The American Society of Mechanical Engineers and ACM, Houston, Texas, Feb., 1999.
- International Conference on Industrial Engineering Applications and Practice, Nov., 1999, International Advisory Committee Member, sponsored by International Journal of Industrial Engineering.
- Program Committee Member, IEEE Symposium on Application-Specific Systems and Software Engineering Technology (ASSET'99), Richardson, TX, March, 1999.
- Conference Chair, ETCE/OMAE 2000 Computers in Engineering Symposium, 1998, The American Society of Mechanical Engineers and ACM, New Orleans, LA, Feb. 14-18, 2000.
- Program Committee Member, IEEE Symposium on Application-Specific Systems and Software Engineering Technology (ASSET 2000), Richardson, TX, March, 2000.

- Program Committee member, 2005 Information Resources Management Association (IRMA) International Conference, San Diego, California, USA, May 15-18, 2005.
 - Editorial Review Board Member, International Journal of Distance Education Technologies (IJDET) (www.idea-group.com/jdet), 2003-2006.
 - International Advisory Committee member, IEEE International Conference on Advanced Information Networking and Applications, 2006 (Vienna, Austria), 2007 (Niagara Falls, Canada), 2008 (Bradford, UK), 2009 (Perth, Australia).
 - Organizing Committee Member, 2013 SECON Mobile and Wireless Sensor Network (MWSN) workshop, New Orleans, LA, June 24, 2013.
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- [2] RIG (Reuse Library Interoperability Group) Board Member. The purpose of RIG is to facilitate the interoperability of government-sponsored software reuse libraries. Its memberships include government agencies (e. g. Army, NIST, and SDIO), industrial organizations (e. g., IBM and Unisys) and academic institutes. RIG eventually was converted into Reuse Steering Committee as a standard organization under IEEE.
- [3] IEEE Computer Society Reuse Steering Committee Member, The purpose of the RSC is to ensure coordination of standards related to software reuse and their harmonization with the more general body of software engineering standards in a manner providing highest value to users of standards.
- [4] IEEE Standard Association, Founding Member since 1997.
- [5] Referee and Reviewer for
- NSF (National Science Foundation) Grant Proposals,
 - NASA Grant Proposals,
 - ACM Transactions on Database Systems (TODS),
 - ACM Computing Surveys,
 - Algorithmica,
 - BIT (An International Journal),
 - City University of New York (CUNY) Research Grant Proposal,
 - City University of New York (CUNY) Ph.D. Dissertation Committee External Reviewer,
 - City Polytechnic of Hong Kong Faculty Research Grant External Reviewer,
 - High-Performance Computer Architecture (HPCA) Conference,
 - Information Processing Letters,
 - International Conference on Parallel Processing (ICPP),
 - International Conference on Parallel and Distributed Systems (ICPDS),
 - International Conference on Parallel and Distributed Systems,
 - IEEE Transactions on Knowledge and Data Engineering,
 - IEEE Transactions on Parallel and Distributed Systems.
 - IEEE CS International Conference on Data Engineering,
 - James Cook University of North Queensland (Australia) Ph.D. Dissertation External Examiner,

- Journal of Algorithms,
 - Journal of Distributed and Parallel Databases,
 - Journal of Parallel and Distributed Computing,
 - Journal of Software Engineering and Knowledge Engineering
 - ETRI (Electronics and Telecommunications Research Institute, Korea) Journal
 - Parallel Processing Letters
- [6] Tutorial Instructor,
- Computer Science tutorial courses (Pascal Language) at Shell Westhollow Research Center, 1984-85.
 - E-Commerce, CRI, Inc., Houston, TX, Summer, 1998.
- [7] Consulting for Federal contractors (Ken Wanderman and Associates Inc., DigiNet Research Inc., and HSA, Inc.) on several research projects, 1988-97.
- [8] IEEE Standards Association (IEEE-SA), Founding Member since 1997.
- [9] As one of the delegates from the U.S. universities to the US-EC Consortium on "Towards a Common Computer Science Curriculum and Mutual Degree Recognition" annual meeting in Nice, France, January 12-17, 1999. The U. S. portion of the project is funded by the Department of Education.
- [10] Plenary Chair, the Fourth International Conference on Genetic and Evolutionary Computing, December 13-15, 2010, Shenzhen, China.
- [11] Committee Members:
- Technical Program Committee, International Conference on Computer Information Systems and Industrial Management Applications (CISIM), 2009.
 - Editorial Review Board, International Journal of Distance Education Technologies, 2009-2011.
 - Technical Program Committee, International Conference on Advanced Communication and Networking (CAN) 2010.
 - Technical Program Committee, International Conference on Intelligent Systems Design and Applications (ISDA) 2011.
 - Technical Program Committee, International Conference on Soft Computing and Pattern Recognition (SoCPaR), 2011.
 - Technical Program Committee, The Fifth International Conference on Innovative Mobile and Internet Services in Ubiquitous Computing (IMIS), 2011.
 - Technical Program Committee, International Conference on Data and Knowledge Engineering (ICDKE), 2012.
 - Proposal Review Panel, NSF CISE, December 2009.
 - Plenary Chair, Fourth International Conference on Genetic and Evolutionary Computing, December 13-15, Shenzhen, China. December 2010.
 - International Organizing Committee, IEEE International Conference on Advanced Networking & Applications, International Liaison Co-Chair, March, 2011.

Invited Speaker:

- University of Kansas, Department of Computer Science

- University of Texas-San Antonio, Division of Math & Computer Science
- State University of New York-Stony Brook, Department of Computer Science
- Southern Illinois University-Carbondale, Department of Computer Science
- National Cheng Kung University, Taiwan, Department of Mathematics, 1991.
- NASA Johnson Space Center, Houston, TX, 1993.
- University of Houston-Downtown, "Graph Embedding Algorithms," Division of Math & CS, 1994.
- NASA Goddard Space Flight Center, Greenbelt, MD, 1995.
- EXPO SOFTWARE 95, Centro de Gestion, Innovacion y Transferencia de Tecnologia, Universidad Central Del Ecuador, (invited for presentation but did not attend due to other commitment), 1995.
- Compaq Computer, Enterprise Solutions, Houston, Texas, "Web Server Performance Environment," 1996.
- 1999 IEEE Workshop on Application Specific Software Engineering and Technology, Richardson, TX, Panel member on E-commerce.
- TEC 2000 (Technology Executives Conference), Invited Participant, ASME International, March 3-5, 2000, Houston, TX.
- Beijing Institute of Petrochemical Technology, "Intrusion Detection," Beijing, China.
- Hainan University, Hainan, China, "Intrusion Detection," March 2004.
- Hainan Normal University, Hainan, China, "Computer Science Research at the University of Houston," March 2004.
- 2007 Symposium on Digital Life Technologies: Building a Safe, Secured and Sound (3S) Living Environment, Invited Talk, "Detecting Stepping-Stone Intrusions in a Connection Chain," National Cheng Kung University, Tainan, Taiwan, June 7-8, 2007.
- National Kaohsiung First University of Science and Technology, "Stepping-Stone Intrusion Detection: Challenges and Solutions," Kaohsiung, Taiwan, December 26, 2007.
- Kaohsiung University of Applied Science, College of Electrical Engineering and Computer Science, "Stepping-Stone Intrusion Detection: Challenges and Solutions," Kaohsiung, Taiwan, December 26, 2007.
- Kaohsiung University of Applied Science, Department of Computer Science and Information Engineering, "Design and Analysis of Algorithm," Kaohsiung, Taiwan, June 25, 2008.
- Department of Computer Science, Beijing University of Aeronautics and Astronautics, Beijing, China, "Detecting Intruders Using a Long Connection Chain to Connect to a Host," December 2010.
- Institute of Higher Education, Beijing University of Aeronautics and Astronautics, "Research Experience for Undergraduate Programs in the U.S.," December 2010.
- Department of Computer Science, Petroleum University of China, Beijing, China, "Detecting Intruders Using a Long Connection Chain to Connect to a Host," December 2010.
- Department of Information Management, National Taiwan University, "Detecting Intruders to a Host with a Long Stepping-Stone Connection Chain," April, 2011.
- Department of Information Management, National Taiwan University, "Making Presentations at Technical Conferences," April, 2011.

- Department of Information Management, National Chengchi University, "Detecting Intruders to a Host with a Long Stepping-Stone Connection Chain," April, 2011.

Awards:

- ASME International Petroleum Division, the Frank Walk Service Award, February 1998, 1999, and 2000.
- ETCE'98 Best Paper Award (Honorable Mention) by The American Society of Mechanical Engineers (ASME), February 3, 1998, (Co-author with W. Jeng).
- AACP (Association of American-Chinese Association) 1999 Distinguish Achievement Award, May 30, 1999.
- ASME The Eckart Service Award for Outstanding Accomplishment as Operating Committee Chair, Feb. 2000.
- Best Project Description, NSF CISE REU Site PI Meeting, March 12-13, 2009, Washington, DC.

Grants and Contracts:

- *Research in Information Structures*, P.I., Research Initiation Grant, University of Houston, 1982-83, \$7,500.
- *Computer-Intensive Environment*, Equipment Grant, P.I., University of Houston, 1985, estimated value \$3,000.
- *Database Interface on NASA's Heterogeneous Distributed Database System*, P.I., NASA Research Grant NAG5-739, 1986-87, \$10,000.
- *Database Interface on NASA's Heterogeneous Distributed Database System*, P.I., NASA Research Grant NAG5-739 (renewal) 1987-1989, \$25,000.
- *Efficient Data Retrieval on SX-2 Supercomputer*, P. I., HARC Computer Systems and Application Research Center, P.I., 1988-89, \$10,000 (in the form of supercomputer time).
- *Heterogeneous Distributed Database Management*, P.I., Texas Advanced Research Program, 1987-91, ARP-1080, \$86,943.
- *Heterogeneous Data Management*, National Research Council-NASA Senior Research Associateship, P.I., 1989-90. (This award supports the research associate in terms of salary, moving expenses, and traveling to conferences for up to two years. The actual amount of money spent by the associate is estimated at \$40,000+).
- *Software Union Catalog and Publishing House for Data and Software*, P.I., (Subcontract of a NASA Grant), HSA, Inc., \$10,000, 1994-95.
- *Distributed Environment for Interactive Document and Data Review*, P.I., joint proposal from the University of Houston and DigiNet Research, NASA STTR Grant, Phase I, NAS5-32672, \$100,000, (\$38,797 to UH), 1994-95. (This is one of the seven grants selected for funding nationwide by NASA.)
- *Critical-Time/Real-Time Database Management*, P.I., Superior Programming Services, Subcontract of a \$500,000 Navy SBIR Grant N3039-93-C-0165, funding for UH is \$76,534, Feb. 95-Jan. 96.
- *Distributed Environment for Interactive Document and Data Review*, P.I., joint proposal from the University of Houston and DigiNet Research, NASA STTR Grant, Phase II, NAS5-33233, \$492,752, 1996-2000.

- *A Web Server Performance Testing Environment*, P. I., Compaq Computer Corp., 1998-99, (Equipment, including 8 Compaq Servers, worth \$57,135 plus a 1-year service contract).
- *Quality Assurance of Internet Applications*, P. I., Compaq Computer Corporation, 1999-2000, \$10,000.
- *Network Intrusion Detection Algorithms*, P. I., DigiNet Research, \$20,109, 2004-06.
- *REU Site: Undergraduate Research Experience in Computational Science and Cybersecurity*, P. I., DoD ASSURE Program and NSF SCI-0453498, \$270,434, 2005-08.
- *Detection and Prevention of Intruders in the Connection Chain*, PI, Texas Learning and Computation Center, UH, \$39,800, 2006-07.
- *GAANN: Doctoral Training in Computer and Computational Sciences*, PI, US Department of Education, P200A070377, \$383,643, 8/15/07-8/14/12.
- *REU Site: Undergraduate Research Experience in Computational Science and Cybersecurity*, P. I., NSF CNS- 0755500, \$310,001, 2008-2010.
- *Doctoral Training in Computer/Computational Sciences and Information Security*, PI, US Department of Education, P200A100119, \$525,060, 8/16/10-8/15/13.
- *REU Site: Undergraduate Research Experience in Computational Science*, P. I., NSF CNS-1062954, \$350,000, 03/01/2011-02/28/2014.
- *Collaborative Project: Enriching Security Curricula and Enhancing Awareness of Security in Computer Science and Beyond*, Co-PI, NSF DUE-1231772, \$430,587, 9/15/12-9/14/15.
- *REU Site: Undergraduate Research Experience in Multimedia Data Analytics*, P. I., NSF CNS-1359199, \$360,001, 05/01/2014-04/30/2017.
- *CyberCorps: Scholarships for Service (SFS): Increasing Talented Trusted Computing Professionals*, Co-PI, NSF DGE-1433817, \$1,446,089, 8/1/2014-7/31/2019.
- *Preparing Computer Science Students for Global Challenges of the Twenty-first Century*, co-PI, NSF S-STEM, DUE-1356705, \$583,597, 9/1/2014-8/31/2017.

Publications:

Journal Papers

1. *Key Comparison Optimal 2-3 Trees with Maximum Utilization*, (with James R. Bitner), SIAM Journal on Computing, 10, 558-570, August 1981.
2. *Binary Search Trees with Limited Rotation*, (with C. K. Wong), BIT Journal, 23 (4), 436-355, 1983.
3. *Optimal Binary Split Trees*, (with C. K. Wong), Journal of Algorithms, 5, 69-79, 1984.
4. *Generalized Binary Split Trees*, (with C. K. Wong), Acta Informatica, 21, 113-123, 1984.
5. *Average Number of Rotations and Access Cost in iR -Trees*, (with C. K. Wong), BIT Journal, 24, 387-390, 1984.
6. *Fringe Analysis and Fringe-Balanced Trees*, Congressus Numerantium, 48, 203-210, 1985.
7. *Height Balanced Trees of Order (β , γ , δ)*, ACM Transactions on Database Systems, 10 (2), 261-284, June 1985.
8. *Multidimensional Extendible Hashing for Partial-Match Queries*, International Journal of Computer and Information Sciences, 14 (2), 73-82, April, 1985.

9. *Faster Construction of Optimal Binary Split Trees*, (with J. H. Hester, D. S. Hirschberg, and C. K. Wong), *Journal of Algorithms*, 7, 412-424, 1986.
10. *Ordered Priority Queues*, *BIT Journal*, 26, 442-450, 1986.
11. *Optimal Multiway Split Trees*, *Journal of Algorithms*, 8, 146-156, 1987.
12. *A VLSI Partition Algorithm*, *BIT Journal*, 28, 215-226, 1988.
13. *On the Construction of Optimal 2-3 Trees*, *Congressus Numerantium*, 65, 181-190, 1988.
14. *Algorithms for the Set-LCS and the Set-Set-LCS Problems*, (with H. Asuri), *Computing and Information*, 81-87, Elsevier Science Publishers (North-Holland), 1989.
15. *On the Construction of Weighted Time-Optimal B-Trees*, (with V. Viswanathan), *BIT Journal*, 30, 207-215, 1990.
16. *A Sub-Linear Parallel Algorithm for Some Dynamic Programming Problem*, (with H. Liu and V. Viswanathan), *Journal of Theoretical Computer Science* 106, 361-371, 1992.
17. *Parallel Dynamic Programming*, (with H. Liu and V. Viswanathan), *IEEE Transactions on Parallel and Distributed Systems*, Vol. 5, No. 3, pp 326-328, March, 1994.
18. *A New Combinatorial approach to Optimal Embeddings of Rectangles*, (with H. Liu and R. Verma), *Algorithmica-An International Journal in Computer Science*, 16, 161-180, 1996.
19. *On Embedding Rectangular Meshes into Rectangular Meshes of Smaller Aspect Ratio*, (with Hongfei Liu, Rakesh Verma), *Information Processing Letters*, 63, pp 123-129, 1997.
20. *Smoothing over Summary Information in Data Cubes*, (with Sam Sung, and Arthur Ramer), *Journal of System Integration*, v. 10, 2000, pp.5-22.
21. Jianhua Yang and Shou-Hsuan Stephen Huang, "*Improved Thumbprint and Its Application for Intrusion Detection*", 2005 International Conference on Computer Networks and Mobile Computing (ICCNMC'05), pp. 433-442, Zhangjiajie, China, Lecture Notes in Computer Science (LNCS) by Springer-Verlag, Vol. 3619, August 2-4, 2005.
22. Jianhua Yang, Shou-Hsuan Stephen Huang, "*Matching TCP/IP Packets to Detect Stepping-Stone Intrusion*," *International Journal of Computers & Network Security*, Vol. 6, No. 10, pp. 269-276, October 2006.
23. Shou-Hsuan Stephen Huang, Han-Ching Wu, "*Analysis of User Command Behavior and Masquerade Detection*," *Journal of Information Assurance and Security* 4, pp. 265-273, 2009.
24. Jianhua Yang, Guoqing Zhao, Lydia Ray, Shou-Hsuan Stephen Huang, "*Analyzing and Correlating Interactive Sessions with One-Dimensional Random Walk to Detect Stepping-Stone Intrusion*," *ISAST Transaction on Computers and Intelligent Systems*, No. 2, Vol. 1, pp. 78-85, 2009.
25. Shou-Hsuan Stephen Huang, Wei Ding, Matthew J. Hausknecht and Zach Riggie, "*Detecting Stepping-Stone Intruders with Long Connection Chains*," *Journal of Information Assurance and Security*, Vol. 5, Issue 1, pp. 500-514, 2010.
26. Han-Ching Wu, Shou-Hsuan Stephen Huang, "*Packet-based algorithms for stepping-stone detection with chaff perturbation*," *Security and Communication Networks*, Vol. 4, Issue 4, 436-446, John Wiley, April 2011.
27. Ying-Wei Kuo, Shou-Hsuan Stephen Huang, "*Detecting Multi-Hop Stepping-Stone Pairs with Chaff and Clock Skew*," *Journal of Information Assurance & Security*, Vol. 6, Issue 6, Dec. 1, 2011.
28. Ming-Chih Shih, Shou-Hsuan Stephen Huang, Rachel Donohue, Chung-Che Chang and Youli Zu, "*Automatic B cell lymphoma detection using flow cytometry data*," *BMC Genomics* 2013, 14 (Suppl 7):S1, doi:10.1186/1471-2164-14-S7-S1

29. Shou-Hsuan Stephen Huang and Wei Ding, "A Hybrid Stepping-Stone Detection Algorithm to Counter Packet Jittering Evasion," *Journal of Information Assurance and Security (JIAS)*, Volume 9 (2014) pp. 083-092.

Refereed Conference Papers

1. *Binary Search Trees with Local Rotation*, (with C. K. Wong), Proceedings 20-th Annual Allerton Conference on Communication, Control and Computing, 481-489, University of Illinois, October 6-8, 1982.
2. *VLSI Sorter and Smart Disk*, Proceedings of CAAPCON 84, Los Angeles, S.141-S.145, June 29-July 2, 1984.
3. *Fringe Analysis and Fringe-Balanced Trees*, presented at The 16th Southeastern International Conference on Combinatorics, Graph Theory and Computing, Florida Atlantic University, February 11-15, 1985.
4. *Finding the Median of a Distributed Set*, (with Assaf Marron), Proceedings of the 19-th Annual Conference on Information Sciences and Systems, 295-298, The Johns Hopkins University, March 27-29, 1985.
5. *An Implementation of Ordered Priority Queues*, Proceedings of the 23-rd Allerton Conference on Communication, Control and Computing, 840-849, University of Illinois, October 2-4, 1985.
6. *On the Construction of Optimal 2-3 Trees*, presented at The 19-th Southeastern International Conference on Combinatorics, Graph Theory and Computing, Louisiana State University, Feb. 15-19, 1988.
7. *Database Interfaces in Heterogeneous Database Management Systems*, (with I. Lee) Proceedings of 1988 International Conference on Advanced Science and Technology, Chicago, Illinois, 80-89, 1988.
8. *Algorithms for the Set-LCS and the Set-Set-LCS Problems*, (with H. Asuri), Also presented at International Conference on Computing and Information, May 23-27, 1989, Toronto.
9. *On the Construction of Minimum Height Generalized Binary Trees*, (with V. Viswanathan), Proceedings of the 1989 Allerton Conference on Communication, Control and Computing, 273-181, University of Illinois, Sept. 27-29, 1989.
10. *DAVID: NASA's Heterogeneous Distributed Database Management System*, (with B. Bhasker, B. Jacobs), Proceedings of the 1990 Symposium on Applied Computing, 53-60, IEEE Computer Science Press, April 5-6, 1990.
11. *Parallel Dynamic Programming*, (with V. Viswanathan and H. Liu), Proceedings of the Second Symposium on Parallel and Distributed Processing, Dallas, TX., 261-264, December, 1990.
12. *Dilation-6 Embedding of 3-dimensional Grids into Optimal Hypercubes*, (with H. Liu), Proceedings of the 1991 International Conference on Parallel Processing, Vol. 3, 250-254, 1991.
13. *Efficient Parallel Algorithms for the Maximum Sum Problem*, (with C. Chao), the Fifth SIAM Conf. on Parallel Processing for Scientific Computing, Poster Presentation, May 1991.
14. *DAVID Universal Books Management System*, (with S. Hu and B. Jacobs), Proceedings of the Second International Symposium on Database Systems for Advanced Applications, Tokyo, Japan, 430-438, 1991.
15. *A Sub-Linear Parallel Algorithm for Some Dynamic Programming Problem*, (with H. Liu and V. Viswanathan), Proceedings of the 1990 International Conference on Parallel Processing, Vol. 3, 261-264.

16. *On the Interoperability of Heterogeneous Reuse Software Repositories*, Proceedings of 1993 Joint Applications in Instrumentation Process and Computer Control (JAIPCC), March 26, 1993, Extended Abstract, p. 1-2.
17. *On Embedding of Rectangles into Optimal Squares*, (with H. Liu and R. Verma), 1993 International Conference on Parallel Processing, August 16-20, 1993, Vol. III, pp 73-76.
18. *A New Combinatorial Approach to Optimal Embeddings of Rectangles*, (with H. Liu and R. Verma), IEEE 8th International Parallel Processing Symposium, Cancun, Mexico, pp 715-722, April 26-29, 1994.
19. *Embedding Two-dimensional Grids into Hypercubes with Dilation 2 and Congestion 5*, (with Yuan Cai and Chien-Chi Lin), International Conference on Parallel Processing, August 14-18, 1995.
20. *A Surface Reduction Algorithm which Combines Speed and Fidelity*, (with Limin Chen, Olin Johnson, and Xiaoping Song), IEEE Communication Conference, Jamaica, August, 1995.
21. *Edge Embedding of Two Dimensional Grids in Hypercubes with Dilation Two and Congestion Three*, (with Chien-Chi Lin, Xin Ma) International Conference on Parallel Processing, Vol 3, August 13-15, 1996
22. *Managing Workflow Using World Wide Web: A State Transition Model*, (with Xiaolan Gu, Wen-Ping Wei and Hui Ye) Proceedings of Engineering Systems Design and Analysis (ESDA) Conference, pp. 123-129, Montpellier, France, July 1-4, 1996.
23. *Managing Process Using Workflow Systems on World Wide Web*, Proceedings of Second World Conference on Integrated Design and Process Technology, 306-312, Austin, Tx, December 1996.
24. *System Design Using Complementary Processing Methodology*, (with Ray Trout, Tse Lee, Ping-Chuan Tai), Proceedings of 8th Annual International Energy Week, Sponsored by the American Society of Mechanical Engineers (ASME), Book V, pp. 186-190, January 28-30, 1997.
25. *Efficient Parallel EM Image Reconstruction Algorithm: An Early Communication Approach*, (with Wei-Min Jeng), Proceedings of IASTED International Conference on Parallel and Distributed Computing and Networks, pp 123-126, August 11-13, 1997, Singapore.
26. *Managing Workflow Tasks with ODBC and World Wide Web*, (with Pavel Yatskayer), The 2nd Annual International Conference on Industrial Engineering Applications and Practice, Vol. I, pp. 257-262, San Diego, CA, November 12-15, 1997.
27. *Information Gathering Over Internet*, (with Sam Sung, Venson Shaw), The 2nd Annual International Conference on Industrial Engineering Applications and Practice, Vol. I, pp. 251-256, San Diego, CA, November 12-15, 1997.
28. "Efficient Implementation of EM Algorithm on Parallel Machines," (with Wei-min Jeng), ETCE Computers in Engineering, Feb. 1-3, 1998, Houston, TX, Conference CD-ROM.
29. "A Cross-Platform Package for Internet Database Management Using Java Technology", ETCE Computers in Engineering, Feb. 1-3, 1998, Houston, TX, Conference CD-ROM.
30. "Building Business Processes Using a State Transition Model on World Wide Web," Invited paper, Proceedings of the 1998 IEEE Workshop on Application Specific Software Engineering and Technology, pp. 2-7, Richardson, TX, March 26-28, 1998.
31. "A Portable PET Image Reconstruction System for Parallel Machines," (Wei-min Jeng, Stephen Huang and David Yang), Eleventh IEEE Symposium on Computer Based Medical Systems, pp. 137-142, Lubbock, TX, June 12-14, 1998.

32. "Inter-Iteration Optimization of Parallel EM Algorithm on Message-Passing Multicomputers," (Wei-min Jeng & Stephen Huang), Proceedings of the 1998 International Conference on Parallel Processing, pp. 245-252, Minneapolis, MN, August 10-14, 1998.
33. "Building Online Distributed Processes Using Electronic Handbook," (Stephen Huang and Barry Jacobs), Proceedings of the third Annual International Conference on Industry Engineering: Theories, Applications and Practice, Hong Kong, December 28-30, 1998.
34. "Using on-line analytic approach to rank the decisions," (S. Y. Sung, S. Huang and V. Shaw), Proceedings of the third Annual International Conference on Industry Engineering Theories, Applications and Practice, Hong Kong, December 28-30 1998.
35. "A New Parameter for Measuring the Cost of Network Embeddings," (Chien-Chi Lin and S. Stephen Huang), Proceedings 1999 ETCE Computers in Engineering Symposium, (CD ROM) ASME Paper ID: ETCE99-6635, Houston, Texas, Feb. 1-3, 1999.
36. "Forecasting using Fine Partitioning on Data Warehouse," (Sam Y. Sung, C. L. Tan and S. S. Huang) Proceedings of the Second International Conference on Information, Communications & Signal Processing (ICICS), Singapore, December, 1999.
37. "An International Common Project Model," (A. Oswald, S. Azadegan, Marc Aiguier, D. Smarkusky, S. Huang and J. Spiess), 29th ASEE/IEEE Frontiers in Education Conference, November 10-13, 1999, San Juan, Puerto Rico, Pages 11b8-14 to 11b8-17.
38. "Server-Side Session Management Techniques for World Wide Web," (Stephen Huang and Michelle Su), Proceedings of the ETCE/OMAE 2000 Joint Conference, (CD ROM) Paper Number: ETCE2000/ER-10321, New Orleans, LA, Feb., 2000.
39. "Integrating Windows Streaming Media Technologies into a Virtual Classroom Environment," (Stephen Huang, Hui Hu), Proceedings of 2000 International Symposium on Multimedia Software Engineering, pp. 411-418, December 11-13, 2000, Taipei, Taiwan.
40. "A Java Client for Distributed High Performance Image Reconstruction," Stephen Huang, Wei-min Jeng, Zhihong Huang, Proceedings of the Fifth Joint Conference on Information Sciences, Feb. 27-March 3, 2000, pp. 461-464, Atlantic City, New Jersey.
41. J. Quevedo, S. Huang: WebLQM: A Web Community Examiner, poster paper, Proceedings of the 10th International World Wide Web Conference, Hong Kong, May 1-5, 2001.
42. J. Quevedo, A. Covarrubias, and S. Huang: Improving Retrieval by Querying and Examining Prestige, poster paper, Proceedings of the 11th International World Wide Web Conference, Honolulu, Hawaii, May 7-11, 2002.
43. J. Quevedo, A. Covarrubias, and S. Huang: Querying and Ranking Web Documents with Prestige, Proceedings of the 11th International Conference on Information and Knowledge Engineering (IKE), Las Vegas, Nevada, June 24-27, 2002, pp. 443-446.
44. J. Quevedo, S. Huang, and G. Hagedorn: RH2: A Framework to Transform Relations into Hypertext, Proceedings of the International Conference on Internet Computing (IC), Las Vegas, Nevada, June 24-27, 2002, pp. 471-476.
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