Lower Limb Soft Exosuit - Personalized Gait Control

Project Description:

In recent years, the application of soft exosuit in elderly assistance and rehabilitation has garnered increasing international attention. This project aims to conduct in-depth research into key control technologies for lower limb soft exosuit in the elderly assistance scenario. It covers various specific aspects including gait control, scene recognition, and human-machine interaction. Our goal is to enhance the personalization and effectiveness of lower limb soft exosuit in gait assistance through this research, laying the groundwork for the widespread application of the exosuit in elderly assistance scenarios.

Job Description:

We are seeking a highly skilled and motivated research fellow specializing in UAV control systems to contribute to our cutting-edge research initiatives. The ideal candidate will have a strong background in robotics, control theory, and a passion for advancing the capabilities of unmanned aerial vehicles. The research fellow will play a key role in designing, implementing, and optimizing control algorithms for soft exosuit. Collaborating closely with a diverse team of researchers and engineers, you will actively contribute to the development and submission of research papers in decent reputable journals. Throughout the experience as a Focused Research Extended Experience (FREE) research fellow, you will be able to cultivate the relevant research and practical skills in a focused and extensive manner such that enhancing your chances for advancing graduate studies or getting a long term well-paid industrial job.

This position commences in or after early 2024, with individuals anticipated to initiate their responsibilities no later than Spring 2024. The term of employment spans two years, and the contract is structured for annual renewal.

Qualifications:

- Bachelor's or Master's degree in Mechanical, Electrical, Automation or Computer Science, or a related field with a focus on control, mechatronics, and autonomous system.
- Experience with control algorithm design, simulation and implementation.
- At least proficient in one programming language (such as C/C++/Python/Matlab) with practical experience.

For questions regarding this position, please contact Dr. Fashu Xu, at xufs@scu.edu.cn.