Ira A. Fulton Schools of Engineering
Arizona State University

School for Engineering of Matter, Transport and Energy

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Ph.D. and Master openings in Sun Robotics Lab at Arizona State University

The Sun Robotics Lab in the School of Matter, Transport, and Energy (SEMTE) at Arizona State University is currently seeking highly motivated individuals for fully-funded Ph.D. and Master positions in artificial muscle and soft robotics. The Ph.D position will cover tuition and offer a minimum stipend of $32,000 per year. The positions will be available in Spring or Fall 2024. Interested applicants should apply to ASU via https://webapp4.asu.edu/dgsadmissions/, specifying their interest in working with Prof. Jiefeng Sun. Additionally, please send an email titled "Prospective Ph.D. Student" or "Prospective Master Student" to thesunroboticslab@gmail.com, attaching your CV and a cover letter before submitting your application. Please visit https://sunrobotics.github.io for more information.

The mission of Sun robotics lab is to develop novel robots to

1. Adaptive to different environments
2. Safely interact with humans and improve the quality of life
3. Match the adaptivity, robustness, and maneuverability of natural organisms.

The main strategy is to combine mechanical and computational intelligence to build novel robots. Our research involves the mechanical design, modeling, and control of robots. We work on interdisciplinary research and grow as a team with diversity, equity, and inclusion.

Qualifications:

Project 1: Modeling and control of soft robots

1. BS or MS degree in the field of mechanical engineering, computer science, physics, electrical engineering, Civil engineering, or similar.
2. Experiences or interests in system modeling, control, machine learning, numerical computation, dynamics, solid mechanics, and computer graphics. Good math/mechanics background is a plus.
3. Preferred skills: MATLAB/Python/C++, FEA software (Abaqus/Ansys).

Project 2: Design of Artificial-muscle-driven robots

1. BS or MS degree in the field of mechanical engineering, electrical engineering, mechatronics, computer science, or similar.
2. Experiences or interests in in robotic mechanical design, quick prototyping, and mechatronics.
3. Preferred skills: Microcontrollers (Arduino/Raspberry PI), SolidWorks, Linux, and ROS.

PI:

Dr. Jiefeng Sun obtained his Ph.D. degree in mechanical engineering from Colorado State University. Before joining ASU, he is a postdoc with Prof. Rebecca Kramer-Bottiglio at Yale University. He obtained his BS and MS degree from Lanzhou University of Technology and Dalian University of Technology both in Mechanical Engineering. His work has been selected as the finalist for the best student paper award at the 2018 IROS. He is the associate editor of 2023 ICRA, and he is the Reviewer of the Year 2021 for Smart Materials and Structures Journal, a 2022 DARPA Riser, and an ASME-DSCD rising star.

Arizona State University:

Ranking: #41Mechanical Engineering, #43 Computer Science*, #34 Electrical Engineering.

Living: convenient life in Phoenix metropolitan area;15 mins to phoenix airport.

ASURobotics