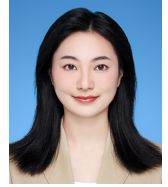


Yu Wang

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Wuhan, China



EDUCATION

Huazhong University of Science and Technology	Sep 2019 - Jun 2024
Ph.D in Mechanical Engineering (GPA: 3.72/4.00)	Wuhan
<ul style="list-style-type: none">Research Interests: Robotic Machining, Imitation Learning, Dynamic System, Reinforcement Learning, Optimal ControlAdvisor: Fangyu Peng	
Huazhong University of Science and Technology	Sep 2018 - Jun 2019
M.S in Mechanical Engineering	Wuhan
Nanjing University of Aeronautics and Astronautics	Sep 2014 - Jun 2018
B.S in Mechanical Engineering (GPA: 4.0/5.0, Top 5%)	Nanjing

RESEARCH EXPERIENCE

Fusion representation of force position continuous skills and micro data search based skills generalization of robot machining (National Natural Science Foundation of China)	Jan 2022 - Present
<ul style="list-style-type: none">Design and build a hardware platform for robot machining imitation learning and intelligent control research.Propose a robot polishing force-position coupling skill learning method based on expert demonstration.Propose a fast segmentation method for the machining stagePropose a contact position estimation method considering the contact torque	
Theoretical and methodological study on process data-driven robotic milling of complex segments (National Natural Science Foundation of China)	Jan 2021 - Present
<ul style="list-style-type: none">Propose B-spline dynamic movement primitives to improve trajectory learning accuracyPropose robot machining trajectory generalization method based on reinforcement learning and dynamic system	
CNC machining technology and equipment (National Science Fund for Distinguished Young Scholars)	Sep 2018 - Dec 2021
<ul style="list-style-type: none">Analyze the chattering phenomena and characteristics in robotic milling tasks, classify the vibration states into four categoriesPropose a chatter state identification method based on variational modal decomposition and information entropy	

SKILLS

Hardware:

UR16e, ABB IRB 6660, ATI Gamma & Onrobot HEX Force/Torque Sensor, Onrobot Sander, NAKANISHI & Jager Spindle

Software:

ROS, MATLAB, Python, C++, MuJoCo, LabVIEW

HONORS & AWARDS

Outstanding Doctoral Scholarships	Nov 2022
Merit Graduate Student	Nov 2020
Undergraduate School-level Outstanding Graduation Design (Thesis)	Jun 2018

PUBLICATIONS

Yu Wang, Chen Chen, Fangyu Peng, Zhouyi Zheng, Zhitao Gao, Rong Yan, Xiaowei Tang. "AL-ProMP: Force-relevant skills learning and generalization method for robotic polishing" [J]. Robotics and Computer-Integrated Manufacturing. 82, 2023, 102538. (IF=10.4, JCR: Q1)

Yu Wang, Mingkai Zhang, Xiaowei Tang, Fangyu Peng, Rong Yan. "A kMap optimized VMD-SVM model for milling chatter detection with an industrial robot"[J]. Journal of Intelligent Manufacturing. 2022, 33, 1483–1502. (IF=8.3, JCR: Q1, **ESI Highly Cited Paper**)

Yu Wang, Zhouyi Zheng, Chen Chen, Zezheng Wang, Zhitao Gao, Fangyu Peng, Xiaowei Tang, and Rong Yan. "Adaptive Tuning of Robotic Polishing Skills based on Force Feedback Model"[C]. 2023 IEEE International Conference on Robotics and Biomimetics (ROBIO).

Chen Chen, **Yu Wang**, ZhiTao Gao, FangYu Peng, XiaoWei Tang, Rong Yan, YuKui Zhang. "Intelligent learning model-based skill learning and strategy optimization in robot grinding and polishing" [J]. Science China Technological Sciences. 2022, 65, 1957-1974. (IF=4.6, JCR: Q1)

Zhouyi Zheng, **Yu Wang**, Chen Chen, Zhitao Gao, Fangyu Peng and Rong Yan. "Admittance Control for Robot Polishing Force Tracking Based on Reinforcement Learning"[C]. International Conference on Intelligent Robotics and Applications (ICIRA).