ZeruiWANG

a Ph.D. candidate who is obsessed by robotics

about

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languages

Chinese
English

programming

C++/C
Python

education

since 2013 **Ph.D.** in Mechanical & Automation Engineering — The Chinese Univ. of Hong Kong
Cumulative GPA: *3.917/4*
Research interests:
Safety mechanism design in robotic surgery
Visual servoing in surgical robot

2012 **Exchange** in Europe — TU Delft, VUB, U-PSUD, ECP, ISAE
Most selective elite delegation among students (top 0.75%)

2009–2013 **BEng.** in Quality and Reliability Engineering — Beihang University
Overall GPA: *3.84/4 (90.04/100)*
Rank **1st** in School of Reliability & System Engineering

2006–2009 **Senior high school student** — Urumqi No.1 Senior High School
Top 0.18% in the National College Entrance Examination
The 1st Prize in National Olympiad in Informatics
The 2nd Prize in Chinese Physics Olympiad
Nominated as Excellent Student for **three** consecutive years

honors & awards

Aug. 2013 **Awardee of Hong Kong PhD Fellowship**

Nov. 2012 **Champion of Innovative Underwater Robot Design**
China Robot Contest & RoboCup Open

Jul. 2012 **The 2nd-Prize in National University Mechanical Innovation Competition**
(10%)

Dec. 2010 **The 2nd-Prize in National Undergraduate Physics Competition**
(7.5%)

Nov. 2010 **National Scholarship for University Students**
(2.6%)

Nov. 2011 **Excellent Students Awards of Beijing**
(1.1%)

Nov. 2011 **Elite Student of Beihang University**
(3%)

Mar. 2012 **Outstanding Student Award, Yang Weimin Special Scholarship**
(0.8%)

Dec. 2011 **The 2nd-Prize Scholarship of Academic Contest**
(3%)

2010-2012 **The 1st-Prize Scholarship of Science and Engineering Contest**
(7%)

2010-2012 **The 1st-Prize Scholarship of Academic Performance**
(3%)

publications

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Journal

Design of a Novel Compliant Safe Joint with Multiple Working States for Robotic Surgery
Z. Wang, H. M. Yip, D. Navarro-Alarcon, P. Li, Y.-H. Liu
IEEE/ASME Trans. Mechatronics *(2015). 2015*

Development of an Assistive Surgical Robot for Laparoscopic Hysterectomy
H. M. Yip, Z. Wang, D. Navarro-Alarcon, P. Li, Y.-H. Liu, T. H. Cheung, Y. Fu
IEEE/ASME Trans. Mechatronics *(2015). 2015*

Automatic 3D Manipulation of Soft Objects by RCM Robotic Instruments with Adaptive Deformation Model
D. Navarro-Alarcon, H. M. Yip, Z. Wang, Y.-H. Liu, P. Li
IEEE Trans. Robot. *(2015). 2015*

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Conference

Design and Control of a Novel Multi-state Compliant Safe Joint for Robotic Surgery
Z. Wang, P. Li, D. Navarro-Alarcon, H. M. Yip, Y.-H. Liu, W. Lin, L. Li
IEEE Int. Conf. Robotics and Automation, 2015

A New Robotic Uterine Positioner for Laparoscopic Hysterectomy with Passive Safety Mechanisms: Design and Experiments
H. M. Yip, Z. Wang, D. Navarro-Alarcon, P. LI, Y.-H. Liu
IEEE/RSJ Int. Conf. Intelligent Robots and Systems, 2015

Gradient Descent Adaptive Methods to Automatically Position 3-DOF RCM Mechanisms with a Monocular Camera
D. Navarro-Alarcon, H. M. Yip, Z. Wang, Y.-H. Liu, W. Lin, P. LI
IEEE/RSJ Int. Conf. Intelligent Robots and Systems, 2015

A New Robotic Uterine Positioner for Laparoscopic Hysterectomy with Passive Safety Mechanisms: Design and Experiments
W. Lin, D. Navarro-Alarcon, P. LI, Z. Wang, H. M. Yip, Y.-H. Liu
IEEE/RSJ Int. Conf. Intelligent Robots and Systems, 2015

A Method to Regulate the Torque of Flexible-joint Manipulators with Velocity Control Inputs
D. Navarro-Alarcon, Z. Wang, H. M. Yip, Y. Liu, P. Li, W. Lin
IEEE Int. Conf. Robotics and Biomimetics, 2014

A new circular-guided remote center of motion mechanism for assistive surgical robots
H. M. Yip, P. Li, D. Navarro-Alarcon, Z. Wang, Y.-H. Liu
IEEE Int. Conf. Robotics and Biomimetics, 2014