游洋威

个人信息

国籍： 中国	生日： 1989 年 11 月	
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教育背景

2014.11 - 2018.05 **热那亚大学**，意大利 博士
同 Italian Institute of Technology 联合培养
研究部门：Humanoids and Human Centered Mechatronics

2011.08 - 2013.07 **哈尔滨工业大学**，中国 硕士
机械电子方向，机器人国家重点实验室工学硕士

2007.08 - 2011.07 **哈尔滨工业大学**，中国 学士
机械设计制造及其自动化专业，保送研究生

项目经历

至今
2018.05 **研究员，Institute for Infocomm Research，新加坡**
- 足式机器人的运动控制，意大利新加坡政府联合项目 Pholus 和内部资助项目 ALSAT
- 负责新加坡国家机器人项目"基于语义的室内视觉无图导航"的运动控制模块

2018.05
2014.11 **人形机器人 WALK-MAN 的全身运动控制**
- 博士课题，基于优化的高层运动规划和全身动力学控制（欧盟 FP7 项目 WALK-MAN）
- 足式机器人的落脚点动态规划和平衡控制

2014.11
2013.07 **设计工程师，Sensata Technologies 中国**
- 汽车压力传感器设计，包括陶瓷电容变形元件的受力分析和设计
- 根据汽车行业标准进行产品测试安排及分析

2013.7
2011.7 **四足机器人 Trotting 步态的运动控制**
- 硕士课题，基于弹簧负载倒立摆模型和虚拟模型控制的三维四足机器人 Trotting 运动控制
（国家 863 计划项目）
- 对 Mac Raibert 启发式控制方法进行扩展研究，实现了四足机器人的奔跑转向控制

2012.10
2012.06 **接触电阻测量仪器的设计**
- 设计用于自动测量接触电阻的 3 轴运动平台和工装卡具，力控精度±5 mN，位控精度 0.1mm

2011.06
2010.10 **Whirlpool 微波炉的控制程序开发**
- 本科毕业设计课题，Whirlpool 和哈工大产学研联合项目，基于 STM8 微处理器，为
Vitesse2 系列微波炉进行控制程序开发

2010.09
2009.09 **便携式多功能救援装置的设计**
- 第四届大学生机械创新设计大赛全国一等奖作品，可折叠变形的多功能担架

专业技能

理论知识： 强化学习，优化理论，运动规划，阻抗控制，机器人动力学
编程语言： C，C++，Python，Matlab
软件应用： ROS, Gazebo, MoveIt!, SolidWorks, ADAMS, ANSYS, Git, ODE

获奖情况

2015 - 2018 Italian Institute of Technology 博士奖学金

2011 - 2013 哈工大研究生奖学金（一等一次，二等一次）

2007 – 2011　　　　哈工大本科人民奖学金（一等一次，二等四次，三等两次）
　　　　　　　　　大学生机械创新设计比赛全国一等奖
　　　　　　　　　Fuji Xerox 企业奖学金；STX 企业奖学金
　　　　　　　　　哈工大优秀毕业生

发表论文

1. Yangwei You, Samuel Cheong, Tai Pang Chen, Yuda Chen, Kun Zhang,Cihan Acar, Fon Lin Lai, Albertus Hendrawan Adiwahono, Keng Peng Tee. State Estimation for Hybrid Wheeled-Legged Robots Performing Mobile Manipulation Tasks. In International Conference on Robotics and Automation (ICRA), 2021.

2. Xinyuan Zhao, Yangwei You, Arturo Laurenzi, Navvab Kashiri and Nikos Tsagarakis. Locomotion Adaptation in Heavy Payload Transportation Tasks with the Quadruped Robot CENTAURO. In International Conference on Robotics and Automation (ICRA), 2021.

3. Iordanis Chatzinikolaidis, Yangwei You, and Zhibin Li. Locomotion with variable ground contact: An analytically solvable contact model for complementarity-free trajectory optimization. IEEE Robotics and Automation Letters (RA-L), 2020.

4. Garen Haddeler, Jianle Chan, Yangwei You, Verma Saurab, H. Adiwahono Albertus, and Chee Meng Chew. Explore bravely: Control of wheeled-legged robots traversing in unknown-unstructured environment. In International Conference on Intelligent Robots and Systems (IROS), 2020.

5. Jingyuan Sun, Yangwei You, Xuran Zhao, Hendrawan Adiwahono Albertus, and Chee Meng Chew. Towards more possibilities: Motion planning and control for hybrid locomotion of wheeled-legged robots. IEEE Robotics and Automation Letters (RA-L), 2020 (共同一作，通讯作者).

6. Yangwei You, Caixia Cai, and Yan Wu. 3D visibility graph based motion planning and control. In International Conference on Robotics and Artificial Intelligence (ICRAI), 2019.

7. Wenchao Gao, Jiawei Ong, Yangwei You, and Zhengguo Li. Asymptotic parallel parking for differential-drive vehicles in presence of static obstacles. In International Conference on Robotics and Artificial Intelligence (ICRAI), 2019.

8. Wenyu Liang, Jiawei Cao, Haozhen Chi, Yangwei You, Fei Chen, and Qinyuan Ren. Design and motion control of antagonistic soft actuators. In2019 14th IEEE Conference on Industrial Electronics and Applications (ICIEA), pages 1617–1622. IEEE, 2019.

9. Songyan Xin, Brian Delhaisse, Yangwei You, Chengxu Zhou, Mohammad Shahbazi, Nikos Tsagarakis. Neural-Network-Controlled Spring Mass Template for Humanoid Running.In International Conference on Intelligent Robots and Systems (IROS), 2018.

10. Songyan Xin, Yangwei You, Chengxu Zhou, Cheng Fang, and Nikos Tsagarakis. Humanoid Running based on Centroidal Dynamics and Heuristic Foot Placement. In International Conference on Robotics and Biomimetics (ROBIO), 2017.

11. Songyan Xin, Yangwei You, Chengxu Zhou, Cheng Fang, and Nikos Tsagarakis. A torque-controlled humanoid robot riding on a two-wheeled mobile platform. In International Conference on Intelligent Robots and Systems (IROS), 2017.

12. Yangwei You, Chengxu Zhou, Zhibin Li, and Nikos Tsagarakis. A study of nonlinear forward models for dynamic walking. In International Conference on Robotics and Automation (ICRA), 2017.

13. Yangwei You, Songyan Xin, Chengxu Zhou, and Nikos Tsagarakis. Straight leg walking strategy for torque-controlled humanoid robots. In International Conference on Robotics and Biomimetics (ROBIO), 2016.

14. Yangwei You, Zhibin Li, Darwin Caldwell, and Nikos Tsagarakis. From one-legged hopping to bipedal running and walking: A unified foot placement control based on regression analysis. In International Conference on Intelligent Robots and Systems (IROS), 2015.

15. Yangwei You, Zhibin Li, Nikos Tsagarakis, and Darwin Caldwell. Foot placement control for bipedal walking on uneven terrain: An online linear regression analysis approach. In International Conference on Climbing and Walking Robots and Support Technologies for Mobile Machines (CLAWAR), 2015.