Publications of Prof. Haibin Zhu

Summary:

Copyrighted Software Systems: 1
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(Co-)Edited Journal Issues: 4
Edited Conference Proceedings: 9
Peer-Review Book Chapters: 6
Peer-Review Journal Papers: 192 including 70+ IEEE Trans. papers
Peer Review Conference Papers: 146

Copyrighted Software Systems:

[1] H. Zhu (Owner), Visualization Tool for Role Transfer, Canadian Intellectual Property Office, 1063784, Dec. 18, 2008.

Books:

[1] H. Zhu, *E-CARGO and Role-Based Collaboration: Modeling and Solving Problems in the Complex World*, Wiley-IEEE Press, NJ, USA, Dec. 2021.
[2] H. Zhu and M. Zhou, *Object-Oriented Programming with C++: A Project-Based Approach*, Tsinghua University Press, China, 2006. Sold copies: 5, 000.
[3] C. Zhang, Z. Wang, C. Zhang, K. Dai, and H. Zhu, *Computer Architecture*, High Education Press, China, 2000 (In Chinese). Sold copies: 3, 000.
[4] H. Zhu, G. Yang, and Z. Liu, *Object-Oriented Principle and its Applications*, Publishing House of NUDT, China, Sep. 1998 (In Chinese). Sold copies: 3, 000.
[5] H. Zhu, K. Cai, A. Fan, H. Song, *Principles and Designs of Distributed Systems,* Publishing House of NUDT, China, Sep. 1997 (In Chinese). Sold copies: 3, 000.
[6] H. Zhu, *Object-Oriented Technology: Principles and Designs*, Publishing House of NUDT, China, Oct. 1992 (In Chinese). **This book was the first textbook of object-oriented programming in China.** Sold copies: 4, 000.

Editorials:

[1] H. Zhu, "Networking, Decentralization, and Intelligent Control Are Always Cutting-Edge Topics in the IEEE Systems, Man, and Cybernetics Society," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 9, no. 1, Jan. 2023, pp. 4-5.
[2] H. Zhu, "Blockchain and Artificial Intelligence Are Also Hot Topics in the IEEE Systems, Man, and Cybernetics Society," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 8, no. 4, July 2022, pp. 4-5.
[3] H. Zhu, "More Diverse Investigations and More Collaborations Make More Contributions to The Community," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 8, no. 3, July 2022, pp. 6-7.
[4] H. Zhu, "Human Brains Plus Abstract Thinking bring in Progresses of Technologies," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 8, no. 2, Apr. 2022, pp. 4-5.

Reports:

[1] H. Zhu, "First Symposium and Third Summer School on E-CARGO and Applications, China, July 2025," *IEEE Systems, Man, and Cybernetics Magazine,* vol. 11, no. 4, Oct. 2025, pp. 56-60.
[2] H. Zhu, "The Report of the 2nd IEEE International Summer School on E-CARGO and Applications, Guangzhou, China (Hybrid), July 22-26, 2024," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 10, no. 4, Oct. 2024, pp. 137-141.
[3] H. Zhu, "Report of the First IEEE International Summer School (Online) on Environments—Classes, Agents, Roles, Groups, and Objects and Its Applications," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 9, no. 4, Oct. 2023, pp. 77-79.

Edited Journal Issues:

[1] H. Zhu (Guest Editor), Special Issue on Distributed Intelligent Systems, *J. of Intelligent Control and Systems*, vol. 12, no. 2, 2007.
[2] H. Zhu (Guest Editor), Special Issue on Emergency Management Systems, *J. of Intelligent Control and Systems*, vol. 11, no. 4, 2006.
[3] G. Cabri, H. Zhu, and J. Yang (Guest Co-Editors), Special Issue on Collaboration Support Systems, *IEEE Trans. on Systems, Man, and Cybernetics, Part A: Systems and Humans*, vol. 36, no. 6, 2006.
[4] H. Zhu (Guest Associate Editor), Special Issue on Computer and Information Technology, *Int'l J. of Pervasive Computing and Communications*, 2006.

Peer-Review Book Chapters:

[1] X. Mao, M. Dong, and H. Zhu, "Towards Multiple-Layer Self-Adaptations of Multi-Agent Organizations Using Reinforcement Learning," in *D. Zhang and B. Wei (ed.) Novel Design and Applications of Robotics Technologies*, IGI Global, 2019, pp. 66-95.
[2] H. Zhu, M.C. Zhou and M. Hou, "Support Collaboration with Roles," *in M. Zhou, et al. (ed.), Contemporary Issues in Systems Science and Engineering,* IEEE Press, 2015, pp. 575-598.
[3] M. Hou, H. Zhu, M.C. Zhou and G. R. Arrabito "Advances and Challenges in Intelligent adaptive interface Design," *in M. Zhou, et al. (ed.), Contemporary Issues in Systems Science and Engineering,* IEEE Press, 2015, pp. 369-424.
[4] J. Zhou, H. Zhu, M. Ylianttila, and M. Rautiainen, "Mobile Multimedia Cloud Computing," *K.-C. Li, Q. Li, T. K. Shih (Eds.) Cloud Computing and Digital Media: Fundamentals, Techniques, and Applications,* CRC Press, Boca Raton, FL USA, 2014, pp. 1-19.
[5] H. Zhu, "Role-Based Autonomic Systems," *Y. Wang (Eds.), Breakthroughs in Software Science and Computational Intelligence,* IGI Global, Hershey, PA, USA, 2012, pp. 165-184.
[6] H. Zhu and M. Zhou, "Role-Based Multi-Agent Systems," *R. A. González, N. Chen and A. Dahanayake (Eds.), Personalized Information Retrieval and Access: Concept, Methods and Practices*, IDEA GROUP INC., Hershey, PA, USA, 2008, pp. 254-285.

Edited Conference Proceedings:

[1] H. Zhu, Y. Shen, L. Zhang, D. Liu and H. Ma, *Proc. of the 1st IEEE Int'l Symp. on E-CARGO and Applications (E-CARGO 2025)*, July 21-23, 2025, Guangzhou, China, IEEE.
[2] W. Shen, M.-H. Abel, N. Matta, J.-P. Barthès, J. Luo, J. Zhang, H. Zhu, and K. Peng, *Proc. of the 2025 IEEE 28th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2025)*, May 5-7, 2025, Compaigne, France, IEEE.
[3] W. Shen, J.-P. Barthès, J. Luo, T. Qiu, X. Zhou, J. Zhang, H. Zhu, K. Peng, T. Xu, N. Chen, *Proc. of the 2024 IEEE 27th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2024)*, May 8-10, 2024, Tianjin, China, IEEE.
[4] W. Shen, J.-P. Barthès, J. Luo, A. Vivacqua, D. Schneider, C. Xie, J. Zhang, H. Zhu, and K. Peng, C. L. R. Motta, *Proc. of the 2023 IEEE 26th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2023)*, May 24-26, 2023, Rio de Janeiro, Brazil, IEEE.
[5] W. Shen, J.-P. Barthès, J. Luo, G. Chen, J. Zhang, H. Zhu, K. Peng, *Proc. of the 2022 IEEE 25th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2022)*, May 4-6, 2022, Hangzhou, China, IEEE.
[6] L. Gomes, H. Zhu and C. Benavente-Peces, *Proceedings of the 10th Int'l Conf. on Pervasive and Parallel Computing, Communication and Sensors*, November 3 - 5, 2020, online, SCITEPRESS.
[7] H. Zhu, J. Wang, and M.C. Zhou, *Proc. of the 2019 IEEE 16th Int'l Conf. on Networking, Sensing, and Control (ICNSC 2019)*, May 9-11, 2019, Banff, Canada, IEEE.
[8] W. Shen, J. Luo, J.-P. Barthès, F. Dong, J. Zhang, H. Zhu, *Proceedings of the 2018 IEEE 22nd Int'l Conf. on Computer Supported Cooperative Work in Design(CSCWD 2018)*, May 9-11, 2018, Nanjing, China, IEEE.
[9] W. Shen, W. Li, J.-P. Barthès, J. Luo, H. Zhu, J. Yong, and X. Li, *Proceedings of the 2013 IEEE 17th Int'l Conf. on Computer Supported Cooperative Work in Design(CSCWD 2013)*, June 27-29, 2013, Whistler, BC, Canada, IEEE.

Peer-Review Journal Papers:

[1] Y. Fan, W. Zhang, W. Shang, K.-C. Li, and H. Zhu, "How Can We Keep the Right to Be Forgotten? ORAFL:

One-Round Aggregation Scheme for FL," *IEEE Trans. on Dependable and Secure Computing*, 2026 (Accepted).
[2] P. Y. Zhang, Y. Ni, J. Ren, Q. Zhao, and H. Zhu, "FEP: A Feature-Enhanced QoS Prediction Model with Local-Global Temporal Dual Networks," *IEEE Trans. on Services Computing,* 2026(Accepted).
[3] H. Ma, M. Xie, Y. Liu, Z. Huang, H. Zhang, H. Zhu, "Route planning of road trips via multi-attribute group decision-making and role-based collaboration," *International Journal of Information Technology & Decision Making*, 2026 (Accepted).
[4] F. Lin; Z. Meng; H. Zhu, "Morlet-controlled parameter adaptive differential evolution with diversity-triggered restart for high-precision photovoltaic model parameter identification," *Information Sciences,* 2026(Accepted).
[5] P. Y. Zhang, Y. Liu, S. Ma, Q. Zhao, and H. Zhu, "Secure and Efficient Read-Write Synchronization in Resharding Via Lightweight Global State Tree," *IEEE Transactions on Computers,* 2026(Accepted).
[6] J. Chen, Z. Meng, H. Zhu, J. Wang, "APEX-DE: Adaptive Parameter Control and Selection Strategy for Differential Evolution with Exponential Crossover," *IEEE Trans. on Cybernetics*, 2026 (Accepted).
[7] K. Wang, H. Zhu, Q. Huang, and D. Liu, "When May We Eliminate Collective Bias? A GRA+ Perspectives on Fifty-Fifty Compromise," *IEEE Trans. on Computational Social Systems*, 2026 (Accepted).
[8] H. Ma, X. Fu, W. Tang, M. Chen, H. Zhu, and K. Li, "Three-stage grouping optimization for large-scale collaborative e-learning via knowledge graph and E-CARGO," *IEEE Trans. on Systems, Man, and Cybernetics-Systems*, 2026 (In Press).
[9] H. Ma, M. Xie, Z. Jiang, Z. Huang, and H. Zhu, "Improving Road Trip Attraction Recommendations by Resolving Conflicting Preferences: A Knowledge-Enhanced Non-compensatory Group Decision Approach," *Int'l J. of Intelligent Computing and Cybernetics*, 2026 (In Press).
[10] T. Wang, H. Zhu, and B. Huang, "Weighted Group Role Assignment Based on Three-Way Conflict Analysis with Interval-Valued Intuitionistic Fuzzy Numbers," *IEEE Trans. on Cybernetics*, 2026 (Accepted).
[11] W. Chen, Y. Tang, H. Zhu, and D. Liu, "ERAP Optimization via Enhanced Constraints and Boundary Detection in GMRA," *IEEE Trans. on Services Computing*, 2026 (Accepted).
[12] R. Yang, S. Wu, W. Xiong, H. Zhu, S. Li, and L. Zhang, "GRA with Secondment and Role-Importance-Based Training Plan," *IEEE Trans. on Computational Social Systems*, 2026 (Accepted).
[13] J. Yu, X. Zhang, L. Peng, H. Zhu, Y. Sun, X. Zhou, "Performance-Balanced Task Allocation in Leader-Member Teams: A Group MultiRole Assignment Approach Using E-CARGO," *IEEE Trans. on Computational Social Systems*, 2026 (In Press), avail: https://ieeexplore.ieee.org/document/11440150.
[14] P. Y. Zhang, J. Ren, J. Yin, Q. Zhao and H. Zhu, "Decoupling Location and Preference: a Dual-Branch Architecture for Robust QoS Prediction under Extreme Sparsity," *IEEE Trans. on Services Computing*, 2026 (In Press), avail: https://ieeexplore.ieee.org/document/11275925.
[15] H. Ma, X. Yao, X. Hu, P. Huang, X. Fu, H. Xiao, and H. Zhu,"Learning early warning guided by course objective achievement via knowledge state and learning state modeling," *IEEE Trans. on Computational Social Systems*, 2026 (In Press), avail: https://ieeexplore.ieee.org/document/11387756
[16] T. Wang, J. Zuo, H. Zhu, B. Huang, "Tree-structured Task Allocation for Audit Team with Sequential and Parallel Execution via E-CARGO Model," *IEEE Trans. on Computational Social Systems*, 2026 (In Press), avail: https://ieeexplore.ieee.org/document/11185249.
[17] Z. Huang, H. Zhang, T. Zhou, H. Ma, and H. Zhu, "Exploiting hierarchical category information to improve next point-of-interest recommendation via hyperbolic graph convolution network," *IEEE Trans. on Systems, Man, and Cybernetics-Systems*, vol. 56, no. 4, pp. 2907-2923, Apr. 2026.
[18] H. Ma, Q. Huang; X. Hu, Z. Huang, H. Zhang, T. Zhou, H. Zhu, "Collaborative Allocation Optimization of Production Line Workers Based on Multidimensional Feature Measurement and E-CARGO Model," *IEEE Trans. on Computational Social Systems*, vol. 13, no. 1, pp. 21-36, Feb. 2026.
[19] Y. Li, Y. Sun, M. Wang, H. Zhu and X. Zhou, "Decision-Making in Wargames: An E-CARGO Perspective," *IEEE Trans. on Computational Social Systems*, vol. 13, no. 1, pp. 428-442, Feb. 2026.
[20] Z. Yu, B. Wang, H. Hong, L. Zhang, and H. Zhu, "E-CARGO Based distributionally robust chance-constrained optimization under severe weather conditions," *Expert Systems with Applications*, vol. 292, Nov. 2025, p. 128384.
[21] K. Luo, H. Zhu, and D. Liu, "Solving the allocation problem of reentrant production via group role assignment," *CCF Trans. HPC*, vol. 7, pp. 671-688, Nov. 2025.
[22] T. Yi, J. Wang, W. Shang, H. Zhu, and X. Li, "A New Privacy-Preserving Approach for Publishing Periodical Reporting Systems Data", *Knowledge and Information Systems*, vol. 67, pp. 8673–8714, June 2025.
[23] Q. Zhang, Y. Xing, M. Yao, X. Guo, S. Qin, H. Zhu, L. Qi, and B. Hu, "Optimizing Robotic Disassembly-

Assembly Line Balancing with Directional Switching Time via an Improved Q(λ) Algorithm in IoT-Enabled Smart Manufacturing," *Electronics*, vol. 14, no. 17, p. 3499, 2025.
[24] Q. Zhang, C. Zhang, M. Yao, X. Guo, S. Qin, H. Zhu, L. Qi, and B. Hu, "Network-Aware Smart Scheduling for Semi-Automated Ceramic Production via Improved Discrete Hippopotamus Optimization," *Electronics,* vol. 14, no. 17, p. 3543, 2025.
[25] Z. Yu, B. Wang, L. Zhang, Z. Wang, and H. Zhu, "Role Assignment for Agent Evaluation Under Uncertainty: A Distributionally Robust Approach," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 55, no. 12, pp. 9280-9294, Dec. 2025.
[26] X. Zhang, J. Yu, D. Huang, H. Zhu, Y. Sun, and X. Zhou, "Staff Competency Assessment and Task Allocation Methods Considering AI Augmentation: A Study Based on the E-CARGO Model," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 55, No. 11, pp. 7663-7678, Nov. 2025.
[27] X. Zhang, Z. Zhu, Y. Li, H. Zhu, Y. Sun, and X. Zhou, "Role-Based Human-Machine Collaboration Task-Allocation Strategy in Multiagent Environment," *IEEE Trans. on Human-Machine Systems, v*ol. 55, no. 5, pp. 799-808, Oct. 2025.
[28] J. Yang, H. Zhu, and Y. Liu, "Identify emergence in social systems using an Extended E-CARGO model," *IEEE Trans. on Computational Social Systems*, vol. 12, no. 5, pp. 2590-2603, Oct. 2025.
[29] C. Ren, L. Yu, Z. Meng, H. Zhu, "Surrogate-Assisted Differential Evolution with Search Space Tightening for High-Dimensional Expensive Optimization Problems," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 55, no. 10, pp. 7356-7368, Sep. 2025.
[30] Q. Zhang, X. Yang, Y. Man, X. Guo, S. Qin, H. Zhu, L. Qi, and B. Hu, "Optimizing Robotic Disassembly-Assembly Line Balancing with Directional Switching Time via an Improved Q(λ) Algorithm in IoT-Enabled Smart Manufacturing," *Electronics,* vol. 14, no. 17, p. 3499, Sep. 2025.
[31] R. Guo, J. Feng, X. Wu, J. Wang, T. Huang, and H. Zhu, "Dynamic Self-Triggered Robust Distributed Model Predictive Control for Coupled Nonlinear Systems," *IEEE Trans. on Circuits and Systems I: Regular Papers*, vol. 72, no. 9, pp. 5080-5091, Sep. 2025.
[32] J. Chen, H. Zhu, and D. Liu, "Benefit Maximization or the-Quality-First? An E-CARGO Perspective on the Logistics Chain," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 55, no. 8, pp. 5345-5361, Aug. 2025.
[33] P. Zhang, J. Fan, Y. Chen, W. Huang, H. Zhu, and Q. Zhao, "An End-to-End Deep Learning QoS Prediction Model Based on Temporal Context and Feature Fusion," *IEEE Trans. on Services Computing*, vol. 18, no. 3, pp. 1232-1244, May-Jun. 2025.
[34] X. Zhang, T. Wang, H. Zhu, B. Huang, and L. Liu, "Group Role Assignment with Conflicting and Cooperating Agents Based on Three-Way Decision," *Information Sciences*, vol. 696, p. 121755, 2025, avail: https://www.sciencedirect.com/science/article/abs/pii/S0020025524016694 .
[35] P. Y. Zhang, F. Xu, T. Huang, H. Zhu, and Q. Zhao, "CTT: A Three-Layer Tree Consensus Mechanism for Consortium Blockchains with Enhanced Security and Reduced Communication Cost," *IEEE Trans. On Industrial Informatics*, vol. 21, no. 6, pp. 4355-4366, June 2025.
[36] S. Wu, S. Li, H. Zhu, T. Wang, and L. Zhang, "Group Multi-Role Assignment with General Conflict, " *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 55, no. 6, pp. 4188-4201, June 2025.
[37] S. Wu, S. Li, H. Zhu, R. Chen, and L. Zhang, "Group Role Three-Way Assignment for Uncertainty in Role Negotiation," *IEEE Trans. on Cybernetics*, vol. 55, no. 6, pp. 2924-2936, June 2025.
[38] K. Chen, T. Wang, H. Zhu, and B. Huang, "Maximizing Group Utilities While Avoiding Conflicts Through Agent Qualifications," *IEEE Trans. on Computational Social Systems*, vol. 12, no. 2, pp. 552-562, Apr. 2025.
[39] G. Wu, Y. Tang, X. Wu, T. Huang, W. Zhang, and H. Zhu, "Sampled-Data Consensus for Multi-Agent Systems Over Semi-Markov Switching Networks Under Denial-of-Service Attacks," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 55, no. 4, pp. 2974-2986, Apr. 2025.
[40] Q. Jiang, D. Liu, H. Zhu, B. Huang, N. Wu, and Y. Qiao, "Group Role Assignment with Minimized Agent Conflicts," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 55, no. 3, pp. 1844-1857, Mar. 2025.
[41] L. Yu, Z. Meng, and H. Zhu, "A Hierarchical Surrogate-Assisted Differential Evolution with Core Space Localization," *IEEE Trans. on Cybernetics*, vol. 55, no. 2, pp. 939-952, Feb. 2025.
[42] Z. Yu, C. Guo, L. Zhang, H. Zhu, B. Wang, "Multi-Group Multi-Role Assignment," *IEEE Trans. on Computational Social Systems*, vol. 12, no. 1, pp. 259-273, Feb. 2025.
[43] H. Wang, F. Qiao, S. Jiang, H. Zhu, and J. Wang, "Deterioration-Aware Collaborative Energy-Efficient Batch Scheduling and Maintenance for Unrelated Parallel Machines Based on Improved MOEA/D," *IEEE Robotics and Automation Letters*, vol. 10, no. 2, pp. 2056-2063, Feb. 2025.

[44] H. Ma, C. Xiong, X. Fu, H. Zhu, Y. Tang, K. Li, "Collaborative recommendation of national image resources for targeted international communication via multidimensional features and E-CARGO modeling," *IEEE Trans. on Systems Man Cybernetics: Systems*, vol. 55, no. 2, pp. 1549-1563, Feb. 2025.
[45] B. Yang, H. Zhu, D. Liu, "Improve GMRACCF Qualifications via Collaborative Filtering in Vehicle Sales Chain," *Tsinghua Science and Technology*, vol. 30, no. 1, pp. 247-261, Feb. 2025.
[46] R. Ding, Y. Zhu, X. Feng, C. Zhang, and H. Zhu, "Continuous Charging Assignment Algorithm for Heterogeneous Robot Clusters Based on E-CARGO," *Expert Systems with Applications*, vol. 259, p. 125175, Jan. 2025, avail: https://doi.org/10.1016/j.eswa.2024.125175.
[47] R. Adderson, B. Akbari, Y.-J. Pan, and H. Zhu, "Multi-Leader and Role-Based Time-Varying Formation Using GP Inference and Sliding Mode Control," *IEEE/ASME Trans. on Mechatronics*, vol. 29, no. 6, pp. 4744-4754, Dec. 2024.
[48] H. Zhang, Z. Huang, Z. Jiang, H. Ma, H. Zhu, Y. Tang, "Collaborative Route Planning of Road Trips in Regional Central Cities of China: An Approach based on E-CARGO Model," *IEEE Trans. on Computational Social Systems*, vol. 11, no. 5, pp. 6347-6365, Oct. 2024.
[49] Q. Jiang, D. Liu, H. Zhu, S. Wu, N. Wu, X. Luo, and Y. Qiao, "Iterative Role Negotiation via the Bilevel GRA++ With Decision Tolerance," *IEEE Trans. on Computational Social Systems*, vol. 11, no. 6, pp. 7484-7499, Dec. 2024.
[50] Q. Jiang, D. Liu, H. Zhu, B. Huang, N. Wu, and Y. Qiao, "Quasi Group Role Assignment with Agent Satisfaction in Self-Service Spatiotemporal Crowdsourcing," *IEEE Trans. on Computational Social Systems*, vol. 11, no. 5, pp. 7002-7019, Oct. 2024.
[51] X. Ke, H. Zhu, and D. Liu, "Group Multirole Assignment with Cooperation, Conflict and Public Interest Factors," *IEEE Trans. on Computational Social Systems*, vol. 11, no. 5, pp. 6112-6124, Oct. 2024.
[52] Z. Yu, B. Wang, H. Zhu, and L. Zhang, "Adaptive Equalized Multigroup Role Assignment in Ordered Subtasks," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 54, no. 8, pp. 5085-5098, August 2024.
[53] P. Y. Zhang, J. Ren, W. Huang, Y. Chen, Q. Zhao, and H. Zhu, "A Deep-Learning Model for Service QoS Prediction Based on Feature Mapping and Inference," *IEEE Trans. on Services Computing*, vol. 17, no. 4, pp. 1311–1325, July-Aug. 2024.
[54] H. Ma, W. Zhao, Y. Tang, P. Huang, H. Zhu, W. Tang, and K. Li, "Personalized Learning Early Warning For College Students: A Multi-Level Approach Via Cognitive Ability and Learning State Modeling," *IEEE Trans. on Learning Technologies*, vol. 17, pp. 1440–1453, Mar. 2024.
[55] H. Zhu, S. Kwong, I. Rudas, E. Tunstel, R. Kozma, and P. Shi, "Model-Based Systems Engineering Requires Metamodel Renovation," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 10, no. 4, pp. 4-14, Oct. 2024.
[56] H. Zhu, D. Liu, H. Ma, Y. Sheng, L. Zhang, and Q. Jiang, "E-CARGO/RBC Research Guide: A Road Map for Researchers," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 10, no. 3, pp. 64-75, July 2024.
[57] Z. Li, H. Zhu, and D. Liu, "Attractive Game Matchmaking for MOBA via Group Role Assignment," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 10, no. 2, pp. 40-51, 2024.
[58] P. Y. Zhang, Y. Chen, W. Huang, H. Zhu, and Q. Zhao, "Generative-Adversarial-based Feature Compensation to Predict Quality of Service," *IEEE Trans. on Services Computing*, vol. 17, no. 1, pp. 209-223, Jan.-Feb. 2024.
[59] B. Akbari, Z. Wang, H. Zhu, L. Wan, R. Adderson, and Y.-J. Pan, "Role Engine Implementation for a Continuous and Collaborative Multirobot System," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 54, no. 2, pp. 866-877, Feb. 2024.
[60] P. Y. Zhang, X. Hua, and H. Zhu, "Cross-Chain Digital Asset System for Secure Trading and Payment," *IEEE Trans. on Computational Social Systems*, vol. 11, no. 2, pp. 1654-1666, Apr. 2024.
[61] P. Zhang, H. Zhu, and D. Liu, "Equality or Equity? E-CARGO Perspectives on the Fairness of Education," *IEEE Trans. on Computational Social Systems*, vol. 11, no. 2, pp. 1926-1936, Apr. 2024.
[62] L. Zhang, Z. Yu, S. Wu, H. Zhu, Y. Sheng, "Adaptive Collaboration with Training Plan Considering Role Correlation," *IEEE Trans. on Computational Social Systems*, vol. 11, no. 1, pp. 25-37, Feb. 2024.
[63] H. Ma, J. Li, H. Zhu, W. Tang, Z. Huang, and Y. Tang, "Collaborative optimization of learning team formation based on multidimensional characteristics and constraints modeling: A team leader-centered approach via E-CARGO," *IEEE Trans. on Computational Social Systems*, vol. 11, no. 1, pp. 184-196, Feb. 2024.
[64] L. Liu, H. Zhu, T. Wang, and M. Tang, "A fast and efficient task offloading approach in edge-cloud collaboration environment," *Electronics*, vol. 13, no. 2, pp. 313:1-32, 2024.

[65] W. Shang, J. Chai, J. Ca, X. Lei, H. Zhu, Y. Fan, and W. Ding, "Aspect-Level Sentiment Analysis Based on Aspect-Sentence Graph Convolution Network," *Information Fusion*, vol. 104, pp. 102143:1-12, Apr. 2024.
[66] T. Yi, M. Shi, W. Shang, and H. Zhu, "A privacy-preserving method for publishing data with multiple sensitive attributes," *CAAI Trans. on Intelligence Technology*, vol. 9, no. 1, pp. 222-238, Feb. 2024.
[67] A. Lao, H. Zhu, and D. Liu, "Solving Relay Task Allocation of Unmanned Aerial Vehicles: A Solution Using Group Multirole Assignment," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 10, no. 1, pp. 41-52, Jan. 2024.
[68] H. Ma, Z. Huang, H. Zhu, W. Tang, H. Zhang, K. Li, "Predicting examinee performance based on a fuzzy cloud cognitive diagnosis framework in e-learning environment," *Soft Computing*, vol. 27, pp. 18949-18969, Dec. 2023.
[69] H. Ma, Z. Huang, W. Tang, H. Zhu, H. Zhang, and J. Li, "Predicting Student Performance in Future Exams via Neutrosophic Cognitive Diagnosis in Personalized E-Learning Environment," *IEEE Trans. on Learning Technologies*, vol. 16, no. 5, pp. 680–693, Oct. 2023.
[70] B. Akbari, H. Zhu, Y.-J. Pan, and R. Tharmarasa, "Nonparametric Spatio-Temporal Joint Probabilistic Data Association Coupled Filter and Interfering Extended Target Tracking," *IEEE Access*, vol. 11, pp. 108792-108803, Sep. 2023.
[71] Q. Jiang, D. Liu, H. Zhu, Y. Qiao, and B. Huang, "Equilibrium Means Equity? An E-CARGO Perspective on the Golden Mean Principle," *IEEE Trans. on Computational Social Systems*, vol. 10, no. 4, pp. 1443-1454, Aug. 2023.
[72] H. Zhu, "Pareto Improvement: A GRA Perspective," *IEEE Trans. on Computational Social Systems*, vol. 10, no. 3, pp. 1241-1251, June 2023.
[73] L. Liang, J. Fu, H. Zhu, and D. Liu, "Solving the Team Allocation Problem in Crowdsourcing via Group Multirole Assignment," *IEEE Trans. on Computational Social Systems*, vol. 10, no. 3, pp. 843-854, June 2023.
[74] H. Ma, Y. Tang, X. Zhang, H. Zhu, P. Huang, H. Zhang, "Learning resource recommendation via knowledge graph and learning style clustering," *J. of Intelligent & Fuzzy Systems*, vol. 44, no. 5, pp. 8053-8069, May 2023.
[75] H. Zhu, T. Yi, S. Shang, M. Shi, Z. Li, and W. Shang, "A multiple sensitive attributes data publishing method with guaranteed information utility," *CAAI Trans. on Intelligence Technology*, vol. 8, no. 2, pp. 288-296, June 2023.
[76] H. Ma, J. Li, Y. Tang, H. Zhu, Z. Huang, W. Tang, "Universal optimization framework: leader-centered learning team formation based on fuzzy evaluations of learners and E-CARGO," *IEEE Systems, Man and Cybernetics Magazine*, vol. 9, no. 2, pp. 6-17, Apr. 2023.
[77] H. Zhu, "Group Role Assignment with Constraints (GRA+): A New Category of Assignment Problems," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 53, no. 3, pp. 1670-1683, Mar. 2023.
[78] Q. Jiang, H. Zhu, Y. Qiao, D. Liu, and B. Huang, "Extending Group Role Assignment with Cooperation and Conflict Factors via KD45 Logic," *IEEE Trans. on Computational Social Systems*, vol. 10, no. 1, pp. 178-191, Feb. 2023.
[79] R. Wachowiak-Smolikova and H. Zhu, "Data Analytics and Visualization of Adaptive Collaboration Simulations," *IEEE Trans. on Computational Social Systems*, vol. 10, no. 1, pp. 84-93, Feb. 2023.
[80] Q. Jiang, H. Zhu, Y. Qiao, D. Liu, and B. Huang, "Refugee Resettlement by Extending Group Multirole Assignment," *IEEE Trans. on Computational Social Systems*, vol. 10, no. 1, pp. 36-47, Feb. 2023.
[81] H. Zhu, "Social Development Paradox: An E-CARGO Perspective on the Formation of the Pareto 80/20 Distribution," *IEEE Trans. on Computational Social Systems*, vol. 9, no. 5, pp. 1297–1306, Oct. 2022.
[82] Q. Jiang, D. Liu, H. Zhu, Y. Qiao, and B. Huang, "Quasi Group Role Assignment with Role Awareness in Self-Service Spatiotemporal Crowdsourcing," *IEEE Trans. on Computational Social Systems*, vol. 9, no. 5, pp. 1456-1468, Oct. 2022.
[83] Q. Jiang, H. Zhu, Y. Qiao, Z. He, D. Liu, and B. Huang, "Agent Evaluation in Deployment of Multi-SUAVs for Communication Recovery," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 52, no. 11, pp. 6968-6982, Nov. 2022.
[84] B. Akbari and H. Zhu, "Tracking Dependent Extended Targets using Multi-Output Spatiotemporal Gaussian Processes," *IEEE Trans. on Intelligent Transportation Systems*, vol. 23, no. 10, pp. 18301-18314, Oct. 2022.
[85] T. Yi, M. Shi, and H. Zhu, "Medical Data Publishing Based on Average Distribution and Clustering," *CAAI Trans. on Intelligence Technology*, vol. 7, no. 3, pp. 381-394, Sep. 2022.

[86] F. Wang, H. Zhu, G. Srivastava, S. Li, M. R. Khosravi, and L. Qi, "Robust Collaborative Filtering Recommendation with User-Item-Trust Records," *IEEE Trans. on Computational Social Systems*, vol. 9, no. 4, pp. 986-996, Aug. 2022.
[87] L. Liu, H. Zhu, S. Che, Z. Huang, "Privacy-Aware Task Assignment for IoT Audit Applications on Collaborative Edge Devices," *Security and Communication Networks*, vol. 2022, pp. 1336094:1-15, June 2022.
[88] L. Liu, H. Zhu, and S. Chen, "Balancing Privacy Risk and Benefit in Service Selection for Multiprovision Cloud Service Composition," *Mathematics*, vol. 10, pp. 1675:1-33, May 2022.
[89] L. Liu, H. Zhu, S. Chen, Z. Huang, "Privacy regulation aware service selection for multi-provision cloud service composition," *Future Generation Computer Systems*, vol. 126, pp. 263-278, Jan. 2022.
[90] P. Wang, Y. Gningue, and H. Zhu, "Validation of the Improved Incremental Assignment Algorithm," *Int'l J. of Computers and Their Applications*, vol. 28, no. 3, pp. 132-139, Sep. 2021.
[91] H. Zhu, "Why Did Mr. Trump Oppose Globalization? An E-CARGO Approach," *IEEE Trans. on Computational Social Systems*, vol. 8, no. 6, pp. 1333–1343, Dec. 2021.
[92] H. Ma, Z. Hu, K. Li, and H. Zhu, "Variation-aware cloud service selection via collaborative QoS prediction," *IEEE Trans. on Services Computing*, vol. 14, no. 6, pp. 1954-1969, Nov. 2021.
[93] P. Wang, Y. Gningue, and H. Zhu, "Improved Algorithm for the Incremental Assignment Problem," *EPiC Series in Computing*, vol. 75, pp. 98-107, 2021.
[94] B. Huang, H. Zhu, D. Liu, N. Wu, Y. Qiao, and Q. Jiang, "Solving Last-mile Logistics Problem in Spatiotemporal Crowdsourcing via Role Awareness with Adaptive Clustering," *IEEE Trans. on Computational Social Systems*, vol. 8, no. 3, pp. 668-681, June 2021.
[95] W. Huang, T. Yi, H. Zhu, W. Shang, W. Lin, "Improved privacy preserving method for periodical SRS publishing," *PLOS One*, vol. 16, no. 4, e0250457, Apr. 2021.
[96] Y. Zhang, C. Yin, Q. Wu, Q. He, and H. Zhu, "Location-aware Deep Collaborative Filtering for Service Recommendation," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 51, no. 6, pp. 3796–3807, June 2021. X. Xu, Q. Huang, H. Zhu, S. Sharma, X. Zhang, L. Qi, and M. Z. A. Bhuiyan, "Secure Service Offloading for Internet of Vehicles in SDN-Enabled Mobile Edge Computing," *IEEE Trans. on Intelligent Transportation Systems*, vol. 22, no. 6, pp. 3720-3729, June 2021.
[97] H. Ma, W. Tang, H. Zhu, and H. Zhang, "Resource Utilization-Aware Collaborative Optimization of IaaS Cloud Service Composition for Data-Intensive Applications," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 51, no. 2, pp. 1322-1333, Feb. 2021.
[98] H. Zhu, "Computational Social Simulation with E-CARGO: Comparison between Collectivism and Individualism," *IEEE Trans. on Computational Social Systems*, vol. 7, no. 6, pp. 1345-1357, Dec. 2020.
[99] H. Zhu, "Group Multi-role Assignment with Conflicting Roles and Agents," *IEEE/CAA J. of Automatica Sinica*, vol. 7, no. 6, pp. 1498-1510, Nov. 2020.
[100] H. Zhu, "Agent Categorization with Group Role Assignment with Constraints and Simulated Annealing (SA)," *IEEE Trans. on Computational Social Systems*, vol. 7, no. 5, pp. 1234-1245, Oct. 2020.
[101] X. Zhu, H. Zhu, D. Liu, and X. Z. Zhou, "Criteria Making in Role Negotiation," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 50, no. 10, pp. 3731–3740, Oct. 2020.
[102] Y. Guo, H. Zhu, C. Xiong, and L. Yu, "A two-dimensional generalized thermo-hydro-mechanical-coupled problem for a poroelastic half-space," *Waves in Random and Complex Media*, vol. 30, no. 4, pp. 738-758, Sep. 2020.
[103] T. Wang, H. Li, X. Zhou, B. Huang, H. Zhu, "A prospect theory-based three-way decision model," *Knowledge-Based Systems*, vol. 203, no. 5, pp. 106-129, Sep. 2020.
[104] H. Zhu, "Avoiding Critical Members in a Team by Redundant Assignment," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 50, no. 7, pp. 2729-2740, July 2020.
[105] H. Zhu, "Maximizing Group Performance while Minimizing Budget," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 50, no. 2, pp. 633-645, Feb. 2020.
[106] D. Liu, B. Huang, and H. Zhu, "Solving the Tree-Structured Task Allocation Problem via Group Multirole Assignment," *IEEE Trans. on Automation Science and Engineering*, vol. 17, no. 1, pp. 41-55, Jan. 2020.
[107] D. Liu, Q. Jiang, H. Zhu, and B. Huang, "Distributing UAVs as Wireless Repeaters in Disaster Relief via Group Role Assignment," *Int'l J. of Cooperative Information Systems*, vol. 29, nos. 1&2, pp. 2040002:1–22, 2020.
[108] J. Yang, H. Zhu, and T. Liu, "Secure and Economical Multi-Cloud Storage Policy with NSGA-II-C," *Applied Soft Computing*, vol. 83, p. 105649, 2019.

[109] Y. Guo, C. Xiong, and H. Zhu," Dynamic Response of Coupled Thermo-Hydro-Elastodynamic Problem for Saturated Foundation under G-L Generalized Thermoelasticity," *J. of Porous Media*, vol. 22, no. 13, pp. 1651–1666, 2019.

[110] H. Ma, H. Zhu, K. Li, and W. Tang. "Collaborative optimization of service composition for data-intensive applications in a hybrid cloud," *IEEE Trans. on Parallel and Distributed Systems*, vol. 30, no. 5, pp. 1022-1035, May 2019.

[111] 朱海滨，刘冬宁，“大同细殊，黜幽陟明——谈“基于角色的协同”及其 E-CARGO 模型”， 德先生，2018 年 11 月 12 日，avail: https://mp.weixin.qq.com/s/21iV6up8XW0hJ4VF6nxp5w。

[112] H. Zhu, Y. Sheng, X.-Z. Zhou, Y. Zhu, "Group Role Assignment with Cooperation and Conflict Factors," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 48, no. 6, pp. 851 – 863, June 2018.

[113] D. Liu, Y. Yuan, H. Zhu, S. Teng, and C. Huang, "Balance Preferences with Performance in Group Role Assignment," *IEEE Trans. on Cybernetics*, vol. 48, no. 6, pp. 1800-1813, June 2018.

[114] S. Teng, N. Wu, H. Zhu, L. Teng, W. Zhang, "SVM – DT - Based Adaptive Collaboration Intrusion Detection," *IEEE/CAA J. of Automatica Sinica*, vol. 5, no. 1, pp. 108-118, 2018.

[115] H. Zhu, "Big Data and Collaboration Research: Creating Real Data," *IEEE Systems, Man, & Cybernetics Magazine*, vol. 4, no. 1, pp. 16-19, Jan. 2018.

[116] H. Ma, H. Zhu, Z. Hu, K. Li, and W. Tang, "Time-aware trustworthiness ranking prediction for cloud services using interval neutrosophic set and ELECTRE," *Knowledge-Based Systems*, vol. 138, no. 15, pp. 27-45 Dec. 2017.

[117] H. Zhu, D. Liu, S. Zhang, S. Teng, and Y. Zhu, "Solving the Group Multi-Role Assignment Problem by Improving the ILOG Approach," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 47, no. 12, pp. 3418-3424, Dec. 2017.

[118] Z. Chen, H. Zhu, and Y. Sheng, C. Zhang, "Assignment problem with task weight and qualification threshold in GRMTAP," *Computer Applications Research*, vol. 34, no. 3, pp. 718-722, March 2017 (In Chinese).

[119] H. Ma, H. Zhu, Z. Hu, W. Tang, P. Dong, "Multi-valued collaborative QoS prediction for cloud service via time series analysis," *Future Generation Computer Systems*, vol. 68, pp. 275–288, Mar. 2017.

[120] Z. Chen, H. Zhu, and Y. Sheng, H. Gao, "Multi-task assignment algorithms based on the E-CARGO model," *Computer Engineering & Science*, vol. 38, no. 12, pp. 2542-2551, Dec. 2016 (In Chinese).

[121] M. Tang, H. Zhu, and X. Mao, "A Lightweight Social Computing Approach to Emergency Management Policy Selection," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 46, no. 8, pp. 1075-1087, Aug. 2016.

[122] H. Zhu, "Avoiding Conflicts by Group Role Assignment," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 46, no. 4, pp. 535-547, Apr. 2016.

[123] H. Zhu, D. Liu, S. Zhang, Y. Zhu, L. Teng, S. Teng, "Solving the Many to Many Assignment Problem by Improving the Kuhn-Munkres Algorithm with Backtracking," *Theoretical Computer Science*, vol. 618, pp. 30-41, Mar. 2016.

[124] D. Almaatani, H. Boudjellaba, Y. Gningue, M. Takouda, H. Zhu, "Improving the NNA for the travelling salesman problem using the MVM," *Int'l J. of Latest Research in Science and Technology*, vol. 5, no. 2, pp. 106-109, March-Apr. 2016.

[125] Y. Sheng, H. Zhu, X. Zhou, and W. Hu, "Effective Approaches to Adaptive Collaboration via Dynamic Role Assignment," *IEEE Trans. on Systems, Man, and Cybernetics: Systems*, vol. 46, no. 1, pp. 76 - 92, Jan. 2016.

[126] H. Zhu, "Adaptive Collaboration Systems," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 1, no. 4, pp. 8-15, Oct. 2015.

[127] H. Zhu, "Role-Based Collaboration and E-CARGO: Revisiting the Developments of the Last Decade," *IEEE Systems, Man, and Cybernetics Magazine*, vol. 1, no. 3, pp. 27-35, July 2015.

[128] W. Zhang, Y. Wang, J. Zhu, D. Liu, S. Teng, and H. Zhu, "A Role-Permission Assignment Method of RBAC Involved Conflicting Constraints under E-CARGO," *Int'l J. of Cognitive Informatics and Natural Intelligence,* vol. 9, no. 4, pp. 48-63, Oct.-Dec. 2015.

[129] S. Teng, C. Zheng, H. Zhu, D. Liu, and W. Zhang, "A Cooperative Intrusion Detection Model for Cloud Computing Networks," *Int'l J. of Security and Its Applications,* vol. 8, no. 3, pp. 107-118, 2014.

[130] D. Liu, Y. Liu, S. Teng, H. Zhu, L. Liang, "The friend recommendation on social network based on role cooperation," *J. of Guangxi University (Natural Science Edition, In Chinese),* Vol. 39, no. 6, Nov. 2014.

[131] X. Mao, M. Dong, and H. Zhu, "A Two-Layer Approach to Developing Self-Adaptive Multi-Agent Systems in Open Environment," *Int'l J. of Agent Technologies and Systems*, vol. 6, no. 1, pp. 65-85, Jan.-

Mar. 2014.
[132] W. Zhang, Y. Teng, X. He, S. Teng, and H. Zhu, "An Association Analysis Method with Varying Threshold and Updating Data Based on Shared Pattern-Trees," *J. of Advanced Mathematics and Applications*, vol. 2, no 2, pp. 196-203, Dec. 2013.
[133] W. Zhang, S. Teng, H. Zhu, and D. Liu, "A Cooperative Intrusion Detection Model Based on Granular Computing and Agent Technologies," *Int'l J. of Agent Technologies and Systems*, vol. 5, no. 3, pp. 54-74, Dec. 2013.
[134] H. Zhu, M. Hou, C. Wang, and M.C. Zhou, "An Efficient Outpatient Scheduling Approach," *IEEE Trans. on Automation Science and Engineering*, vol. 9, no. 4, pp. 701-709, Oct. 2012.
[135] L. Ferrari, and H. Zhu, "Autonomous Role Discovery for Collaborating Agents," *J. of Software: Practice and Experience (Top 10 in Programming Languages and Software Engineering)*, vol. 42, no. 6 pp. 707-731, June 2012.
[136] H. Zhu, M. Hou, and M.C. Zhou, "Adaptive Collaboration Based on the E-CARGO Model," *Int'l J. of Agent Technologies and Systems,* vol. 4, no.1, 2012, pp. 59-76.
[137] H. Zhu, M.C. Zhou, and R. Alkins, "Group Role Assignment via a Kuhn-Munkres Algorithm-based Solution," *IEEE Trans. on Systems, Man, and Cybernetics, Part A: Systems and Humans,* vol. 42, no. 3, pp. 739-750, May 2012.
[138] H. Zhu, and M.C. Zhou, "Efficient Role Transfer Based on Kuhn–Munkres Algorithm," *IEEE Trans. on Systems, Man, and Cybernetics, Part A: Systems and Humans,* vol. 42, no. 2, pp. 491 - 496, Mar. 2012.
[139] T. Dong, W.Shang, and H. Zhu, "An Improved Algorithm of Bayesian Text Categorization," *J. of Software,* vol. 6, no. 9, pp. 1837-1843, 2011.
[140] T. Dong, W. Shang, and H. Zhu, "Naive Bayesian Classifier Based on the Improved Feature Weighting Algorithm," *Communications of in Computer and Information Science,* Part I, CCIS 152, pp. 142–147, 2011.
[141] H. Zhu and M. Hou, "Role-Based Human-Computer Interaction," *Int'l J. of Cognitive Informatics and Natural Intelligence*, vol. 5, no. 2, pp. 37-57, 2011.
[142] M. Hou, H. Zhu, M. Zhou, and G. R. Arrabito, "Optimizing Operator-Agent Interaction in Intelligent Adaptive Interface Design: A Conceptual Framework," *IEEE Trans. on Systems, Man, and Cybernetics, Part C: Applications and Reviews*, vol. 41, no. 2, pp. 161-178, Mar. 2011.
[143] L. Liu, H. Zhu, and Z. Huang, "Analysis of the Minimal Privacy Disclosure in Web Services Collaboration with Role Mechanisms," *Expert Systems with Applications*, vol. 38, no. 4, pp. 4540-4549, Apr. 2011.
[144] L. Liu, H. Zhu, Z. Huang, and D. Xie, "Minimal Privacy Authorization in Web Services Collaboration," *Computer Standards & Interfaces*, vol. 33, no. 3, pp. 332-343, Mar. 2011.
[145] H. Zhu, "Role-Based Autonomic Systems," *Int'l J. of Software Science and Computational Intelligence*, vol. 2, no. 3, pp. 32-51, July 2010.
[146] S. H. Teng, W. Zhang, H. Zhu, X. Fu, J. Su, B. Cui, "A Least-Laxity-First Scheduling Algorithm of Variable Time Slice for Periodic Tasks," *Int'l J. of Software Science and Computational Intelligence*, vol. 2, no. 2, pp. 86-104, Apr. 2010.
[147] H. Zhu, "Granular problem solving and its applications in software engineering," *Int'l J. of Granular Computing Rough Sets and Intelligent Systems*, vol. 1, no. 2, pp.150-163, 2009.
[148] Li, Z., and Zhu, H., "The Implementation of Applications Integration Based on Web Service Buses," *Science Tech. and Engineering*, vol. 9, no. 10, pp. 2616-2620, 2009 (In Chinese).
[149] Li, F., and Zhu, H., "The Implementation of Web Applications Based on Struts+ Hibernate," *Computer Technology and Development*, vol. 16, no. 4, pp. 91-94, 2009 (In Chinese).
[150] H. Zhu, and M. Zhou, "M–M Role-Transfer Problems and Their Solutions," *IEEE Trans. on Systems, Man, and Cybernetics, Part A: Systems and Humans*, vol. 39, no. 2, pp. 448-459, Mar. 2009.
[151] H. Zhu, and M. Zhou, "Roles in Information Systems: A Survey," *IEEE Trans. on Systems, Man, and Cybernetics, Part C: Applications and Reviews*, vol. 38, no. 3, pp. 377-396, May 2008.
[152] H. Zhu, and M. Zhou, "New Java Mechanism for Role-Based Information System Development," *Int'l J. of Intelligent Control and Systems*, vol. 13, no. 2, pp. 97-108, 2008.
[153] H. Zhu, and M. Zhou, "Role Transfer Problems and Algorithms," *IEEE Trans. on Systems, Man, and Cybernetics, Part A: Systems and Humans*, vol. 38, no. 6, pp. 1442-1450, Nov. 2008.
[154] H. Zhu, R. Alkins, and M. Grenier, "Role-Based Chatting," *J. of Software*, vol. 3, no. 6, pp. 69-78, 2008.
[155] H. Zhu, "Role as Dynamics of Agents in Multi-Agent Systems," *System and Informatics Science*

Notes, vol. 1, no. 2, pp. 165-171, 2007.
[156] W. Shang, H. Huang, H. Zhu, Y. Lin, Y. Qu, and Z. Wang, "A Novel Feature Selection Algorithm for Text Categorization," *Expert Systems with Applications*, vol. 33, no. 1, pp. 1-5, 2007.
[157] L. Liu, H. Zhu, and W. Shang, "A Role-Based Research on Dynamic Agent Service Coordination Mechanisms," *J. of System Simulation (In Chinese)*, vol. 9, no. 1, pp. 38-43+47, 2007.
[158] W. Shang, Y. Qu, H. Huang, and H. Zhu, "A Fuzzy kNN Text Classifier Based on Gini Index," *J. of Guangxi Normal Univ. (Natural Sci. Ed., In Chinese)*, vol. 24, no. 4, pp. 87-90, 2006.
[159] L. Liu, and H. Zhu, "Role and Transition Mechanisms in Collaborative Systems," *Computer Engineering (In Chinese)*, vol. 32, no. 19, pp. 103-104+107, 2006.
[160] F. Li, and H. Zhu, "One of the Essential Techniques for Web Services -- SOAP," *Science Technology and Engineering (In Chinese)*, vol. 6, no. 15, pp. 2374-2377+2385, 2006.
[161] H. Zhu, and M. Zhou, "Supporting Software Development with Roles," *IEEE Trans. on Systems, Man, and Cybernetics, Part A: Systems and Humans*, vol. 36, no. 6, pp. 1110-1123, 2006.
[162] H. Zhu, and M. Zhou, "Role-Based Collaboration and its Kernel Mechanisms," *IEEE Trans. on Systems, Man, and Cybernetics, Part C: Applications and Reviews*, vol. 36, no. 4, pp. 578-589, July 2006.
[163] H. Zhu, "The Role Mechanism in Collaborative Systems," *Int'l J. of Production Research*, vol. 44, no. 1, pp. 181-193, 2006.
[164] L. Liu, and H. Zhu, "Role and Transition Mechanisms in Collaborative Systems," *Computer Engineering*, vol. 32, no. 19, pp. 103-105, 2006 (In Chinese).
[165] H. Zhu, "Conflict Resolution with Roles in a Collaborative System," *Int'l J. of Intelligent Control and Systems*, vol. 10, no. 1, pp. 11-20, 2005.
[166] L. Liu, H. Zhu, and C. Jiang, "A Role-Based Collaborative Software Development Framework," *Scientific Technology and Engineering (In Chinese)*, vol. 5, no. 17, pp. 1300-1305, 2005.
[167] H. Zhu, "The Role Analysis and Transitions in a Collaborative System," *Int'l J. of Intelligent Control and Systems*, vol. 8, no. 1, pp. 1-7, 2003.
[168] H. Zhu, C. Zhang, and K. Dai, "Enforce the Construction of Course Series and Improve Teaching Qualities," *Research in High Education of Engineering*, vol. 12, no. 1, pp. 45-48, 1999 (In Chinese).
[169] Z. Wang, C. Zhang, and H. Zhu, "Produce High Quality Students with Innovations in Teaching Systems," *Research in High Education of Engineering*, vol. 12, no. 2, pp. 69-72, 1999 (In Chinese).
[170] H. Song, H. Zhu, and W. Shang, "A New Scheduling Method for Real-Time Tasks on a Multi-processor Computer," *Computer Application Research*, vol. 6, no. 4, 1999 (In Chinese).
[171] H. Song, and H. Zhu, "Autonomous Objects: their Ideas and Practices," *Computer Engineering*, vol. 12, no. 5, 1999 (In Chinese).
[172] H. Song, W. Shang, and H. Zhu, "The Research and Implementation of a Distributed System based on Autonomous Objects," *Computer Engineering*, vol. 25, no. 9, pp. 13-15, 1999 (In Chinese).
[173] K. Wang, and H. Zhu, "The Research and Implementation of the Group-Aware Technology in a Multimedia Co-Authoring System," *Computer Engineering and Science*, vol. 20, no. 2, pp. 56-60, 1998 (In Chinese).
[174] G. Luo, and H. Zhu, "Object-Oriented Software Development Platform: The Reuse of Class," *J. of Computer Application Research*, vol. 5, no. 2, 1998 (In Chinese).
[175] Z. Liu, and H. Zhu, "A Hypermedia Management Component based on OLE/COM," *Computer Application*, vol. 5, no. 2, 1998 (In Chinese).
[176] H. Zhu, P. Wang, and S. Hu, "A Multimedia Co-authoring System Object Model AMWD/RSEI," *Chinese J. of Computer*, vol. 20, no. Suppl, 1997 (In Chinese).
[177] H. Zhu, P. Wang, and S. Hu, "The Design of a Multimedia Co-authoring System based on the Client/Server Architecture," *ACTA Electronica Sinica*, vol. 25, no. 5, pp. 44-48, 1997 (In Chinese).
[178] H. Zhu, P. Wang, and Q. Shen, "An Object-Oriented Multimedia Development Tool Kit YH-MMDT," *J. of Computer Research and Development (In Chinese)*, vol. 33, no. 11, pp. 834-841, 1996 (In Chinese).
[179] H. Zhu, P. Wang, and S. Hu, "An Object-Oriented Model for Management for Multimedia Works," *J. of Software*, vol. 7, no. Supp., pp. 147-155, 1996 (In Chinese).
[180] P. Wang, H. Zhu, and Q. Shen., "Multimedia Conf. and Co-authoring System MCCS," *Chinese J. of Image and Graphics*, vol. 1, no. 5&6, 1996 (In Chinese).
[181] K. Wang, P. Wang, and H. Zhu, "The Issues in Extending Individual Multimedia Authoring to Cooperative Multimedia Authoring," *Chinese J. of Computer*, vol. 19, no. 12, 1996, pp. 887-894 (In Chinese).
[182] P. Wang, C. Zhang, P. Zou, H. Gao, and H. Zhu., "GALAXY Intelligent Tool Machine System,"

High Technology Letters, vol. 4, no. 1, 1994 (In Chinese).
[183] H. Zhu, "Describe Object Oriented Systems with Directed Graphs," *Computer Applications and Software (In Chinese)*, vol. 13, no. 4, 1993, pp. 15-23.
[184] H. Zhu, "On the Combination of Object-Oriented and Logic Systems," *J. of Software (In Chinese)*, vol. 3, no. 4, 1992, pp. 45-50.
[185] H. Chen, H. Zhu, X. Xu, Z. Peng, and J. Xiao, "An Object-Oriented Development System GWOOSE," *J. of Computer Research and Development*, vol. 29, no. 2, 1992, pp. 35-42 (In Chinese).
[186] H. Zhu, and S. Hu, "Several Problems in Object-Oriented Computing and Research," Computer Engineering (In Chinese), vol. 16, no. 5, 1991, pp. 6-11 (In Chinese).
[187] H. Zhu, "The Problems of Object-Oriented Computer Systems," *J. of NUDT*, vol. 13, no. 2, 1991, pp. 113-118 (In Chinese).
[188] H. Zhu, and Y. Hu, "The Research of Object-Oriented Methodology," *Computer Science (In Chinese)*, vol. 8, no. 5, 1990, pp. 1-8 (In Chinese).
[189] H. Zhu, and H. Chen, "Composing Software Components Based on the Mechanisms of Smalltalk," *Computer Science*, vol. 8, no. 3, pp. 19-23, 1990 (In Chinese).
[190] P. Wang, C. Zhang, and H. Zhu, "Performance Analysis of an Intelligent Machine," *J. of NUDT*, vol. 12, no. 4, pp. 61-70, 1990 (In Chinese).
[191] H. Zhu, R. Qi, and H. Chen, "The implementation of the Smalltalk-80 Virtual Machine on VAX/VMS," *Mini-Micro Computer Systems*, vol. 10, no. 10, pp. 32-41, 1989 (In Chinese).
[192] H. Zhu, "Object-Oriented Programming Based on Smalltalk," *Mini and Micro Computer System Development and Applications*, vol. 1, no. 6, pp. 26-31, 1989 (In Chinese).

Peer Review Conference Papers:

[1] E. Wells and H. Zhu, "A Unified Platform for Staff Assignment Using E-CARGO and Group Role Assignment," *The 20th Annual IEEE International Systems Conference*, Halifax, Canada, April 6-9, 2026.
[2] H. Zhu, C. Peng, K. Z. Yu, and J. Li, "Establishing Role Networks by Providing a Crowdsourcing Platform," in *Proc. of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (IEEE SMC 2025)*, Vienna, Austria, Oct. 5-8, 2025, pp. 4764-4769.
[3] Z. Huang, K. Wang, H. Zhu, D. Liu, "Solve the Aquaculture Imbalance Problem between Supply and Demand," in *Proc. of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (IEEE SMC 2025)*, Vienna, Austria, Oct. 5-8, 2025.
[4] K. Wang, Q. Huang, H. Zhu, D. Liu, "Solving the Flexible Task Allocations Problem Via Group Role Assignment in Crowdsourcing," in *Proc. of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (IEEE SMC 2025)*, Vienna, Austria, Oct. 5-8, 2025.
[5] P. Zhang, Z. Chen, F. Xu, and H. Zhu, "Blockchain-Enhanced Trusted Social Manufacturing: A Perspective on Product Lifecycle Management", *Proc. of the 1st IEEE Int'l Symp. on E-CARGO and Applications (E-CARGO 2025)*, July 21-23, 2025, Guangzhou, China, 105-110.
[6] Y. Liu, H. Zhu, Y. Sheng, and H. Wang, "Agent Evaluation via Social Network Analysis in Educational E-CARGO Framework", *Proc. of the 1st IEEE Int'l Symp. on E-CARGO and Applications (E-CARGO 2025)*, July 21-23, 2025, Guangzhou, China, pp. 93-98.
[7] K. Gong, H. Zhu, and T. Yang, "Computational Thinking, Object-Oriented Programming to Role-Based Collaboration", *Proc. of the 1st IEEE Int'l Symp. on E-CARGO and Applications (E-CARGO 2025)*, July 21-23, 2025, Guangzhou, China, pp. 32-38.
[8] H. Zhu, "E-CARGO/RBC Research: Foundations, Assumptions, Principles, and Challenges", *Proc. of the 1st IEEE Int'l Symp. on E-CARGO and Applications (E-CARGO 2025)*, July 21-23, 2025, Guangzhou, China, pp. 1-7.
[9] H. Zhu, T. Yang, K. Gong, and C. Wang, "Why Imperfect Team Management is Tolerable: An E-CARGO's Perspective," in *Proc. of the IEEE 28th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2025)*, Compiègne, France, May 2025. *Best paper award.*
[10] E. Wells and H. Zhu, "Optimizing Ticket Assignment through Group Role Assignment with Agents' Busyness Degree," *The 19th Annual IEEE International Systems Conference*, Montreal, Canada, April 7-10, 2025.
[11] K. Gong, H. Zhu, and T. Yang, "Canadian NPR Decreasing Policy Making: A Computational Simulation Method using E-CARGO," *The 19th Annual IEEE International Systems Conference*, Montreal, Canada, April 7-10, 2025.

[12] T. Yang, H. Zhu, C. Wang, and X. Yang, "Adaptive Group Multi-Role Assignment in Garbage Management System," in *Proc. of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (IEEE SMC 2024)*, Kuching, Malaysia, Oct. 2024, pp. 4698-4703.
[13] K. Zeng, W. Liu, H. Zhu, D. Liu, "Solving the Bank Credit Decision Problem Via Revised Group Multi-Role Assignment," in *Proc. of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (IEEE SMC 2024)*, Kuching, Malaysia, Oct. 2024, pp. 1883-1888.
[14] X. Ke, X. Lin, H. Zhu, D. Liu, "How to Reduce Loss of Personnel Arrangement? a Group MultiRole Assignment Perspective," in *Proc. of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (IEEE SMC 2024)*, Kuching, Malaysia, Oct. 2024, pp. 1877-1882.
[15] X. Lin, X. Ke, H. Zhu, D. Liu, "Courier Delivery Optimization in Supply Chain Via Group Multirole Assignment," in *Proc. of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (IEEE SMC 2024)*, Kuching, Malaysia, Oct. 2024, pp. 4692-4697.
[16] X. Hua, J. Chen, P. Y. Zhang, Z. Fu, H. Zhu, K. Lu, J. Ren, "Expedited Block Transmission in Blockchain Network by Using Clusters," in *Proc. of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (IEEE SMC 2024)*, Kuching, Malaysia, Oct. 2024, pp. 5093-5098.
[17] J. Zhou, K. Shao, C. Yu, Y. Hao, L. Hu, M. Chen and H. Zhu, "MDEA: Modeling Depressive Emotions Aligned with Knowledge Graphs and Large Language Models," *Canadian Conference on Electrical and Computer Engineering*, Kinston, Canada, Aug. 6-9, 2024, pp. 84-85.
[18] Z. Cheng, H. Zhu, and D. Liu, "Solving the External Auditor Assignment Problem via GMRACCF," in *Proc. of the IEEE 27th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2024)*, Tianjin, China, May 2024, pp. 1049-1054.
[19] X. Liu, H. Zhu and D. Liu, "Solving the Energy Supply Strategic Planning Problem by Extended Group Multirole Assignment," in *Proc. of the IEEE 27th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2024)*, Tianjin, China, May 2024, pp. 1461-1466.
[20] W. Peng, Y. Chen, H. Zhu and Y. Zhang, "End-edge collaborative DNN inference acceleration via E-CARGO and RBC," in *Proc. of the IEEE 27th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2024)*, Tianjin, China, May 2024, pp. 760-765.
[21] H. Guo, H. Zhu and D. Liu, "Avoiding Information Leakage in the Formation of Crowdsourcing Teams via Extended Group Multirole Assignment Considering Fairness," in *Proc. of the IEEE 27th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2024)*, Tianjin, China, May 2024, pp. 1467-1472.
[22] X. Lin, H. Zhu and D. Liu, "Bus Driver Rostering via Extending Group Multirole Assignment," in *Proc. of the IEEE 27th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2024)*, Tianjin, China, May 2024, pp. 1485-1490.
[23] H. Zhu, M. Noroozi Rasoolabadi, F. Hou, T. Yang, C. Wang, and L. Kaida, "Refugee Resettlement: Why a Computational Method using E-CARGO is Better?" *IEEE Int'l Conf. on Human Machine Systems*, Toronto, Canada, May 15-17, 2024, p.1-6.
[24] H. Zhu, B. Akbari, L. Wan, and Y.-J. Pan, "Hybrid Human/Robot Team Establishment using E-CARGO and Role-Based Collaboration," *Proc. of the IEEE Symposium Series on Computational Intelligence*, Mexico City, Mexico, Dec. 5-8, 2023, pp. 908-913.
[25] M. Noroozi Rasoolabadi, H. Zhu, and C. Wang, "Solving the Many to Many Grouped Task Allocation Problem via E-CARGO," *Proc. of the IEEE Int'l Conf. on Networking, Sensing and Control* (IEEE ICNSC 2023), Marseille, France, Oct. 2023, avail: https://ieeexplore.ieee.org/document/10319019.
[26] B. Akbari, H. Zhu, Y.-J. Pan, "Trust Establishment for the Role-Based Collaborative Multi-Robot Systems," in *Proc. of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (IEEE SMC 2023)*, Maui, Hawaii, USA, Oct. 2023, 1283-1288.
[27] Y. Cai, H. Zhu, D. Liu, "Stable Cloud Provider Selection via Group Role Assignment with KB4 Logic Extended," in *Proc. of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (IEEE SMC 2023)*, Maui, Hawaii, USA, Oct. 2023, 1277-1282.
[28] C. Peng, H. Zhu, L. Liu, and R. Grewal, "Optimal Procurement in Consideration of Carbon Emissions," in *Proc. of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (IEEE SMC 2023)*, Maui, Hawaii, USA, Oct. 2023, pp. 1265-1270.
[29] T. Yang, and H. Zhu, "New Employee Training Scheduling Using the E-CARGO Model," in *Proc. of the IEEE 26th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2023)*, Rio de Janeiro, Brazil and Online, May 2023, pp. 691-696.

[30] Z. Xiong, H. Zhu, D. Liu, and J. Xian, "Industrial Chain Data Evaluation in Automobile Parts Procurement via Group Multirole Assignment," in *Proc. of the IEEE 26th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2023)*, Rio de Janeiro, Brazil and Online, May 2023, pp. 1049-1054.
[31] Z. Ye, H. Zhu, D. Liu, and J. Xian, "Outsourced Products Task Allocation via Group Multirole Assignment with Considering Variance," in *Proc. of the IEEE 26th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2023)*, Rio de Janeiro, Brazil and Online, May 2023, pp. 1878-1883.
[32] C. Peng, H. Zhu, L. Liu, and R. Grewal, "Optimal Data Allocation in the Environment of Edge and Cloud Servers," *Proc. of the IEEE Int'l Conf. on Networking, Sensing and Control* (IEEE ICNSC 2022), Shanghai, China, Dec. 2022, pp. 1-6, doi: 10.1109/ICNSC55942.2022.10004065.
[33] B. Akbari, and H. Zhu, "Fault-Resilience Role Engine for an Autonomous Cooperative Multi-Robot System using E-CARGO," *Proc. of IEEE Int'l Conf. on Systems, Man, and Cybernetics*, Prague, Czech, Oct. 2022, pp. 730-735.
[34] S. Zhang, W. Huang, and H. Zhu, "UAV Life Detection and Rescue Using Group Role Assignment," *Proc. of IEEE Int'l Conf. on Systems, Man, and Cybernetics*, Prague, Czech, Oct. 2022, pp. 742-747.
[35] Z. Yu, R. Yang, X. Liu, H. Zhu, and L. Zhang "Multi-Group Role Assignment with Constraints in Adaptive Collaboration," *Proc. of IEEE Int'l Conf. on Systems, Man, and Cybernetics*, Prague, Czech, Oct. 2022, pp. 748-754.
[36] S. Wu, H. Zhu, and D. Liu, "Balance Personal Wishes with Performance via Group Role Assignment," in *Proc. of the IEEE 25th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2022)*, Hangzhou, China and Online, May 2022, pp. 17-22.
[37] Y. Zhang, D. Liu, H. Zhu, W. Zhang, and Z. Ye, "Solving the Task Allocation Problem under High-order Set via Group Role Assignment," in *Proc. of the IEEE 25th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2022)*, Hangzhou, China and Online, May 2022, pp. 23-28. *Best paper award for international collaboration.*
[38] C. Guo, S. Wu, H. Zhu, Y. Sheng, and L. Zhang, "Adaptive Collaboration with A Training Plan," in *Proc. of the IEEE 25th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2022)*, Hangzhou, China and Online, May 2022, pp. 389-394.
[39] F. Wen, H. Zhu, and D. Liu , "Defrost Period Allocation with Flexible Intervals via Group Role Assignment," in *Proc. of the IEEE 25th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2022)*, Hangzhou, China and Online, May 2022, pp. 414-419.
[40] Y. Li, X. Sui, S. Zhang, and H. Zhu, "Multi-Agent Collaboration Planning in Mentorship Mode," in *Proc. of the IEEE 25th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD 2022)*, Hangzhou, China and Online, May 2022, pp. 77-82.
[41] W. Kinsner, H. Zhu, G. Baciu, G. Luo, F. Rubio, J. Sui, R. Huang, H. Hiraishi, J. Peng, and L. Chen, "IEEE ICCI*CC Series in Year 20: Latest Advances in Cognitive Computing (Plenary Panel Report-II)," in *Proc. of IEEE 20th Int'l Conf. on Cognitive Informatics & Cognitive Computing (ICCI*CC'21),* Online, Oct. 29-31, 2021, pp. 265-278.
[42] H. Zhu, and Z. Yu, "Team Performance due to Agent Conflicts: E-CARGO Simulations," *Proc. of IEEE Int'l Conf. on Systems, Man, and Cybernetics*, Online, Oct. 2021, pp. 2816-2822.
[43] S. Xiang, D. Liu, S. Teng, H. Zhu, W. Zhang, "Charging Pile Siting with Group Multirole Assignment," *Proc. of IEEE Int'l Conf. on Systems, Man, and Cybernetics*, Online, Oct. 2021, pp. 2822-2827.
[44] J. Qi, H. Zhu, J. Xiang, and D. Liu, "Revising Portfolio with Preferences via Higher-Order Group Multi-Role Assignment," *IEEE 24th Int'l Conf. on Computer Supported Cooperative Work in Design (CSCWD)*, Dalian, China (Hybrid), May 2021, pp. 540-545.
[45] P. Wang, Y. Gningue, H. Zhu, "Improved Algorithm for the Incremental Assignment Problem," *Proc. of The 33rd Int'l Conf. on Computer Applications in Industry and Engineering*, online, Oct. 20, 2020, pp. 98-107.
[46] H. Zhu, Z. Yu, and Y. Gnignue, "Solving the Exam Scheduling Problem with GRA+," *The IEEE Int'l Conf. on Systems, Man and Cybernetics* (SMC'20), Toronto, Canada (Online), Oct. 2020, pp. 1485-1490.
[47] E. Brownlee, and H. Zhu, "Group Role Assignment with Busyness Degree and Cooperation and Conflict Factors," *The IEEE Int'l Conf. on Systems, Man and Cybernetics* (SMC'20), Toronto, Canada (Online), Oct. 2020, pp. 1479-1484.
[48] H. Zhu, "Social Simulation with RBC and E-CARGO," *The 1st IEEE Int'l Conf. on Human Machine Systems*, Rome, Italy (Online), Sep. 7-9, 2020.
[49] H. Zhu, "The Most Economical Redundant Assignment," *The IEEE Int'l Conf. on Systems, Man and Cybernetics* (SMC'19), Bari, Italy, Oct. 6-9, 2019, pp. 146-151.
[50] Q. Jiang, H. Zhu, M. Liao, B. Huang, X. Fang, and D. Liu., "Solving the Signal Relay Problem of UAV

in Disaster Relief via Group Role Assignment," *Proc. of the Chinese Conference on Computer Supported Cooperative Work and Social Computing*, Kunming, China, Aug. 2019, pp. 648-653.
[51] H. Zhu, "Group Multi-Role Assignment with Coupled Roles," *The 16th IEEE Int'l Conf. on Networking, Sensing, and Control*, Banff, Canada, May 9-11, 2019, pp.281-286.
[52] B. Lei, H. Zhu, and Y. Gningue, "Using Group Role Assignment to Solve Dynamic Vehicle Routing Problem," *The 16th IEEE Int'l Conf. on Networking, Sensing, and Control*, Banff, Canada, May 9-11, 2019, pp. 104-109.
[53] Y. Sheng, H. Zhu., and G. Wang, "Slot Reallocation for Ground Delay Programs," *Proc. of the 9th IEEE Annual Ubiquitous Computing, Electronics & Mobile Communication Conf.* (UEMCON), New York, USA, Nov. 2018, pp. 648-653.
[54] H. Zhu, "Predict Team Performance with E-CARGO," *The IEEE Int'l Conf. on Systems, Man and Cybernetics* (SMC'18), Miyazaki, Japan, Oct. 7-10, 2018, pp. 3459-3554.
[55] H. Zhu, H. Ma, and H. Zhang, "Acquire the Preferred Position in a Team," *The 22nd IEEE Conf. of Computer-Supported Cooperative Work in Design*, Nanjing, China, May 9-11, 2018, pp. 116-121.
[56] P. Luo, H. Zhu, D. Liu, B. Huang and Y. Hou, "Solving the M2M Recommendation Problem via Group Multi-role Assignment," *The 22nd IEEE Conf. of Computer-Supported Cooperative Work in Design*, Nanjing, China, May 9-11, 2018, pp. 612-617.
[57] H. Ma, Y. Chen, H. Zhu, H. Zhang, and W. Tang, "Optimization of Cloud Service Composition for Data-intensive Applications via E-CARGO," *The 22nd IEEE Conf. of Computer-Supported Cooperative Work in Design*, Nanjing, China, May 9-11, 2018, pp. 785-789.
[58] S. Teng, Z. Zhang, L. Teng, W. Zhang, H. Zhu, X. Fang, and L. Fei, "A Collaborative Intrusion Detection Model using a novel optimal weight strategy based on Genetic Algorithm for Ensemble Classifier," *The 22nd IEEE Conf. of Computer-Supported Cooperative Work in Design*, Nanjing, China, May 9-11, 2018, pp. 767-772.
[59] H. Zhu, T. Kennedy, H. Ma, H. Zhang, B. Lei, and Y. Gningue, "A Simulation System for Flexible Transit Services based on E-CARGO," *The 15th IEEE Int'l Conf. on Networking, Sensing, and Control*, Zhuhai, China, March 2018.
[60] H. Zhu, and Y. D. Zhu, "Group Role Assignment with Agents' Busyness Degrees," *The IEEE Int'l Conf. on Systems, Man and Cybernetics* (SMC'17), Banff, Canada, Oct. 5-8, 2017, pp. 3201-3206.
[61] J. Yang, H. Zhu, X. Zhu, Y. Liu, and L. Liu, "Resource Allocation Policy Based on Trust in the Multi-Cloud Environment," *The IEEE Int'l Conf. on Systems, Man and Cybernetics* (SMC'17), Banff, Canada, Oct. 5-8, 2017, pp. 3207-3202.
[62] X. Zhu, F. Xiao, H. Zhu, Q. Wu, X. Zhou, and W. Hu, "Group Role Assignment with Flexible Formation Based on the Genetic Algorithm," *The IEEE Int'l Conf. on Systems, Man and Cybernetics* (SMC'17), Banff, Canada, Oct. 5-8, 2017, pp. 2661-2666.
[63] H. Zhu and Y. Zhu, "Group Role Assignment with Agents' Preferences," *The 14th IEEE Int'l Conf. on Networking, Sensing, and Control*, Calabria, Italy, May 2017, pp. 605-610.
[64] H. Zhu and Shawn Mason, "A Visualization Tool for Adaptive Collaboration," *The IEEE Int'l Conf. on Systems, Man and Cybernetics (SMC'16)*, Budapest, Hungary, Oct. 9-12, 2016, pp. 1005-1010.
[65] X. Zhu, X. Zhou, M. Zhang, H. Zhu, X. He, "Group Role Assignment Based on Multi-Criteria in Collaboration System," *The IEEE Int'l Conf. on Systems, Man and Cybernetics (SMC'16)*, Budapest, Hungary, Oct. 9-12, 2016, pp. 3175-3180.
[66] H. Zhu, D. Liu, X. Zhu, Y. Zhu, S. Teng, and X. Zhou, "When to Re-Staff a Late Project – An E-CARGO Approach," *Proc. of The 2016 Int'l Conf. on Computational Science and Its Applications,* Beijing, China, July 4-7, 2016, O. Gervasi et al. (Eds.): ICCSA 2016, Part V, LNCS 9790, pp. 201-217.
[67] H. Zhu, "The Benefits of Dynamic Role Assignment," *The IEEE Int'l Conf. on Systems, Man and Cybernetics (SMC'15)*, Hong Kong, Oct. 13-16, 2015, pp. 304-309.
[68] H. Zhu, Y. Sheng, and X. Zhou, "The Benefits of Conflict Avoidance in Collaboration," *The IEEE 13th Int'l Conf. on Cognitive Informatics & Cognitive Computing (ICCI*CC),* Beijing, China, July 6-8, 2015, pp. 221-229.
[69] H. Zhu, "Adaptive Collaboration while Agents' Performance Changes Periodically," in Proc. of *ACM/IEEE Int'l Conf. on Collaborative Technologies and Systems*, Atlanta, GA, USA, June 6-9, 2015, pp. 106-112.
[70] L. Teng, S. Teng, F. Tang, H. Zhu, W. Zhang, D. Liu, and L. Liang, "A Collaborative and Adaptive Intrusion Detection Based on SVMs and Decision Trees," *2014 IEEE Int'l Conf. on Data Mining Workshop (ICDMW)*, Shenzhen, China, 14 Dec. 2014, pp. 898 – 905.
[71] D. Liu, S. Teng, H. Zhu, and Y. Tang, "Minimal Role Playing Logic in Role-Based Collaboration," *The IEEE*

Int'l Conf. on Systems, Man and Cybernetics (SMC'14), San Diego, USA, Oct. 5-8, 2014, pp. 1439-1444.
[72] Y. Sheng, H. Zhu, X. Zhou, and Y. Wang "Effective Approaches to Group Role Assignment with a Flexible Formation," *The IEEE Int'l Conf. on Systems, Man and Cybernetics (SMC'14)*, San Diego, USA, Oct. 5-8, 2014, pp. 1445-1450.
[73] M. Tang, X. Mao, S. Yang, and H. Zhu, "Policy Evaluation and Analysis of Choosing Whom to Information on Social Media," *The IEEE Int'l Conf. on Systems, Man and Cybernetics (SMC'14)*, San Diego, USA, Oct. 5-8, 2014, pp. 45-50.
[74] Y. Sheng, H. Zhu, X. Zhou, and L. Feng, "Effective Approaches to Adaptive Collaboration," *The IEEE Int'l Conf. on Networking, Sensing and Control (ICNSC'14)*, Miami, FL, USA, Apr. 13-16, 2014, pp. 297-302 (The Best Student Award).
[75] W. Zhang, J. Zhu, D. Liu, S. Teng, and H. Zhu, "RBAC role-permission assignment with conflicting constraints based on the E-CARGO model," *The IEEE 13th Int'l Conf. on Cognitive Informatics & Cognitive Computing (ICCI*CC)*, London, UK, 18-20 Aug. 2014, pp.424 – 430.
[76] H. Zhu and L. Feng, "Agent Evaluation in Distributed Adaptive Systems," *The IEEE Int'l Conf. on Systems, Man and Cybernetics (SMC'13)*, Manchester, UK, Oct. 13-16, 2013, pp.752-757.
[77] H. Zhu, L. Feng, and R. S. Grewal, "An Efficient Approach to Solving the Agent Training Problem for a Sustainable Group," *The Summer Computer Simulation Conf. (SummerSim'13)*, Toronto, Canada, July 7-10, 2013, pp. 209-216.
[78] H. Zhu and L. Feng, "An Efficient Approach to Group Role Assignment with Conflicting Agents,"*The IEEE Int'l Conf. on Computer-Supported Cooperative Work in Design (CSCWD)*, Whistler, Canada, June 27-29, 2013, pp. 145-152.
[79] H. Zhu, "Agent Training Plan for Sustainable Groups," in Proc. of *ACM/IEEE Int'l Conf. on Collaborative Technologies and Systems*, Denver, CO., USA, May 21-25, 2012, pp. 322-329.
[80] H. Zhu, "Role Assignment for an Agent Group in Consideration of Conflicts among Agents," *In the Proc. of Canadian Conf. on Artificial Intelligence,* Toronto, Canada, May 28-30, 2012, *L. Kosseim and D. Inkpen (Eds.): Canadian AI 2012,* LNAI vol. 7310, pp. 267–279.
[81] H. Zhu, "Collective Role Assignment and its Complexity," *The IEEE Int'l Conf. on Systems, Man and Cybernetics (ICSMC)*, Anchorage, AK, USA, Oct. 2011, pp. 1897-1902.
[82] L. Liu, Z. Huang and H. Zhu, "A Privacy Access Control Framework for Web Services Collaboration with Role Mechanisms," *In Proc. of the Int'l Conf. of Advanced Research on Electronic Commerce, Web Application, and Communication*,Guangzhou, China, 2011, pp. 258-263.
[83] T. Dong, W. Shang and H. Zhu, "Naive Bayesian Classifier Based on the Improved Feature Weighting Algorithm," in *The Proc. of Advanced Research on Computer Science and Information Engineering, Zhengzhou, China, May 2011, Communications in Computer and Information Science*, 2011, vol. 152, pp. 142-147.
[84] L. Ferrari, and H. Zhu, "Enabling Dynamic Roles for Agents," in Proc. of *ACM/IEEE Int'l Conf. on Collaborative Technologies and Systems*, Philadelphia, PL, USA, May 23-27, 2011, pp. 500-507.
[85] H. Zhu, "Group Role Assignment with Conflicting Agent Constraints," in Proc. of *ACM/IEEE Int'l Conf. on Collaborative Technologies and Systems*, Philadelphia, PL, USA, May 23-27, 2011, pp. 516-523.
[86] H. Zhu and M.C. Zhou, "Issues in Adaptive Collaboration," in *Proc. of The IEEE Int'l Conf. on Systems, Man and Cybernetics (ICSMC'10)*, Istanbul, Turkey, Oct. 2010, pp. 2828-2833.
[87] L. Liu, Z. Huang, F. Xiao, G. Shen, and H. Zhu, "Verification of Privacy Requirements in Web Services Composition," in *Proc. of 2nd Int'l Symposium on Data, Privacy, and E-Commerce*, Los Alamitos, CA, USA, Sep. 2010, pp. 117-122.
[88] H. Zhu, M. Hou, and W. Shang, "Human-Computer Interaction with Roles: A Cognitive Method for Interaction," in *Proc. of the IEEE 8th Int'l Conf. on Cognitive Informatics (ICCI'10),* Beijing, China, July 2010, pp. 421-429.
[89] W. Zhang, S. Teng, H. Zhu, H. Du, and X. Li; "Fuzzy Multi-Class Support Vector Machines for cooperative network intrusion detection," in *Proc. of the IEEE 8th Int'l Conf. on Cognitive Informatics (ICCI'10),* Beijing, China, July 2010, pp. 811 – 818.
[90] H. Zhu, M. Hou, and M.C. Zhou, "Establishing the Foundations of Adaptive Collaboration," in *Proc. of the ACM/IEEE Int'l Symposium on Collaborative Technologies and Systems (CTS'10)*, Chicago, IL, May 2010, pp. 546-554.
[91] H. Zhu, and R. Alkins, "Improvement to Rated Role Assignment Algorithms," in *Proc. of The IEEE Int'l Conf. on Systems, Man and Cybernetics (ICSMC)*, San Antonio, USA, 2009, pp. 4861-4866.
[92] M. Hou, and H. Zhu, "Intelligent Adaptive Interface: A Design Tool for Enhancing Human-Machine System

Performances," *Human Factors & Medicine Panel Symposium on Human Performance Enhancement for NATO Military Operations (Science, Technology, and Ethics),* Sofia, Bulgaria, October 5-7, 2009.
[93] H. Zhu, and M. Hou, "Restrain Mental Workload With Roles in HCI," *in Proc. of the IEEE Toronto Int'l Conf. – Science and Technology for Humanity (TIC-STH 2009),* Toronto, Canada, 2009, pp. 387-392.
[94] W. Shang, H. Dong, and H. Zhu, "Intelligent Decision-Making System Based on Data Mining," *In Proc. of Int'l Conf. of Computational Sciences and Optimization*, 2009, Beijing, China, pp. 360-364.
[95] B. Yu, B. Xu, Y. Ling, and H. Zhu, "Equipment conflict checking and removal for innovation talent development in IT undergraduate education via E-CARGO collaborative model," *in Proc. of the 4th Int'l Conf. on Computer Science & Education (ICCSE'09),* Nanning, China, 25-28 July 2009, pp. 1669-1672.
[96] H. Zhu, and M. Grenier, "Agent Evaluation for Role Assignment," in *Proc. of the IEEE 8th Int'l Conf. on Cognitive Informatics (ICCI'09),* Hong Kong, China, 2009, pp. 405-411.
[97] H. Zhu, and R. Alkins, "Group Role Assignment," in *Proc. of the ACM/IEEE Int'l Symposium on Collaborative Technologies and Systems (CTS'09)*, Baltimore, MD, 2009, pp. 431-439.
[98] L. Liu, Z. Huang, and H. Zhu, "Role-Based Consistency Verification for Privacy-Aware Web Services," in *Proc. of the ACM/IEEE Int'l Symposium on Collaborative Technologies and Systems (CTS'09)*, Baltimore, MD, 2009, pp. 423-430.
[99] L. Ferrari, and H. Zhu, "Making Agent Roles Perceivable Through Proxy Bytecode Manipulation," in *Proc. of the ACM/IEEE Int'l Symposium on Collaborative Technologies and Systems (CTS'09)*, Baltimore, MD, 2009, pp. 408-416 (*Best Paper Nomination*).
[100] H. Zhu, M. Grenier, R. Alkins, J. Lacarte, and J. Hoskins, "A Visualized Tool for Role Transfer," in *Proc. of The IEEE Int'l Conf. on Systems, Man and Cybernetics (ICSMC)*, Singapore, 2008, pp. 2225-2230.
[101] W. Shang, H. Dong, H. Zhu, and Y. Wang, "A Novel Feature Weight Algorithm for Text Categorization," in *Proc. of the Int'l Conf. of Natural Language Processing and Knowledge Engineering*, Beijing, China, 2008, pp. 1-7.
[102] H. Zhu, "Granular Problem Solving and Software Engineering," *in Proc. of The IEEE Int'l Conf. on Granular Computing*, Hangzhou, China, 2008, pp. 859-864.
[103] H. Zhu, "Role-Based Systems are Autonomic," in *Proc. of The 7th IEEE Int'l Conf. on Cognitive Informatics*, Stanford, CA, USA, 2008, pp. 144-152.
[104] H. Zhu, "Fundamental Issues in the Design of a Role Engine," in *Proc. of The 9th Int'l Symposium on Collaborative Technologies and Systems (CTS 2008)*, Irvine, California, 2008, pp. 399-407.
[105] W. Zhang, S. Teng, X. Fu, and H. Zhu, "Roles in Learning Systems," in *Proc. of The IEEE Int'l Conf. on Systems, Man and Cybernetics (ICSMC)*, Singapore, 2008, pp. 2213-2218.
[106] H. Zhu, and R. Alkins, "A Tool for Role-Based Chatting," in *Proc. of The IEEE Int'l Conf. on Systems, Man and Cybernetics*, Montreal, Canada, 2007, pp. 3795-3800.
[107] H. Zhu, "Improving Object-Oriented Analysis with Roles," in *Proc. of The 6th IEEE Int'l Conf. on Cognitive Informatics*, Lake Tahoe, CA, 2007, pp. 430-439.
[108] H. Zhu, "Roles Versus Classes," in *Proc. of The Int'l Conf. on Software Engineering Theory and Practice,* Orlando, FL, 2007, pp. 89-95.
[109] W. Zhang, S. Teng, Z. Zhu, X. Fu, and H. Zhu, "An Improved Least-Laxity-First Algorithm of Variable Time Slice for Periodic Tasks," in *Proc. of The 6th IEEE Int'l Conf. on Cognitive Informatics*, Lake Tahoe, CA, 2007, pp. 548-553.
[110] D. Sun, S. Teng, W. Zhang, and H. Zhu, "An Algorithm to Improve the Effectiveness of Apriori," in *Proc. of The 6th IEEE Int'l Conf. on Cognitive Informatics*, Lake Tahoe, CA, 2007, pp. 385-390.
[111] H. Zhu, and M. C. Zhou, "The Role Transferability in Emergency Management Systems," in *Proc. of The 3rd Int'l Conf. on Information Systems for Crisis Response and Management*, Newark, NJ, 2006, pp. 487-496.
[112] H. Zhu, "A Role-Based Approach to Robot Agent Team Design," in *Proc. of The IEEE Int'l Conf. on Systems, Man and Cybernetics*, Taipei, Taiwan, 2006, pp. 4861-4866.
[113] H. Zhu, "Separating Design from Implementations: Role-Based Software Development," in *Proc. of The 5th IEEE Int'l Conf. on Cognitive Informatics*, Beijing, China, 2006, pp. 141-148.
[114] H. Zhu, "Introduction to the Special Session on Role-Based Collaboration," in *Proc. of The 3rd IEEE Int'l Workshop on Distributed Intelligent Systems*, Prague, Czech, 2006, pp. 335-336.
[115] H. Zhu, "A Role-Based Architecture for Intelligent Agent Systems," in *Proc. of The 3rd IEEE Int'l Workshop on Distributed Intelligent Systems*, Prague, Czech, 2006, pp. 354-359.
[116] W. Shang, Y. Qu, H. Zhu, H. Huang, Y. Lin, and H. Dong, "An Adaptive Fuzzy kNN Text Classifier

Based on Gini Index Weight," in *Proc. of the 11th IEEE Symposium on Computers and Communications*, Cagliari, Sardinia, Italy, 2006, pp. 448 - 453.

[117] W. Shang, H. Zhu, and Z. Huang, "The Improved ontology kNN Algorithm and its Application," in *Proc. of the IEEE Int'l Conf. on Networking, Sensing and Control*, Ft. Lauderdale, FL, 2006, pp. 198-203.

[118] J. Ma, H. Zhu, and W. Shang, "The Construction Approach of Regular Expressions from Finite Automata including Multi-Node Loops," in *Proc. of The 5th IEEE Int'l Conf. on Cognitive Informatics*, Beijing, China, 2006, pp. 771-776.

[119] L. Liu, and H. Zhu, "Implementing Agent Evolution with Roles in Collaborative Systems," in *Proc. of The IEEE Int'l Conf. on Networking, Sensing and Control*, Ft. Lauderdale, FL, 2006.

[120] H. Zhu and R. Alkins, "Towards Role-Based Programming," *Workshop on Role-Based Collaboration, The Int'l ACM Conf. on Computer-Supported Cooperative Work (CSCW'06)*, Banff, AB, CANADA, http://www.nipissingu.ca/roles/, 2006.

[121] H. Zhu and B. Verzijlenberg, "An Eclipse Plug-in for Role-Based Collaboration," *Workshop on Role-Based Collaboration, The Int'l ACM Conf. on Computer-Supported Cooperative Work (CSCW'06)*, Banff, AB, Canada, http://www.nipissingu.ca/roles/ .

[122] P. Seguin, and H. Zhu, "Implementing a Tool for Role-Based Collaboration," *Proc. of the Canadian Conf. of Electrical and Computer Engineering(CCECE'06)*, Ottawa, Canada, May 2006, pp. 2428-2431.

[123] H. Zhu, "Encourage Participants' Contributions by Roles," in *Proc. of The IEEE Int'l Conf. on Systems, Man and Cybernetics*, Big Island, Hawaii, 2005, pp. 1574-1579.

[124] H. Zhu, "Building Reusable Components with Service-Oriented Architectures," in *Proc. of The IEEE Int'l Conf. on Information Reuse and Integration (IEEE IRI-2005)*, Las Vegas, Nevada, 2005, pp. 96-101.

[125] H. Zhu, "From OOP to SOP: What Improved?," in *Proc. of The IEEE Int'l Conf. on Service Operations and Logistics, and Informatics*, Beijing, China, 2005, pp. 956-961.

[126] H. Zhu, "Challenges to Reusable Services," in *Proc. of The IEEE Int'l Conf. on Services Computing (SCC 2005)*, Orlando, Florida, 2005, pp. 243-244.

[127] H. Zhu and P. Seguin, "The Role Transition Mechanisms in Role-Based Collaborative Systems," in *Proc. of IEEE Canada Conf. on Electrical and Computer Engineering (CCECE'05)*, Saskatoon, Canada, May, 2005, pp. 1305-1308.

[128] B. Xu, M. Yang, H. Liang, and H. Zhu, "Maximizing Customer Satisfaction in Maintenance of Software Product Family," in *Proc. of IEEE Canada Conf. on Electrical and Computer Engineering (CCECE'05)*, Saskatoon, Canada, May 2005, pp. 1262-1265.

[129] H. Zhu and Pierre Seguin, "The Implementation of Role Specification Mechanisms," in *Proc. of IEEE Canada Conf. on Electrical and Computer Engineering (CCECE'04)*, Niagara Fall, Canada, May 2004, pp. 1329-1332.

[130] H. Zhu, "The Role Mechanism in Collaborative Systems," in *Proc. of The 11th Int'l Society of Production Enhancement (ISPE) Int'l Conf. on Concurrent Engineering (ISPE/CE2004)*, Beijing, China, 2004, pp. 455-461 (*Best Paper Award*).

[131] H. Zhu, "Introduce Roles into Eclipse," *Workshop on Eclipse as a Collaborative Tool, The Int'l ACM Conf. on Computer-Supported Cooperative Work (CSCW'04)*, Nov. 6-10, 2004, Chicago, IL, USA, http://cscw2004ws.blogsite.org/.

[132] H. Zhu, "From WYSIWIS to WYSINWIS: Role-Based Collaboration," *Proceedings of the IEEE Int'l Conf. on Systems, Man, and Cybernetics (ICSMC'04*), The Hague, Netherlands, Oct. 10-13, 2004, pp. 5441-5446.

[133] H. Zhu, "Some Important Factors in Teaching Software Engineering Courses," *Proceedings of the 2004 Canadian Conf. on Computer and Software Engineering Education (C3SEE'04)*, University of Calgary, Calgary, Alberta, Canada, March 29-30, 2004, pp. 43-52.

[134] W. Shang, H. Zhu, and H. Huang, "WebCom Miner----A System of Trends Analysis for Company Products," *Proceedings of the Int'l Conf. on Systems, Man and Cybernetics (SMC'04)*, Hugue, Oct. 2004, pp. 4084-4088.

[135] H. Zhu, and M. C. Zhou, "Methodology First and Language Second: A Way to Teach Object-Oriented Programming," in *Proc. of The 2003 Educator's Symposium on Object-Oriented Programming, Systems, Languages and Applications (OOPSLA'03)*, Anaheim, CA, 2003, pp. 140-147.

[136] H. Zhu, "A Role-Based Conflict Resolution Method in a Collaborative System," *Proceedings of IEEE Int'l Conf. on Systems, Man, and Cybernetics (ICSMC'03)*, Washington D.C, USA, Oct. 2003, pp. 4135-4140.

[137] H. Zhu, "A Role Agent Model for Collaborative Systems," in *Proc. of The 2003 Int'l Conf. on Information and Knowledge Engineering (IKE'03)*, Las Vegas, Nevada, 2003, pp. 438-444.
[138] H. Zhu, "Some Issues of Role-Based Collaboration," in *Proc. of IEEE Canada Conf. on Electrical and Computer Engineering (CCECE'03)*, vol. 2, Montreal, Canada, May 2003, pp. 687-690.
[139] H. Zhu, and M. C. Zhou, "Formalizing the Design of a Collaborative System," *Proceedings of IEEE Int'l Conf. on Systems, Man, and Cybernetics (ICSMC'02)*, Tunisia, Oct. 2002, pp. 409-414.
[140] H. Zhu, M. Turoff, and Z. Li, "An Object Model for Collaborative Systems and a Toolkit to Support Collaborative Activities," in *Proc. of The 2000 Americas Conf. on Information Systems (AMCIS'00)*, Long Beach, 2000, pp. 591-595.
[141] K. Wang, and H. Zhu, "The Design of A Multimedia Co-authoring System," in *Proc. of The 1995 Int'l Conf. on CAD and CG*, Wuhan, China, 1995.
[142] H. Zhu, P. Wang, and S. Hu, "Managing Hypermedia Works with Object-Oriented Technology," in *Proc. of The 1995 Int'l Conf. for Young Computer Scientists (ICYCS'95)*, Beijing, China, 1995.
[143] H. Zhu, P. Wang, and S. Hu, "CoWNCH: An Object-Oriented Model for Computer Supported Hypermedia Co-Authoring," in *Proc. of The 7th European Simulation Symposium (ESS'95)*, Erlangen-Nuremberg, Germany, 1995.
[144] K. Wang, H. Zhu, and P. Wang, "Extending Hypermedia Authoring Tools to Collaborative Authoring System," in *Proc. of The 1995 Int'l Conf. for Young Computer Scientists (ICYCS'95)*, Beijing, China, 1995.
[145] H. Zhu, and S. Hu, "The Chicken-and-Egg Problem in the Object-Oriented Technology," in *Proc. of The 1994 Kunming Int'l CASE Symposium (KICS'94)*, Kunming, China, 1994.
[146] P. Wang, and H. Zhu, "DMIMS: A distributed Multimedia Information Management System Based on the Client/Server Model," in *Proc. of The ISMM Intl. Conf. on Distributed Multimedia System and Applications*, Honolulu, Hawaii, 1994.
[147] H. Zhu, "An Abstract Machine for an Object-Oriented System," *2nd IES (Institute of Engineering Singapore) Conf. on Information Technology*, Singapore, May 1991.