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Departments of Civil & Coastal Engineering, Mechanical & Aerospace Engineering, Industrial & System Engineering

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EDUCATION

Ph.D. in Construction Management, MICHIGAN STATE UNIVERSITY, East Lansing, MI, 2012

- Dissertation: *Investigation of Interpersonal Cooperation in Construction Project Teams: An Agent-Based Modeling Approach*

Master of Science, Business Administration, TIANJIN UNIVERSITY, Tianjin, China, 2008

- Thesis: *A Study of Employee Performance Evaluation System*

Bachelor of Arts, Business Administration, TIANJIN UNIVERSITY, Tianjin, China, 2004

- Thesis: *A Mathematical Model of Enterprise Resource Management*

Bachelor of Engineering, Civil Engineering, TIANJIN UNIVERSITY, Tianjin, China, 2004

- Thesis: *Automated FEA-based Structural Design using Visual Basic and ANSYS (APDL)*

PROFESSIONAL POSITIONS

Steve and Wendy Blum Professor, UNIVERSITY OF FLORIDA, Gainesville, FL 2025-

UF Research Foundation Professor, UNIVERSITY OF FLORIDA, Gainesville, FL 2025-

Professor, UNIVERSITY OF FLORIDA, Gainesville, FL 2023-

- Department of Civil and Coastal Engineering
- Department of Mechanical and Aerospace Engineering (Affiliate and Graduate Faculty)
- Department of Industrial and System Engineering (Affiliate and Graduate Faculty)

Associate Professor, UNIVERSITY OF FLORIDA, Gainesville, FL 2019-2023

- Department of Civil and Coastal Engineering
- Department of Mechanical and Aerospace Engineering (Affiliate and Graduate Faculty)
- Department of Industrial and System Engineering (Affiliate)

Assistant Professor, TEXAS A&M UNIVERSITY, College Station, TX 2015-2019

- Department of Construction Science

Assistant Professor, UNIVERSITY OF TEXAS AT SAN ANTONIO, San Antonio, TX 2013-2015

- Department of Construction Science

INDUSTRY EXPERIENCE

Kiewit Faculty Scholar

Kiewit Offshore Services, INC., Corpus Christi, TX 2017

- Faculty intern at Kiewit Offshore Services in the summer.

Consultant

Zachry Holdings, INC., San Antonio, TX 2014-2017

- Providing consulting service in risk management.

Senior Production and Cost Analyst

Zachry Holdings, INC., San Antonio, TX 2011-2013

- Oversaw productivity tracking systems (CMIS and Qtrax) for monthly projection reviews.

Project Manager

Tianjin Free Trade Zone Admin Committee, China 2007-2008

- Spearheaded all efforts of public agencies, investors, lawyers, and accounting firms for large infrastructure and commercial projects including Tianjin Free Trade Zone (TJFTZ) and Tianjin.

PUBLICATIONS

Peer-Reviewed Journal Papers

** Denotes students under my supervision; * Denotes Corresponding Author.

- [1] Xu, F., Bao, H., Zhou, T., You, H., Ledgerwood, S., Gabbard, J., & **Du, J.*** (2026). "An Augmented Reality Study for Enhancing Spatial-Temporal Cognition in Indoor Emergency Response." *IEEE Transactions on Visualization and Computer Graphics*.
- [2] You, H., Zhou, T., Wu, J., & **Du, J.*** (2026). "TeBi-Llama: Temporal Binding Foundation Model for Material Property Recognition via Tactile Sequence Perception." *Journal of Construction Engineering and Management*, 152(4), 04026024.
- [3] Wu, J., Sun, B., Zhou, T., Xu, F., & **Du, J.*** (2026). "Enhancing human-AI trust through multimodal feedback: A study of visual, haptic, and auditory augmentation in drone shared autonomy." *Computers in Human Behavior Reports*, 21, 100959.
- [4] Sun, B.** , You, H.** , Wu, J.** , Wang, Q.** & **Du, J.*** (2026) "Belief Update Modeling for AI Agents by Human-Derived Dual-Thresholds Evidence Accumulation Process." *ASCE Journal of Computing in Civil Engineering* 40.1 (2026): 04025116.
- [5] Sun, B., You, H., Wu, J., & **Du, J.*** (2026). "Interpretable group gated priority traces for scalarized multi-objective reinforcement learning in autonomous drone operations." *Frontiers in Built Environment*, 12, 1747709.

- [6] Xu, F., Zhou, T., You, H., Wu, J., Ledgerwood, S., & **Du, J.*** (2026). "Cognitive Load in AR-Supported Indoor Wayfinding Performance: A Correlation study." *Developments in the Built Environment*, 100865.
- [7] Xia, P.** , McSweeney, K., Crippen, K., **Du, J.*** (2026). "Enhancing Subsea ROV Operations: A Survey of Operator Challenges, Essential Skills, and Novel Teleoperation Technologies". *Maritime Technology Society Journal* 59(3), 31-48.
- [8] Ergan, S., Sujon, M., Dai, F., **Du, J.**, Akhavian, R. and Behzadan, A. (2026) "Research-to-Practice Drivers and Barriers: Visualization, Information Modeling, and Simulation Technologies in AEC/FM." *ASCE Journal of Computing in Civil Engineering*, 40(1), p.04025128.
- [9] Sun, B.** , Wu, J.** , You, H.** , & Du, J.** (2025). "Estimating Belief Updates in AI-Driven Drone Controls for Urban Search and Rescue Operations". *ASCE Journal of Construction Engineering and Management* 151 (9), 04025128
- [10] Zhou, T.** , You, H.** , Xu, F.** , **Du, J.*** (2025). "Data: WireFishing-M: A Multimodal Dataset for Deformable Cable Insertion Using Tactile, Visual, and Proprioceptive Sensing." *ELSEVIER Data in Brief*, p.112136.
- [11] Uthai, T.** , Zhou, T.** , Ye, Y.** , You, H.** , **Du, J.*** (2025). "Haptics-Based Robot Teleoperation for Soft Object Manipulation." *ASCE Journal of Construction Engineering and Management (in press)*.
- [12] Xu, F.** , Zhou, T.** , Nguyen, T.** , Bao, H.** , Lin, C.** , and **Du, J.*** (2025). "Integrating augmented reality and LLM for enhanced cognitive support in critical audio communications." *ELSEVIER International Journal of Human-Computer Studies*, 194, 103402.
- [13] Wu, J.** , You, H.** , & **Du, J.*** (2025). "AI generations: from AI 1.0 to AI 4.0." *Frontiers in Artificial Intelligence*, 8, 1585629.
- [14] Wu, J.** , Sun, B.** , You, H.** , & **Du, J.*** (2025). "Enhancing human-AI perceptual alignment through a visual-haptic feedback system for autonomous drones." *International Journal of Industrial Ergonomics*, 109, 103780.
- [15] Wu, J.** , You, H.** , Sun, B.** , & **Du, J.*** (2025). "LLM-Driven Pareto-Optimal Multi-Mode Reinforcement Learning for Adaptive UAV Navigation in Urban Wind Environments." *IEEE Access* (2025 Sep 17).
- [16] Xu, F.** , You, H.** , Zhou, T.** , and **Du, J.*** (2025) "Augmented Reality Robot Manipulation with Physical Mock-Up and Improved Spatial Cognition." *ELSEVIER International Journal of Human-Computer Studies (In press)*.

- [17] You, H.** , Ye, Y.** , Zhou, T.** , Du, J.** (2025). "Force-Based Robotic Imitation Learning: A Two-Phase Approach for Construction Assembly Tasks." *Available at SSRN 5113792*
- [18] Wang, Y., Xing, S., Can, C., Li, R., Hua, H., Tian, K., Mo, Z., Gao, X., Wu, K., Zhou, S., You, H., Peng, J., Zhang, J., Wang, Z., Song, R., Yan, M., Zimmer, W., Zhou, X., Li, P., Lu, Z., Chen, C.-J., Huang, Y., Rossi, R.A., Sun, L., Yu, H., Fan, Z., Yang, F.H., Kang, Y., Greer, R., Liu, C., Lee, E.H., Di, X., Ye, X., Ren, L., Knoll, A., Li, X., Ji, S., Tomizuka, M., Pavone, M., Yang, T., **Du, J.**, Yang, M.-H., Wei, H., Wang, Z., Zhou, Y., Li, J., Tu, Z. (2025). "Generative AI for Autonomous Driving: Frontiers and Opportunities." *arXiv preprint arXiv:2505.08854*.
- [19] Abdullah, A., Chen, R., Blow, D., Uthai, T.** , **Du, J.**, and Md Jahidul Islam. (2025) "Human-Machine Interfaces for Subsea Telerobotics: From Soda-straw to Natural Language Interactions." *arXiv preprint arXiv:2412.01753*.
- [20] Xu, F** , Bao, H.** , Zhou, T.** , You, H.** , Ledgerwood, S., Gabbard, J., and Du, J.* , (2025) "Augmented Reality Visualization for Enhanced Spatial-Temporal Cognition in Indoor Emergency Response." *IEEE Transactions on Visualization and Computer Graphics* (under review)
- [21] Xu, F.** , Zhou, T.** , Herrera, J.** , Islam, J., Du, J.* . (2025) "Evaluating Body-Referenced Haptic Guidance for Mitigating Delay Effects in ROV Pipeline Inspection Teleoperations." (2025). *ELSEVIER International Journal of Industrial Ergonomics* (under review).
- [22] Wu, J.** , Sun, B.** , Zhou, T.** , Xu, F.** ,& **Du, J.*** (2025). "Multi-Feedback Control for Human-Drone Interaction in Windy Urban Environments." *ELSEVIER Applied Ergonomics* (under review)
- [23] You, H.** , Zhou, T. ** , Xu, F.** , Sun, B.** , & **Du, J.*** (2025). "A Force-Aware Imitation Learning Approach for Subsea Robotic Jumper Pipe Installation." *ELSEVIER Automation in Construction*, (under review).
- [24] You, H.** , Zhou, T. ** , Xu, F.** , Wu, J.** , & **Du, J.*** (2025). "TransMBT: Vision-Independent Occluded Cable Shape Reconstruction via Tactile Temporal Modeling." *ELSEVIER Advanced Engineering Informatics* (under review).
- [25] Sun, B.** , Wu, J.** , You, H.** , Odegaard, B.** , Wang, Q.** , & Du, J.** (2025). "Comparison of Belief Updates Between Human Operators and AI Agents in Autonomous Drones Urban Search and Rescue." *ACM Transactions on Human-Robot Interaction* (under review).
- [26] Sun, B.** , Wu, J.** , You, H.** , & Du, J.** (2025). "Multimodal Feedback Enhances Human Belief Updating Performance and Reduces Cognitive Load in Urban Drone Operation." *Frontiers in Robotics and AI* (under review)

- [27] Ye, Y.**, You, H.**, and **Du, J.*** (2024) "Real-Time Muscle-Level Haptic Feedback for Enhanced Welding Learning: An sEMG-Based Approach." *ASCE Journal of Construction Engineering and Management*, 150(12), p.04024178.
- [28] You, H.**, Zhou, T.**, Zhu, Q.**, Ye, Y.**, and **Du, J.*** (2024). "Embodied AI for dexterity-capable construction Robots: DEXBOT framework". *ELSEVIER Advanced Engineering Informatics*, 62, 102572. (Impact Factor: 7.862)
- [29] Xu, F.**, Zhou, T.**, Nguyen, T.**, **Du, J.*** (2024). "Augmented reality in team-based search and rescue: Exploring spatial perspectives for enhanced navigation and collaboration". *ELSEVIER Safety Science*. 176, p.106556. (Impact Factor: 6.392)
- [30] Ye, Y.**, Xia, P.**, Xu, F.**, **Du, J.*** (2024). "Enhance Kinesthetic Experience in Perceptual Learning for Welding Motor Skill Acquisition with Virtual Reality and Robot-based Haptic Guidance". *IEEE Transactions on Haptics* vol. 17, no. 4, pp. 771-781
- [31] Zhou, T.**, Ye, Y.**, Zhu, Q.**, Vann, W.**, Du, J.* (2024). "Neural dynamics of delayed feedback in robot teleoperation: insights from fNIRS analysis". *Frontiers in Human Neuroscience* 18, 1338453. (Impact Factor: 2.4)
- [32] Upasani, S., Srinivasan, D.*, Zhu, Q.**, **Du, J.**, Leonessa, A. (2024). "Eye-tracking in physical human-robot interaction: Mental workload and performance prediction". *Human Factors*, 66 (8), 2104-2119. (Impact Factor: 3.8)
- [33] Xia, P.**, Zhou, T.**, Ye, Y.**, and **Du, J.*** (2024). "Human Autonomy Teaming for ROV Shared Control". *ASCE Journal of Computing in Civil Engineering*. 38 (4), 04024015 (Impact Factor: 4.64)
- [34] Park, J., Ye, Y.**, **Du, J.**, and Srinivasan, D. (2024). "Virtual Reality Simulation of Exoskeleton-Assistance For Manual Material Handling." *IEEE Access*. vol. 12, pp. 105470-105480
- [35] Ye, Y.**, Zhou, T.**, Zhu, Q.**, Vann, W.**, and **Du, J.*** (2024). "Brain functional connectivity under teleoperation latency: a fNIRS study." *Frontiers in Neuroscience*, 18, 1416719.
- [36] You, H.**, Xu, F.**, Ye, Y.**, Xia, P.**, and **Du, J.*** (2023). "Adaptive LiDAR scanning based on RGB information". *ELSEVIER Automation in Construction*. (160) p105337. (Impact Factor: 10.517)
- [37] Xu, F.**, Nguyen, T.**, and **Du, J.*** (2023). "Augmented Reality for Maintenance Tasks with ChatGPT for Automated Text-to-Action". *ASCE Journal of Construction Engineering and Management*. 150 (4), 04024015. (Impact Factor: 5.213)
- [38] **Du, J.***, Vann, W.**, Zhou, T.**, Ye, Y.**, Zhu, Q.** (2024) "Sensory Manipulation as A Countermeasure to Robot Teleoperation Delays: System And Evidence." *Nature Scientific Reports* 14 (1), 4333. (Impact Factor: 4.9)

- [39] Wu, J.** , Ye, Y.** , **Du, J.***. (2024) “Autonomous Drones in Urban Navigation: Autoencoder Learning Fusion for Aerodynamics”. *ASCE Journal of Construction Engineering and Management*. Forthcoming. (Impact Factor: 5.213)
- [40] Wu, J.** , Ye, Y.** , **Du, J.***. (2024) “Multi-Objective Reinforcement Learning for Autonomous Drone Navigation in Urban Areas With Wind Zones.” *ELSEVIER Automation in Construction* 158 (2024): 105253. (Impact Factor: 10.517)
- [41] Xu, F.** , Zhou, T.** , You, H.** , **Du, J.*** (2024). “Improving Indoor Wayfinding with AR-Enabled Egocentric Cues: A Comparative Study.” *ELSEVIER Advanced Engineering Informatics*, 59, 102265. (Impact Factor: 7.862)
- [42] Zhou, T.** , Xia, P.** , Ye, Y.** , and **Du, J.*** (2023). “Embodied Robot Teleoperation Based on High-Fidelity Visual-Haptic Simulator: Pipe-Fitting Example”. *ASCE Journal of Construction Engineering and Management*. 149 (12), 04023044. (Impact Factor: 5.213)
- [43] Xia, P.** , You, H.** , and **Du, J.*** (2023). “Visual-Haptic Feedback for ROV Subsea Navigation Control”. *ELSEVIER Automation in Construction*. (154) p104987. (Impact Factor: 10.517)
- [44] Xia, P.** , You, H.** , Ye, Y.** , and **Du, J.*** (2023). “ROV Teleoperation via Human Body Motion Mapping: Design and Experiment”. *ELSEVIER Computers in Industry*. (150) p103959. (Impact Factor: 11.245)
- [45] You, H.** , Xu, F.** , and **Du, J.*** (2023). “Improved Boundary Identification of Stacked Objects with Sparse LiDAR Augmentation Scanning.” *ASCE Journal of Construction Engineering and Management*, 149(11), 04023104. (Impact Factor: 5.213)
- [46] Zhou, T.** , Xia, P.** , Zhu, Q.** , and **Du, J.*** (2023). “Cognition-Driven Navigation Assistive System for Emergency Indoor Wayfinding (CogDNA): Proof of Concept and Evidence”. *ELSEVIER Safety Science*. 162, p.106100. (Impact Factor: 6.392)
- [47] Upasani, S., Srinivasan, D.* , Zhu, Q.** , **Du, J.** and Leonessa, A.(2023). “Eye-Tracking in Physical Human-Robot Interaction: Mental Workload and Performance Prediction.” *Human Factors*, p.00187208231204704.
- [48] Ye, Y** , You, H.** , and **Du, J.*** (2023). “Improved Trust in Human-Robot Collaboration with ChatGPT”. *IEEE Access*. (2023) 11. (Impact Factor: 3.557)
- [49] You, H.** , Ye, Y** , Zhou, T.** , Zhu, Q.** and **Du, J.*** (2023). “Robot-Enabled Construction Assembly with Automated Sequence Planning Based on ChatGPT: RoboGPT”. *Buildings*. 13(7), 1772. (Impact Factor: 3.557)

- [50] Hu, D., Li, S.*, **Du, J.**, and Cai, J. (2023). "Automating Building Damage Reconnaissance to Optimize Drone Mission Planning for Disaster Response." *ASCE Journal of Computing in Civil Engineering*. 37(3): 04023006. (Impact Factor: 4.64)
- [51] Zhou, T.**, Zhu, Q.**, Ye, Y.**, and **Du, J.*** (2023). "Humanlike Inverse Kinematics for Improved Spatial Awareness in Construction Robot Teleoperation: Design and Experiment". *ASCE Journal of Construction Engineering and Management*. 149 (7), 04023044. (Impact Factor: 5.213)
- [52] Ye, Y.**, Xia, P.**, Zhou, T.**, and **Du, J.*** (2023). "Spatial Memory of BIM and Virtual Reality: A Mental Mapping Study". *ASCE Journal of Construction Engineering and Management*. 149 (7), 04023042. (Impact Factor: 5.213)
- [53] Ye, Y.**, Zhou, T.**, and **Du, J.*** (2023). "Robot-Assisted Immersive Kinematic Experience Transfer for Welding Training". *ASCE Journal of Computing in Civil Engineering*. 37 (2) p04023002. (Impact Factor: 4.64)
- [54] Xia, P.**, Xu, F.**, Song, Z., Li, S., and **Du, J.*** (2023). "Sensory Augmentation for Subsea Robot Teleoperation". *ELSEVIER Computers in Industry*. (145) p103836. (Impact Factor: 11.245)
- [55] Chen, J., Li, N.*; Shi, Y., **Du, J.** (2023). "Cross-Cultural Assessment of the Effect of Spatial Information on Firefighters' Wayfinding Performance: A Virtual Reality-based Study". *ELSEVIER International Journal of Disaster Risk Reduction*. (84) p103486. (Impact Factor: 4.842)
- [56] Vann, W**, Zhou, T.**, Zhu, Q.**, **Du, J.*** (2023). "Enabling Automated Facility Maintenance from Articulated Robot Collision-Free Designs". *ELSEVIER Advanced Engineering Informatics*. (55) p101820. (Impact Factor: 7.862)
- [57] Wang, X., Han, W., **Du, J.**, Dai, F., and Zhu, Z.* (2023). "An Eye Gaze-Aided Virtual Tape Measure for Smart Construction". *Canadian Journal of Civil Engineering*. (2023) May.
- [58] Zhu, Q.**, Zhou, T.**, **Du, J.*** (2022). "Haptics-Based Force Balance Controller for Tower Crane Payload Sway Controls". *ELSEVIER Automation in Construction*. (144) p104597. (Impact Factor: 10.517)
- [59] Hu, D., Chen, L., **Du, J.**, Cai, J., and Li, S. (2022). "See through Disaster Rubble in 3D with Ground Penetrating Radar and Interactive Augmented Reality for Urban Search and Rescue". *ASCE Journal of Computing in Civil Engineering*. 36 (5). P.04022021 (Impact Factor: 4.64).
- [60] Ye, Y.**, Shi, Y.**, Srinivasan, D., **Du, J.*** (2022). "Sensation Transfer for Immersive Exoskeleton Motor Training". *ELSEVIER Automation in Construction*. (141) 104411. (Impact Factor: 10.517)
- [61] Xu, F.**, Xia, P.**, **Du, J.*** (2022). "Robotic Cross-Platform Sensor Fusion and Augmented Visualization for Large Indoor Space Reality Capture" *ASCE Journal of Computing in Civil Engineering* 36 (6), 04022036. (Impact Factor: 4.64).

- [62] Xia, X., Zhou, T.** , **Du, J.**, Li, N. (2022). "Human Motion Prediction for Intelligent Construction: A Review". *ELSEVIER Automation in Construction* (142) 104497. (Impact Factor: 10.517)
- [63] Ye, Y.** , Shi, Y.** , Xia, P.** , Kang, J., Mehta, R., **Du, J.*** (2022). "Cognitive Characteristics in Firefighter Wayfinding Tasks: An Eye-Tracking Analysis". *ELSEVIER Advanced Engineering Informatics*. 53 (2022): 101668. (Impact Factor: 5.603).
- [64] Li, N., **Du, J.**, Gonzales, V., Chen, J., (2022). "Methodology for Extended Reality-Enabled Experimental Research in Construction Engineering and Management". *ASCE Journal of Construction Engineering and Management*. 148 (10). 04222106 (Impact Factor: 4.64).
- [65] Zhou, T.** , Wang, Y.** , Zhu, Q.** , **Du, J.*** (2022). "Human Hand Motion Prediction based on Feature Grouping and Deep Learning: Pipe Skid Maintenance Example". *ELSEVIER Automation in Construction*. (138) 104232 (Impact Factor: 10.157)
- [66] Xia, P.** , Xu, F.** , Zhou, T.** , **Du, J.*** (2022). "Human Robot Performance Benchmarking in Emergency Structural Inspection". *ASCE Journal of Construction Engineering and Management*. 148.8 (2022): 04022070 (Impact Factor: 4.443)
- [67] Mehta, R, Moats, J., Gabbard, J., Srinivasan, D., **Du, J.**, Leonessa, A., Burks, G., Stephenson, A., and Fernandes, R. (2022). "Human-Centered Intelligent Training for Emergency Responders." *AI Magazine*. 43, no. 1 (2022): 83-92.
- [68] Zhu, Q.** , Zhou, T.** , Du, J.* (2022). "Collaborative Robot Planning for Active Collision Avoidance in Modular Construction: Pipe Skids Example". *ASCE Journal of Construction Engineering and Management*. 148 (10). (Impact Factor: 4.443)
- [69] Shi, Y.** , Johnson, C., Xia, P.** , Kang, J., Tyagi, O., Mehta, R., **Du, J.*** (2022). "Neural Basis Analysis of Firefighters' Wayfinding Performance via Functional Near- Infrared Spectroscopy (fNIRS)". *ASCE Journal of Computing in Civil Engineering*. 36 (4), 04022016. (Impact Factor: 4.64).
- [70] Zhou, T.** , Zhu, Q.** , Shi, Y.** , **Du, J.*** (2022). "Construction Robot Teleoperation Safeguard based on Real-Time Human Hand Motion Prediction". *ASCE Journal of Construction Engineering and Management*. 148 (7), 04022040. (Impact Factor: 4.443)
- [71] Wang, Y., Zhong, L., **Du, J.**, Gao, J. and Wang, Q., (2022). "Identifying the shifting sources to predict the dynamics of COVID-19 in the US." *Chaos: An Interdisciplinary Journal of Nonlinear Science*, 32(3), p.033104. (Impact Factor: 3.642)
- [72] Tyagi, O., Hopko, S., Kang, J., Shi, Y., **Du, J.** and Mehta, R.K., (2021). "Modeling Brain Dynamics During Virtual Reality-Based Emergency Response Learning Under Stress". *Human Factors*. p.00187208211054894 (Impact Factor: 2.888).
- [73] Zhu, Q.** , Zhou, T.** , **Du, J.*** (2021). "Upper-Body Haptic System for Snake Robot Teleoperation in Pipelines." *ELSEVIER Advanced Engineering Informatics*. 51 (2022): 101532. (Impact Factor: 5.603)

- [74] Deng, H., **Du, J.**, Gao, J., Wang, Q. (2021). "Network percolation reveals adaptive bridges of the mobility network response to COVID-19." *PLoS ONE* 16(11): e0258868.
<https://doi.org/10.1371/journal.pone.0258868>
- [75] Ke, J., **Du, J.**, Luo, X. (2021). "The Effect of Noise Content and Level on Cognitive Performance Measured by Electroencephalography (EEG)". *ELSEVIER Automation in Construction*. (130) 103836 (ISSN: 0926-5805, Impact Factor: 7.7)
- [76] Zhu, Q.**, Shi, Y.**, **Du, J.*** (2021). "Wayfinding Information Cognitive Load Classification Based on Functional Near-Infrared Spectroscopy". *ASCE Journal of Computing in Civil Engineering* (35) 5. (Impact Factor: 4.64).
- [77] Abujelala, M., Karthikeyan, R., Tyagi, O., **Du, J.**, Mehta, R. (2021). "Brain Activity-Based Metrics for Assessing Learning States in VR under Stress among Firefighters: An Explorative Machine Learning Approach in Neuroergonomics". *Brain Sciences* (11)7, 885
- [78] Zhu, Q.**, Shi, Y.**, **Du, J.***, Wei, P.** (2021). "Neurobehavioral Assessment of Force Feedback Simulation in Industrial Robotic Teleoperation". *ELSEVIER Automation in Construction*. (126) 103674 (Impact Factor: 7.700)
- [79] Shi, Y.**, Kang, J., Xia, P.**, Tyagi, O., Mehta, R., and **Du, J.*** (2021). "Spatial Knowledge and Firefighters' Wayfinding Performance: A Virtual Reality Search and Rescue Experiment". *ELSEVIER Safety Science* (Impact Factor: 4.877)
- [80] Zhou, T.**, Zhu, Q.**, **Du, J.*** (2020). "Intuitive Robot Teleoperation for Civil Engineering Operations with Virtual Reality and Deep Learning Scene Reconstruction". *ELSEVIER Advanced Engineering Informatics*. (46) 101170. (Impact Factor: 5.603)
- [81] Shi, Y.**, **Du, J.***, Zhu, Q.** (2020). "The Impacts of Engineering Information Format on Task Performance: Gaze Scanning Pattern Analysis". *ELSEVIER Advanced Engineering Informatics*. (46) 101167. (Impact Factor: 5.603)
- [82] Shi, Y.**, Zhu, Y., Mehta, R. and **Du, J.*** (2020). "A Neurophysiological Approach to Assess Training Outcome under Stress: A Virtual Reality Experiment of Industrial Shutdown Maintenance using Functional Near-Infrared Spectroscopy (fNIRS)". *ELSEVIER Advanced Engineering Informatics*. (46) 101153. (Impact Factor: 5.603)
- [83] Shi, Y.**, and **Du, J.***, Worthy, D. (2020). "The Impact of Engineering Information Formats on Learning and Execution of Construction Operations: A Virtual Reality Pipe Maintenance Experiment". *ELSEVIER Automation in Construction*. (119) 1033637 (Impact Factor: 7.700)
- [84] **Du, J.***, Zhao, D., Issa, R., and Singh, N.** (2020). "BIM for Improved Project Communication Networks: Empirical Evidence from Email Logs". *ASCE Journal of Computing in Civil Engineering* (34) 5. (Impact Factor: 4.64).

- [85] Mo, Y., Zhao, D.*, **Du, J.**, Syal, M., Aziz, A., and Li, H. (2020). "Automated Staff Assignment for Building Maintenance using Natural Language Processing". *ELSEVIER Automation in Construction*. 113 (2020): 103150. (Impact Factor: 7.700)
- [86] Shi, Y.*, **Du, J.***, and Ragan, E. (2020). "Review Visual Attention and Spatial Memory in Building Inspection: Toward a Cognition-driven Information System". *ELSEVIER Advanced Engineering Informatics*. (44) 101061. (Impact Factor: 5.603)
- [87] **Du, J.***, Zhu, Q.*, Shi, Y.*, Wang, Q., Lin, Y., and Zhao D.* (2020). "Cognition-Digital Twins (Cog-DT) for Personalized Information Systems of Smart Cities - A Proof of Concept". *ASCE Journal of Management in Engineering*. 36 (2), 04019052. (Impact Factor: 7.184)
- [88] Ligmann-Zielinska, A., Siebers, P., Magliocchia, N., Parker, D., Grimm, V., **Du, J.**, Cenek, M., Radchuk, V., Arbab, N., Li, S., Berger, U., Paudel, R., Robinson, D., Jankowski, P., An, L., Ye, X. (2019). "'One size does not fit all': a roadmap of purpose-driven mixed-method pathways for sensitivity analysis of agent-based models". *Journal of Artificial Societies and Social Simulation (JASSS)*. 23 (1). (Impact Factor: 2.222)
- [89] Shi, Y.*, **Du, J.***, Ahn, C., Ragan, E. (2019). "Impact Assessment of Reinforced Learning Methods on Construction Workers' Fall Risk Behavior using Virtual Reality". *ELSEVIER Automation in Construction* 104 (2019) 197-214. (Impact Factor: 7.700)
- [90] Yiu, Y.*, **Du, J.***, and Mahapatra, R. (2019). "Evolutionary Heuristic A* Search: Pathfinding Algorithm with Self-Designed and Optimized Heuristic Function". *International Journal of Semantic Computing*, 13(01), 5-23.
- [91] Basavaraju, A., **Du, J.**, Zhou, F., and Ji, J*. (2019). "A Machine Learning Approach to Road Surface Anomaly Assessment using Smartphone Sensors". *IEEE Sensors*. vol. 20, no. 5, pp. 2635-2647. (Impact Factor: 3.301)
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- [207] **Du, J.** (2004). "Automatic FEA Based Structural Design Using Visual Basic and ANSYS (APDL)". Bachelor Thesis, School of Civil Engineering at Tianjin University, Tianjin, China.

RESEARCH GRANTS

Funded (TOTAL: **\$15.58 MILLION**; MY PORTION: **\$6.3 MILLION**)

- **PI:** "Human-AI Metacognitive Misalignment: A Generalizable Source of Human-AI Mistrust".
 - 5/2026 - 4/2029
 - **Air Force Office of Scientific Research (AFOSR)**
 - \$799,536; Amount Attributed to me: \$458,255.
- **Co-PI:** "SCC-IRG Track 1: Strengthening Elderly Mobility in Urban Landscapes: Towards Age-Inclusive and Equitable Communities".
 - 9/2024 - 8/2027
 - **National Science Foundation (NSF)**
 - \$1,600,000; Amount Attributed to me: \$426,757.
- **PI:** "Enabling Tactile Sensation in LLMs with Large Physics Modeling".
 - 8/2024 - 12/2025
 - **Nvidia AI Technology Center (NVAITC)**
 - \$227,665; Amount Attributed to me: \$151,776.
- **PI:** "Bridging Lunar Delays: Simulated Sensory Sharing for Remotely Guided Ultrasound Examinations".
 - 4/2024 - 2/2025
 - **UF Space Research Initiative Award**
 - \$80,000; Amount Attributed to me: \$80,000.
- **PI:** "Human-Robot Sensory Sharing for Swift Trust in Autonomy".
 - 12/2022 - 11/2025
 - **Air Force Office of Scientific Research (AFOSR)**
 - \$599,322; Amount Attributed to me: \$599,322.

- **PI:** “FW-HTF-R/Collaborative Research: Human-Robot Sensory Transfer for Worker Productivity, Training, and Quality of Life in Remote Undersea Inspection and Construction Tasks”.
 - 09/2021 - 08/2025
 - **National Science Foundation (NSF)**
 - \$2,090,000; Amount Attributed to me: \$1,010,000.
- **PI:** “SearchAR: User Centered Adaptive Augmented Reality for Search and Rescue”.
 - 06/2021 - 05/2024
 - **National Institute of Standards and Technology (NIST)**
 - \$1,395,470. Amount Attributed to me: \$1,395,470.
- **PI:** “Sensory Manipulation as a Countermeasure to Robot Teleoperation Delays”.
 - 06/2021 - 05/2022
 - **The National Aeronautics and Space Administration (NASA)**
 - \$150,000; Amount Attributed to me: \$150,000.
- **PI:** “Collaborative Research: NRI: INT: ForceBot: Customizable Robotic Platform for Body-Scale Physical Interaction Simulation in Virtual Reality”.
 - 09/2020 - 08/2024
 - **National Science Foundation (NSF)**
 - \$312,985; Amount Attributed to me: \$312,985.
- **PI:** “RAPID: Collaborative Research: High-Frequency Decisional, Motivational and Sentimental Data Collection for Human Mobility Prediction during COVID-19”.
 - 05/2020 - 04/2021
 - **National Science Foundation (NSF)**
 - \$66,515; Amount Attributed to me: \$66,515.
- **Co-PI:** “Convergence Accelerator Phase I (RAISE): Learning Environments with Advanced Robotics for Next-Generation Emergency Responders (LEARNER)”.
 - 09/2019 - 08/2021
 - **National Science Foundation (NSF)**
 - \$999,327; Amount Attributed to me: \$127,129.
- **Co-PI:** “B2: Learning Environments with Augmentation and Robotics for Next-gen Emergency Responders (LEARNER)”.
 - 09/2020 - 08/2022
 - **National Science Foundation (NSF)**
 - \$4,998,274; Amount Attributed to me: \$649,988
- **PI:** “Collaborative Research: Personalized System for Wayfinding for First Responders”.
 - 06/2018 - 05/2022
 - **National Science Foundation (NSF)**
 - \$416,677; Amount Attributed to me: \$235,339.
- **PI:** “Cognition-driven Display for Navigation Activities (Cog-DNA): Personalized Spatial Information System Based on Information Personality of Firefighters”.

- 06/2018 - 05/2022
 - **National Institute of Standards and Technology (NIST)**
 - \$463,413; Amount Attributed to me: \$265,576.
- **PI:** “Intelligent Building Inspection System based on Augmented Reality”.
 - 03/2020 - 02/2021
 - **C.A.P. Government, Inc.**
 - \$70,681; Amount Attributed to me: \$70,681.
- **PI:** “Hostile Intent Prediction based on Gaze Movement Trajectory in Indoor Navigation”.
 - 05/2018 - 04/2019
 - **TAMU T3 Seed Grant**
 - \$35,000; Amount Attributed to me: \$25,000.
- **Co-PI:** “Enhancing Flood Resiliency in an Underserved Neighborhood”.
 - 10/2017 - 09/2018
 - **TAMU Interdisciplinary Research Seed Grant**
 - \$25,000; Amount Attributed to me: \$5,000.
- **Co-PI:** “IBSS: Participatory Ensemble Modeling to Study the Multiscale Social and Behavioral Dynamics”.
 - 08/2014 - 07/2019
 - **National Science Foundation (NSF)**
 - \$999,793; Amount Attributed to me: \$187,695.
- **PI:** “Optimize Road Preventive Maintenance Decisions based on Running Vehicles’ Vibration Data”.
 - 05/2018 - 10/2019
 - **US DOT - TranSET**
 - \$100,000; Amount Attributed to me: \$50,000.
- **Co-PI:** “Building Information Modeling Supported Building Life Cycle Management: On the Edge of Total Information Management”.
 - 09/2014 - 08/2015
 - **Fiatech**
 - \$68,220; Amount Attributed to me: \$20,000.
- **PI:** “Enhance Project Controls by Quantitative Approaches”.
 - 04/2014 - 08/2017
 - **Zachry Holdings, Inc.**
 - \$116,264; Amount Attributed to me: \$116,264.
- **PI:** “A Cloud-Based Benchmarking Tool for Building Information Modeling (BIM)”.
 - September 2014 - August 2015
 - **UTSA INTRA Grant.**
 - \$5,000; Amount Attributed to me: \$5,000

PHD STUDENT SUPERVISION

Name	Degree	Graduation	Topic	Role
Yangming Shi, PhD	PhD (UF, CCE) TT AP at Colorado School of Mines	Aug 2020	VR-based Intelligent Information Systems for Construction Engineering	Chair
Qi Zhu, PhD	PhD (UF, CCE) Scientist at NIST	May 2022	VR-Based Robotic Teleoperation System for Power Plant Maintenance and Operations	Chair
Tianyu Zhou, PhD	PhD (UF, CCE) Post-Doctoral Researcher at UF	May 2023	Situational Awareness Enhancement in Civil Engineering Operations Via Deep Learning and Game Engine Development	Chair
William Vann, PhD	PhD (UF, CCE) TT AP at College of Central Florida	May 2023	Robot-Assisted Training for Future Construction Workers	Chair
Pengxiang Xia, PhD	PhD (UF, CCE) Embodied AI Scientist, Huawei	Dec 2023	Underwater Robots for Subsea Construction	Chair
Ye Yang, PhD	PhD (UF, CCE) TT AP at Northeastern University, Boston, MA	May 2024	Construction Exoskeleton and Training	Chair
Fang Xu, PhD	PhD (UF, CCE) Post-Doctoral Researcher at UF	May 2024	Ground Robot for Augmented Reality	Chair
Hengxu You, PhD	PhD (UF, CCE) Post-Doctoral Researcher at UF	Aug 2025	Robotic Manipulation of Soft Objects	Chair
Thanakon Uthai	PhD (UF, CCE)	May 2026	Robotic Manipulation of Soft Objects	Chair
Jiahao Wu	PhD (UF, CCE)	May 2026	Autonomous Drones and AI Cognition	Chair
Bowen Sun	PhD (UF, CCE)	May 2027	Autonomous Drones and AI Cognition	Chair
Zhen Zhang	PhD (UF, CCE)	May 2028	LLMs for Nonlinear Engineering Systems Prediction and Analytics	Chair
Xianyao Li	PhD (UF, CCE)	May 2028	Embodied SLAM for Ground Robots	Chair
Ruitong Tian	PhD (UF, CCE)	Dec 2028	Robotic Manipulation of Soft Objects	Chair
Zeyu Wang	PhD (UF, MAE)	May 2029	Robotics for Additive Manufacturing	Chair
Rui Min	PhD (UF, MAE)	May 2029	Autonomous Drones and AI Cognition	Chair
Hwangbo Bae	PhD (UF, CCE)	Dec 2021	Engineering Students Career Choice	Member
Eduard Tora Bueno	PhD (UF, CCE)	Dec 2022	Alternative Cementitious Materials	Member

Erman Nghonda Tchinda	PhD (UF, ECE)	Dec 2023	A condensed CNN for Live Events	Member
Hao-Yu Liao	PhD (UF, CCE)	May 2024	Human-Robot Collaboration for Waste Management	Member
Elizabeth Volpe	PhD (UF, CCE)	May 2025	Engineering Students Career Choice	Member
Songyang Liu	PhD (UF, CCE)	May 2027	Human-Robot Collaboration in Construction	Member
Mary Ifeoma Nwanua	PhD (UF, CCE)	May 2027	Drones for Construction	Member
Edward Chukwubikem Obi-Rapu	PhD (UF, CCE)	May 2027	Human-Robot Collaboration in Construction	Member
Salem Altaieb	PhD (UF, ECE)	May 2027	Silicon photonic deep learning accelerators	Member
Tianyi Wang	PhD (UF, Physiology)	May 2027	Vesicular and Neural Functions in Low Gravity	Member
Joseph Pruitt	PhD (UF, Psychology)	May 2027	AI Cognition	Member
Mengjun Wang	PhD (UF, CCE)	May 2027	Human-Robot Collaboration in Construction	Member
Jesse Weber	PhD (UF, ECE)	May 2028	Quantum Sensing	Member
Pragnya Paramita Prusty	PhD (UF, Physiology)	May 2028	Vesicular and Neural Functions in Low Gravity	Member
Jingjie Zhang	PhD (TAMU)	Aug 2020	Improved Copula method for independent high-dimensional data analysis	Co-Chair
Yanchao Wang	PhD (Northeastern)	Aug 2021	Personalized Information System for Wayfinding based on VR and EEG classification	Co-Chair

PATENTS

- Du, J. “Method and Apparatus for Real-time Inter-locational Probabilistic Simulation” CHINA201310461382.3
- Du, J. “Method and Apparatus for Real-time Inter-locational Probabilistic Simulation” USPTO13929903
- Du, J., Zhu, Q., and Zhou, T. “Haptic System for Robot Teleoperation in Confined Spaces”. U.S. Patent Application No.63/366,092. Filed on June 9, 2022.
- Du, J., Xia, P., Xu, F., and Zhu, Q. “Haptic System for Robot Teleoperation of a Remotely Operated Vehicle”. U.S. Patent Application No.63/368,074. Filed on July 11, 2022.
- Du, J., Ye, Y. “Systems and Methods Remote Transferring of Sensation for Physical Motor Training”. U.S. Patent Application No.63/371,016. Filed on August 10, 2022.
- Du, J., Zhu, Q., Zhou, T. “Haptic Feedback System for Anti-Sway Control of a Payload”. U.S. Patent Application No.63/370,174. Filed on August 10, 2022.
- Du, J., Ye, Y., Xu, F., Xia, P., and You, H. “Adaptive LiDAR Scanning Based on RGB Information”. No. 63/670,334, filed July 12, 2024

TEACHING

- CGN 6905 - Advanced Construction Info Tech - Fall 24- Instructor Evaluation: 5.0/5.0
- CGN 4905 - Construction Modeling and Simulation - Fall 24 - Instructor Evaluation: 4.12/5.0
- CGN 6905 - Advanced Construction Info Tech - Fall 23- Instructor Evaluation: 4.45/5.0
- CGN 4905 - Construction Modeling and Simulation - Fall 23 - Instructor Evaluation: 4.34/5.0
- CGN 6905 - Advanced Construction Info Tech - Fall 22- Instructor Evaluation: 4.94/5.0
- CGN 4905 - Construction Modeling and Simulation - Fall 22 - Instructor Evaluation: 4.79/5.0
- CGN 6905 - Advanced Construction Info Tech - Fall 21- Instructor Evaluation: 4.47/5.0
- CGN 4905 - Construction Modeling and Simulation - Fall 21 - Instructor Evaluation: 4.58/5.0
- CGN 6905 - Advanced Construction Info Tech - Fall 21- Instructor Evaluation: 4.37/5.0
- CGN 4905 - Construction Modeling and Simulation - Fall 21 - Instructor Evaluation: 5.0/5.0
- CGN 6905 - Advanced Construction Info Tech - Fall 20- Instructor Evaluation: 4.45/5.0
- CGN 4905 - Construction Modeling and Simulation - Fall 20 - Instructor Evaluation: 5.0/5.0
- CGN 6905 - Advanced Construction Info Tech - Fall 19 - Instructor Evaluation: 4.70/5.0
- CGN 4905 - Construction Modeling and Simulation - Fall 19 - Instructor Evaluation: 4.57/5.0
- COSC 461 - Building Information Modeling - Fall 18 - Instructor Evaluation: 4.89/5.0; 4.78/5.0
- COSC 461 - Building Information Modeling - Spring 18 - Instructor Evaluation: 4.64/5.0; 4.55/5.0
- COSC 461 - Building Information Modeling - Fall 17 - Instructor Evaluation: 4.54/5.0
- COSC 461 - Construction Company Operation - Fall 17 - Instructor Evaluation: 4.46/5.0
- COSC 461 - Building Information Modeling - Spring 17 - Instructor Evaluation: 4.49; 4.51/5.0
- COSC 461 - Construction Company Operation - Fall 16 - Instructor Evaluation: 4.58/5.0
- COSC 461 - Building Information Modeling - Fall 16 - Instructor Evaluation: 4.70/5.0
- COSC 353 - Construction Project Management - Summer 16 - Instructor Evaluation: 4.49/5.0
- COSC 461 - Building Information Modeling - Spring 16 - Instructor Evaluation: 4.73/5.0
- COSC 443 - Industrial Capstone - Spring 16 - Instructor Evaluation: 4.57/5.0
- COSC 620 - Construction Company Operation - Fall 15 - Instructor Evaluation: 4.67/5.0
- COSC 642 - Construction Information Technology - Fall 15- Instructor Evaluation: 4.57/5.0
- CSM 2113 - Construction Materials and Methods - Spring 15- Teaching Evaluation: 4.83/5.0
- CSM 2143 - Construction Materials and Testing - Fall 14. Teaching Evaluation: 4.5/5.0; 4.6/5.0
- CSM 4713 - Construction Capstone - Spring 14. Teaching Evaluation: 4.71/5.0
- CSM 3011 - Construction Industry Contemporary Issues - Spring 14. Teaching Evaluation: 4.5/5.0

INVITED PRESENTATIONS AND LECTURES

- Du, J. (2026). "Embodied AI for Robotics". University of Florida Robotics Workshop.
- Du, J. (2026). "Embodied AI for Construction Robotics". Distinguished Speaker Series for Architectural Engineering at Penn State University.
- Du, J. (2026). "Embodied AI for Robotics". Research Frontiers Guest Talk at Arm Holdings plc.
- Du, J. (2025). "Embodied AI for Construction Robotics". Keynote at 2025 IEEE ICIR Conference.
- Du, J. (2025). "Human-AI Metacognitive Alignment". University of Florida Working with DoD Data Blitz.
- Du, J. (2025). "SearchAR: Cognition-Driven Wayfinding System for Emergency Responders". NIST-FirstNet 5X5 Annual conference.
- Du, J. (2024). "The Future of Industrialized Construction". Keynote at 2024 National Disaster Resilience Conference.
- Du, J. (2023). "Cognition-Drive UI for Complex Systems". SAP Corporation Invited Speaker Series.

- Du, J. (2023). "Embodied Robotics for Construction". Northeastern University Distinguished Seminar Series.
- Du, J. (2023). "Human-Robot Sensory Sharing for Future Industrial Operations". 3rd ACC Workshop on Recent Advancement of Human Autonomy Interaction and Integration
- Du, J. (2023). "Embodied Robot Teleoperation for the Next-Gen Construction". Kennesaw State University distinguished seminar series.
- Du, J. (2022). "Embodied Teleoperation via Human-Robot Sensory Transfer". Keynote. The 2022 IEEE International Conference on Human-Machine Systems (ICHMS)
- Du, J. (2022). "Physical Embodiment in Robot Teleoperation". NASA HOME (Habitats Optimized for Missions of Exploration) Space Technology Research Institute
- Du, J. (2022). "Human-Robot Collaboration: Envisioning the Future of Construction". Seoul National University Distinguished Lecture series, South Korea
- Du, J. (2022). "Intelligent Construction Teleoperation Robot". Kent State University Distinguished Lecture series
- Du, J. (2022). "Human-Robot Collaboration: Envisioning the Future of Construction". Purdue University, Lyles of Civil and Environmental Engineering Industry Advisory Board
- Du, J. (2022). "Human-Robot Collaboration in Industrial Workplaces". UF/IFAS Department of Agricultural and Biological Engineering
- Du, J. (2021). "Robot for Future Works". Institute for Learning in Retirement at Oak Hammock.
- Du, J. (2020). "Personalized Wayfinding System for Firefighters". CES 2020, Las Vegas, NV.
- Du, J. (2019). "Cog-DNA: Personalized Wayfinding System for Firefighters". NIST PSCR 2019 Annual Conference. <https://youtu.be/bSyGr6sHQOw>
- Du, J. (2018). "Cognition-Driven Display for Navigation Activities: Cog-DNA". National Public Safety Telecommunications Council (NPSTC). <https://youtu.be/Hf14xv2NLbQ>
- Du, J. (2018). "Cog-DNA: Personalized Wayfinding System for Firefighters". NIST PSCR 2018 Annual Conference. https://cdnapisec.kaltura.com/index.php/extwidget/preview/partner_id/684682/uiconf_id/31013851/entry_id/1_1trod30r/embed/dynamic#t=28:40
- Du, J. (2018). "Vibrations, the Common Language of Internet of Things (IoT)". TEDxTAMU. https://www.ted.com/talks/eric_jing_du_vibrations_the_common_language_of_internet_of_things_iots
- Du, J. (2018). "Human Carried Sensors to Study Navigational Behaviors". Workshop on Wearable Sensors and Mobile Computing in Construction, IEEE Body Sensor Network (BSN)'18 Conference.
- Du, J. (2013). "Dr. Du Learning Moment - Series Seminars". Zachry Holdings, Inc, San Antonio, TX, January 2013-August 2013.
- Du, J. (2012). "Project Management and Controls - Series Seminars". Zachry Holdings, Inc, R.O.C.K.S. Lectures, San Antonio, TX, July 2012-August 2013.
- Du, J. (2011). "Data Mining and Statistical Methods in Construction Project Management and Controls". Zachry Holdings, Inc, R.O.C.K.S. Speech, San Antonio, TX, July 2011.
- Du, J. and Wang, Q. (2010). "Agent Based Modeling and Its Integrated Development Environment". Michigan State University, MSU-ABM group, East Lansing, MI, October 8, 2010.
- Du, J. (2010). "Towards an Agile Alignment: Exploring Implications of Social Aspects in Construction Organizations". Engineering Project Organizations Conference, South Lake Tahoe, CA, November 4-7, 2010.
- Du, J. (2010). "Discrete Event Simulation and Its Applications in Construction Engineering and Management". Michigan State University, Lecture Session of Complexity Based Simulation in Planning Design and Construction, East Lansing, MI, October, 2010.

- Du, J. (2009). "Risk Attitudes and US Construction Market: A Simulation Finding". Michigan State University, MSU-ABM group, East Lansing, April 20, 2009.

HONORS AND ACHIEVEMENTS

- 2025 Steve and Wendy Blum Endowed Professorship of Industrialized Construction Engineering
- 2025 UF Research Foundation Endowed Professorship
- 2023, Outstanding Reviewer, *ASCE Journal of Computing in Civil Engineering*
- 2022, NIST Public Safety Communication Research (PSCR) division research excellence award.
- 2022, Best Paper Award, 55th Annual Meeting of the Human Factors and Ergonomics Society (HFES).
- 2022, Best Paper Award, and Honorable Mention Award, Canadian Society of Civil Engineers (CSCE) Transforming Construction with Reality Capture Technologies (TCRC) conference.
- 2019 Outstanding Reviewer, *ASCE Journal of Construction Engineering and Management*.
- 2018 Outstanding Reviewer, *ASCE Journal of Construction Engineering and Management*.
- 2018 TAMU Montague CET Excellence Scholar for exemplary undergraduate teaching
- 2018 TAMU COSC Scholarly Work and Research Award
- 2017 Outstanding Reviewer, *ASCE Journal of Construction Engineering and Management*.
- 2015 Annual Best Paper Award. *ASCE Journal of Construction Engineering and Management*.
- 2014 Best Paper Award. *International Conference on Innovative Technologies in Construction (ITC 2014)*.
- 2014 Outstanding Research and Scholarship Award, CoA UTSA
- 2012 Phi-Kappa-Phi Honor Society Member
- 2012 Albert A. White Scholarship, Michigan State University
- 2012 Ed Gavin Memorial Scholarship, Michigan State University
- 2011 Ed Gavin Memorial Scholarship, Michigan State University
- 2010 Douglass C. Campbell Scholarship, Michigan State University
- 2009 Travel Funding Fellowship, Graduate School at Michigan State University
- 2009 Klomparens Fellowship, Michigan State University
- 2009 College Special Fellowship, Michigan State University
- 2009 Graduate Opportunity Fellowship (GOF), Michigan State University
- 2008 Graduate Opportunity Fellowship (GOF), Michigan State University
- 2008 Graduate School Summer Fellowship, Graduate School at Michigan State University
- 2006 School of Management Research Symposium, Session Chair, Tianjin University
- 2005 President of School of Management Graduate Student Association at Tianjin University
- 2003 Vice Chairman of Student Council at Tianjin University
- 2003 Student Leadership Scholarship, Tianjin University
- 2002 Student Leadership Scholarship, Tianjin University
- 2002 Three A's Student Scholarship, Tianjin University
- 2001 Three A's Student Scholarship, Tianjin University
- 2000-2004 Chairman of Student League in the School of Civil Engineering at Tianjin University

SERVICES

Leadership in Professional Societies

- **Chair**, ASCE Visualization, Information Modeling and Simulation (VIMS) Committee, 2025 - present
- **Member-at-Large, Secretary, Vice Chair**, ASCE Visualization, Information Modeling and Simulation (VIMS) Committee, 2019 - 2025

- **Voting member**, ASCE Visualization, Information Modeling and Simulation (VIMS) Committee, 2015 - 2019; ASCE Data Sensing and Analysis (DSA) Committee, 2013-present; ASCE Construction Research Council (CRC), 2013-present.

Editorial

- **Associate Editor**, ELSEVIER Advanced Engineering Informatics, 2025 - present
- **Assistant Specialty Editor**, ASCE *Journal of Construction Engineering and Management*, 2017-present
- **Associate Editor**, *Buildings*, 2022 - present
- **Guest Editor**, ELSEVIER *Advanced Engineering Informatics*, 2019-2022; 2023-2025
- **Guest Editor**, *Data*, 2018-2020
- **Track Editor**, ACM/IEEE Winter Simulation Conference (WSC), 2019 - 2026

Conference Organizing Committees

- **Conference Organizing Member**, IConIC conference 2026; i3CE 2026, 2024, 2021; ASCE Construction Research Congress (CRC) 2020, 2019, 2018; 2017 *International Workshop on Computing in Civil Engineering (IWCCE2017)*, ASCE ICSDEC 2016 conference, 2016

University/College/Department Committees

- **University of Florida Faculty Senate**: 2023-present
- **University of Florida Herbert Wertheim College of Engineering Tenure and Promotion Committee**: 2024-present
- **University of Florida Herbert Wertheim College of Engineering Faculty Council member**: 2024-present
- **Search Committee Chair**, University of Florida ESSIE (Industrialized Construction Engineering): 2024, 2025, 2026
- **Search Committee Member**: University of Florida ESSIE (Construction Automation): 2021, 2022, 2023
- **Search Committee Member**: University of Florida ISE (Industrialized Construction): 2025-2026
- **Search Committee Member**: University of Florida ISE (Healthcare): 2024-2025
- **Search Committee Member**: University of Florida ISE (Smart Manufacturing): 2024, 2025
- **Search Committee Member**: University of Florida ISE (Operations Research): 2021
- **Search Committee Member**: Texas A&M University (Construction Science): 2016, 2017
- **Committee Member**, Texas A&M University COSC Technology committee, 2015-2019
- **Committee Member**, The University of Texas at San Antonio Construction Science Scholarship Committee, 2013-2015

Reviewers

- Nature Machine Intelligence, 2023-present
- Conference on Neural Information Processing Systems, 2023-present
- International Conference on Machine Learning, 2023-present
- AAAI Conference on Artificial Intelligence, 2023-present
- Conference on Robot Learning, 2023-present
- IEEE International Conference on Robotics and Automation, 2023-present
- IEEE/RSJ International Conference on Intelligent Robots and Systems, 2023-present
- ELSEVIER Automation in Construction, 2022-present
- ELSEVIER Advanced Engineering Informatics, 2022-present
- American Society of Civil Engineers Journal of Computing in Civil Engineering, 2022-present
- ASCE Journal of Construction Engineering and Management, 2022-present
- ASCE Journal of Management in Engineering, 2022-present
- ASCE Journal of Urban Planning and Development, 2022-present

- ASEE Annual Conference, 2022-present
- ASCE Construction Research Congress (CRC), 2022-present
- ASCE International Conference on Computing in Civil and Building Engineering (ICCCBE), 2022-present
- Associated Schools of Construction (ASC) Annual Conference, 2022-present
- National Science Foundation, 2015-present
- Department of Energy, 2024

PROFESSIONAL AFFILIATIONS

- AAAS (American Association for the Advancement of Science), Member, 2022 - Present
- ASCE (American Society of Civil Engineers), Member, 2014- Present
- ACM (Association for Computing Machinery). Member, 2019 - present.
- CII (Construction Industry Institute), Academic Committee; Research Team Member (RT282)
- LCI (Lean Construction Institute), Student Member, 2010-2011
- EPOS (Engineering Project Organization Society), Charter Member, 2010-2014.

MEDIA COVERAGE

- “University of Florida lab working on making robotic hands more human-like” <https://www.wjhg.com/2025/07/29/university-florida-lab-working-making-robotic-hands-more-human-like/> *NBC-WJHG TV* 2025
- “Human hands are astonishing tools. Here's why robots are struggling to match them” *BBC* 2025 <https://www.bbc.com/future/article/20250121-why-hands-are-one-of-the-biggest-challenges-in-robotics>
- “From space to emergency care, UF students push the boundaries of robotics”. *UF News* 2025
- “With \$2.5 million in strategic funding, the University of Florida plans to advance the field of industrialized construction engineering” <https://www.eng.ufl.edu/newengineer/news/with-2-5-million-in-strategic-funding-the-university-of-florida-plans-to-advance-the-field-of-industrialized-construction-engineering/> *UF News* 2024
- “Tech Trends: Bringing VR and AR Into the ROV Control Room” *Hart Energy* 2023. <https://www.hartenergy.com/exclusives/tech-trends-bringing-vr-and-ar-rov-control-room-watch-206061>
- “Tech Allows ROV Pilots to ‘Feel’ the Sea” *Hart Energy* 2023. <https://www.hartenergy.com/exclusives/tech-allows-rov-pilots-feel-sea-206073>
- “A UF Professor Is Creating Robotic Dogs Trained to Assist First Responders” *NPR-WUFT*. 2023 <https://www.wuft.org/news/2021/08/03/a-uf-professor-is-creating-robotic-dogs-trained-to-assist-first-responders/>
- “University of Florida's robot dogs aim to be first responders' best friend” *Gainesville Sun*.
- “Robots offer power, promise”. *The Villages Daily Sun*.
- “How a robot developed at UF could help first responders see through walls during rescues” *University of Florida*, <https://news.ufl.edu/2021/05/robo-dog/>
- “Training responders to use augmented reality, exoskeletons”. *Global Cycling Network*
- “Firefighters to Perform Search and Rescue Missions Using CoSci Prof’s VR Tech” - *Texas A&M University*, <https://today.tamu.edu/2018/06/05/firefighters-to-perform-search-and-rescue-missions-using-cosci-profs-vr-tech/>

- “CoSci prof’s proposed app would gauge effectiveness of 3-D models” - *Texas A&M University*, 2016. <https://one.arch.tamu.edu/news/2016/6/28/cosci-profs-app-gauge-effectiveness-3d-models/>
- “Facebook Timeline Tracks Century of Construction Technology” - *Engineering News-Record (ENR)* 2015. <http://www.enr.com/articles/17215-facebook-timeline-tracks-century-of-construction-technology?v=preview>
- “Aggies Post Timeline of Construction Tech Milestones” - *BuiltWorlds* 2015. <http://www.builtworlds.com/news/2015/10/7/facebook-timeline-tracks-century-of-construction-technology>
- “UTSA researcher working to end hunger in Africa through technology” - *San Antonio Business Journal* < <http://www.bizjournals.com/sanantonio/news/2014/08/07/utsa-researcher-working-to-end-hunger-in-africa.html> >
- “UTSA researcher awarded NSF grant to create computer models for food insecurity project” - *Phys.org* < <http://phys.org/wire-news/168800342/utsa-researcher-awarded-nsf-grant-to-create-computer-models-for.html> >
- “UTSA researcher awarded NSF grant to help increase Africa food security (UTSA - The University of Texas at San Antonio)” *World News Network* <http://article.wn.com/view/2014/08/06/UTSA_researcher_awarded_NSF_grant_to_help_increase_Africa_fo/>
- “UTSA researcher to create computer models to produce sustainable food security in the region” - *News-Medical.Net* < <http://www.news-medical.net/news/20140807/UTSA-researcher-to-create-computer-models-to-produce-sustainable-food-security-in-the-region.aspx> >