Dandan (Diana) Zhang

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Education:

PhD of Robotics, Imperial College London

Employment History:

Assitant Professor (Lecturer) in Robotics, Department of Engineering Mathematics, University of Bristol
(affliated with Bristol Robotics Lab)

Honorable/Visiting Researcher, Department of Electrical and Electronic Engineering, Imperial Collect London

Teaching:

- Lecturer for MSc Biosystems and Biorobotics at University of Bristol
- Lecturer for MSc Group Project of Biorobotics at University of Bristol
- Lecturer for Hamlyn Winter School on Surgical Imaging and Vision at Imperial College London

Leadership and Supervision:

- Deputy Programme Director for the MSc Biorobotics at University of Bristol
- Project Supervisor for Biorobotics/Robotics MSc students and interns at University of Bristol (10 students in total)
- Project Supervisor for Medical Robotics MRes students and interns at Imperial College London (6 students in total)
- Principle Investigator for intelligent robotics at University of Bristol

Indications of External Recognition & Academic Activities:

- Evaluator for the European Robotics Research Infrastructure Network (TerriNet)
- Awardee for Amazon PhD Prize for Outstanding Achievement in Robotics
- Reviewer for top conferences (IROS, ICRA, ARM), top journals (T-RO, T-NNLS, RA-L, RAS, T-MRB)
- Editorial Board Member for Frontiers in Neurorobotics and Frontiers in Neuroscience
- My paper has been highlighted by "This month in pictures" feature on Advanced Science News

Selected Academic Publications (2019-2021, recent 3 years): (*corresponding author)

1. **Dandan Zhang*** (first author), et al, "Distributed Force Control for Microrobot 6D Dexterous Manipulation Via Planar Multi-Spot Optical Tweezer", Advanced Optical Materials, 2020. (**JCR Q1**, IF: 8.3)
2. **Dandan Zhang*** (first author), et al, "Data-Driven Microscopic Pose and Depth Estimation for Optical Microrobot Manipulation", ACS Photonics, 2020. (**JCR Q1**, IF: 7.3)
3. **Dandan Zhang*** (first author), et al, "Automatic Microsurgical Skill Assessment Based on Cross-Domain Transfer Learning", IEEE Robotics and Automation Letters, 2020. (**JCR Q1**, IF: 3.6)
4. **Dandan Zhang*** (first author),et al, "A Self-Adaptive Motion Scaling Framework for Surgical Robot Remote Control", IEEE Robotics and Automation Letters, 2019. (**JCR Q1**, IF: 3.6)
5. **Dandan Zhang*** (first author)**,** et al, "An Ergonomic Shared Workspace Analysis Framework for the Optimal Placement of a Compact Master Control Console", IEEE Robotics and Automation Letters, 2020. (**JCR Q1**, IF: 3.6)
6. **Dandan Zhang*** (first author), et al, "WSRender: A Workspace Analysis and Visualization Toolbox for Robotic Manipulator Design and Verification", IEEE Robotics and Automation Letters, 2020. (**JCR Q1**, IF: 3.6)
7. **Dandan Zhang**, et al, "Progress in robotics for combating infectious diseases", Science Robotics, 2021. (**JCR Q1**, IF: 23.8)
8. **Dandan Zhang** (first author), et al, "Explainable Hierarchical Imitation Learning for Robotic Drink Pouring", IEEE Transaction on Automation Science and Engineering, 2021. (**JCR Q1**, IF: 4.9)
9. **Dandan Zhang*** (first author), et al, "Micro/Nano-Objects Pose Estimation Via a Sim-to-Real Learning-to-Match Approach Using Small Dataset", Communication Physics-Nature Portfolio (accepted in early 2022). (**JCR Q1**, IF: 6.4)
10. **Dandan Zhang*** (first author)**,** et al, "Design and Verification of a Portable Master Manipulator Based on an Effective Workspace Analysis Framework", 2019 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2019.
11. **Dandan Zhang*** (first author), et al, "A Handheld Master Controller for Robot-Assisted Microsurgery", 2019 IEEE/RSJ International Conference on Intelligent Robots and System (IROS), 2019.
12. **Dandan Zhang*** (co-first author), et al, "Supervised Semi-Autonomous Control for Surgical Robot Based on Bayesian Optimization", 2020 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2020.
13. **Dandan Zhang***, et al, "Real-time Surgical Environment Enhancement for Robot-Assisted Minimally Invasive Surgery Based on Super-Resolution", 2021 IEEE International Conference on Robotics and Automation (ICRA), 2021.
14. **Dandan Zhang*** (first author), et al, "Surgical Gesture Recognition Based on Bidirectional Multi-Layer Independently RNN with Explainable Spatial Feature Extraction", 2021 IEEE International Conference on Robotics and Automation (ICRA), 2021.