# Dr. Jingshan Huang

# Curriculum Vitae

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### **RESEARCH INTERESTS**

#### **Machine Intelligence and Big Data**

Formal Knowledge Representation and Sharing Semantics-Enhanced Knowledge Acquisition and Data Mining

#### **Data Semantics and Semantic Technologies**

Ontology Development and Engineering Semantic Data Annotation, Integration, and Search Automated Ontology Matching/Alignment

#### **Biomedical Informatics and Bioinformatics**

Comprehensive Analysis of Next Generation RNA-seq Data Systematical Characterization of Human Transcriptome Semantics-Oriented, Effective Study of Cancer Genome Sequencing

#### **EDUCATION**

Ph.D., Computer Science and Engineering, University of South Carolina	2007
M.E., Computer Science and Engineering, University of South Carolina	2004

#### WORK EXPERIENCE

#### **Employment at the University of South Alabama:**

- January 2021 Present Professor, College of Medicine
- August 2017 Present Professor, School of Computing
- August 2015 May 2017 Associate Professor, School of Computing
- August 2009 May 2015 Assistant Professor, School of Computing

#### **Prior Employment:**

- August 2007 May 2009 Assistant Professor, Benedict College
- June 2007 August 2007 Research Specialist, Medical University of South Carolina

### GRANTS

### **Current Support and Completed Projects**

- National Science Foundation, "RET Site: Research Experiences for Teachers in Biologically-inspired Computing System," NSF Research Experiences for Teachers (RET) Program, \$0.59M, 03/01/2020 – 02/28/2024, Role: Senior Personnel (PI: Gong).
- National Science Foundation, "Use Artificial Neural Network Techniques to Automatically Classify Cancer Common Data Elements into BRIDG Classes," NSF Collaborative Research Experience for Undergraduates (CREU) Program, \$7.5K, 09/01/2018 – 05/31/2019, Role: Principal Investigator (Single PI).
- National Institutes of Health U01 Grant, "OmniSearch: A semantic tool for discovering microRNAs' critical roles in human cancers," NIH/NCI U01CA180982, \$0.91M, 08/01/2014 07/31/2018, Role: Principal Investigator (Single PI).
- National Science Foundation, "MRI: Acquisition of Scanning Transmission Electron Microscope System for Investigation and Characterization of Complex, Nanoscale Systems," NSF CBET-1428312, \$1M, 08/15/2014 – 07/31/2017, Role: Senior Personnel (PI: Palanki).
- USA Faculty Development Council Grant, "Knowledge Sharing in MiRNA Target Prediction," 05/27/2011 05/26/2012, Role: Principal Investigator.
- Department of Energy HERE Program, "Event-Driven Semantic Decision Support System based on CO-EDS (Cybersecurity Ontologies for Energy Delivery Systems)," 05/15/2012 – 08/10/2012, Role: Principal Investigator.
- USA Cancer Research Fund, "Discovery of Cancer Genome Mutations using Multi-Layered Vector Spaces Model," 08/01/2011 07/31/2012, Role: Co-Principal Investigator.

# Pending Grants (selected)

- NIH NCI Advanced Development of Informatics Technologies for Cancer Research and Management (NCI ITCR U24), "OmniSearch Plus: a semantics-driven informatics tool to facilitate unraveling critical roles of non-coding RNA regulations in human cancers," **Role: Principal Investigator**.
- NIH Big Data to Knowledge (BD2K) Community-Based Data and Metadata Standards Efforts (R24), "A unified ontological resource to develop standards across all domains of structural sequence annotation," **Role: Principal Investigator**.
- NHLBI Research Project Grant (R01), "Non-Coding RNA Ontology-oriented Trans-Omics and Clinical Study system for significant interstitial lung disease," **Role: Principal Investigator**.

# PUBLICATIONS

# (\*: Corresponding Author)

### Books

- J. Huang\*, G.M. Borchert, D. Dou, J. Huan, W. Lan, M. Tan, and B. Wu, editors, *Bioinformatics in microRNA research*, Springer series of Methods in Molecular Biology, Humana Press, 2017 (ISBN: 978-1-4939-7044-5; DOI: 10.1007/978-1-4939-7046-9).
- 81. J. Huang\*, Towards mutual understanding among ontologies: Rule-based and learning-based matching algorithms for ontologies, VDM, 2008 (ISBN: 978-3-639-11556-7).
- 80. J. Huang\*, R. Kowalczyk\*, Z. Maamar\*, D. Martin\*, I. Müller\*, S. Stoutenburg\*, and K.P. Sycara\*, editors, *Service-oriented computing: Agents, semantics, and engineering*, Springer-Verlag, vol. LNCS 4504, Berlin, 2007.

# **Journal Papers**

- 79. B. Ma, Z. Wu, S. Li, R. Benton, D. Li, Y. Huang, M.V. Kasukurthi, J. Lin, G.M. Borchert, S. Tan, M. Yang\*, and J. Huang\*, "Development of a Support Vector Machine Learning and Smart Phone Internet of Things-based Architecture for Real-time Sleep Apnea Diagnosis," *BMC Medical Informatics and Decision Making*. 2020 Dec 15;20(Suppl 14):298. doi: 10.1186/s12911-020-01329-1. PubMed PMID: 33323112; PMID Central PMCID: PMC7739462.
- 78. J. Li, Z. Zhang, S. Li, R. Benton, Y. Huang, M.V. Kasukurthi, D. Li, J. Lin, G.M. Borchert, S. Tan, B. Ma\*, M. Yang\*, and J. Huang\*, "A Partial Encryption Algorithm for Medical Images Based on Quick Response Code and Reversible Data Hiding Technology," *BMC Medical Informatics and Decision Making*. 2020 Dec 15;20(Suppl 14):297. doi: 10.1186/s12911-020-01328-2. PubMed PMID: 33323108; PMID Central PMCID: PMC7739464.
- 77. J.D. Williams, D. Houserova, B.R. Johnson, B. Dyniewski, A. Berroyer, H. French, A.A. Barchie, D.D. Bilbrey, J.D. Demeis, K.R. Ghee, A.G. Hughes, N.W. Kreitz, C.H. McInnis, S.C. Pudner, M.N. Reeves, A.N. Stahly, A. Turcu, B.C. Watters, G.T. Daly, R.J. Langley, M.N. Gillespie, A. Prakash, E.D. Larson, M.V. Kasukurthi, J. Huang, S. Jinks-Robertson, and G.M. Borchert\*, "Characterization of long G4-rich enhancer-associated genomic regions engaging in a novel loop:loop 'G4 Kissing' interaction," Nucleic Acids Research. May 2020. doi: 10.1093/nar/gkaa357.
- 76. Y. Qiu, Y. Huang, S. Tan, D. Li, A. van der Zijp-Tan, G.M. Borchert, H. Jiang\*, and J. Huang\*, "Exploring observability of attractor cycles in boolean networks for biomarker detection," *IEEE Access*. September 2019;7(1):127745-127753. doi: 10.1109/ACCESS.2019.2937133.
- 75. R. Renner, S. Li, Y. Huang, A. van der Zijp-Tan, S. Tan, D. Li, M.V. Kasukurthi, R. Benton, G.M. Borchert, **J. Huang**<sup>\*</sup>, and G. Jiang<sup>\*</sup>, "Using an artificial neural network to map cancer common data elements to the biomedical research integrated domain group model in a semi-automated

manner," *BMC Medical Informatics and Decision Making*, 2019 Dec 23;19(Suppl 7):276. doi: 10.1186/s12911-019-0979-5. PubMed PMID: 31865899, PMID Central PMCID: PMC6927104.

- 74. B. Ma, C. Li, Z. Wu, Y. Huang, A. van der Zijp-Tan, S. Tan, D. Li, A. Fong, C. Basetty, G.M. Borchert, R. Benton, B. Wu\*, and J. Huang\*, "Muscle fatigue detection and treatment system driven by Internet of Things," *BMC Medical Informatics and Decision Making*, 2019 Dec 23;19(Suppl 7):275. doi: 10.1186/s12911-019-0982-x. PubMed PMID: 31865898, PMID Central PMCID: PMC6927109.
- 73. B. Wu\*, J. Huang, L. Zhang, M. Kasukurthi, F. Huang, J. Bian, K. Fukuo, and T. Kazumi, "An integrative approach to investigate the association among high-sensitive C-reactive protein, body fat mass distribution, and other cardiometabolic risk factors in young healthy women," *Methods*. 2018 April 24; 145:60-66. doi: 10.1016/j.ymeth.2018.04.016. Available online April 24, 2018. PubMed PMID: 29702223, PMID Central PMCID: PMC6064666.
- 72. L. Cai, J. Jiang, R. Datta, M. Zhu, H. Jiang, M. Du\*, and **J. Huang**, "Sleep-disordered patient monitoring system based on the Internet of Things framework," (under review) *Journal of Cleaner Production*. September 2019.
- 71. H. Chen, D. Zhang, G. Zhang, X. Li, Y. Liang, M. Kasukurthi, G.M. Borchert, and J. Huang\*, "A semantics-oriented computational approach to investigate microRNA regulation on glucocorticoid resistance in pediatric acute lymphoblastic," *BMC Medical Informatics and Decision Making*, Jul 23;18(Suppl 2):57. doi: 10.1186/s12911-018-0637-3. PubMed PMID: 30066657, PMID Central PMCID: PMC6069764.
- 70. B. Wu\*, J. Huang, M. Kasukurthi, J. Bian, K. Fukuo, K. Suzuki, G. Yoshino, and T. Kazumi, "Different associations of trunk and lower-body fat mass distribution with cardiometabolic risk factors between healthy middle-aged men and women," *International Journal of Endocrinology*, vol. 2018, Article ID 1289485, 2018. doi: 10.1155/2018/1289485. Available online April 24, 2018. PubMed PMID: 29531527, PMID Central PMCID: PMC5817354.
- L. Zhang, R. Li, J. He, Q. Yang, Y. Wu, J. Huang\*, and B. Wu\*, "Co-expression analysis among microRNAs, long non-coding RNAs, and messenger RNAs to understand the pathogenesis and progression of diabetic kidney disease at the genetic level," *Methods*. 2017 May 31. pii: S1046-2023(17)30046-4. doi: 10.1016/j.ymeth.2017.05.023. Available online May 31, 2017. PubMed PMID: 28577935, PMID Central PMCID: PMC5540768.
- 68. N. de Silva, D. Dou\*, and J. Huang, "Discovering inconsistencies and similarities in PubMed abstracts through ontology-based information extraction," (under review) *Journal of Biomedical Informatics*, 2017.
- J. Huang\*, F. Gutierrez, H.J. Strachan, D. Dou, W. Huang, B. Smith, J.A. Blake, K. Eilbeck, D.A. Natale, Y. Lin, B. Wu, N. de Silva, X. Wang, Z. Liu, G.M. Borchert, M. Tan, and A. Ruttenberg, "OmniSearch: A semantic search system based on the Ontology for MicroRNA Target (OMIT) for microRNA-target gene interaction data," *J Biomed Semantics*. 2016 May 10;7:25. doi: 10.1186/s13326-016-0064-2. eCollection 2016. PubMed PMID: 27175225, PubMed Central

PMCID: PMC4863347.

- 66. J. Huang\*, K. Eilbeck, B. Smith, J.A. Blake, D. Dou, W. Huang, D.A. Natale, A. Ruttenberg, J. Huan, M.T. Zimmermann, G. Jiang, Y. Lin, B. Wu, H.J. Strachan, Y. He, S. Zhang, X. Wang, Z. Liu, G.M. Borchert, and M. Tan, "The Non-Coding RNA Ontology (NCRO): A comprehensive resource for the unification of non-coding RNA biology," *J Biomed Semantics*. 2016 May 4;7:24. doi: 10.1186/s13326-016-0066-0. eCollection 2016. PubMed PMID: 27152146, PubMed Central PMCID: PMC4857245.
- 65. J. Huang\*, K. Eilbeck, B. Smith, J.A. Blake, D. Dou, W. Huang, D.A. Natale, A. Ruttenberg, J. Huan, M.T., Zimmermann, G. Jiang, Y. Lin, B. Wu, H.J. Strachan, N. de Silva, M. Kasukurthi, V. Jha, Y. He, S. Zhang, X. Wang, Z. Liu, G.M. Borchert, and M. Tan, "The development of non-coding RNA ontology," *Int. J. Data Mining and Bioinformatics*, 15(3):214-232, June 2016. doi: 10.1504/IJDMB.2016.077072. PubMed PMID: 27990175, PubMed Central PMCID: PMC5156483; NIHMSID: NIHMS795655.
- 64. Z. Liu, K. Smith, H.T. Khong, J. Huang, E.Y. Erin Ahn, M. Zhou, and M. Tan\*, "miR-125b regulates differentiation and metabolic reprogramming of T cell acute lymphoblastic leukemia through directly targeting A20," *Journal of Oncotarget*, 2016 Nov 29;7(48):78667-78679. doi: 10.18632/oncotarget.12018. PubMed PMID: 27637078, PubMed Central PMCID: PMC5346668.
- J. Huang\*, J. Dang, G.M. Borchert, K. Eilbeck, H. Zhang, M. Xiong, W. Jiang, H. Wu, J.A. Blake, D.A. Natale, and M. Tan, "OMIT: Dynamic, semi-automated ontology development for the microrna domain," *PLOS ONE*, 9(7): 1-16, e100855, July 2014. doi:10.1371/journal.pone.0100855. eCollection 2014. PubMed PMID: 25025130, PubMed Central PMCID: PMC4099014.
- M. Zhu\*, W. Wang, and J. Huang, "Improved initial cluster center selection in k-means clustering," *Engineering Computations*, 31(8): 1661-1667, Nov. 2014. doi: 10.1108/EC-11-2012-0288.
- M. Zhu\*, W. Wang, B. Liu, and J. Huang, "Efficient video panoramic image stitching based on an improved selection of Harris Corners and a multiple-constraint corner matching," *PLOS ONE*, 8(12): 1-15, Dec. 2013. doi: 10.1371/annotation/eada5385-44a7-4a4f-aa1b-2194affdf310. PubMed PMID: 24324675, PubMed Central PMCID: PMC3852024.
- M. Zhu\*, W. Wang, B. Liu, and J. Huang, "Improved prototype selection in synergetic pattern recognition to recognize human face expressions," *Journal of Algorithms and Computational Technology*, 7(4): 541-552, Multi Science Publishing, Dec. 2013. doi: 10.1260/1748-3018.7.4.541.
- 59. M. Zhu\*, W. Wang, B. Liu, and **J. Huang**, "A fast image stitching algorithm via multiple-constraint corner matching," *Mathematical Problems in Engineering*, Volume 2013 (2013), Article ID 157847, pp. 1-6, Sept. 2013.
- 58. J. Huang\*, D. Dou, J. Dang, J.H. Pardue, X. Qin, J. Huan, W.T. Gerthoffer, and M. Tan, "Knowledge acquisition, semantic text mining, and security risks in health and biomedical

informatics," *World Journal of Biological Chemistry*, 3(2): 27-33, Baishideng, Feb. 2012. doi: 10.4331/wjbc.v3.i2.27. PubMed PMID: 22371823, PubMed Central PMCID: PMC3286791.

- J. Huang\*, C. Townsend, D. Dou, H. Liu, and M. Tan, "OMIT: A domain-specific knowledge base for microRNA target prediction," *Pharmaceutical Research*, (impact factor: 4.74), Springer, 28(12): 3101-3104, Dec. 2011, published online Aug. 2011. doi:10.1007/s11095-011-0573-8. PubMed PMID: 21879385.
- 56. J. Huang\*, L. He, and G.V. Davidson-Shivers, "Educational assessment via a Web-based intelligent system," US-China Education Review, 8(5): 666-674, May 2011.
- 55. J. Huang, J. Dang, M.N. Huhns, and W.J. Zheng\*, "Use artificial neural network to align biological ontologies," *BMC Genomics* 2008, 9 (Suppl 2): S16 (impact factor: 3.93). doi: 10.1186/1471-2164-9-S2-S16. PubMed PMID: 18831781, PubMed Central PMCID: PMC2559880.
- J. Huang, J. Dang, and M.N. Huhns\*, "Ontology alignment as a basis for mobile service integration and invocation," *International Journal of Pervasive Computing and Communications*, 3(2): 138-158, Emerald, 2007 (acceptance rate < 17%).</li>

# **Book Chapters**

- 53. J. Huang\* and J. Dang, "Context-sensitive ontology matching in electronic business," *Electronic Business Interoperability: Concepts, Opportunities, and Challenges*. Ejub Kajan, editor, IGI Global, 2010, pp. 279-301.
- J. Huang, J. Dang, and M.N. Huhns\*, "Ontology-based partner selection in business interaction," Handbook of Ontologies for Business Interaction. Peter Rittgen, editor, IGI Global, 2007, pp. 364-380.
- 51. J. Huang, R. Zavala, B. Mendoza, and M.N. Huhns\*, "Reconciling agent ontologies for Web service applications," *Multiagent System Technologies: Third German Conference (MATES-05)*. Torsten Eymann, Franziska Klügl, Winfried Lamersdorf, Matthias Klusch, and Michael N. Huhns, editors, Springer Verlag, Vol. LNAI 3550, Berlin, 2005, pp. 106-117.

# **Conference and Workshop Papers**

- 50. Y. Guan, J. Huang, S. Huang, M.V. Kasukurthi, Y. Huang, D. Li, S. Tan, S. Wang, X. Nian, J. Lin, G.M. Borchert, and B. Wu\*, "FGF21 mediates corticosteroid-related bone mass loss through PPAR-γ," *Proc. 2019 IEEE International Conference on Bioinformatics and Biomedicine* (*BIBM-19*), pp. 1915-1919, San Diego, CA, Nov. 2019.
- 49. M.V. Kasukurthi, D. Zhang, M. Housevera, Y. Huang, S. Tan, B. Ma, D. Li, R. Benton, J. Lin, S. Li, G.M. Borchert, and **J. Huang**<sup>\*</sup>, "SURFr: Algorithm for identification and analysis of

ncRNA-derived RNAs," *Proc. 2019 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-19)*, pp. 1504-1507, San Diego, CA, Nov. 2019.

- B. Ma, Z. Wu, S. Li, R. Benton, D. Li, Y. Huang, M.V. Kasukurthi, J. Lin, G.M. Borchert, S. Tan, M. Yang\*, and J. Huang\*, "A SVM-based algorithm to diagnose sleep apnea," *Proc. 2019 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-19)*, pp. 1556-1560, San Diego, CA, Nov. 2019.
- 47. J. Li, Z. Zhang, S. Li, R. Benton, Y. Huang, M.V. Kasukurthi, D. Li, J. Lin, G.M. Borchert, S. Tan, B. Ma\*, M. Yang\*, and J. Huang\*, "Reversible data hiding based key region protection method in medical images," *Proc. 2019 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-19)*, pp. 1526-1530, San Diego, CA, Nov. 2019.
- L. Cai, R. Datta, J. Huang\*, S. Dong, and M. Du\*, "Sleep disorder data stream classification based on classifiers ensemble and active learning," *Proc. 2019 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-19)*, pp. 1432-1435, San Diego, CA, Nov. 2019.
- 45. G. Yang, X. Leng, F. Huang, M.V. Kasukurthi, Y. Huang, D. Li, J. Lin, S. Tan, G. Lu, R. Benton, G.M. Borchert, B. Ma, and J. Huang\*, "Use CPET data to predict the intervention effect of aerobic exercise on young hypertensive patients," *Proc. 2019 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-19)*, pp. 1699-1702, San Diego, CA, Nov. 2019.
- 44. L. Cai, J. Jiang, X. Liu, M. Zhu, K. Cheng, M. Du, R. Datta, J. Huang, D. Zhu, H. Jiang, D. Zhang, and J. Huang, "OSA patient monitoring system based on the Internet of Things framework," *Proc. The 4th International Conference on Smart and Sustainable Technologies (SpliTech-19)*, Split, Croatia, June 2019.
- 43. L. Cai, C. Chen, X. Wang, S. Lin, K. Cheng, J. Huang, J. Jiang, M. Zhu, M. Du, R. Datta, Y. Li, and J. Huang, "An Open Source Map Optimization Platform for efficient navigation," *Proc. The 22nd IEEE International Conference on Computational Science and Engineering (CSE-19)*, New York, August 2019.
- 42. R. Renner, S. Li, Y. Huang, S. Tan, D. Li, A. van der Zijp-Tan, R. Benton, G.M. Borchert, J. Huang\*, and G. Jiang\*, "Mapping common data elements to a domain model using an artificial neural network," *Proc. 2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-18)*, pp. 1532-1535, Madrid, Spain, Nov. 2018.
- 41. J. Huang, K. Fukuo, G. Yoshino, T. Kazumi, C. Basetty, Y. Huang, S. Tan, D. Li, A. van der Zijp-Tan, A. Fong, G.M. Borchert, and B. Wu\*, "Body composition and biochemical characteristics of normal weight obesity in Japanese young women with different physical activities," *Proc. 2018 IEEE International Conference on Bioinformatics and Biomedicine* (*BIBM-18*), pp. 1480-1483, Madrid, Spain, Nov. 2018.
- 40. B. Ma, C. Li, Z. Wu, Y. Huang, A. van der Zijp-Tan, S. Tan, D. Li, A. Fong, C. Basetty, G.M. Borchert, and J. Huang\*, "A PWM-based muscle fatigue detection and recovery system," Proc. 2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-18), pp. 1013-1016, Madrid, Spain, Nov. 2018.

- Y. Qiu, Y. Huang, S. Tan, D. Li, A. van der Zijp-Tan, A. Fong, G.M. Borchert, and J. Huang\*, "An efficient method for attractor observability in Boolean Networks," *Proc. 2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-18)*, pp. 1526-1531, Madrid, Spain, Nov. 2018.
- 38. B. Wu\*, J. Huang\*, M. Kasukurthi, F. Huang, J. Bian, K. Fukuo, K. Suzuki, G. Yoshino, and T. Kazumi, "Combine biological experiments, statistical analysis, and semantic search to discover association among high-sensitive C-reactive protein, body fat mass distribution, and other cardiometabolic risk factors in young healthy women," *Proc. 2017 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-17)*, pp. 457-462, Kansas City, MO, Nov. 2017.
- 37. H. Jin, Z. Yu, X. Wang, W. Chen, S. Guo, M. Kasukurthi, G.M. Borchert, and J. Huang\*, "Computational analysis to discover microRNA biomarkers in glioblastoma," *Proc. 2017 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-17)*, pp. 1251-1252, Kansas City, MO, Nov. 2017.
- 36. H. Chen, D. Zhang, G. Zhang, X. Li, Y. Liang, M. Kasukurthi, G.M. Borchert, and J. Huang\*, "MeSH term-based semantic analysis of microRNA regulation on glucocorticoid resistance in pediatric acute lymphoblastic leukemia," *Proc. 2017 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-17)*, pp. 1233-1234, Kansas City, MO, Nov. 2017.
- 35. J. Huang\*, D. Dou, M. Tan, G.M. Borchert, K. Eilbeck, A. Ruttenberg, and P. Yang, "Semantics-oriented data science and computational life sciences: innovative application of semantic technologies in microRNA and lncRNA research," *Proc. The 7th IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS-17)*, Orlando, FL, Oct. 2017. doi: 10.1109/ICCABS.2017.8114284.
- 34. N. de Silva, D. Dou\*, and J. Huang, "Discovering inconsistencies in PubMed abstracts through ontology-based information extraction," *Proc. 8th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (BCB-17)*, pp. 362-371, ACM Press, Boston, MA, Aug. 2017. doi: 10.1145/3107411.3107452.
- 33. J. Huang\*, D. Dou, J. She, A.H. Limper, Y. Yang, and P. Yang, "A comprehensive (biological and computational) investigation on the role of microRNA::mRNA regulations performed in chronic obstructive pulmonary disease and lung cancer," *Proc. 2016 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-16)*, pp. 1067-1072, IEEE Computer Society Press, Shenzhen, China, Dec. 2016.
- 32. L. Zhang, R. Li, Q. Yang, Y. Wu, J. Huang\*, and B. Wu\*, "Innovative microRNA-IncRNA-mRNA co-expression analysis to understand the pathogenesis and progression of diabetic kidney disease," *Proc. 2016 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-16)*, pp. 688-693, IEEE Computer Society Press, Shenzhen, China, Dec. 2016.
- 31. J. Huang\*, B. Liu, Y. Liu, and J. Chen, "The utilization of the OmniSearch semantic search tool

to explore various microRNA regulation mechanisms in osteoarthritis," *Proc. 2016 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-16)*, pp. 1073-1078, IEEE Computer Society Press, Shenzhen, China, Dec. 2016.

- F. Sheldon\*, D. Manz, J. Huang, T. Morris, R. Abercrombie, D. Wei, and D. Fetzer, "Intrinsically resilient energy control systems: Cybersecurity challenges for critical public infrastructures," (under review) *The 2016 IEEE Symposium Series on Computational Intelligence (IEEE SSCI 2016)*, Athens, Greece, Dec. 2016.
- 29. J. Huang\*, K. Eilbeck, J.A. Blake, D. Dou, D.A. Natale, A. Ruttenberg, B. Smith, M.T. Zimmermann, G. Jiang, Y. Lin, B. Wu, Y. He, S. Zhang, X. Wang, H. Zhang, Z. Liu, and M. Tan, "A domain ontology for the non-coding RNA field," *Proc. 2015 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-15)*, pp. 621-624, IEEE, Washington D.C., Nov. 2015.
- J. Huang\*, F. Gutierrez, D. Dou, J.A. Blake, K. Eilbeck, D.A. Natale, B. Smith, Y. Lin, X. Wang, Z. Liu, M. Tan, and A. Ruttenberg, "A semantic approach for knowledge capture of microRNA-target gene interactions," *Proc. BHI Workshop at 2015 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-15)*, pp. 975-982, IEEE, Washington D.C., Nov. 2015.
- 27. B. Wu\*, J. Huang, K. Fukuo, K. Suzuki, G. Yoshino, and T. Kazumi, "Associations between C reactive protein and body fat mass distribution, adipokines, oxidative stress index, and arterial stiffness and thickness in healthy young women," *Proc. The 19th Scientific Meeting of the Chinese Diabetes Society*, Aug. 2015.
- J. Huang\*, J. Dang, X. Lu, M. Xiong, W.T. Gerthoffer, and M. Tan, "Semi-automated microRNA ontology development based on artificial neural networks," *Proc. 2013 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-13)*, pp. 526-529, IEEE, Shanghai, China, Dec. 2013.
- 25. J. Huang\*, J. Huan, A. Tropsha, J. Dang, M. Xiong, and W. Jiang, "Semantics-driven frequent data pattern mining on electronic health records for effective adverse drug event monitoring," *Proc. 2013 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-13)*, pp. 608-511, IEEE, Shanghai, China, Dec. 2013.
- F. Sheldon\*, J. Huang, J. Dang, D. Fetzer, S. Goose, J. Kirsch, D. Manz, T. Morris, and D. Wei, "Intrinsically resilient energy control systems," *Proc.* 8<sup>th</sup> Annual Cyber Security and Information Intelligence Research Workshop (CSIIRW-12), Oak Ridge, TN, Jan. 2013.
- 23. F. Sheldon\*, J. Huang, J. Dang, D. Fetzer, D. Manz, T. Morris, D. Wei, J. Kirsch, and S. Goose, "Using Semantic Web technologies to develop intrinsically resilient energy control systems," *Proc.* 7<sup>th</sup> International Conference on Semantic Technologies for Intelligence, Defense, and Security (STIDS-12), Fairfax, VA, Oct. 2012.
- 22. J. Huang\*, J. Dang, X. Lu, D. Dou, J.A. Blake, W.T. Gerthoffer, and M. Tan, "An ontology-based microRNA knowledge sharing and acquisition framework," *Proc. 2012 BHI Workshop at IEEE International Conference on Bioinformatics and Biomedicine (BIBM-12)*, pp.

16-23, IEEE Computer Society Press, Philadelphia, PA, Oct. 2012.

- C. Townsend, J. Huang\*, D. Dou, H. Liu, L. He, P.J. Hayes, R. Rudnick, H. Shah, D. Fell, and W. Liu, "NeuMORE: Ontology in stroke recovery," *Proc. IEEE International Conference on Bioinformatics & Biomedicine (BIBM-10)*, Hong Kong, China, Dec. 2010.
- C. Townsend, J. Huang\*, D. Dou, H. Liu, L. He, P.J. Hayes, R. Rudnick, H. Shah, D. Fell, and W. Liu, "Ontology-based knowledge acquisition for neuromotor functional recovery in stroke," *Proc. KEDDH Workshop at IEEE International Conference on Bioinformatics & Biomedicine (BIBM-10)*, Hong Kong, China, Dec. 2010.
- C. Townsend, J. Huang\*, D. Dou, S. Dalvi, P.J. Hayes, L. He, W. Lin, H. Liu, R. Rudnick, H. Shah, H. Sun, X. Wang, and M. Tan, "OMIT: Domain ontology and knowledge acquisition in microRNA target prediction," *Proc. 9th International Conference on Ontologies, DataBases, and Applications of Semantics (ODBASE-10)*, pp. 1162-1169, Springer-Verlag, Crete, Greece, Oct. 2010.
- J. Huang\*, M. Tan, D. Dou, L. He, C. Townsend, R. Rudnick, and P. Hayes, "MiRNA ontology for target prediction in human cancer," *Proc. 1st ACM International Conference on Bioinformatics and Computational Biology (BCB-10)*, pp. 472-474, ACM Press, Niagara Falls, NY, Aug. 2010 (doi: 10.1145/1854776.1854861).
- 17. J. Huang\*, D. Dou, L. He, J. Dang, and P. Hayes, "Ontology-based knowledge discovery and sharing in bioinformatics and medical informatics: A brief survey," *Proc.* 7<sup>th</sup> International Conference on Fuzzy Systems and Knowledge Discovery (FSKD-10), Yantai, China, Aug. 2010.
- J. Huang\*, A. Yasinsac, and P. Hayes, "Knowledge sharing and reuse in digital forensics," Proc. 4<sup>th</sup> International IEEE Workshop on Systematic Approaches to Digital Forensic Engineering (SADFE-10), Oakland, CA, May 2010.
- 15. J. Huang\*, L. He, and G.V. Davidson-Shivers, "IWAS: Intelligent Web-based assessment system," *Proc. Society for Information Technology & Teacher Education (SITE-10)*, San Diego, CA, Mar. 2010.
- 14. J. Dang, J. Huang, and M.N. Huhns<sup>\*</sup>, "Workflow coordination for service-oriented multiagent systems," *Proc.* 6<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (AAMAS-07), Honolulu, Hawaii, May 2007.
- 13. J. Huang, J. Dang, J.M. Vidal, and M.N. Huhns\*, "Ontology matching using an artificial neural network to learn weights," *Proc. SWeCKa Workshop at International Joint Conferences on Artificial Intelligence (IJCAI-07)*, pp. 80-85, Hyderabad, India, Jan. 2007.
- 12. J. Huang and M.N. Huhns\*, "Superconcept formation system-an ontology matching algorithm for Web applications," *Supplemental Proc. 5th International Semantic Web Conference* (*ISWC-06*), Athens, GA, Nov. 2006.
- 11. J. Huang, J. Dang, and M.N. Huhns\*, "Ontology reconciliation for service-oriented computing," *Proc. 2006 IEEE International Conference on Services Computing (SCC-06)*, pp. 3-10, Chicago,

# IL, Sept. 2006 (2<sup>nd</sup> Place for Best Student Paper Award).

- J. Huang and M.N. Huhns\*, "An ontology matching algorithm for service discovery," Proc. Service Discovery on the WWW Workshop at 1<sup>st</sup> Asian Semantic Web Conference (ASWC-06), Beijing, China, Sept. 2006.
- 9. J. Huang, J. Dang, and M.N. Huhns\*, "Reconciling ontologies for coordination among e-business agents," *Proc. BASeWEB Workshop at International Conference on Autonomous Agents and Multiagent Systems (AAMAS-06)*, pp. 62-69, Hakodate, Japan, May 2006.
- 8. J. Huang, J. Dang, and M.N. Huhns\*, "Ontology reconciliation in e-business domain," presented in *International Student Workshop on Agents (ISWA-06)*, Kyoto, Japan, May 2006.
- 7. J. Huang, R. Zavala, B. Mendoza, and M.N. Huhns\*, "A schema-based approach combined with inter-ontology reasoning to construct consensus ontologies," *Proc. C&O Workshop at National Conference on Artificial Intelligence (AAAI-05)*, pp. 80-87, Pittsburgh, PA, July 2005.
- J. Huang, R. Zavala, B. Mendoza, and M.N. Huhns\*, "Sharing ontology schema information for Web Service integration," *Proc. 5th International Conference on Computer and Information Technology (CIT-05)*, pp. 1056-1062, Shanghai, China, Sept. 2005.
- 5. M.G. Valtorta\*, **J. Huang**, et al., "Extending Heuer's analysis of competing hypotheses method to support complex decision analysis," *Proc. 2005 International Conference on Intelligence Analysis Methods and Tools (IA-05)*, Washington D.C., May 2005.
- 4. J. Cheng\*, J. Huang, et al., "OmniSeer: A cognitive framework for user modeling, reuse of prior and tacit knowledge, and collaborative knowledge services," *Proc.* 38<sup>th</sup> Annual Hawaii International Conference on System Sciences (HICSS-38)-Track 9, Big Island, Hawaii, Jan. 2005.
- 3. S. Xu\*, J. Huang, et al., "Security issues in privacy and key management protocols of 802.16," *Proc. The Workshop of 2005 International Conference on Computational Intelligence and Security (CIS-05)*, Xi'an, China, Oct. 2005.

# **Technical Reports**

- 2. M.G. Valtorta\*, **J. Huang**, et al., "Tutorial and training manual for the prior and tacit knowledge system of OmniSeer," Dec. 2003.
- 1. J. Cheng\*, J. Huang, et al., "OmniSeer Project Final Report," Aug. 2004.

# **COURSES TAUGHT**

At the University of South Alabama

- CSC 528: Bioinformatics (graduate level)
- CSC 428: Bioinformatics (undergraduate level)
- CSC 522: Performance Evaluation of Algorithms (graduate level)
- CSC 432: Performance Evaluation of Algorithms (undergraduate level)
- CSC 332: Advance Data Structures and Algorithms (undergraduate level)
- CSC 525: Complexity Theory (graduate level)

- CSC 434: Formal Language and Automata Theory (undergraduate level)
- CSC 516: Artificial Intelligence Theory and Programming (graduate level)
- CSC 416: Artificial Intelligence Theory and Programming (undergraduate level)
- CSC 533: Artificial Intelligence and Heuristic Programming (graduate level)
- CSC 513: Computer Graphics (graduate level)
- CSC 413: Computer Graphics (undergraduate level)
- CSC 511: Communications and Network Analysis (graduate level)
- CSC 411: Communications and Network Analysis (undergraduate level)
- CIS 210: Introduction to C++ Programming (undergraduate level)

At Benedict College

- CSC 138: Algorithm Design and Programming II with C/C++ (undergraduate level)
- CSC 231: Assembly Language (undergraduate level)
- CSC 333: Data Structures (undergraduate level)
- CSC 431: Programming Languages (undergraduate level)
- CSC 434: Database Management (undergraduate level)
- CSC 435: Software Engineering (undergraduate level)
- CSC 436: Operating System (undergraduate level)

# **INVITED TALKS AND PRESENTATION**

- 26. "Machine Intelligence and its Innovative Applications in Biological and Biomedical Research," at *Guizhou University of Nationality*, Guiyang, China, January 2019.
- 25. "Big Data and Deep Machine Learning Algorithms," at *Fuzhou University*, Fuzhou, China, December 2018.
- 24. "Artificial Intelligence in Biomedical and Clinical Sciences," at *Shenzhen University*, Shenzhen, China, June 2018.
- 23. "Big Data Era," at *Qilu University of Technology*, Jinan, China, June 2018.
- 22. "Machine Intelligence and Learning Algorithms," at *Fujian Normal University*, Fuqing, China, June 2018.
- 21. "Semantics-oriented Data Science and Computational Life Sciences: innovative application of semantic technologies in microRNA and lncRNA research," at *The* 7<sup>th</sup> *IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS-17)*, Orlando, FL, October 2017.
- 20. "OmniSearch and Beyond: application of semantic technologies and bio-ontologies in non-coding RNA research," at *Tsinghua University*, August 2017.
- 19. "Semantics-oriented Data Science and Computational Life Sciences," at *Kent State University*, Kent, OH, April 2017.

- 18. "Advance Topics in Computational Genomics and Transcriptomics," at *Fujian Agriculture and Forestry University*, December 2016.
- 17. "OmniSearch: an innovative semantic search system in human cancer research," at *Qilu University of Technology*, Jinan, China, December 2015.
- 16. "Innovative Application of Semantics-oriented Computational Approaches in Biomedical and Clinical Investigation," at *Kunming Medical University*, Kunming, China, July 2015.
- 15. "Semantic Annotation, Integration, and Search of Genomics Data," at *International Conference* on Big data analysis and Data Mining (ICBDM-15), Lexington, KY, May 2015.
- 14. "Semantics-oriented Knowledge Acquisition in Human Cancer Biology Research," at *University* of Connecticut, Storrs, CT, March 2015.
- 13. "Semantics-oriented Knowledge Acquisition in Human Cancer Biology Research," at *University* of Utah, Salt Lake City, UT, March 2015.
- 12. "Semantics-oriented Knowledge Acquisition in Human Cancer Biology Research," at *University* of Kansas, Lawrence, KS, February 2015.
- 11. "Semantic Technologies and their Application in Biological and Biomedical Research," at *Guizhou University*, Guiyan, China, January 2014.
- 10. "Overview of Semantic Technologies," at *Shandong Yingcai University*, Jinan, China, December 2013.
- 9. "Ontology-based Knowledge Discovery and Sharing in Biological and Medical Research," at the *Chinese University of Hong Kong*, August 2010.
- 8. "Towards Mutual Understanding: Ontologies, Ontology Matching, and their Applications," at the *University of Oregon*, May 2010.
- 7. "Intelligent Web-based Educational Assessment System," at *the University of South Alabama's* 17<sup>th</sup> Annual Research Forum, Mobile, AL, March 2010.
- 6. "Semantic Integration Techniques and Component-based Software Engineering," at *Southern Polytechnic State University*, September 2008.
- 5. "Ontology and Semantic Integration Algorithms," at *Dali University*, Dali, China, July 2008.
- 4. "Ontology-matching Algorithms," at Oak Ridge National Lab, Oak Ridge, TN, January 2007.
- 3. "Inferring, Validating, and Coordinating the Commitments in a Workflow," presented at 2006 *IEEE International Conference on Web Services (ICWS-06)*, Chicago, IL, September 2006.
- 2. "A Framework for Intelligent Web Services: Combined HTN and CSP Approach," presented at 2006 IEEE International Conference on Web Services (ICWS-06), Chicago, IL, September 2006.
- 1. "Understanding Ontologies for Web Service Coordination," in *the University of South Carolina Graduate Student Day*, Columbia, SC, March 2006.

# **PROFESSIONAL SERVICE**

Graduate Student Advisement (Thesis Supervisor or Committee Member)

- Mohan Vamsi Kasukurthi, Ph.D. in Computer Science, expected to graduate in December 2021
- Shengyu Li, Ph.D. in Computer Science, expected to graduate in May 2021
- Mohan Vamsi Kasukurthi, MS in Computer Science, graduated in December 2017
- Vikash Kumar Jha, MS in Computer Science, graduated in December 2017
- Feihuang Liu, MS in Computer Science, graduated in May 2016
- He Zhang, MS in Computer Science, graduated in June 2015
- William Bush, MS in Computer Science, graduated in May 2015
- Xingyu Lu, MS in Computer Science, graduated in May 2015
- Moses M. Baldwin, MS in Computer Science, graduated in May 2013
- Nicolas Felts, MS in Computer Science, graduated in May 2013
- Valerian Kiame, MS in Computer Science, graduated in May 2011

# Undergraduate Student Advisement (Undergraduate Research Supervisor)

- Ada Chaeli Van Der Zijp-Tan
- Steven Mota
- Yulong Huang
- Chandan Basetty
- Gnyata Patel
- Jesse Bryant

# Service at the University of South Alabama

# University Level

- School of Computing Faculty Senator (November 2020 Present)
- Committee Member, USA Research and Scholarship Development Grant Program Review Committee (January 2015 Present)
- Committee Member, USA Faculty Development Council (August 2014 Present)
- Committee Member, USA Global Engagement Research Committee (January 2014 Present)
- Committee Member, USA Council on International Education and Scholarship (August 2013 Present)
- Committee Member, USA Stokes Center for Environmental Resiliency (January 2013 Present)
- Committee Member, Educational Cooperation with Chinese institutions (August 2009 December 2014)

# College Level

- Committee Member, SoC Promotion and Tenure Committee (August 2017 Present)
- Committee Chair, Student Academic Misconduct Committee (August 2015 Present)
- Committee Member, CS Grad Comps Committee (August 2009 Present)
- Committee Member, ITIS Faculty Recruiting Committee (August 2012 May 2013)

# Department Level

- Committee Member, CS Graduate Application Review Committee (January 2015 Present)
- Committee Member, CS Graduate Research/Lab Assistantship Review Committee (January 2015 Present)

# **Community Service in Mobile Area**

- Guest Speaker, USA Computing Day (August 2013 January 2015)
- Faculty Judge, Mobile Region Science and Engineering Fair for High School Students (January 2013 May 2014)

# National Institutes of Health (NIH) Panelist

1. NIH NLM Conflict Study Section for Biomedical Informatics and Data Sciences, November 2020

# National Science Foundation (NSF) Panelist

1. NSF Postdoctoral Research Fellowships in Biology (PRFB) review panels, February 2015

# American Association for the Advancement of Science (AAAS) Review Panelist

1. Machine Learning and Artificial Intelligence Block, February 2019

# Journal Editorial Board Member

- 6. The International Journal of Data Mining & Bioinformatics (IJDMB)
- 5. Gene and Genome Research (GGR)
- 4. The Scientific Pages of Microbiology (SPM)
- 3. The Journal of Computer Engineering & Information Technology (JCEIT)
- 2. MASAUM Journal of Engineering and Applied Sciences (MJEAS)
- 1. MASAUM Journal of Computer Sciences (MJCS)

# Journal Review Board Member

- 2. The Scientific Pages of Artificial Intelligence
- 1. Journal of Open Research on Information Systems

# **Conference Steering Committee**

- 4. The 4th International Conference on Big Data Analysis and Data Mining (ICBDADM-17)
- 3. The 3<sup>rd</sup> International Conference on Big Data Analysis and Data Mining (ICBDADM-16)
- 2. The 2<sup>nd</sup> International Conference on Big Data Analysis and Data Mining (ICBDADM-15)
- 1. The 1<sup>st</sup> International Online Student Conference on Computer Science 2011 (IIOSCCS-11)

# Conference and Workshop Chair/Co-Chair

- 5. The 2<sup>nd</sup> International Workshop on Semantics-Powered Data Analytics (SEPDA-17)
- OmniSearch and Beyond Workshop at the 7<sup>th</sup> International Conference on Biological Ontology (ICBO-16)
- 3. The 8<sup>th</sup> Annual Cyber Security and Information Intelligence Research Workshop (CSIIRW-12)
- 2. International Conference on Information Technology (ICIT-12)
- 1. AAMAS Workshop on Service-Oriented Computing (SOCASE-07)

# **Conference Session Chair**

- 3. 2016 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-16)
- 2. 2015 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-15)
- 1. 2006 IEEE International Conference on Services Computing (SCC-06)

# **Book Editorial Advisory Board**

- 2. Democratic Strategies and Citizen-Centered E-Government Services (by IGI Global)
- 1. Handbook on Research on E-Business Standards and Protocols: Documents, Data and Advanced Web Technologies (by IGI Global)

# **Invited Journal Editor**

- 2. Guest Editor for IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB), IEEE BIBM 2015 Special Issues
- 1. SciTechnol Journal

# **Invited Book Editor**

1. Bioinformatics in microRNA research: computational methods in exploring microRNAs' functions for "Methods in Molecular Biology" series (by Springer)

# **Journal Review**

- 22. Cancer Biomarkers
- 21. Computational and Structural Biotechnology Journal
- 20. Journal of Biomedical and Health Informatics
- 19. IEEE/ACM Transactions on Computational Biology and Bioinformatics (TCBB)

- 18. Current Bioinformatics
- 17. Computers in Biology and Medicine
- 16. Bioinformatics
- 15. BMC Genomics
- 14. PLOS ONE
- 13. Gene Reports
- 12. Computers and Security Journal
- 11. IEEE Internet Computing
- 10. World Wide Web Journal (WWWJ)
- 9. IEEE Transactions on Knowledge and Data Engineering (TKDE)
- 8. IEEE Transactions on Services Computing (TSC)
- 7. Multimedia Tools and Applications (MTA)
- 6. International Journal of Information Management (IJIM)
- 5. Journal of Recent Patents on Biomedical Engineering (RPBE)
- 4. Computer Methods and Programs in Biomedicine (CMPB)
- 3. International Journal of Cooperative Information Systems (IJCIS)
- 2. Journal of Zhejiang University SCIENCE A (Applied Physics and Engineering)
- 1. Knowledge Engineering Review Journal (KER)

# **Invited Book Chapter Review**

1. Democratic Strategies and Citizen-Centered E-Government Services (by IGI Global)

# **Conference Program Committee**

- 82. 2020 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-20)
- 81. 2020 International Workshop on Biomedical and Health Informatics (BHI-20)
- 80. 2019 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-19)
- 79. 2019 International Workshop on Biomedical and Health Informatics (BHI-19)
- 78. The 11th International Conference on Bioinformatics and Biomedical Technology (ICBBT-19)
- 77. 2019 International Conference on Intelligent Medicine and Image Processing (IMIP-19)
- 76. 2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-18)
- 75. The 18th IEEE International Conference on Computer and Information Technology (CIT-18)
- 74. The 25th annual IEEE International Conference on High Performance Computing (HiPC-18)
- 73. The 10th International Conference on Bioinformatics and Biomedical Technology (ICBBT-18)

- 72. 2018 IEEE International Conference on Tools with Artificial Intelligence (ICTAI-18)
- 71. 2017 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-17)
- 70. The 10th International Conference on BioMedical Engineering and Informatics (BMEI-17)
- 69. The 10th International Congress on Image and Signal Processing (CISP-17)
- 68. The 29th IEEE International Conference on Tools with Artificial Intelligence (ICTAI-17)
- 67. The 17th IEEE International Conference on Computer and Information Technology (CIT-17)
- 66. The 9th International Conference on Bioinformatics and Biomedical Technology (ICBBT-17)
- 65. The 13th IEEE International Conference on Green Computing and Communications (GreenCom-17)
- 64. The 11th IEEE International Conference on Semantic Computing (ICSC-17)
- 63. The 16th IEEE International Conference on Computer and Information Technology (CIT-16)
- 62. The 28th IEEE International Conference on Tools with Artificial Intelligence (ICTAI-16)
- 61. 2016 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-16)
- 60. The 10th IEEE International Conference on Semantic Computing (ICSC-16)
- 59. The 8th International Conference on Computational Collective Intelligence Technologies and Applications (ICCCI-16)
- 58. The 9th International Conference on BioMedical Engineering and Informatics (BMEI-16)
- 57. The 9th International Congress on Image and Signal Processing (CISP-16)
- 56. 2015 IEEE International Conference on Bioinformatics and Biomedicine (BIBM-15)
- 55. The 7th International Conference on Computational Collective Intelligence Technologies and Applications (ICCCI-15)
- 54. The 9th IEEE International Conference on Semantic Computing (ICSC-15)
- 53. The 8<sup>th</sup> International Conference on BioMedical Engineering and Informatics (BMEI-15)
- 52. The 8th International Congress on Image and Signal Processing (CISP-15)
- 51. The 15<sup>th</sup> IEEE International Conference on Computer and Information Technology (CIT-15)
- 50. The 6<sup>th</sup> International Conference on Computational Collective Intelligence-Technologies and Applications (ICCCI-14)
- 49. The 7<sup>th</sup> International Conference on BioMedical Engineering and Informatics (BMEI-14)
- 48. The 7<sup>th</sup> International Congress on Image and Signal Processing (CISP-14)
- 47. The 12<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (AAMAS-13)
- 2013 International Symposium on Applied Engineering, Technical Management, and Innovation (AETMI -13)

- 45. The 6<sup>th</sup> International Conference on BioMedical Engineering and Informatics (BMEI-13)
- 44. The 6<sup>th</sup> International Congress on Image and Signal Processing (CISP-13)
- 43. The 13th IEEE International Conference on Computer and Information Technology (CIT-13)
- 42. The 5<sup>th</sup> International Conference on Computational Collective Intelligence-Technologies and Applications (ICCCI-13)
- 41. The 5<sup>th</sup> International Conference on BioMedical Engineering and Informatics (BMEI-12)
- 40. The 5<sup>th</sup> International Congress on Image and Signal Processing (CISP-12)
- 39. The 4<sup>th</sup> Asian Conference on Intelligent Information and Database Systems (ACIIDS-12)
- 38. The 2012 International Conference on Computer, Communications, and Information Technology (ICCCIT-12)
- 37. The 4<sup>th</sup> International Conference on Computational Collective Intelligence-Technologies and Applications (ICCCI-12)
- 36. The 10<sup>th</sup> International Workshop on Data Mining in Bioinformatics (BIOKDD-11)
- 35. The 3<sup>rd</sup> International Conference on Computational Collective Intelligence-Technologies and Applications (ICCCI-11)
- 34. The 11<sup>th</sup> IEEE International Conference on Computer and Information Technology (CIT-11)
- 33. The 2011 IEEE International Conference on System Design and Data Processing (ICSDDP-11)
- 32. The 2<sup>nd</sup> International Conference on Networked Digital Technologies (NDT-10)
- 31. The 2<sup>nd</sup> International Symposium on Data processing, Privacy, and E-commerce (ISDPE-10)
- 30. The 10<sup>th</sup> IEEE International Conference on Computer and Information Technology (CIT-10)
- 29. 2010 International Conference on the Business and Digital Enterprises (ICBDE-10)
- 28. The 2<sup>nd</sup> International Conference on Computational Collective Intelligence (ICCCI-10)
- 27. IEEE International Conference on Advanced Information Networking and Applications (AINA-10)
- 26. The 8th International Conference on Autonomous Agents and Multiagent Systems (AAMAS-09)
- 25. The 4<sup>th</sup> International Workshop on Ontology Matching (OM-09)
- 24. The Conference of Software, Agents and Services for Business, Research, and E-Sciences (SABRE-09)
- 23. International Conference on Ontologies, Databases, and Applications of Semantics (ODBASE-09)
- 22. Symposium on Revision Calculus and Applications (RCA-09)
- 21. AAMAS Workshop on Service-Oriented Computing (SOCASE-09)
- 20. The 1<sup>st</sup> International Conference on Computational Collective Intelligence (ICCCI-09)

- 19. IEEE International Conference on Advanced Information Networking and Applications (AINA-09)
- 18. 2009 IEEE International Conference on Computer and Information Technology (CIT-09)
- 17. International Workshop on Intelligent Service Management (ISM-09)
- 16. International Workshop on Intelligent Services and Process Management (ISPM-08)
- 15. The 6<sup>th</sup> International Conference on Service Oriented Computing (ICSOC-08)
- 14. International Workshop on Agents and Web Services in Distributed Environments (AWeSOMe-08)
- 13. The 4<sup>th</sup> International Workshop on Contexts and Ontologies (CandO-08)
- 12. AAMAS Workshop on Service-Oriented Computing (SOCASE-08)
- 11. OnTheMove to Meaningful Internet Systems and Ubiquitous Computing (OTM-08)
- 10. International Conference on Ontologies, Databases, and Applications of Semantics (ODBASE-08)
- 9. 2008 IEEE International Conference on Computer and Information Technology (CIT-08)
- 8. The 6<sup>th</sup> International Conference on Autonomous Agents and Multiagent Systems (AAMAS-07)
- 7. The 2<sup>nd</sup> International Workshop on Ontology Matching (OM-07)
- 6. 2007 IEEE International Conference on Computer and Information Technology (CIT-07)
- 5. The 4<sup>th</sup> International Conference on Grid Service Engineering and Management (GSEM-07)
- 4. International Workshop on Agents and Web Services in Distributed Environments (AWeSOMe-07)
- 3. The 1<sup>st</sup> IEEE International Conference on Engineering of Intelligent Systems (ICEIS-06)
- 2. The 2<sup>nd</sup> International Workshop on Agents, Web Services, and Ontologies (AWeSOMe-06)
- 1. The 1<sup>st</sup> International Workshop on Ontology Matching (OM-06)

# **Conference Technical Review**

- 9. The 7<sup>th</sup> IEEE International Conference on Computational Advances in Bio and medical Sciences (ICCABS-17)
- 8. The 7<sup>th</sup> International Conference on Fuzzy Systems and Knowledge Discovery (FSKD-10)
- The 22<sup>nd</sup> International Conference on Industrial, Engineering & Other Applications of Applied Intelligent Systems (IEA/AIE-09)
- 6. The 15<sup>th</sup> International Conference on Cooperative Information Systems (CoopIS-07)
- 5. 2006 IEEE International Conference on Services Computing (SCC-06)
- 4. 2006 IEEE International Conference on Computer and Information Technology (CIT-06)

- 3. 2006 Canadian Semantic Web Working Symposium
- 2. The 13<sup>th</sup> International Conference on Cooperative Information Systems (CoopIS-05)
- 1. The 1<sup>st</sup> Intl' WS on Service-Oriented Application, Integration, and Collaboration (SOAIC-05)

#### **Other Technical Review**

- 2. Electronic Business Interoperability: Concepts, Opportunities, and Challenges
- 1. Handbook of Ontologies for Business Interaction

### HONORS AND AWARDS

2006
2005, 2006
2005, 2006

### AFFILIATIONS

Full Member, Sigma Xi, the Scientific Research Society (inducted 2007)

### HOBBIES

**Soccer:** play pick-up games twice a week

Weight-lifting: have regular training several times per week

**Poke:** one of the best players on "80 grade" (a traditional Chinese poker game)

Movies: all different types, especially the action movies

Music: mostly popular music, but sometimes pretend to enjoy classical music

# REFERENCES

(upon request)