

Design and Position Servo Control of an Active Body-Weight Support Training System

Chao Wei¹, Tao Qin^{1*}, Xin Meng¹, Jinxing Qiu¹, Qilong Meng¹ and Bo Li^{1,2}

1.Mechanical Engineering, Hubei University of Arts and Sciences, China

2.Xiangyang Institute of Advanced Manufacturing Engineering , Huazhong University of Science and Technology, China

- An active BWSTS with double-shoulder suspension based on cable-driven was designed for rehabilitation training
- The mathematical model of the system drive unit was established by using mechanism analysis method
- The position servo control strategy with disturbance feedforward compensation was proposed to improve the system loading accuracy
- The system simulation model was built to prove the effectiveness of the position servo control strategy

