Dezhen Song, Curriculum Vitae

RESEACH INTERESTS

Robot Perception, Networked Robots, Vision Systems, Automation, Stochastic Modelling

EDUCATION

- Aug. 2000 – Aug. 2004, Ph.D., Department of Industrial Engineering and Operations Research, University of California, Berkeley
- Aug. 1998 – Jul. 2000, Ph. D. student, Department of Industrial Engineering, Mississippi State University (Transferred)
- Sep. 1995 – Mar. 1998, M.S., Industrial Automation, Department of Control Science and Engineering, Zhejiang University
- Sep. 1991 – Jul. 1995, B.S., Process Control, Department of Chemical Engineering, Zhejiang University

EMPLOYMENT

- May 2024 – present, *Deputy Department Chair*, Department of Robotics, Mohamed Bin Zayed University of Artificial Intelligence (MBZUAI), Abu Dhabi, UAE
- Sep. 2023 – present, *Professor*, Department of Robotics, Mohamed Bin Zayed University of Artificial Intelligence (MBZUAI), Abu Dhabi, UAE
- Sep. 2016 – Dec. 2024, *Professor*, Department of Computer Science and Engineering, Texas A&M University (TAMU), College Station, TX 77843
- Sep. 2019 – August 2023, *Associate Department Head for Academics*, Department of Computer Science and Engineering, Texas A&M University (TAMU), College Station, TX 77843
- Sep. 2010 – Aug. 2016, *Associate Professor*, Department of Computer Science and Engineering, Texas A&M University (TAMU), College Station, TX 77843
- Sep. 2011– Aug. 2013, *Visiting Scientist*, Shenzhen Institute of Advanced Technology (SIAT), Chinese Academy of Science (CAS), Shenzhen, China
- Aug. 2004 – Aug. 2010, *Assistant Professor*, Department of Computer Science and Engineering, Texas A&M University (TAMU), College Station, TX 77843
- May. 2001 - Aug. 2004, *Graduate Student Researcher*, Alpha Lab, Department of Industrial Engineering and Operations Research, University of California, Berkeley
- Sep. 2000 - Aug. 2001, *Programmer/Analyst/Graduate Student Instructor*, Department of Statistics, University of California, Berkeley
- Aug. 1998 - Jul. 2000, *Graduate Research Assistant*, Department of Industrial Engineering, Mississippi State University, Starkville, MS
- Jan. 1997 - Aug. 1998, *Chief Software Engineer/ Head of Research & Development Department/ CTO*, Nanwang, (Southern Video), Hangzhou, Zhejiang Province, China
- Sep. 1995 - Jan. 1998, *Graduate Research Assistant*, Institute of Industrial Process Control, Zhejiang University, Hangzhou, China
- Sep. 1993 - Aug. 1995, *Undergraduate Research Assistant / Network Administrator*, Computer & Network Center, Department of Chemical Engineering, Zhejiang University, Hangzhou, China

HONORS AND AWARDS

- The Best Paper Award of the LCT 2024 Affiliated Conference, HCII 2024, (with Heather Burte, Samantha D. Aguilar, James Stautler, Sadrita Mondal, Chengyuan Qian, Uttamasha Monjoree, Philip Yasskin, Jeffrey Liew, Dezhen Song, Wei Yan), for paper entitled “Learning 3D Matrix

Algebra using Virtual and Physical Manipulatives: Statistical Analysis of Quantitative Data Evaluating the Efficacy of the AR-Classroom"

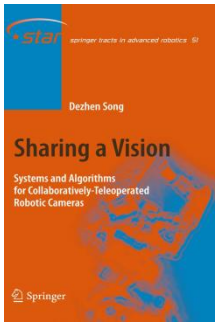
- The 1st place overall, 1st place in Dynamic event, GM/SAE Autodrive Challenge II, year 2, The 12th Unmanned Team, TAMU, June 2023
- Keynote Speaker, Texas Regional Robotics Symposium, Rice University, Houston, Texas, April 14, 2023,
- TEES Engineering Genesis Award, 2022
- The Best Paper Award of the LCT 2022 Affiliated Conference, HCII 2022, (with Zohreh Shaghaghian, Heather Burte, and Wei Yan), for paper entitled “Learning Spatial Transformations and their Math Representations through Embodied Learning in Augmented Reality"
- The 2nd place overall, 2nd place in Dynamic event, GM/SAE Autodrive Challenge II, year 1, The 12th Unmanned Team, TAMU, June 2022
- The 1st place in Dynamic Event (actual vehicle: 1st place in Buyoff Ride Competition, and 1st place in Level 4 Competition) of GM/SAE Autodrive Challenge year 4, The 12th Unmanned Team, TAMU, June 2021
- Amazon Research Award (ARA) 2020, robotics track, (w. Prof. Jun Zou), April 2021
- The 2nd Overall Place, Year 1-3 of GM/SAE Autodrive Challenge, The 12th Unmanned Team, TAMU, Oct. 2020
- Distinguished Lecturer, ECE Department, Oklahoma State University, Oct. 22, 2019
- The 3rd Overall Place, Year 2 of GM/SAE Autodrive Challenge, The 12th Unmanned Team, TAMU, 2019
- The 1st place in Dynamic Event (actual vehicle), The 2nd Overall Place, Year 1 of GM/SAE Autodrive Challenge, The 12th Unmanned Team, TAMU, 2018
- Dean of Engineering Excellence Award, College of Engineering, Texas A&M University, 2016
- Nominated for IEEE RAS Early Career Award, 2010
- Award for Excellence in Physical Sciences & Mathematics, 2009, for contribution to Springer Handbook of Robotics, Association of American Publishers, Inc.
- Finalist, Best Paper Award, (with Dr. Wai Kin Victor Chan, Dr. Jingang Yi, Dr. Shengwei Ding), IEEE International Conference on Automation Science and Engineering (CASE), 2008
- Keynote Speaker, International Workshop on Distributed Sensing and Collective Intelligence in Biodiversity Monitoring, Amsterdam, The Netherlands, Dec. 3-5, 2008
- Finalist, NTF Award on Entertainment Robots and Systems (with K. Goldberg), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), San Diego, Oct. 2007
  (This new award is to review the papers in this category in the last 20 years since the beginning of the IROS conference and select the best paper from them.)
- TEES Select Young Faculty, 2007
- Faculty Early Career Development (CAREER) Award, National Science Foundation, 2007-2012.
- Semi-finalist (with blue team), DARPA Grand Challenge, Oct. 2005
- Kayamori Best Paper Award, (with Dr. Jingang Yi and Dr. Shengwei Ding), IEEE International Conference on Robotics and Automation, 2005
- Doctoral Symposium, ACM Multimedia 2003 (4 out of 20)
- Graduate School Scholarship, Zhejiang University in 1996
- Exemplary undergraduate student, Zhejiang University in 1995
- Exemplary undergraduate student, Zhejiang Province, P.R. China, 1995
- Guanghua Fellowship, Zhejiang University, 1994
- Excellent Student Scholarship, Zhejiang University: First Grade in 1994 (top 1%), Second Grade in 1993, 1992 (top 5%)
- Winner of National High School Olympic Physics Competition, Anhui Province, China, Grade 3, 1990
- Winner of National High School Olympic Chemistry Competition, Anhui Province, China, Grade 2, 1990
- Winner of Hefei High School Chemistry Contest, Anhui Province, P.R. China, Grade 1, 1989
- Winner of Hefei Middle School Chinese Writing Contest, Grade 1, Anhui, China, 1986

MOHAMED BIN ZAYED UNIVERSITY OF ARTIFICIAL INTELLIGENCE

RESEARCH GRANTS AND AWARDS

1. "*Automated and Robotic Inspection of Flood Control Systems*," Lead PI: Dezhen Song, Co-PIs: Anand J. Puppala, Nasir Gharaibeh, Jason O'Kane, Shu Kong, Lydia Kavraki (PI for Rice), Surya S.C. Congress (PI for NDSU), Atlas Wang (PI for UT Austin), Navid Jafari, (PI for LSU), Lantao Liu (PI for IU), Douglas Edmonds, $1,250,000, US Army Corp of Engineers, Jan. 1, 2023 – Dec. 31, 2023 (prorated amount: 30%).
2. "*RET Site: Machine Learning and Smart System Design*," PI: Sheng-Jen Hsieh, Co-PIs: Dezhen Song and Bart Taylor, National Science Foundation, EEC-2206953, $599,978, Nov. 1, 2022 - Oct. 31, 2025 (prorated amount: 33%).
3. "*Using Augmented Reality and Artificial Intelligence to Improve Teaching and Learning Spatial Transformations in STEM Disciplines*," PI: Wei Yan, Co-PIs: Heather Burte, Francis Quek, Dezhen Song, Philip Yassin, Jeffrey Liew, $849,971, National Science Foundation, Oct. 1, 2021-Sept. 30, 2024, (prorated amount: $133,164)
4. "*Optoacoustic Material and Structure Pretouch Sensing at Robot Fingertip*," Amazon Research Award (ARA), $80,000USD + $20,000 AWS Promotional Credits, PI: Dezhen Song, Co-PI: Jun Zou, 2021 (prorated amount 50%).
5. "*Implementation and Validation of Track Buckling Model*," PI: David H. Allen, Co-PI: Dezhen Song, Texas A&M Transportation Institute (TTI), Transportation Technology Center, Inc. (TTCI), Association of American Railway (AAR), $87,500, June 15-Dec. 31. 2020, (prorated amount 38.2%)
6. "*AI-Powered Augmented Reality for Advancing Human-Computer Interface in Assembly Tasks*," PI: Wei Yan, Co-PIs: Dezhen Song and Manish Dixit, $20,000, Innovation (X) Grant, (prorated amount 33%), 2020[Internal]
7. "*Brick By Brick: Augmented Reality-Based Making & Gaming for Teaching Creativity and Stem*", PI: Wei Yan and Co-PI: Dezhen Song, $60,000, Presidential Transformational Teaching Grant (PTTG) program, Texas A&M University (prorated amount 50%), 2020 [Internal]
8. "*Developing Advanced Algorithms for Weed Species Detection and Differentiation Using UAS Imagery*," PI: Muthukumar Bagavathiannan, Co-PIs: Benjamin Wherley and Dezhen Song, $30,000, T3: Texas A&M Triads for Transformation (prorated amount 33%), 2020 [Internal]
9. "*In-Motion Rail Inspection Using NDE Methods*," PI: Dezhen Song, Co-PI: David H. Allen, Texas A&M Transportation Institute (TTI), Transportation Technology Center, Inc. (TTCI), Association of American Railway (AAR), $20,000, Nov. 2019
10. "AVA: Automated Vehicles for All," Automated Driving Systems (ADS) Demonstration Grant, USDOT, $7,063,787, PI: Alireza Talebpour, Co-PIs: Reza Langari, Dilma Da Silva, Dezhen Song, Farhad Assadian, Samer Hamdar, Jan. 1, 2020 – Dec. 31, 2023.
11. "*NRI: FND: Optoacoustic Material and Structure Pretouch Sensing at Robot Fingertip*," National Science Foundation, NRI- 1925037, PI: Dezhen Song, Co-PI: Jun Zou, $750,000, Sep. 2019 - Sep. 2024 (prorated amount 50%)
12. "*Development of a Machine Vision Based System for Assessing Buckling Resistance of Rail Structural Systems*," Texas A&M Transportation Institute (TTI), Transportation Technology Center, Inc. (TTCI), Association of American Railway (AAR), PI: David Allen, Co-PI: Dezhen Song, $75,000, (prorated amount 60%), Jun. 2019 - Dec. 2019
13. "*Networked motion sensors for train/rail condition monitoring*," Center for Railway Research (CRR), Texas A&M Transportation Institute (TTI), Association of American Railroads (AAR) Affiliated Lab, PI: David Allen, Co-PI: Dezhen Song, $30,000, (prorated amount 100%), Jan. 2018-Dec. 2018
14. "*EAGER: MEMS Co-Steered Optical and Acoustic Dual Modal Communication and Ranging Devices for Underwater Vehicles*," National Science Foundation, NRI-1748161, PI: Jun Zou, Co-PI: Dezhen Song, $202,779, (prorated amount 50%), Sep. 2017- Aug. 2019
15. "*Networked motion sensors for train/rail condition monitoring*," Center for Railway Research (CRR), Texas A&M Transportation Institute (TTI), Association of American Railroads (AAR) Affiliated Lab, PI: David Allen, Co-PI: Dezhen Song, $40,000, (prorated amount 100%), Jan. 2017-Dec. 2017

16. "*Localization and mapping algorithms by using onboard sensors on Robonaut 2*," TEES-NASA Collaboration, NO. SAA-EA-16-22219, Oct. 2016-Aug. 2017, PI: Dezhen Song, $40,000 [Internal Grant]
17. "*NRI: Collaborative Research: Targeted Observation of Severe Local Storms Using Aerial Robots*," National Science Foundation, NRI-1526200, PI: Dezhen Song, $224,242, Sep. 2015 - Sep. 2019 (prorated amount 100%)
18. "*Advancing Innovative High-Speed Remote-Sensing Highway Infrastructure Assessment Using Emerging Technologies*," Texas Department of Transportation (TxDoT), Research Supervisor: Paul Carlson, PIs: Jeff Miles, Adam Pike, Richard Zimmer, Stephan Hurlebaus, Andrew Wimsat, Robert Lytton, and Dezhen Song, $1,723,345 (Phase I), Jan. 2015 – Aug. 2016. (prorated amount 7.18%)
19. "*NRI: Collaborative Research: Minimally Invasive Robotic Non-Destructive Evaluation and Rehabilitation for Bridge Decks (Bridge-MINDER)*," National Science Foundation, NRI-1426752, PI: Dezhen Song, $300,000, Sep. 2014-Sep. 2017 (prorated amount 100%)
20. "*RI: Small: Robotic Search of Transient Objects*," National Science Foundation, IIS-1318638, PI: Dezhen Song, $350,000, Sep. 2013-Sep. 2016 (prorated amount 100%)
21. "*High-level Landmarks for Guiding Robots (HILGUR)*," US Army Small Business Technology Transfer (STTR), A12a-T030 Phase I, 2012, PI: Dezhen Song, $40,000 (Nov. 2012-Apr. 2013)
22. "*MRI: Acquisition of Mobile, Distributed Instrumentation for Response Research (RESPOND-R)*", NSF MRI-0923203, $1.4M (from NSF) + $600k cost sharing, PI: Robin Murphy, Co-PIs: Aaron Ames, Radu Stoleru, Dezhen Song, and Ricardo Gutierrez-Osuna, Sep. 2009- Aug. 2012, (prorated amount 20%)
23. "*Human-Robot Interaction to Monitor Climate Change Effects via Networked Robotic Observatories*", Human-Robot Interaction: "Robots Among Us", Microsoft External Research & Programs, $70,000, PIs: Dezhen Song (Lead) and Ken Goldberg, April 2008-April 2009, (prorated amount 50%)
24. "*Robotic BioTelemetry*", NSF IIS-0643298, Faculty Early Career Development (CAREER), National Science Foundation, $400,000, Jan. 2007- Jan. 2012, (prorated amount 100%)
25. "*Collaborative Observatory for Natural Environment*", National Science Foundation IIS-0534848/0535218, Dezhen Song (PI) and Ken Goldberg (Co-PI), $440,000, July 2005 - July 2008, (prorated amount 50%)
26. "*CAF: Perceptive Sensor Networks Laboratory*", a CAF Proposal, PI: Andruid Kerne, Co-PIs: Ricardo Gutierrez-Osuna and Dezhen Song, Grant period: 2005, Amount: $80,000. (prorated amount 33%). [Internal Grant]
27. TEES/TAMU Research Startup, $190,000, PI: Dezhen Song, Aug 2004 - Aug 2007. [Internal Grant]



PUBLICATIONS

BOOK

K1. Dezhen Song, *Sharing a Vision: Systems and Algorithms for Collaboratively-Teleoperated Robotic Cameras*, a Monograph in Springer Tracts on Advanced Robotics, Vol. 51, ISBN: 978-3-540-88064-6, 2009, Springer

JOURNAL PAPERS

J1. Shuangliang Li, Di Wang, Dezhen Song, and Jun Zou, *An electromagnetic indirect-driving scanning mirror for wide-field coaxial LiDAR applications*, Sensors and Actuators: A. Physical, vol. 379, Dec. 2024, 115941

J2. Di Wang, Xiaoyu Duan, Shu-Hao Yeh, Jun Zou, and Dezhen Song, *Calibration System and Algorithm Design for a Soft Hinged Micro Scanning Mirror with a Triaxial Hall Effect Sensor*, IEEE Robotics and Automation Letters (RA-L) vol. 9, no. 3, March 2024, pp. 2447 – 2454.

J3. Zohreh Shaghaghian, Heather Burte, Dezhen Song, and Wei Yan. *An augmented reality application and experiment for understanding and learning spatial transformation matrices*. Virtual Reality, vol. 28, no. 12 Jan. 2024. https://doi.org/10.1007/s10055-023-00904-x

J4. Eric Zou, Cheng Fang, and Dezhen Song, *A Low-Cost Handheld Photoacoustic (PA) Probe for Rapid and Non-Destructive Detection of Watermelon Ripeness*, IEEE Sensors Journal, vol. 23, no. 21, Nov. 2023, pp. 26636 - 26642

J5. Kun Hu, Zhiyong Wang, Guy Coleman, Asher Bender, Tingting Yao, Shan Zeng, Dezhen Song, Anold Schumann, Michael Walsh, *Deep learning techniques for in-crop weed recognition in large-scale grain production systems: a review*, Precision Agriculture, 2023, pp. 1573-1618, https://doi.org/10.1007/s11119-023-10073-1

J6. Nansha. Li, Renbiao. Wu, Haifeng. Li, Huaichao Wang, Zhongchen Gui, and Dezhen. Song, *M^2FNet: Multimodal Fusion Network for Airport Runway Subsurface Defect Detection Using GPR Data*, IEEE Transactions on Geoscience and Remote Sensing, vol. 61, pp. 1-16, 2023, Art no. 5108816.

J7. Gaofeng Li, Shan Xu, Dezhen Song, Fernando Caponetto, Ioannis Sarakoglou, Jingtai Liu, and Nikos Tsagarakis, *On Perpendicular Curve-based Task Space Trajectory Tracking Control with Incomplete Orientation Constraint*, IEEE Transactions on Automation Science and Engineering (T-ASE), vol. 20, no. 2, April 2023, pp. 1244 - 1261

J8. Kuo Chen, Jingang Yi, and Dezhen Song, *Gaussian Processes-based Control of Underactuated Balance Robots with Guaranteed Performance*, IEEE Transactions on Robotics (T-RO), vol. 39, no. 1, Feb. 2023, pp. 572 - 589

J9. Chengsong Hu, Shuanyu Xie, Dezhen Song, Alex J. Thomasson, Robert Hardin IV, and Muthukumar Bagavathiannan, *Algorithm and System for Robotic Micro-dose Herbicide Spray for Precision Weed Management*, IEEE Robotics and Automation Letters (RA-L), vol. 7, no. 4, Oct. 2022, pp. 11633 – 11640

J10. Aaron Kingery and Dezhen Song, *Improving Ego-Velocity Estimation of a Low-cost Doppler Radar for Vehicles by Recognizing Background and Elevation Effects*, IEEE Robotics and Automation Letters (RA-L), vol. 7, no. 4, October 2022, pp. 9445 - 9452

J11. Nansha Li, Renbiao Wu, Haifeng Li, Huaichao Wang, Zhongcheng Gui, and Dezhen Song, *MV-GPRNet: Multi-View Subsurface Defect Detection Network for Airport Runway Inspection Based on GPR*, Remote Sensing, vol. 14, no. 18, September. 2022, pp. 4472

J12. Gaofeng Li, Dezhen Song, Lei Sun, Shan Xu, Hongpeng Wang, and Jingtai Liu, *Static force-based modeling and parameter estimation for a deformable link composed of passive spherical joints with preload forces*, IEEE/CAA Journal of Automatica Sinica, vol. 8, no. 11, Nov. 2021, pp. 1817 – 1826

J13. Hsin-Min Cheng and Dezhen Song, *Graph-based Proprioceptive Localization Using a Discrete Heading-Length Feature Sequence Matching Approach*, IEEE Transactions on Robotics (T-RO), vol. 37, no. 4, August 2021, pp. 1268-1281

J14. Shuangyu Xie, Chengsong Hu, Muthukumar Bagavathiannan, and Dezhen Song, *Toward Robotic Weed Control: Detection of Nutsedge Weed in Bermudagrass Turf Using Inaccurate and Insufficient Training Data*, IEEE Robotics and Automation Letters (RA-L), vol 6, no. 4, Oct. 2021, pp. 7365-7372.

J15. Feng Lu, Baifan Chen, Xiang-Dong Zhou, and Dezhen Song, *STA-VPR: Spatio-temporal Alignment for Visual Place Recognition*, IEEE Robotics and Automation Letters (RA-L), vol. 6, no. 3, July 2021, pp. 4297-4304

J16. Gaofeng Li, Dezhen Song, Shan Xu, Lei Sun, and Jingtai Liu, *On Perpendicular Curve-based Model-less Control Considering Incomplete Orientation Constraint*, IEEE/ASME Transactions on Mechatronics (T-MECH), vol. 26, no. 3, June 2021, pp. 1479-1489

J17. Haifeng Li, Nansha Li, Renbiao Wu, Huaichao Wang, Zhongcheng Gui, and Dezhen Song, *GPR-RCNN: An Algorithm of Subsurface Defect Detection for Airport Runway based on GPR*, IEEE Robotics and Automation Letters (RA-L), vol. 6, no. 2, April 2021, pp. 3001-3008

J18. Hsin-Min Cheng, Chieh Chou, Dezhen Song, *Vehicle-to-Vehicle Collaborative Graph-based Proprioceptive Localization*, IEEE Robotics and Automation Letters (RA-L), vol. 6, no. 2, April. 2021, pp. 990-997

J19. Chieh Chou, Dezhen Song, and Haifeng Li, *Encoder-Camera-Ground Penetrating Radar Sensor Fusion: Bimodal Calibration and Subsurface Mapping*, IEEE Transactions on Robotics (T-RO), Vol. 37, No. 1, Feb. 2021, pp. 67-81.

J20. Haifeng Li, Chieh Chou, Longfei Fan, Binbin Li, Di Wang, and Dezhen Song, *Toward Automatic Subsurface Pipeline Mapping by Fusing a Ground-Penetrating Radar and a Camera*, IEEE Transactions on Automation Science and Engineering (T-ASE), Vol. 17, No. 2, April 2020, pp 722-734.

J21. Haifeng Li, Dezhen Song, Yong Liu and Binbin Li, *Automatic Pavement Crack Detection by Multi-Scale Image Fusion*, IEEE Transactions on Intelligent Transportation Systems (T-ITS), vol. 20, no. 6, June 2019, pp. 2025 - 2036

J22. Gaofeng Li, Dezhen Song, Shan Xu, Lei Sun, and Jingtai Liu, *A Hybrid Model and Model-free Position Control for a Reconfigurable Manipulator*, IEEE/ASME Transactions on Mechatronics (T-MECH), vol. 24, no. 2, April 2019, pp. 785 - 795

J23. Hsin-Min Cheng, Dezhen Song, Aaron Angert, Binbin Li, and Jingang Yi, *Proprioceptive Localization Assisted by Magnetoreception: A Minimalist Intermittent Heading-based Approach*, IEEE Robotics and Automation Letters (RA-L), vol. 4, no. 2, pp. 586-593, Apr. 2019

J24. Gaofeng Li, Dezhen Song, Shan Xu, Lei Sun, and Jingtai Liu, *Kinematic-free Orientation Control for a Deformable Manipulator based on the Geodesic in Rotation Group SO(3)*, IEEE Robotics and Automation Letters (RA-L), vol. 3, No. 3, July 2018, pp. 2432-2438.

J25. Yan Lu and Dezhen Song, *Visual Navigation Using Heterogeneous Landmarks and Unsupervised Geometric Constraints*, IEEE Transactions on Robotics (T-RO), vol.: 31, no.: 3, June 2015, pp. 736 – 749.

J26. Chang Young Kim, Dezhen Song, Jingang Yi, and Xinyu Wu, *Decentralized Searching of Multiple Unknown and Transient Radio Sources with Paired Robots*, Engineering, vol. 1, no. 1, July 2015, pp. 58 -65

J27. Wen Li and Dezhen Song, *Automatic Bird Species Filtering Using A Multi-Model Approach*, IEEE Transactions on Automation Science and Engineering (T-ASE), vol.12, no.2, pp.553 - 564, April 2015

J28. Chang Young Kim, Dezhen Song, Yiliang Xu, Jingang Yi, and Xinyu Wu, *Cooperative Search of Multiple Unknown Transient Radio Sources Using Multiple Paired Mobile Robots*, IEEE Transactions on Robotics (T-RO), vol. 30, no. 5, Oct. 2014, pp. 1161 - 1173

J29. Wen Li and Dezhen Song, *Automatic Bird Species Detection from Crowd Sourced Videos*, IEEE Transactions on Automation Science and Engineering (T-ASE), vol. 11, issue 2, April 2014, pp. 348 - 358

J30. Dezhen Song, Chang Young Kim, and Jingang Yi, *Simultaneous Localization of Multiple Unknown and Transient Radio Sources Using a Mobile Robot*, IEEE Transactions on Robotics (T-RO), vol. 28, no. 3, June 2012, pp. 668-680

J31. Rappole, J. H., S. Glasscock, K. Goldberg, D. Song, and S. Faridani, *Range Change among New World Tropical and Subtropical Birds*, In Tropical vertebrates in a changing world (K.-L. Schuchmann, ed.), Bonner Zoologische Monographien, Nr 57, 2011, Bonn, Germany, pp. 151-167.

J32. Dezhen Song, Chang Young Kim, and Jingang Yi, *On the Time to Search for an Intermittent Signal Source Under a Limited Sensing Range*, IEEE Transactions on Robotics (T-RO), vol. 27, no. 2, 2011, pp. 313-323

J33. Wai Kin Victor Chan, Shengwei Ding, Jingang Yi, and Dezhen Song, *Optimal Scheduling of Multi-Cluster Tools with Constant Robot Moving Times, Part II: Tree-Like Topology Configurations*, IEEE Transactions on Automation Science and Engineering (T-ASE), vol. 8, no. 1, Jan. 2011, pp. 17-28

J34. Dezhen Song and Yiliang Yu, *A Low False Negative Filter for Detecting Rare Bird Species from Short Video Segments using a Probable Observation Data Set-based EKF Method*, IEEE Transactions on Image Processing (T-IP), vol. 19, no. 9, Sept. 2010, pp. 2321-2331

J35. Yiliang Xu and Dezhen Song, *Systems and Algorithms for Autonomous and Scalable Crowd Surveillance Using Robotic PTZ Cameras Assisted by a Wide-Angle Camera*, Autonomous Robots, Volume 29, Number 1 / July 2010, pp. 53-66

J36. Dezhen Song, Yiliang Xu, and Ni Qin, *Aligning Windows of Live Video from an Imprecise Pan-Tilt-Zoom Camera into a Remote Panoramic Display for Remote Nature Observation*, Journal of Real Time Image Processing, Vol. 5, Issue 1, 2010, pp. 57-70

J37. Dezhen Song, Chang Young Kim, and Jingang Yi, *Simultaneous Localization of Multiple Unknown CSMA-based Wireless Sensor Network Nodes Using a Mobile Robot with a Directional Antenna*, Journal of Intelligent Service Robots, vol. 2, No. 4, October 2009, pp 219-233

J38. Jingang Yi, Hongpeng Wang, Junjie Zhang, Dezhen Song, Suhada Jayasuriya, and Jingtai Liu, *Modeling and Analysis of Skid-Steered Mobile Robots with Applications to Low-Cost Inertial Measurement Unit-Based Motion Estimation*, IEEE Transactions on Robotics (T-RO), Vol. 25, No. 5, October, 2009, pp. 1087-1097

J39. Dezhen Song, Ni Qin, and Ken Goldberg, Systems, *Control Models, and Codec for Collaborative Observation of Remote Environments with an Autonomous Networked Robotic Camera*, Autonomous Robots, May 2008, Vol. 24, No. 4, pp. 435–449

J40. Jingang Yi, Shengwei Ding, Dezhen Song, and Mike Tao Zhang, *Steady-State Throughput and Scheduling Analysis of Multi-Cluster Tools: A Decomposition Approach*, IEEE Transactions on Automation Science and Engineering (T-ASE), vol. 5, no. 2, pp 321-336, April 2008

J41. Dezhen Song, Hyun Nam Lee, Jingang Yi, and Anthony Levandowski, *Vision-based Motion Planning for an Autonomous Motorcycle on Ill-Structured Roads*, Autonomous Robots, Vol. 23, No. 3, Oct. 2007, pp. 197-212

J42. Dezhen Song and Ken Goldberg, *Approximate Algorithms for a Collaboratively Controlled Robotic Camera*, IEEE Transactions on Robotics (T-RO), Vol. 23, No. 5, Oct. 2007, pp. 1061-1070

J43. Dezhen Song, A Frank van der Stappen, and Ken Goldberg, *Exact Algorithms for Single Frame Selection on Multi-Axis Satellites*, IEEE Transactions on Automation Science and Engineering (T-ASE), Vol. 3, No. 1. January 2006, pp.16-28.

J44. K. Goldberg, A, Pashkevich, D. Song, *Geometrical calibration of robotic web-cameras*, Transactions of Belarusian Engineering Academy, vol. 1(15)/1, 2003, pp. 12-14.

J45. Ken Goldberg, Dezhen Song, and Anthony Levandowski, *Collaborative Teleoperation with Using Networked Spatial Dynamic Voting*, The Proceedings of THE IEEE, Vol 91, Number 3, March 2003, pp 430-439.

J46. D. Song and L. Dai (1996) *Online adaptive estimation and control of raw gas endpoint*. Journal of Zhejiang University. Special issue in process control., pp:404-407 (In Chinese)

BOOK CHAPTERS

B1. Dezhen Song, Ajay Kumar Tanwani, and Ken Goldberg, *Chapter 24: Networked-, Cloud- and Fog-Robotics*, Robotics goes MOOC, Springer Nature MOOCs, Bruno Siciliano (Editor), Springer, 2021.

B2. D. Song, K. Goldberg, and N. Y. Chong, Chapter 44: *Networked Robots*, Springer Handbook on Robotics, 2nd edition, Editors: B. Sciliano and O. Khatib, Springer 2016, Pages 1109-1134

B3. W. Li and D. Song, *Featureless Motion Vector-Based Simultaneous Localization, Planar Surface Extraction, and Moving Obstacle Tracking*, Algorithmic Foundations of Robotics XI, H. Levent Akin, Nancy M. Amato, Volkan Isler, A. Frank van der Stappen (Eds.), Springer, 2015, Pages 245-261.

B4. Yan Lu and Dezhen Song, (2014). *Robust Recognition of Planar Mirrored Walls*, Household Service Robotics, 1st Edition, Editors: Yangsheng Xu, Huihuan Qi, and Xinyu Wu (Eds.), Elsevier.

B5. Yiliang Xu and Dezhen Song, (2013). *Collaborative Crowd Surveillance Using Networked Robotics Cameras*, Bentham E-books: Networking Humans, Robots, and Environments, Editor: Nak-Young Chong.

B6. Yizhai Zhang, Jingang Yi and Dezhen Song, (2013). *Dynamic Modeling of Riderless Motorcycles*, Modelling, Simulation and Control of Two-Wheeled Vehicles, M. Tanelli (Ed.), John Wiley & Sons, Ltd, London, UK.

B7. Yizhai Zhang, Jingang. Yi and Dezhen Song, (2013). *Autonomous Control of Riderless Motorcycles*, Modelling, Simulation and Control of Two-Wheeled Vehicles, M. Tanelli (Ed.), John Wiley & Sons, Ltd, London, UK.

B8. Dezhen Song, Hyunnam Lee, and Jingang Yi, *On the Analysis of the Depth Error on the Road Plane for Monocular Vision-Based Robot Navigation*, Algorithmic Foundations for Robotics VIII, Springer tracts on advanced robotics, Springer, 2008

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C97. D. Song, K. Goldberg, and A. Pashkevich, *ShareCam Part II: Approximate and Distributed Algorithms for a Collaboratively Controlled Robotic Webcam*, IEEE/RSJ International Conference on Intelligent Robots and Systems, Las Vegas, Nevada, Oct.2003. [Acceptance rate round 50%]

C98. S. Har-Peled, V. Koltun, D. Song, and K. Goldberg, *Efficient Algorithms for Shared Camera Control*, In Proceedings of the 19th ACM Symposium on Computational Geometry, 2003. [Acceptance rate 36%]

C99. D. Song, A.F. van der Stappen, and K. Goldberg, *Exact and Distributed Algorithms for Collaborative Camera Control*, the Fifth International Workshop on Algorithmic Foundations of Robotics. Nice, France, Dec 15~17, 2002. [Acceptance rate around 40%]

C100. K. Goldberg, D. Song, Y. Khor, D. Pescovitz, A. Levandowski, J. Himmelstein, J. Shih, A. Ho, E. Paulos, J. Donath, *Collaborative Online Teleoperation with Spatial Dynamic Voting and a Human ``Tele-Actor''* , the IEEE International Conference on Robotics and Automation, Washington D.C. May 11~15, 2002. [Acceptance rate 58%]

C101. D. Song and D.B. Kaber (2000). *Web-based interface design for teleoperation*. In the Proceedings of the XIVth Triennial Congress of the International Ergonomics Association and 44th Annual Meeting of the Human Factors and Ergonomics Society (pp. 449-452). Human Factors and Ergonomics Society: Santa Monica, CA. [Acceptance rate N/A]

C102. D. Song and D. B. Kaber, (1999) *Teleoperation test-bed development for human factors research*. The 2nd Annual Student's Symposium on Human Factors & Ergonomics of Complex Systems. Greensboro, NC, April [Acceptance rate N/A]

C103. D. B. Kaber, R. Zhou, and D. Song. (1999). *Design and prototyping of an economical teleoperations test-bed for human factors research: Cost, resource requirements and capability assessment.* The 25th International Conference on Computers & Industrial Engineering. New Orleans, LA, Mar. 27-29 [Acceptance rate N/A]

C104. D. Song and L. Dai (1997) *A hybrid model based soft-sensor and application*. Proceedings of the 4th International Conference on Measurement and Control of Granular Materials, MCGM97, Shenyang, P R China, 17-19 September 1997, pp:171-177 [Acceptance rate N/A]

REFEREED VIDEO

V1. A. Levandowski, A. Schultz, C. Smart, A. Krasnov, H. Chau, B. Majusiak, F. Wang, D. Song, J.Yi, H. Lee, and A. Parish, *Autonomous Motorcycles*, IEEE International Conference on Robotics and Automation (ICRA), May. 2006, Orlando, Florida,

TECHNICAL REPORTS

T1. Kuo Chen, Jingang Yi, and Dezhen Song, Gaussian Processes Model-Based Control of Underactuated Balance Robots, [arXiv:2010.15320], Oct. 29, 2020

T2. Hsin-Min Cheng and Dezhen Song, Graph-based Proprioceptive Localization Using a Discrete Heading-Length Feature Sequence Matching Approach, [arXiv:2005.13704], May. 27, 2020.

T3. Shu-Hao Yeh and Dezhen Song, Model Quality Aware RANSAC: A Robust Camera Motion Estimator, [arXiv:1911.11884], Nov. 27, 2019.

T4. Ting Sun, Dezhen Song, Dit-Yan Yeung, and Ming Liu, Semi-Semantic Line-Cluster Assisted Monocular SLAM for Indoor Environments, [arXiv:1811.01592], Nov. 5, 2018.

T5. Haifeng Li, Dezhen Song, Yong Liu and Binbin Li, Automatic Pavement Crack Detection by Multi-Scale Image Fusion, TR-2017-11-01, Department of Computer Science and Engineering, Texas A&M University, 2017.

T6. Chieh Chou, Shu-Hao Yeh, and Dezhen Song, *Mirror-Assisted Calibration of a Multi-modal Sensing Array with a Ground Penetrating Radar and a Camera,* TR-2017-06-01, Department of Computer Science and Engineering, Texas A&M University, 2017.

T7. Wen Li and Dezhen Song, *Toward Featureless Visual Navigation: Simultaneous Localization and Planar Surface Extraction Using Motion Vectors in Video Streams*, TR 2014-2-2, Department of Computer Science and Engineering, Texas A&M University, 2013.

T8. Yan Lu, Dezhen Song, Yiliang Xu, A. G. Amitha Perera, and Sangmin Oh, *Automatic Building Exterior Mapping Using Multilayer Feature Graphs*, TR 2013-6-1, Department of Computer Science and Engineering, Texas A&M University, 2013.

T9. Chang-Young Kim, Dezhen Song, and Jingang Yi, *Decentralized Searching of Multiple Unknown and Transient Radio Sources*, TR 2013-1-1, Department of Computer Science and Engineering, Texas A&M University, 2013.

T10. Wen Li and Dezhen Song, *Automatic Video-based Bird Species Filtering Using Periodicity of Salient Extremities*, TR 2012-8-2, Department of Computer Science and Engineering, Texas A&M University, 2012

T11. Chang-Young Kim, Dezhen Song, Yiliang Xu, and Jingang Yi, *Localization of Multiple Unknown Transient Radio Sources using Multiple Paired Mobile Robots with Limited Sensing Ranges*, TR 2010-11-2, Department of Computer Science and Engineering, Texas A&M University, 2010.

T12. Dezhen Song and Yiliang Xu, *Monocular Vision-based Detection of a Flying Bird*, TR 2008-11-3, Department of Computer Science and Engineering, Texas A&M University, 2008.

T13. Dezhen Song, Chang Young Kim, and Jingang Yi, *Monte Carlo Simultaneous Localization of Multiple Unknown Transient Radio Sources Using a Mobile Robot with a Directional Antenna*, TR 2008-11-1, Department of Computer Science and Engineering, Texas A&M University, 2008.

T14. Dezhen Song, *Probabilistic Modeling of Leach Protocol and Computing Sensor Energy Consumption Rate in Sensor Networks.* Technical report, TR 2005-2-2, Department of Computer Science, Texas A&M University, 2005.

T15. Dezhen Song, Ni Qin, and Ken Goldberg, *Algorithms for Maintaining a High-Resolution Panoramic Display with a Tele-Operated Robotic Camera*, TR 2005-5-1, Department of Computer Science, Texas A&M University, 2005

TECHNICAL DEMONSTRATIONS AND EXIHIBITIONS

D1. Bryce Lee, Anand Kulkarni, Ken Goldberg, Dezhen Song, Deanna Wilkes-Gibbs, *Science and Social TV: Collaborative Observatories for Field Biology*, First International Conference on Designing Interactive User Experiences for TV and Video (uxTV), October 22 - 24, 2008, Silicon Valley (San Francisco Bay Area), California, USA
D2. Dezhen Song and Ken Goldberg**,** *ShareCam: Shared Access to a Robotic Streaming Video Camera*, Technical Demos, ACM Multimedia 2003 (MM2003) Nov, 2003.
D3. Ken Goldberg, Dezhen Song, In Yong Song, Jane McGonigal, Wei Zheng, *Collaborative Tele-Experiences: Tele-Actor, Co-Opticon and Tele-Twister*, dorkbot-sf, rxGallery, Oct, 2003
D4. Ken Goldberg, Dezhen Song et al., *The Tele-Actor Project*, Teleopolis, 2nd Wednesdays Art Series at the Exploratorium, San Francisco, February 13, 2002

THESES AND THESES SUPERVISED

S1. Shu-hao Yeh, Ph.D. thesis, Algorithms for Robust Geometry Estimation in AR Applications. Doctoral dissertation, May 2023
S2. Shuangyu Xie, Master thesis, *Toward Robotic Weed Control: Detection of Nutsedge Weed in Bermudagrass Turf Using Inaccurate and Insufficient Training Data*, Department of Computer Science and Engineering, Texas A&M University, May 2021
S3. Hsin-Min Cheng, Ph.D. thesis, *Proprioceptive Localization for Robots*, Department of Computer Science and Engineering, Texas A&M University, May 2021
S4. Binbin Li, Ph. D. thesis, *Belief Space-Guided Navigation for Robots and Autonomous Vehicles*, Department of Computer Science and Engineering, Texas A&M University, Dec. 2020
S5. Chieh "Jay" Chou, Ph. D. thesis, *Sensor Fusion for Robotic Surface and Subsurface Infrastructure Inspection*, Texas A&M University, May. 2019
S6. Joseph Lee, Ph. D. thesis, *Appearance and Geometry Assisted Visual Navigation in Urban Areas*, Texas A&M University, May. 2016
S7. Yan Lu, Ph. D. thesis, *Visual Navigation for Robots in Urban and Indoor Environments*, Texas A&M University, Aug. 2015
S8. Wen Li, Ph. D. thesis, *Exploring Motion Signatures for Vision-based Tracking, Recognition and Navigation*, Texas A&M University, Aug. 2014
S9. Chang Young Kim, Ph.D. thesis, *Robotic Searching for Stationary, Unknown, and Transient Radio Sources*, May 2012
S10. Yiliang Xu, Ph. D. thesis, *Systems and Algorithms for Automated Collaborative Observation Using Networked Robotic Cameras*, May 2011
S11. Ji Zhang, Master thesis, *Two Case Studies on Vision-based Moving Objects Measurement*, Texas A&M University, May 2011
S12. Hyunnam Lee, Ph. D. thesis, *Vision-based navigation for mobile robots on ill-structured robots*, Department of Electrical and Computer Engineering, Texas A&M University, August 2008.
S13. Ni Qin, Ph.D. thesis, *Algorithms, protocols, and systems for remote observation using networked robotics cameras*, Department of Computer Science and Engineering, Texas A&M University, May 2008
S14. Qiang Hu, Master thesis, *Robotic localization of hostile networked radio sources using a directional antenna*, Department of Electrical and Computer Engineering, Texas A&M University, Dec. 2005
S15. Dezhen Song. Ph. D. thesis: *Systems and Algorithms for Collaborative Tele-Operation*. Department of Industrial Engineering and Operations Research, University of California, Berkeley, Aug 2004.
S16. Dezhen Song, Master thesis: *Soft sensor and its applications*, Department of Control Science and Engineering, Zhejiang University, Mar. 1998

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PATENT

1. *Remote collaborative control and direction*, U.S. Pat. No. 7,937,285, With Goldberg, Kenneth Y.; *(San Francisco, CA)* ; Donath, Judith; *(Boston, MA)* ; Paulos, Eric J.; *(San Francisco, CA)* ; Pescovitz, David; *(San Francisco, CA)* ; Dobson, Kelly; *(Cambridge, MA)* ; Lee, Matthew; *(Cambridge, MA* ; *Levandowski,* Anthony; *(Albany, CA)* ; Spiegel, Dana; *(Boston, MA)* ; Tang, Derek; *(Cambridge, MA)*

TEACHING AND ADVISING

COURSES

- Spring 2025: ROB 702: Robot Vision and Intelligence
- Fall 2024: ROB 701 Introduction to Robotics
- Spring 2023: CSCE 482 Senior Capstone Design and CSCE 483 Computer System Design
- Spring 2022: CSCE 482 Senior Capstone Design and CSCE 483 Computer System Design
- Fall 2021: CSCE 452/643: Robotics and Spatial Intelligence
- Spring 2021: CSCE 482 Senior Capstone Design
- Spring 2020: CSCE 482 Senior Capstone Design
- Fall 2019: CSCE 482 Senior Capstone Design
- Spring 2019: CSCE 482 Senior Capstone Design
- Fall 2018: CSCE 452 Introduction to Robotics
- Spring 2017: CSCE 452 Introduction to Robotics & CSCE 643 Robot Vision
- Fall 2016: CSCE 483 Computer System Design
- Spring 2016: CSCE 483 Computer System Design & CSCE 452 Introduction to Robotics
- Fall 2015: CSCE 483 Computer System Design
- Spring 2015: CSCE 313 Introduction to Computer Systems & CSCE 452 Introduction to Robotics
- Fall 2014: CSCE 483 Computer System Design
- Spring 2014: CSCE 452 Introduction to Robotics
- Fall 2013: CSCE 483 Computer System Design & CSCE 643 Robot Vision
- Spring 2013: CSCE 452 Introduction to Robotics & CSCE 483 Computer System Design
- Fall 2012: CSCE 206:504-506: Structured Programming in C
- Spring 2011: CSCE 452: Introduction to Robotics
- Fall 2010: CPSC 689-604: Computer Vision
- Spring 2010: CPSC 452 Introduction to Robotics & CPSC 643 Advanced Robotics
- Fall 2009: CPSC 483 Computer System Design
- Spring 2009: CPSC 452 Introduction to Robotics & CPSC 643 Advanced Robotics
- Fall 2008: CPSC 689-602: Computer Vision
- Spring 2008: CPSC 452 Introduction to Robotics & CPSC 643 Advanced Robotics
- Fall 2007: CPSC 689-601: Computer Vision: Multi-view Geometry
- Spring 2007: CPSC 452 Introduction to Robotics & CPSC 643 Advanced Robotics
- Spring 2006: CPSC 452 Introduction to Robotics
- Fall 2005: CPSC 689-601 Networked Robots
- Spring 2005: CPSC 452 Introduction to Robotics
- Fall 2004: CPSC 689-609 Networked Robots

CURRENT GRADUATE STUDENTS

Ph.D.:

- Aaron Kingery (Fall 2017-)
- Di Wang (Fall 2017-)

Master:

- Abouzeid, Ali Mohamed Sharei Soliman (Fall 2024 -)

- Mansour, Malak Ibrahim Mohamed Mohamed (Fall 2024 -)
- Pham, Quang Minh Phuoc (Fall 2024 -)
- Raiprasert, Tunpitcha (Fall 2024 -)
- Alameri, Sumaya Abdulrahman Abdulla Abdulqader (Fall 2024 -)

GRADUATED STUDENTS

Ph.D.:

- Dr. Shuangyu Xie (Postdoc, UC Berkeley, Summer 2021 - Fall 2024)
- Dr. Shu-Hao "Eric" Yeh (Fall 2015- Spring 2023)
- Dr. Hsin-min "Jasmine" Cheng (Fall 2014-Spring 2021)
- Dr. Binbin Li (Fall 2015- Fall 2020)
- Dr. Chieh "Jay" Chou (Fall 2014 - May 2019)
- Dr. Joseph Lee (Aptiv, TADEC, co-advisor: Prof. Ricardo Gutierrez-Osuna, May 2016)
- Dr. Yan Lu, (Google/Amazon/Honda Research, August 2015)
- Dr. Wen Li, (Youtube/Google, August 2014)
- Dr. Chang Young Kim (Amazon, Kespry, Neato Robotics, May 2012)
- Dr. Yiliang Xu (Tencent, Amazon, Apple, Kitware, May 2011)
- Dr. Hyun Nam Lee (Samsung, Aug. 2008)
- Dr. Ni Qin (Spotmau, May 2008)

Master:

- Aaron Angert (Fall 2017- Fall 2022)
- Shuangyu Xie (Spring 2020 - Spring 2021, continue as Ph.D. student)
- Ji Zhang (CMU, Spring 2011)
- Qiang Hu (Microsoft, Spring 2006)

Visiting Students:

- Dr. Ting Sun (Aug 2017 - Feb. 2018)
- Dr. Gaofeng Li (Dec. 2015- Dec. 2016)
- Dr. Haifeng Li (Sep. 2010- Sep. 2011)
- Dr. Hongpeng Wang (Sep. 2007 – Aug. 2008)

POSTDOC AND VISITING SCHOLARS

- Dr. Qingbo Sun (Jan. 2025 – present)
- Dr. Zezhou Sun (July 2024 – present)
- Dr. Chengsong Hu, (April 2024 – Dec. 2024)
- Dr. Haifeng Li (Professor, Civil Aviation University of China, Tianjin, China Mar. 2017 – Mar. 2018)
- Dr. Hongpeng Wang, (Professor, Nankai University, China, Dec. 2014 – Feb. 2015, Mar. 2016 – Mar. 2017)
- Dr. Baifan Chen (Associate Professor, Central South University, China, Dec. 2014 - Dec. 2015)
- Dr. Min Jiang (Associate Professor, Shanghai Institute of Technology, China, Feb. 2014- Feb. 2015)
- Dr. Zhongcheng Gui (Postdoc, Dongfang Electric Corporation, July 2013- June 2014)
- Dr. Chang Young Kim (Postdoc, May 2012-Apr. 2013)
- Dr. Xiaoyong Liu (Associate Prof., Xi'an Jiaotong Univ., China, Sep. 2012 - Aug. 2013)
- Dr. Zhongli Ma (Associate Prof., Harbin Engineering Univ., China, Feb. 2012 - Feb. 2013)
- Dr. Zhigang Bing (Oct. 2008- Apr. 2009)

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OTHER SUPERVISED SUDENTS AND TEACHERS

- Fengzhi Guo (CSCE 691, Fall 2021- Fall 2024)
- Bryan Yan (CSCE 491H, Fall 23 – Spring 24)
- Chengyuan Qian (CSCE 691, Fall 2022- Fall 2023)
- Yingtao Jiang (MCS, CSCE 691, Summer 2021- Spring 2023)
- Dakshika Srivastava (CSCE 491, Fall 2022 – Spring 2023)
- Yifan Sun (CSCE 491, Fall 2022 – Spring 2023)
- Austin Veselka (CSCE 491, Fall 2022 – Spring 2023)
- Shane Poldervaart (CSCE 691, Summer 2021 – Summer 2022)
- Thomas Cousins (CSCE 491, Fall 2022)
- Jared A. Clifford (CSCE 491, Spring 2022)
- Arsh Kabarwal (CSCE 491, Spring 2022)
- Zixuan Jia (CSCE 491, Spring 2022)
- Krishna Kumar Sunil "Sunil" Komadam (CSCE 691, Spring 2021- Fall 2021)
- Born, Alex D (CSCE 491, Fall 2021)
- Carrillo, Jose A (CSCE 491, Fall 2021)
- Gao, Kaiyuan (CSCE 491, Fall 2021)
- Soni, Radhika (CSCE 491, Fall 2021-Spring 2022)
- Dmitrievskaia, Maria Vasilyevna (CSCE 491, Fall 2021)
- Myers, Wesley Gene (CSCE 491, Fall 2021)
- Arman Rezaee (Spring 2020-Summer 2021, CSCE 691)
- Shrey Ketanbhai Shah (CSCE 491H, Spring 2021)
- Paurushmani Singh (CSCE 485, Spring 2021)
- Wesley Gene Myers (CSCE 485, Spring 2021)
- Yingtao Jiang (CSCE 485, Spring 2021)
- Maria Vasilyevna Dmitrievskaia (CSCE 485, Spring 2021)
- Yile Chen (CSCE 485, Spring 2021)
- Alex Moree (CSCE 291, Spring 2021)
- Raul Escobar (CSCD 291, Spring 2021)
- Jared Martinez DeLeon (CSCE 491, Innovation[X], Fall 2020)
- Radhika Soni (CSCE 491, Innovation[X], Fall 2020)
- Dillon Steward (ENGR 485, CSCE 491, Fall 2020)
- Alex D. Moree, (CSCE 291, Innovation[X], Fall 2020)
- Yue Ou (MS, non-thesis, Spring 2019 – Spring 2020)
- Zimo Ding (CSCE 485, Spring 2020)
- Radhika Soni (CSCE 291, Spring 2020)
- Dilon L. Stewart (ENGR 485, Spring 2020)
- Atharva Milind Kulkarni (ENGR 485, Spring 2020)
- Ashir Ishtiaq (ENGR 485, Spring 2020)
- Gerardo Antonio Petitto (CSCE 491H, Spring 2020, Fall 2020)
- Shrey Shah (Spring 2019)
- Jackson Delametter (CSCE 485, Spring 2019)
- Jonathan Weishuhn (CSCE 491H, Fall 2018 - Spring 2019)
- Meng Jin (CSCE 691, Fall 2016-Summer 2018)
- Jonathan Weishuhn (CSCE 491H, Fall 2018)
- Ankit Ramchandani (USRG & CSCE 491, Summer 2018 – Spring 2019)
- Tony Qing (Summer 2018)
- Evan Young (Summer 2018 -)
- Anagabriel Ibarra (RET, Summer 2018)
- Hannah Wilson (RET, Summer 2018)
- Kimberly Rife (RET, Summer 2018)
- Naveen Cunha (RET, Summer 2018)

- Weixin Jiang (Visiting BS student, Shanghai Jiaotong Univ, Summer 2018)
- Yiwei Huang (Visting MS student, Shanghai Jiaotong Univ., Summer 2018)
- Muin B. Momin (CSCE 491, Fall 2017)
- Yuanfei Sun (CSCE 691, Fall 2015 - Fall 2017)
- Chuan-kuo "Titus" Wong, (REU, Summer 2017)
- Mehmet Ucar (RET, Summer 2017)
- Jicheng Gong (CSCE 691, Fall 2016 – Summer 2017)
- Jinhao Chen, (Fall 2016 - Spring 2017)
- Hojun Ji (CSCE 691, Summer 2016 – Fall 2016)
- Cristal Johnson (RET, Summer 2016)
- Jim Giumarra (RET, Summer 2016)
- Guillermo Trujillo Zarate (CANIETI, Summer 2016)
- Zach Smith (REU, Summer 2016)
- Yuan-Peng “Patrick” Yu (Summer 2016- Fall 2016)
- Aaron Kingery (Summer 2016 - Spring 2017)
- Qingqing Li (CSCE 491, Summer 2016)
- Jay Khatri (Spring 2016)
- Matthew Hielsberg (CSCE 691, Fall 2012- Spring 2016)
- Rui Liu (University Undergrad Scholar, Summer 2014 - Spring 2015)
- Nicholas Chehade (REU, Summer 2015)
- Xinran Wang (CSCE 691, Fall 2014 - Spring 2015)
- Vania Willms (Research Experience for Teacher, Summer 2015)
- Jason Cordes (Research Experience for Teacher, Summer 2015)
- Bart Taylor (Research Experience for Teacher, Summer 2014)
- Luis Avila (Research Experience for Teacher, Summer 2014)
- Kevin Yan (High School Student, Summer 2014)
- Jorge Gutierrez (CANIETI, Summer 2014)
- Thomas Whitney (USRG, Summer 2014)
- Thomas Lavastida (REU, Summer 2014)
- Yanyun Liu (MS Student, Spring 2014)
- Parker Peelen (Fall 2013-Spring 2014)
- Stanley A. Jacob (Summer 2013-Spring 2014)
- Anh Nguyen Tuan (Fall 2013)
- Seunghwan Mun (Summer 2013- Fall 2013)
- Maria Emília Midori Hirami (CSCE 491, Summer 2013-Fall 2013)
- Shiqiang Guo (CSCE 691, Fall 2012-Spring 2013)
- Hancheng Ge (CSCE 691, Fall 2011- Fall 2012)
- AliAkbar Aghamohammadi (CPSC 691, Spring 2009- Summer 2010)
- Haifeng Li (visiting Ph.D. student from Nankai University, Sep. 2010- Sep. 2011)
- Xinwo Wang (Summer Intern, 2010)
- Shiyu Hu (CPSC 691, Fall 2009)
- Van D. Quach (Unergrad Research Assistant, ECE, Spring 2010- Summer 2010)
- Cole Jones (CPSC 485, Spring 2010)
- Bin Qian (CPSC 691, Fall 2009)
- John Glassmyer (CPSC 491, Fall 2008)
- Pedro Davalos (CPSC 685, Summer 2008)
- Tyler Southard (REU, Summer 2008)
- Benjamin Fine (REU, Summer 2008)
- Hongpeng Wang (visiting Ph.D. student from Nankai University, Sep. 2007-Aug. 2008)
- Philip Ritchey (CPSC 485, Spring 2008)
- Jonathan Kelm (CPSC 485, Spring2008)
- Brandon A. Green (CPSC 691, Fall 2007-Spring 2008)
- Zane Goodwin (CPSC 691, Fall 2005-Spring 2007)

- Terry Peng (CPSC 691, Spring 2007)
- Justin Yang (CPSC 691, Spring 2007)
- Joe Hasty (CPSC 485, Summer 2006)
- Craig M. Eidson (CPSC 485, Summer 2006)
- Nathan Williams (REU, Summer 2006)
- Michael Pellon (REU, Summer 2006)
- Luis Castillo (CPSC 485, Spring 2006)
- Yong Kyung Choi (CPSC 485, Spring 2006)
- Mathew E, Riley (CPSC 685, Spring 2006)
- Tan Van Lao (CPSC 485, Fall 2005)
- Amanda Coots (CPSC 485, Summer, Fall 2005)
- Mike Pantaleano (REU&USRG, Summer 2005)
- Elizabeth A Grant (CPSC 485, Spring 2005)

PROFESSIONAL ACTIVITIES AND SERVICE

AFFLIATED SOCIETY MEMBERSHIP

- Member, Robotics and Automation Society Long Range Planning Committee, IEEE (2024--)
- Member, Board of Directors, Computing Research Association (CRA) (2022-2023)
- Senior Member, Institute of Electrical and Electronics Engineers (IEEE)
- Member, IEEE Robotics and Automation Society (IEEE RAS)
- Member, Society of Automotive Engineers (SAE)
- Founding Member, IEEE RAS Technical Committee on: Networked Robots
- Founding Member, IEEE RAS Technical Committee on: Automation in Logistics
- Founding Member, IEEE RAS Technical Committee on: Multi-Robot Systems

EDITORIAL

- Senior Editor, IEEE Transactions on Automation Science and Engineering (T-ASE), Apr. 2023 - present
- Senior Editor, IEEE Robotics and Automation Letters (RA-L), Sept. 2017 – Aug. 2020
- Member, Multimedia Editorial Board, Springer Handbook of Robotics, Second Edition, Jan. 2013--present
- Editor, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) Editorial Board, 2014 - 2016
- Associate Editor (AE), IEEE Robotics and Automation Letters, June. 2015 - August 2017
- Associate Editor (AE), Robotic Control Systems, Frontiers in Robotics and AI, April 2015 - 2019
- Associate Editor (AE), IEEE Transactions on Automation Science and Engineering (T-ASE), Feb. 2010 – Dec. 2014
- Associate Editor (AE), IEEE Transactions on Robotics (T-RO), July 2008-- June 2012
- Guest Editor, Special issue on Ubiquitous Networked Robots, Annals of Telecommunications, 2012
- Guest Editor, Special issue on Networked Robots, Journal of Intelligence Service Robot (JISR), 2009
- Associate Editor (AE), IEEE Robotics and Automation Society, Conference Editorial Board (CEB), 2007-2009, 2013
- Associate Editor (AE), IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS) Editorial Board, 2013

PROPOSAL REVIEWER AND PANELIST

- CISE-IIS, National Science Foundation, Apr. 2019
- ENG-CMMI, National Science Foundation, May 2018
- Army Research Lab, June 2017

- CISE-IIS, National Science Foundation, Mar. 2016
- CISE-IIS, National Science Foundation, Dec. 2015
- Collaborative Incentive Research Grant (CIRG) Program, The City University of New York, 2014
- University of Macau (UM) Research Committee, 2011
- NIH, Multi-agency robotics SBIR, Mar. 2011
- Texas A&M-CONACYT Collaborative Research Grant Program, May 2009, June 2010
- Cyber Physical System, National Science Foundation, April 2009
- Robust Intelligence, National Science Foundation, April 2008
- Qatar National Research Fund (QNRF), managed by the U.S. Civilian Research & Development Foundation (CRDF), Sep. 2007
- Human-Robot Interaction, National Science Foundation, March 2007
- IIS-GENI Workshop, National Science Foundation, November 2006

EXTERNAL CONFERENCE, WORKSHOP, PANEL, AND COMMITTEE

- Publicity Chair, IEEE International Conference on Automation Science and Engineering (CASE), Anaheim, CA, USA, 2025
- Awards Chair for Subcommittee 1, IEEE International Conference on Automation Science and Engineering (CASE), Bari, Italy, 2024
- Awards Co-Chair, IEEE/RSJ International Conference on Intelligence Robots and Systems (IROS), Abu Dhabi, UAE, 2024
- Regional Program Chair, IEEE International Conference on Real-time Computing and Robotics (RCAR), Xining, Qinhai, China, 2021
- Area Chair, International Conference on Robotics Science and Systems (RSS), 2016
- Program Co-Chair, IEEE International Conference on Automation Science and Engineering (CASE), Dallas, Texas, 2016
- Innovative Session Co-Chair, IEEE International Conference on Intelligence Robots and Systems (IROS), Hamburg, Germany, Oct. 2015
- Chair, Best Automation Paper Committee, IEEE International Conference on Robotics and Automation (ICRA), Seattle, May 2015
- Co-Chair, IEEE/NSF Workshop on Cloud Manufacturing and Automation, Madison, Wisconsin, Aug. 17, 2013
- Workshops/Tutorials Chair, The 2012 IEEE International Conference on Multisensor Fusion and Integration for Intelligent System (MFI 2012), Hamburg, Germany, September 2012
- Member, Early Career Award Evaluation Panel, IEEE Robotics and Automation Society, 2012-2014
- Member, Electronic Products and Services Board, IEEE Robotics and Automation Society, 2012-2015
- Member, Student Travel Awards Committee, IEEE International Conference on Robotics and Automation (ICRA), St. Paul, MN, May 2012
- Chair, Student Travel Awards Committee, IEEE/RSJ International Conference on Intelligence Robots and Systems (IROS), San Francisco, Oct. 2011
- Co-Chair, IEEE ICRA Workshop on Uncertainty in Automation, Shanghai, China, May 9, 2011
- Co-Chair, Technical Committee on Networked Robots, IEEE Robotics and Automation Society, 2007- 2009
- Co-Chair, the Workshop on Network Robot Systems: Ubiquitous, Cooperative, Interactive Robots for Human Robot Symbiosis, San Diego, California, U.S.A. October 29 (full day), IROS 2007.
- Graduate Student Representative: Academic Senate: Computing & Communications Committee (COMP), University of California, Berkeley (2002-2003)

INTERNAL COMMITTEE AND SERVICE

- MBZUAI
  - Board of Examiners, Dept. of Robotics

- Chair, Admission Committee, Dept. of Robotics
- Chair, Faculty Council, MBZUAI, 2024 – 2025
- Member, IRB, 2024 –
- Member, H&S Committee, 2024-
- CV&Robotics Admission Committee, 2024 –
- University Admission Committee, 2023

- Texas A&M
  - Faculty Award Committee, member 2018-2019, Ex-officio: 2020-2023
  - Graduate Advisory Committee (GAC), Chair: Sep. 2013- Oct. 2013, Ex-officio: 2019-2023
  - Advisory Committee (AdCom), Computer Science and Engineering Department, member: 2008-2011, 2012-2016, Ex-officio: 2019-2023
  - Graduate Award Committee, Ex-officio: 2019-2023
  - College of Engineering AFC Faculty Search Committee, 2020-2022
  - Undergraduate Curriculum & ABET Committee, member: 2019- 2022
  - Academic Professional Track Faculty Search Committee (APT), member: 2019-2021
  - Graduate Fee Oversight Committee, Chair: 2018-2019, Ex-Officio: 2019-2021
  - Computer Engineering Coordinating Committee, Ex-officio: 2019-2022
  - Undergraduate Award Committee, Ex-officio: 2019-2022
  - Department Head Search Committee, 2018-2019
  - Transportation Technology Conference Planning Committee, 2016 (joint effort by CoE, TEES, TTI, and President)
  - Departmental Faculty Search Committee, 2016-17
  - College Faculty Search Committee for Autonomous Systems, 2016-17
  - Promotion and Tenure Committee, 2016 (Appointed)
  - Departmental Representative on Engineering Innovation Center, College of Engineering, Dec. 2013-2016
  - Departmental Representative on Advanced Manufacturing Working Group, College of Engineering Dec. 2013-2016
  - Member, Engineering Faculty Advisory Council (EFAC), College of Engineering, May 2013-Apr. 2016 (Elected)
  - Department Awards Committee, 2012-2019
  - Graduate Admission Committee, 2012-2013, 2014-2016
  - Departmental Climate Committee, 2012-2013
  - Industrial Affiliates Program (IAP) Liaison (Valero, 2010-), (Pariveda Solutions, 2012-)
  - Undergraduate Curriculum Committee (UGCC), Computer Science and Engineering Department, 2008-2009, 2009-2010, 2010-2011, 2012-2013
  - Faculty Advisor, Upsilon Pi Epsilon (UPE), Computer Science and Engineering Department, 2010-2011, 2012-present
  - Web Committee, Computer Science Department, 2007-2008
  - Communication Committee, Computer Science Department, 2006-2007
  - Space Committee, Computer Science Department, 2005-2006
  - Library Committee, Computer Science Department, 2004-2005

CONFERENCE PROGRAM COMMITTEE MEMBER

- Senior Program Committee Member, IEEE/RSJ International Conference on Robots and Intelligent Systems (IROS), 2020, 2021, 2023
- International Workshop on Algorithmic Foundations of Robotics (WAFR), 2006, 2014-2022, 2024
- The 4th International Conference on Simulation, Modeling, and Programming for Autonomous Robots (SIMPAR 2014), Bergamo, Italy, October 20-23, 2014
- International Conference on Robotics Science and Systems (RSS), 2006-2009, 2013-2015
- IEEE International Conference on Automation Science and Engineering (CASE), 2012
- IEEE International Conference on Mechatronics and Automation (ICMA), 2010

- IFAC Workshop on Networked Robotics October 6-8, 2009, Golden, Colorado, USA
- International Workshop on Robotic Wireless Sensor Networks (RWSN 2009), Held in conjunction with the International Conference on Distributed Computing in Sensor Systems (DCOSS)
- Special track on Physically Grounded Artificial Intelligence (PGAI), AAAI 2008
- IEEE International Conference on Robotics and Automation (ICRA), 2006
- IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2006, 2005
- The First Workshop on Wireless Multihop Communications in Networked Robotics, April 4th, 2008, Berlin, Germany, http://www.wmcnr.org
- International Conference on Advanced Robotics (ICAR), 2007, 2005
- IEEE International Conference on Mechatronics and Automation (ICMA), 2005

INVITED TALKS – EXTERNAL

TE1. *Co-Modality Active sensing and Perception (C-MAP) in Autonomous Vehicles, Augmented Reality, Robotic Grasping, and Precision Agriculture*, Guimu Robotics, Chengdu, China, July. 13, 2024
TE2. *Toward Robotic Weed Removal*, Zhongnan University, Changsha, China, July 12, 2024
TE3. *Co-Modality Active sensing and Perception (C-MAP) in Autonomous Vehicles, Augmented Reality, Robotic Grasping, and Precision Agriculture*, Shenzhen Institute of Advanced Technology (SIAT), Chinese Academy of Science (CAS), Shenzhen, China, July. 8, 2024
TE4. *How to Publish High Quality Papers*, Shenzhen Institute of Advanced Technology (SIAT), Chinese Academy of Science (CAS), Shenzhen, China, July. 7, 2024
TE5. *Toward Robotic Weed Removal*, Nankai University, Tianjin, China, July 1, 2024
TE6. *A Few Attempts to Improve Robustness of Visual SLAM*, Civil Aviation University of China, Tianjin, China, June 30, 2024
TE7. *Co-Modality Active sensing and Perception (C-MAP) in Autonomous Vehicles, Augmented Reality, Robotic Grasping, and Precision Agriculture*, University of Macau, Nov. 27, 2023
TE8. *Toward Robotic Weed Removal*, Zhejiang University, Hangzhou, China, Nov. 3, 2023 [Online]
TE9. *Toward Robotic Weed Removal*, International Conference on Intelligent Agricultural Robotics, Jiangsu Industrial Technology Research Institute (JITRI), Nanjing, China, Oct. 23, 2023
TE10. *Co-Modality Active sensing and Perception (C-MAP) in Autonomous Vehicles, Augmented Reality, Robotic Grasping, and Precision Agriculture*, Mohamed Bin Zayed University of Artificial Intelligence (MBZUAI), Abu Dhabi, UAE, April 25, 2023
TE11. *Co-Modality Active sensing and Perception (C-MAP) in Autonomous Vehicles, Augmented Reality and Robotic Grasping*, Texas Regional Robotics Symposium, April 14, 2023, Rice University, Houston, Texas [**Keynote Speaker**]
TE12. *A Few Attempts to Improve Robustness of Visual SLAM*, **Keynote talk**, the 5th CVPR Workshop on Visual Odometry and Computer Vision Applications Based on Location Clues, June 19th, 2022
TE13. *From Motorcycle to Chevy Bolt: A Journey of Sensor Fusion in Navigation*, Texas Regional Robotics Symposium (TEROS), Apr. 29, 2022
TE14. *From Motorcycle to Chevy Bolt: A Journey with MATLAB in Autonomous Vehicles and Robots Research*, MathWorks Automotive Conference 2022, Apr. 7, 2022
TE15. *Robust Perception for Robots: Sensor Fusion from Algorithm to Device Design*, Nankai University, Nov. 23, 2020
TE16. *Robust Perception for Robots: Sensor Fusion from Algorithm to Device Design*, Lockheed Martin Seminar Series, Maryland Robotics Center, University of Maryland, Nov. 13, 2020
TE17. *Sensor Fusion and Its Applications in Autonomous Vehicles, Augmented Reality and Robotic Grasping*, Online forum, College of Control Science and Engineering, Zhejiang University, May. 16, 2020
TE18. *Sensor Fusion and Its Applications in Autonomous Vehicles, Augmented Reality and Robotic Grasping*, ECE Distinguished Lecture Series, ECE Department, Oklahoma State University, Oct. 22, 2019

TE19. *Sensor Fusion in Action: from Autonomous Driving, Robonaut, to Fingertip Material Sensing*, Tencent, Beijing, China, Dec. 3, 2018
TE20. *Sensor Fusion in Action: from Autonomous Driving, Robonaut, to Fingertip Material Sensing*, Zhejiang University, Hangzhou, China, Dec. 4, 2018
TE21. *Sensor Fusion in Action: From Autonomous Driving, NASA Robonaut, to Fingertip Material Sensing*, Panel on Crossmodal Learning in Humans and Robots, The German Center for Research and Innovation (DWIH) and Universität Hamburg, New York City, NY, Oct. 16, 2018
TE22. *Sensor Fusion in Robot Navigation*, iCREATE 2018& HCR 2018, Shanghai, China, July 15th, 2018
TE23. *Sensor Fusion in Robot Navigation*, Civil Aviation University of China, Tianjin, China, July 3rd, 2018
TE24. *Robotic Search of Transient Targets*, Nankai University, Tianjin, China, July 2nd, 2018
TE25. *Sensor Fusion in Action: From Autonomous Driving, Robonaut, to Railway Inspection*, The Third Westlake International Robot Forum (WIRF), Hangzhou, China, Dec 21-23, 2017
TE26. *From Autonomous Motorcycle to Bridge Deck Scanning: Visual Navigation for Size and Power Constrained Mobile Robots*, Zhejiang University, Hangzhou, China, July 28, 2017
TE27. *From Autonomous Motorcycle to Bridge Deck Scanning: Visual Navigation for Size and Power Constrained Mobile Robots*, Zixing Artificial Intelligence Institute, Changsha, China, July 17, 2017
TE28. *Robotic Search of Transient Targets*, Zhongnan University, Changsha, China, July 17, 2017
TE29. *From Autonomous Motorcycle to Bridge Deck Scanning: Visual Navigation for Size and Power Constrained Mobile Robots*, University of Shanghai for Science and Technology, Shanghai, China, Oct. 16, 2016
TE30. *From Autonomous Motorcycle to Bridge Deck Scanning: Visual Navigation for Size and Power Constrained Mobile Robots*, Zhejiang University, Hangzhou, China, July 28, 2016
TE31. *Robotic Search of Transient Targets*, Chinese University of Hong Kong (Shenzhen), Shenzhen, China, July 27, 2016
TE32. *Robotic Search of Transient Targets*, Shenzhen Institute of Advanced Technology (SIAT), Chinese Academy of Science (CAS), Shenzhen, China, July 25, 2016
TE33. *From Autonomous Motorcycle to Bridge Deck Scanning: Visual Navigation for Size and Power Constrained Mobile Robots*, Kunshan Industrial Technology Research Institute, Kunshan, Jiangsu Province, China, May 27, 2016.
TE34. *From Autonomous Motorcycle to Bridge Deck Scanning: Visual Navigation for Size and Power Constrained Mobile Robots*, The Second Westlake International Robot Forum, Hangzhou, China, May 23, 2016
TE35. *Robotic Search of Transient Targets*, University of Colorado, Boulder, April 7, 2016
TE36. *Robotic Search of Transient Targets*, TAMU Robotics Workshop, April 1, 2016
TE37. *A Remote Testbed in the Wilderness: Collaborative Observation of Natural Environments*, NSF Workshop on Accessible Remote Testbed (ART), Nov. 11-13, Washington DC, 2015
TE38. *Monocular Visual Navigation for Size and Power Constrained Mobile Robots*, Zhejiang University (ZJU), Hangzhou, China, June 9, 2014
TE39. *Cloud Mediated Nature Observation - From Teleoperation to Cloud Robotics*, IEEE ICRA Workshop on "Crossing the Reality Gap: Control, Human Interaction and Cloud Technology for Multi- and Many- Robot Systems," Hong Kong, China, June 1, 2014
TE40. *Visual Navigation and Cloud Mediated Nature Observation*, University of Science and Technology, China (USTC), Hefei, China, May 19, 2014
TE41. *Cloud Robotics and Manufacturing*, Advance Manufacturing Working Group, College of Engineering, Feb. 21, 2013
TE42. *Cloud Mediated Nature Observation*, IEEE/NSF Workshop on Cloud Manufacturing and Automation, Madison, Wisconsin, Aug. 17, 2013
TE43. *Collaborative Observation of Natural Environments*, Nankai University, Tianjin, China, July. 4, 2013
TE44. *Collaborative Observation of Natural Environments*, Shenyang Institute of Automation (SAT), Chinese Academy of Science (CAS), Shenyang, China, July. 3, 2013
TE45. *How to Publish High Quality Papers*, Shenzhen Institute of Advanced Technology (SIAT), Chinese Academy of Science (CAS), Shenzhen, China, Jun. 27, 2013

TE46. *Robotic Localization of Hostile Sensor Network*, Nankai University, Tianjin, China, Dec. 6, 2011
TE47. *Vision-based Navigation: Two Case Studies*, Kunshan Industrial Technology Research Institute, Shanghai, China, Dec. 1, 2011
TE48. *Vision-based Navigation: Two Case Studies*, the Shenzhen Institute of Advanced Technology (SIAT), Chinese Academy of Science (CAS), Shenzhen, China, Nov. 18, 2011
TE49. *Vision-based Navigation: Two Case Studies*, Dongfang Electric Corporation, Chengdu, Sichuan Province, China, Nov. 18, 2011
TE50. *Collaborative Observatories for Natural Environments*, UAS Video Tracking Workshop and Challenge, 25-26 October 2011, Texas A&M University, College Station, TX
TE51. *Collaborative Observatories for Natural Environments*, Department of Computer and Information Engineering, HoHai University, Changzhou, China, May 20, 2011
TE52. *Robotic Localization of Hostile Sensor Network*, the Shenzhen Institute of Advanced Technology (SIAT), Chinese Academy of Science (CAS), Shenzhen, China, May 19, 2011
TE53. *Vision-Based Navigation for an Autonomous Motorcycle*, Nanjing University of Science and Technology, Nanjing, China, May 18, 2011
TE54. *Vision-based Bird-Detection: Assisting the Search for Ivory-Billed Woodpeckers*, Seminar Series Oct. 26, 2010 – Texas A&M University at Galveston
TE55. *Collaborative Observatories for Natural Environments*, Workshop on Intelligent Systems: A Festschrift for Richard Volz Texas A&M University, College Station, TX April 8-10, 2010
TE56. *Collaborative Observatories for Natural Environments*, Workshop on Human-Environment Mobile-Based Interactions, MIT Media Lab, Sep. 15, 2009
TE57. *Collaborative Observatories for Natural Environments*, Rio Brazos Audubon, July 8, 2009
TE58. *Collaborative Observatories for Natural Environments*, Kavraki Lab, Department of Computer Science, Rice University, April 7, 2009
TE59. **Keynote Speaker**: *Collaborative Observatories for Natural Environments*, International Workshop on Distributed Sensing and Collective Intelligence in Biodiversity Monitoring, Amsterdam, The Netherlands, Dec. 3-5, 2008
TE60. *Collaborative Observatories for Natural Environments*, Center for Perceptual Robotics, Intelligent Sensors and Machines, The City University of New York, Nov. 17, 2008
TE61. *Collaborative Observatories for Natural Environments*, the Workshop on Network Robot Systems: Ubiquitous, Cooperative, Interactive Robots for Human Robot Symbiosis, IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), San Diego, California, U.S.A. October 29, 2007
TE62. *Collaborative Observatories for Natural Environments*, the Workshop on Robotic Sensor Networks, Robotic Science and Systems Conference, Atlanta, GA, Jun. 30, 2007
TE63. *Collaborative Observatories for Natural Environments*, Institute of Automation, China Academe of Science, Beijing, China, Oct. 13, 2006
TE64. *Networked Robotic Cameras for Collaborative Observation of Natural Environments*, Institute of Robotics and Automatic Information System, Nankai University, Tianjin, China, Jul 25, 2006
TE65. *Networked Robotic Cameras for Collaborative Observation of Natural Environments*, Workshop on Network Robot Systems: Toward Intelligent Robotic Systems Integrated with Environments, IEEE International Conference on Robotics and Automation (ICRA), Orlando, Florida, May 19, 2006
TE66. *Collaborative Observatory for Natural Environments*, the 12th International Symposium of Robotics Research, Oct 12th-15th, 2005, San Francisco, CA, USA
TE67. *Networked Robotic Cameras (NRC): Algorithms and Systems*, Center for Intelligent System Seminar, University of California, Berkeley (Mar. 17, 2005)
TE68. *Wireless Network Architectures for Collaborative Tele-operation*, Workshop on Wireless and Networked Robot, IEEE International Conference on Robotics and Automation (ICRA 2004), New Orleans, April, 2004
TE69. *Systems and Algorithms for Collaborative Teleoperation*, Department of Computer Science, Texas A&M University, April 20, 2004
TE70. *Algorithms and Systems for Shared Access to a Robotic Streaming Video Camera*, ACM Multimedia 2003, Doctoral Symposium, November 2-8, Berkeley, CA, USA

INVITED TALKS – INTERNAL

TI1. *From Autonomous Motorcycle to Bridge Deck Scanning: Visual Navigation for Size and Power Constrained Mobile Robots,* System, Control and Robotics (SCR) Seminar, TAMU, Oct. 7, 2016
TI2. *From Autonomous Motorcycle to Bridge Deck Scanning: Visual Navigation for Size and Power Constrained Mobile Robots, ,* NSF REU and RET Program on Mechatronics, Robotics and Automated System Design, June 24, 2016
TI3. *Visual Navigation for Autonomous Robots and Vehicles,* NSF REU and RET Program on Mechatronics, Robotics and Automated System Design, July 17, 2015
TI4. *Visual Navigation for Autonomous Robots and Vehicles,* NSF REU and RET Program on Mechatronics, Robotics and Automated System Design, July 1, 2014
TI5. *Visual Navigation for Autonomous Robots and Vehicles,* CSCE 181, Department of Computer Science and Engineering, April 17, 2014
TI6. *Virtual Nexus: A CSE Perspective on Cyber Enabled Manufacturing,* Advanced Manufacturing Workgroup, College of Engineering, Texas A&M University, Mar. 21, 2014
TI7. *Cloud Robotics and Manufacturing,* Advanced Manufacturing Workgroup, College of Engineering, Texas A&M University, Feb. 21, 2014
TI8. *Enable Cloud-Assisted Robot Navigation with a Multi-Layer Feature Graph,* Industry Affiliates Program, Department of Computer Science, Texas A&M University, Mar. 2013
TI9. *Collaborative Observation of Natural Environments,* Industry Affiliates Program, Department of Computer Science, Texas A&M University, Mar. 2008
TI10. *ICRA 2006 Preview: A Minimum Variance Calibration Algorithm for Pan-Tilt Robotic Cameras in Natural Environments,* Parasol Seminar, Department of Computer Science, Texas A&M University, Apr. 28, 2006
TI11. *Robot Cameras for Rediscovery of Ivory Billed Woodpecker,* CPSC 681 Seminar, Department of Computer Science, Texas A&M University, Mar. 20, 2006 *Internet-Based Collaborative Teleoperation*, Industrial Affiliates Program (IAP) Event, Department of Computer Science, Texas A&M University, Sep. 14~15, 2004
TI12. *Network Human with Robot: Scalable Algorithms and Systems for Collaborative Teleoperation,* CPSC 681 Seminar, Department of Computer Science, Texas A&M University, Sep. 6, 2004
TI13. *Network Human with Robot: Scalable Algorithms and Systems for Collaborative Teleoperation,* Parasol Seminar, Department of Computer Science, Texas A&M University, Sep. 3, 2004
TI14. *Systems and Algorithms for Collaborative Teleoperation*, Department of Industrial Engineering and Operations Research, University of California, Berkeley, August 30, 2002, Berkeley, CA, USA

SELECTED MEDIA COVERAGE

M1. *Professor Creates App For Easy Assembly*, By Richard Nira, Texas A&M University College of Architecture, February 19, 2020
M2. *Texas A&M Lands $7 Million Federal Grant To Study Automated Driving Systems On Rural Roads*, By Amy Halbert, Texas A&M University College of Engineering, October 3, 2019
M3. *Reaching For The Stars, Grounded In Tradition*, By Sam Peshek, Texas A&M University Division of Marketing & Communications, July 1, 2019
M4. *A&M, NASA partner to design 'Robonaut,'* The BATT, Mar. 27, 2017
M5. *Robonaut – Perception in space*, By Rachel Rose, phys.org, Mar. 21, 2017
M6. *Dezhen Song awarded NSF grant to study new robotic system*, By: Kathy Flores, August 27, 2014, TAMU Engineering news.
M7. *Dr. Dezhen Song Awarded NSF Grant*, By: Tony Okonski, November 12, 2013, TAMU Engineering news.
M8. *Big Brother at the Bird Feeder* – by Anne Pinckard Berkeley Alumni Magazine, September/October, 2008
M9. *Ideal remote camera for locating Ivory-bills is just an idea*, by Matt Mendenhall, Associate Editor, December 2007, Birder's world

M10. *4 Robots That Are Saving the World: Smart machines help fix humanity's ecological screwups*, by Brittany Grayson, 09.07.2007, DISCOVER Magazine
M11. *Seeking Ivory-Billed Woodpecker, Multimedia Gallery*, National Science Foundation, August, 2007.
M12. *SF Bird-Watching Game Debuts From Craig's Backyard*, (CBS 5 / BCN) SAN FRANCISCO.\
M13. *Remote Biology*, by Chad Vander Veen, Jul 5, 2007, www.govtech.com
M14. *Birdwatching goes hi-tech with online video camera game*, By Sarah Yang, Media Relations, 19 April 2007, UC Berkeley News, ACM TechNews, Issue: Apr. 20, 2007
M15. *Robot Enlisted to Spot Rare Woodpecker*, Irene Klotz, Mar 5, 2007, Discovery News.
M16. *Automating The Search For the Ivory-Billed Woodpecker*, February 23, 2007: Podcast: 60-Second Science, ScientificAmerican.com.
M17. *Robot Bird-Watcher: An intelligent video system in an Arkansas bayou searches for an elusive bird*, By Rachel Ross, Tuesday, February 20, 2007, MIT Technology Review
M18. *We're going the way of the robot*, BY BRYN NELSON, February 20, 2007, newstoday.com
M19. *Robotic Cameras Join Search For 'Holy Grail Of Bird-watching'*, by Sarah Yang, 20-Feb-2007, ScienceDaily.com
M20. *AAAS: Big Brother for Birds*, Monday, 19 February 2007, Wired News
M21. *Robot hunts 'the Elvis of extinct birds,'* by Mark Henderson, Science Editor, February 19, 2007, TimesOnline
M22. *Robotic Eye on Celebrated Bird*, Monday, by Marc Kaufman, February 19, 2007; Page A07, Washingtonpost
M23. *Robot birdwatcher joins hunt for elusive woodpecker*, 12:39 19 February 2007, NewScientist.com news service Gaia Vince, San Francisco.
M24. *Robotic Cameras help Naturalists Locate Ivory-Billed Woodpecker*, by Shubha Krishnappa - February 19, 2007, www.themoneytimes.com
M25. *Robotic cameras to locate ivory-billed woodpecker*, Author : Mike Burns, Feb. 19, 2007, earthtimes.org
M26. *Robots join search for ivory-billed woodpecker*, Feb. 19, 2007, CNN news
M27. *Robotic Cameras Join Search for Elusive Woodpecker*, By REUTERS Published: February 18, 2007, New York Times
M28. *ACONE versus Woody*, Feb 17, 2007, p2pnet.net
M29. *Computer scientists join in search for ivory-billed woodpecker*, by Susan E. Cotton, Feb. 17, 2007, Eurekalert.org
M30. *Robotic cameras join search for 'Holy Grail of bird-watching'*, by Sarah Yang, 17-Feb-2007, Eurekalert.org
M31. *Computer scientists join in search for ivory-billed woodpecker*, by Susan E. Cotton, Feb. 17, 2007, www.biologynews.net
M32. *Hunt for Woodpecker Goes High-Tech*, Mike Lafferty, THE COLUMBUS DISPATCH, February 20th, 2007, AdvancedImagingPro.com
M33. *Song wins NSF CAREER award for teleoperated robotics research*, News Story 1398, November 16, 2006, by Susan E. Cotton, Texas A&M Engineering News, http://engineeringnews.tamu.edu/news/1398
M34. *The Ghost Bird and the Robot*, by David Pescovitz, Forefront Magazine (UC Berkeley Alumni Magazine), fall 2006
M35. *Robot Cameras in the Wild*, by David Pescovitz, Lab Notes, College of Engineering, Berkeley, mentioned by ACM Tech news, Volume 8, Issue 885: Wednesday, January 4, 2006
M36. *Computer scientist's robotic research to rival Animal Planet*, by Susan E. Cotton, Texas A&M Engineering News, August 19, 2005
M37. *Students design driverless motorcycle for competition*, By: Steven Romo, May 3, 2005, The Battalion Online.
M38. *Texas A&M-Berkeley team to compete in 2005 DARPA Grand Challenge*, by Bonnie L. Shortner, College of Engineering, Texas A&M University, April 20, 2005
M39. *Public Access to Robotic Camera Fosters Discourse*, The Daily Californian, By ANGELA CHEN, Contributing Writer, Wednesday, October 6, 2004
M40. *10,000 People, One Eye*, Computer Power User Magazine, Sep, 2004

M41. *Tele-Twister project proves that fun and games can also be educational*, Berkeley Engineering News, October 6 , 2003, Vol. 74, No. 7F.
M42. *Sharing A Vision* by David Pescovitz, Volume 3, Issue 5, June/July 2003, Lab Notes, College of Engineering, Berkeley
M43. *Robotic Tele-actor: A virtual tour guide with soul,* Forefront Magazine (UC Berkeley Alumni Magazine), Fall 2002
M44. *Who's In Control?* Rhizome Online, Feb 12, 2003
M45. *'Tele-actor?tours - the next best thing to being there?* Berkeleyan, Apr.24, 2002
M46. *TechTV report*, TechTV, Spring 2002
M47. *Your wish is my command* , New Scientist, Dec. 22, 2001
M48. *Let's Take a Walk to a New Frontier* , LA Times, Dec. 13, 2001
M49. *Robots: It's an Art Thing* , Wired News, Nov. 12, 2001
M50. *Being There*, Business 2.0, Oct, 2001