

CONTACT ISTB4 Room 677 *Voice:* (480)-727-4726
781 E Terrace Mall
Arizona State University *E-mail:* jnaneshwar.das@asu.edu
Tempe, AZ 85287-6004 USA *WWW:* <https://web.asu.edu/jdas>

RESEARCH robotics, machine learning, autonomous systems, unpiloted vehicles,
INTERESTS environmental monitoring, precision agriculture, marine sciences, geomorphology.

EDUCATION **University of Southern California** Los Angeles, California, USA

- Ph.D., Computer Science, May 2014
 - Dissertation: Data-driven Robotic Sampling for Marine Ecosystem Monitoring
 - Advisor: Prof. Gaurav S. Sukhatme
- M.S., Computer Science, May 2008
 - Specialization: Intelligent Robotics
 - Thesis: A Robotic System for Benthic Sampling Along a Transect
 - Advisor: Prof. Gaurav S. Sukhatme

P.E.S. Institute of Technology Bangalore, India
B.Engg., Telecommunication Engg., 2004

RESEARCH **Alberto Enrique Behar Research Professor,**
EXPERIENCE **School of Earth and Space Exploration** July 2018 — current
Arizona State University *Tempe, AZ*

- Director of the Distributed Robotic Exploration and Mapping Systems (DREAMS) Laboratory, developing autonomous exploration systems for spatio-temporal observation of environmental and biological processes, with special focus on exploration of extreme environments such as volcanoes, sub-Antarctic lakes and underwater habitats, and space.

Core faculty,
Center for Global Discovery and Conservation Science December 2019 — current
Arizona State University *Tempe, AZ*

- Developing automation for mapping of forests and coral reefs with aerial and underwater drones.

Postdoctoral Researcher, GRASP Laboratory June 2014 — June 2018
University of Pennsylvania *Philadelphia, PA*
Sponsor: Dr. Vijay Kumar

- Group leader of a USDA funded initiative to develop robot swarm for persistent monitoring in precision agriculture.
- Led an NSF CPS funded initiative to design a cloud-enabled robotics testbed to lower the barrier to entry to cyber-physical systems. More information at <https://openuav.us>

Research Assistant, Robotic Embedded Systems Laboratory Jan 2007—May 2014
University of Southern California *Los Angeles, California*

Worked with a team of researchers on the development of a networked aquatic observing system for inland and coastal waters, consisting of sensor buoys, and autonomous surface and underwater vehicles.

Research Collaborator May 2009—September 2013
Monterey Bay Aquarium Research Institute (MBARI) *Moss Landing, California*

Developed methodologies for mixed-initiative data-driven robotic sampling of dynamic oceanographic features such as algal blooms using underwater robots, drifters, and satellite imagery.

Visiting Doctoral Researcher July 2011—August 2011
École Polytechnique Fédérale de Lausanne (EPFL) *Lausanne, Switzerland*

Investigated environmental sampling using aerial robots and land-based spectrally-selective sensors.

PROFESSIONAL
EXPERIENCE

Software Developer July 2004 — July 2006
ThoughtWorks Technologies Pvt. Ltd. *Bangalore, India*

Designed and developed large-scale distributed enterprise applications using agile methodologies.

CURRENT AND
RECENT SPONSORED
RESEARCH

NASA STTR: Sub-centimeter Resolution Lunar Digital Twin for Collaborative and Immersive Mission Planning (awarded, June 2023)

NASA STTR: Rad-Hard Adaptive Dual-Mode Event-Based Vision and Perception for Autonomous Robot Operations, \$65,000, 7/25/2022-7/24/2023

NASA Tech Flights; Deployment Test for ExoCam Module Lunar Lander Descent Imaging \$149,607, 5/1/2021-4/30/2022

National Science Foundation : NSF Cyber-Physical Systems Virtual Organization: Active Resources, \$280,000, 10/1/2018 - 9/30/2022

NASA STTR Phase I: Planetary-scale Surface Feature Detection and Mapping for Future Exploration Missions \$24,538, 8/19/2019 - 1/18/2021

SCEC5 Year 3 Research Collaboration at Arizona State University, Rock Traits from Machine Learning: applications to precariously balanced rocks and fault scarps in Southern California \$12,338, 2/1/2019 - 1/31/2020

Gift from PG&E: Identify Fragile Geologic Features and Analyze their Dynamics. \$94,615, 1/31/2021-12/31/2021

TEACHING

SES 494/598, Autonomous Exploration Systems (Robotics I) Spring 2019 through 2023

SES 130/230, Coding for Exploration Fall 2019 through 2021

SES 484: ASU ASCEND Internship Fall 2022

REFERRED JOURNAL
AND MAGAZINE
ARTICLES

1. Chen, Z., Scott, C., Keating, D., Clarke, A., **Das, J.** Arrowsmith, R. (2023) Quantifying and analysing rock trait distributions of rocky fault scarps using deep learning. *Earth Surface Processes and Landforms*, 1– 17
2. Z. Chen, M. Wagner, **J. Das**, R. K. Doe, ; R. S. Cerveny, "Data-Driven Approaches for Tornado Damage Estimation with Unpiloted Aerial Systems" *Remote Sens.* 13, no. 9: 1669, 2021
3. **Das J**, Trembath-Reichert E. Deep diving with Clio., *Science Robotics* (commentary), November 2020, 25;5(48)
4. Unpiloted Aerial Systems (UASs) Application for Tornado Damage Surveys: Benefits and Procedures M Wagner, RK Doe, A Johnson, Z Chen, **J Das**, *Bulletin of the American Meteorological Society*, 2019
5. M Kalischuk, ML Paret, JH Freeman, D Raj, S Da Silva, S. Eubanks, D. J. Wiggins, M. Lollar, J. J. Marois, H. C. Mellinger, and **J. Das**, *Plant disease*, 2019
6. X. Liu, S. W. Chen, C. Liu, S.S. Shivakumar, **J. Das**, C.J. Taylor, J. Underwood, V. Kumar (2019). Monocular Camera Based Fruit Counting and Mapping with Semantic Data Association. *IEEE Robotics and Automation Letters*, 4(3), 2296-2303.
7. S. W. Chen, S. Skandan, S. Dcunha, **J. Das**, C. Qu, C.J. Taylor, V. Kumar, "Counting Apples and Oranges With Deep Learning: A Data-Driven Approach," in *IEEE Robotics and Automation Letters*, vol. 2, no. 2, pp. 781-788, April 2017.
8. R. Ehsani, D. Wulfsohn, **J. Das**, I.Z. Lagos, "Yield Estimation: A Low-Hanging Fruit for Application of Small UAS," in *ASABE Resource: Engineering & Technology for a Sustainable World*, July 2016, pp. 16-18.
9. R. Ehsani and **J. Das**, "Yield estimation in citrus with SUAVs," *Citrus Extension Trade Journals*, pp. 16-18, 2016
10. **J. Das**, F. Py, H. Harvey, J. Ryan, A. Gellene, R. Graham, D. Caron, K. Rajan, and G. Sukhatme, "Data-driven Robotic Sampling for Marine Ecosystem Monitoring", in *International Journal of Robotics Research*, 34(12):1435-1452, Oct 2015.
11. **J. Das**, F. Py, T. Maughan, T. O'Reilly, M. Messié, J. Ryan, G. Sukhatme, and K. Rajan, "Coordinated Sampling of Dynamic Oceanographic Features with Underwater Vehicles and Drifters", in *International Journal of Robotics Research*, Vol. 31, p. 626-646, April 2012.
12. A. Garcia-Olaya, F. Py, **J. Das**, and K. Rajan, "An On-line Utility based Multi-criteria Approach for Sampling Dynamic Ocean Fields", in *IEEE Journal of Oceanic Engineering*, April 2012.
13. R. Smith, **J. Das**, H. Heidarsson, A. de Menezes Pereira, F. Arrichiello, I. Cetinic, L. Darjany, M. Garneau, M. Howard, C. Oberg, M. Ragan, E. Seubert, E. Smith, B. Stauffer, A. Schnetzer, G. Toro-Farmer, D. Caron, B. Jones, and G. Sukhatme, "USC CINAPS Builds Bridges: Observing and Monitoring the Southern California Bight", in *IEEE Robotics and Automation Magazine*, vol. 17, no. 1, pp. 20-30, Mar 2010.
14. D. Caron, B. Stauffer, S. Moorthi, A. Singh, M. Batalin, E. Graham, M. Hansen, W. Kaiser, **J. Das**, A. de Menezes Pereira, A. Dhariwal, B. Zhang, C. Oberg, and G. Sukhatme, "Macro-to fine-scale spatial and temporal distributions and dynamics of phytoplankton and their environmental driving forces in a small subalpine lake in southern California, USA", in *Journal of Limnology and Oceanography*, vol. 53, no. 5, pp. 2333-2349, 2008.

REFEREED
CONFERENCE PAPERS

1. H. Anand, **J. Das**, Z. Chen, "The OpenUAV Swarm Simulation Testbed: a Collaborative Design Studio for Field Robotics", 2021 IEEE Conference on Automation Science and Engineering (CASE), in press (**Best Applications Paper finalist**)
2. A.L.G. Prasad Antervedi, Z. Chen, H. Anand, R. Martin, R. Arrowsmith, **J. Das**, "Terrain-Relative Diver Following with Autonomous Underwater Vehicle for Coral Reef Mapping", 2021 IEEE 17th International Conference on Automation Science and Engineering (CASE), 2021, pp. 2307-2312

3. Z. Chen, T. R. Scott, S. Bearman; H. Anand; D. Keating; C. Scott; J R. Arrowsmith; **J. Das**, "Geomorphological Analysis Using Unpiloted Aircraft Systems, Structure from Motion, and Deep Learning," 2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2020, pp. 1276-1283
4. G. Li, B.T. Gabrich, D.J. Saldana, **J. Das**, V. Kumar, M. Yim, "ModQuad-Vi: A Vision-Based Self-Assembling Modular Quadrotor", in *IEEE International Conference on Robotics and Automation (ICRA)*, 2019.
5. X. Liu, S. W. Chen, S. Aditya, N. Sivakumar, S. Dcunha, C. Qu, C.J. Taylor, **J. Das**, and V.Kumar, "Robust Fruit Counting: Combining Deep Learning, Tracking, and Structure from Motion", in International Conference on Intelligent Robots and Systems (IROS) 2018.
6. A. Lukina, A.Kumar, M. Schmittle, A. Singh, J. Das, S.Rees, C. Buskirk, J. Sztipanovits, R. Grosu, V.Kumar, (2018). Formation Control and Persistent Monitoring in the OpenUAV Swarm Simulator on the NSF CPS-VO. In Proceedings - 9th ACM/IEEE International Conference on Cyber-Physical Systems, ICCPS 2018 (pp. 353-354). [8443757] (Proceedings - 9th ACM/IEEE International Conference on Cyber-Physical Systems, ICCPS 2018).
7. M. Schmittle, A. Lukina, L. Vacek, **J. Das**, C. P. Buskirk, S. Rees, J. Sztipanovits, R. Grosu and V. Kumar, "OpenUAV: A UAV Testbed for the CPS and Robotics Community," 2018 International Conference on Cyber-Physical systems (ICCPS), Porto, Portugal, pp. 130-139.
8. L. Vacek, E. Atter, P. Rizo, B. Nam, R. Kortvelesy, D. Kaufman, **J. Das**, V. Kumar, "sUAS for deployment and recovery of an environmental sensor probe," 2017 International Conference on Unmanned Aircraft Systems (ICUAS), Miami, FL, USA, 2017, pp. 1022-1029.
9. D. Orol, **J. Das**, L. Vacek, I. Orr, M. Paret, C.J. Taylor, V. Kumar, "An aerial phyto-biopsy system: Design, evaluation, and lessons learned," 2017 International Conference on Unmanned Aircraft Systems (ICUAS), Miami, FL, USA, 2017, pp. 188-195.
10. S. K. Sarkar, **J. Das**, R. Ehsani and V. Kumar, "Towards autonomous phytopathology: Outcomes and challenges of citrus greening disease detection through close-range remote sensing," 2016 IEEE International Conference on Robotics and Automation (ICRA), Stockholm, 2016, pp. 5143-5148.
11. **J. Das**, G. Cross, C. Qu, A. Makineni, P. Tokekar, Y. Mulgaonkar, V. Kumar, "Devices, Systems, and Methods for Automated Monitoring enabling Precision Agriculture," in IEEE International Conference on Automation Science and Engineering (CASE), vol., no., pp.462-469, 24-28 Aug. 2015
12. P. Ngo, **J. Das**, J. Ogle, J. Thomas, W. Anderson and R. N. Smith, "Predicting the speed of a Wave Glider autonomous surface vehicle from wave model data," 2014 IEEE/RSJ International Conference on Intelligent Robots and Systems, Chicago, IL, 2014, pp. 2250-2256.
13. K. Gomes, D. Cline, D. Edgington, M. Godin, T. Maughan, M. McCann, T. O'Reilly, F. Bahr, F. Chavez, M. Messié, **J. Das**, K. Rajan, "ODSS: A Decision Support System for Ocean Exploration", In *29th IEEE International Conference on Data Engineering, Workshop on Data-Driven Decision Guidance and Support Systems (DGSS) 2013*.
14. **J. Das**, J. Harvey, F. Py, H. Vathsangam, R. Graham, K. Rajan, and G. Sukhatme, "Hierarchical Probabilistic Regression for AUV-based Adaptive Sampling of Marine Phenomena, In *IEEE International Conference on Robotics and Automation, 2013*.
15. W. Al-Sabban, **J. Das**, and R. N. Smith, "Persistent robot tasking for environmental monitoring through crowd-sourcing," 2013 OCEANS - San Diego, San Diego, CA, 2013, pp. 1-6
16. **J. Das**, W. Evans, M. Minnig, A. Bahr, G. Sukhatme, and A. Martinoli, "Environmental Sensing using Land-based Spectrally-selective Cameras and a Quadcopter", In *13th International Symposium on Experimental Robotics, 2012*.
17. R. Graham, F. Py, **J. Das**, D. Lucas, and K. Rajan, "Exploring Space-Time Tradeoffs in Autonomous Sampling for Marine Robotics", in 13th International Symposium on Experimental Robotics, 2012.
18. R. Smith, **J. Das**, G. Hine, W. Anderson, and G. Sukhatme, "Predicting Wave Glider Speed from Environmental Measurements", In MTS/IEEE OCEANS '11, Kona, Hawaii, Sep 2011.

19. **J. Das**, T. Maughan, M. McCann, M. Godin, T. O'Reilly, M. Messié, F. Bahr, K. Gomes, F. Py, J. Bellingham, G. Sukhatme, and K. Rajan, "Towards Mixed-initiative, Multi-robot Field Experiments: Design, Deployment, and Lessons Learned", In *IEEE/RSJ International Conference on Intelligent Robots and Systems*, 2011.
20. **J. Das**, F. Py, T. Maughan, T. O'Reilly, M. Messié, J. Ryan, K. Rajan, and G. Sukhatme, "Simultaneous Tracking and Sampling of Dynamic Oceanographic Features with AUVs and Drifters", In 12th International Symposium on Experimental Robotics, 2010, Dec 2010.
21. R. Smith, **J. Das**, Y. Chao, D. Caron, B. Jones, and G. Sukhatme, "Cooperative Multi-AUV Tracking of Phytoplankton Blooms based on Ocean Model Predictions", In Oceans '10 - IEEE Sydney, Sydney, Australia, May 2010.
22. **J. Das**, K. Rajan, S. Frolov, J. Ryan, F. Py, D. Caron, and G. Sukhatme, "Towards Marine Bloom Trajectory Prediction for AUV Mission Planning", In IEEE International Conference on Robotics and Automation, pp. 4784 - 4790 , May 2010.
23. F. Arrichiello, **J. Das**, H. Heidarsson, A. de Menezes Pereira, S. Chiaverini, and G. Sukhatme, "Multi-Robot Collaboration with Range-Limited Communication: Experiments with Two Underactuated ASVs", In The 7th International Conference on Field and Service Robots, Cambridge, Massachusetts, Jul 2009.
24. **J. Das**, and G. Sukhatme, "A Robotic Sentinel for Benthic Sampling along a Transect", In IEEE International Conference on Robotics and Automation, pp. 206 - 213 , May 2009.
25. R. Smith, B. Stauffer, **J. Das**, H. Heidarsson, A. de Menezes Pereira, Y. Chao, L. Darjany, I. Cetinic, D. Estrin, C. Oberg, M. Ragan, B. Jones, G. Sukhatme, and D. Caron, "Design and Implementation of Sensor Networks for the Observation and Research of Harmful Algal Blooms in Southern California Coastal Waters", In *Proceedings of the Conference on Coastal Environmental Sensing Networks*, pp. 5-7, Boston, MA, Jul 2009.
26. M. Gupta, **J. Das**, M. Vieira, H. Heidarsson, H. Vathsangam, and G. Sukhatme, "Collective Transport of Robots: Emergent Flocking from Minimalist Multi-robot Leader-following", In IEEE/RSJ International Conference on Intelligent Robots and Systems, 2009.
27. F. Arrichiello, D. Liu, S. Yerramalli, A. de Menezes Pereira, **J. Das**, U. Mitra, and G. Sukhatme, "Effects of underwater communication constraints on the control of marine robot teams", In International Conference on Robot Communication and Coordination, Odense, Denmark, Mar 2009
28. A. de Menezes Pereira, **J. Das**, and G. Sukhatme, "An Experimental Study of Station Keeping on an Underactuated ASV", In IEEE/RSJ International Conference on Intelligent Robots and Systems, pp. 3164-3171, 2008.

WORKSHOP/CONFERENCE
ABSTRACTS

1. Jason Achilles Mezilis, Will Hovik, Kris Zacny, Dean Bergman, Jim Bell, Daniel C Jacobs, J Das, C McCormick, M Adkins, Harish Anand, Abdullah Masud, Lakshmi Gana Prasad Antervedi, Darwin Mick, K Davis, 'Lunar ExoCam 2021 Payload Test Flight Report', 53rd Lunar and Planetary Science Conference (2022)
2. Rakshith Vishwanatha, Jnaneshwar Das, Roberta Martin, Heather Throop, Wenlong Zhang, Reza Ehsani, Real-Time Semantic Mapping of Tree Topology Using Deep Learning and Multi-Sensor Factor Graph, IEEE International Conference on Robotics and Automation (ICRA) Workshop on Agricultural Robotics, 2022, Philadelphia PA (2022)

DISSERTATION

Data-driven Robotic Sampling for Marine Ecosystem Monitoring. *Ph.D. dissertation, Computer Science, Viterbi School of Engineering, University of Southern California, Los Angeles, CA, USA, May 2008.*

PATENTS

- Systems, Devices, and Methods for Robotic Remote Sensing for Precision Agriculture, V.Kumar, G. Cross, C. Qu, J. Das, A. Makineni, Y. Mulgaonkar; US Patent App. 15/545,266, 2017.

-
- Systems, Devices, and Methods for Agricultural Sample Collection, D. Orol, L. Vacek, D. Kaufman, J. Das, V. Kumar; US Patent App. 15/974,243, 2018.
- SAMPLING OF INVITED TALKS AND DEMONSTRATIONS
- Autonomous Systems Lab, ETH Zurich, Switzerland, 2011.
 - GRASP Special Seminar, University of Pennsylvania, “Data-driven Robotic Sampling for Marine Ecosystem Monitoring”, January 2014.
 - Google Los Angeles, Venice Beach, California, “Robotic Explorers for Environmental Monitoring”, May 2014.
 - Workshop for UAV Applications in Agriculture, Lake Alfred, Florida, “Autonomous Aerial Robots for Precision Agriculture”, March 2015.
 - Special Session on UAVs for Applications in Plant Pathology, American Phytopathological Society (APS) Meeting, Pasadena, California, “Autonomous Aerial Robots for Precision Agriculture”, August 2015.
 - Invited talk at North Florida Research and Education Center, University of Florida, “Autonomous Aerial Robots for Precision Agriculture”, January 2016.
 - Invited demonstration and interactive session at the Congressional Robotics Caucus for Fifth anniversary of the National Robotics Initiative, U.S. Capitol Complex, June 2016.
 - CPS Frontiers Projects Panel talk at NSF CPS PI meeting, “UAV testbed for the CPS community”, October 2016.
 - Workshop on CPS Challenges for Unmanned and Autonomous Systems at the NSF PI meeting, NSF CPS PI Meeting, “OpenUAV: CPS Testbed for Aerial Autonomy”, November 2017.
 - Invited talk at Phenome 2019, Tucson, AZ, “Robots in the Wild – Collaborative Exploration and Mapping”, February 2019.
 - Planetary Surface Feature Mapping Leveraging Robotics and AI, Prorok Lab, Cambridge University, March 2020.
 - Plenary talk at the Southern California Earthquake Center (SCEC) annual meeting, ‘Robotics and AI for the advancement of earthquake science’, September 2020
 - AGU Fall meeting, AI session invited talk, December 2020.
 - 2020 ASU ‘sunhacks’ session on drone hacking, October 2020.
 - New Discovery Lecture Series (with Heather Throop), “Earth Innovation: Collaborative Science and Engineering for Exploring Desert Ecosystems”, April 2021.
 - Invited mobile interactive projection mapping show ‘Earth Realm Dynamics’ by DREAMS lab at the Mesa Art Center season kickoff festival Wonderland (September 10, 2021).
 - Invited talk: Brown University DEEPS colloquium, April 2021
 - Invited talk: New York University, August 2021
 - Invited talk: Lehigh University, March 2022
- AWARDS
- Alberto Enrique Behar Research Professorship, ASU School of Earth and Space Exploration, (May 2018)
 - NSF award for extended research visit of the Distributed Intelligent Systems and Algorithms Laboratory (DISAL) at the École Polytechnique Fédérale de Lausanne (EPFL) in Lausanne, Switzerland (July 2011 - September 2011)
 - NSF award to attend International Joint Conferences on Artificial Intelligence (IJCAI) 2011 Doctoral Consortium in Barcelona, Spain
- MENTORING
- Postdoctoral scholars: Luiza Aparecido, Alex Cueva Rodriguez, Zhiang Chen
 Ph.D. students: Zhiang Chen (graduated 2022), Yanbo Zhang, Madeline Schwarz, Mindy Zuckerman
 Masters students: Harish Anand, Sarah Bearman, Devin Keating, Alex Goldman, Ashwin Jose, Philip Mulford, Prasad Antervedi, Rakshith Vishwanatha, Desmond Hanan, Abdullah Masud, Antonio Acuna, Aravind Adith, Yash Shethwala, Saransh Jain, Bhavya Shah, Mohz Zaid, Krutarth Bhatt.
 Undergraduate students: Rodney Staggers, Cat Collins, Ethan Duncan, Darwin Mick, Katrina Davis, Zion Basque, Benjamin Danek, Wesam Alzahir, Melissa Parkhurst.
- PROFESSIONAL ACTIVITIES AND SERVICE
- Event Organization:** Co-organizer of “USC Water Institute Graduate Student Symposium on Ocean Observing and Monitoring”, University of Southern California, Los Angeles, CA, May 2012;

Co-organizer of “Robotics Sciences and Systems (RSS) 2014 Workshop on Robotic Monitoring”, Berkeley, CA, July 2014; Co-organizer of “International Conference on Robotics and Automation (ICRA) 2015 Workshop on Robotics in Agriculture”, Seattle, Washington, May 2015; Co-organizer of “Robotics Sciences and Systems (RSS) 2019 Workshop - Robots in the Wild: Challenges in Deploying Robust Autonomy for Robotic Exploration”, Freiburg, Germany, June 2019; Session Chair of Human -Centered Automation at IEEE International Conference on Automation Science and Engineering; IROS 2020 co-chair for session on Aerial Robotics for Environmental Monitoring Plenary talk at 2020 SCEC annual meeting special session on AI for geosciences; Co-organizer of 2020 NSF Student Drone Challenge ‘SoilScope Mars edition’ themed around MARS 2020 mission, held virtually over a month using OpenUAV online simulation testbed; Robotics Science and Systems (RSS) 2020 workshop ‘Robots in the Wild: Challenges in Deploying Robust Autonomy for Robotic Exploration’.

Reviewing: NSF, NIFA, IEEE Transactions on Robotics, Science Robotics, IEEE Robotics and Automation Letters, Autonomous Robots, Biosystems Engineering, IEEE Journal of Oceanic Engineering, IEEE International Conference on Robotics and Automation, IEEE/RSJ International Conference on Intelligent Robots and Systems, Robotics Science and Systems, AAAI Conference on Artificial Intelligence, International Symposium on Experimental Robotics, Symposium on Distributed Autonomous Robotic Systems, Journal of Field Robotics.

Program Committee Member: International Symposium on Multi-Robot and Multi-Agent Systems (MRS) 2019, Associate Editor of IEEE International Conference on Robotics and Automation (ICRA) 2016 and 2017, International Symposium on Experimental Robotics (ISER) 2014, AAAI Conference on Artificial Intelligence 2014, AAAI Conference on Artificial Intelligence 2015, Robotics Sciences and Systems (RSS) 2015, International Joint Conference on Artificial Intelligence (IJCAI) 2016.

Journal Editing: Guest Editor of Journal of Field Robotics (JFR) Special Issue on Agricultural Robotics, 2017.

PERSONAL

Nationality
Visa StatusIndian
H-1B