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### **EDUCATION**

#### HARBIN INST. OF TECH.

PHD IN CONTROL ENGINEERING Expected Dec. 2018 | Harbin, CN

MENG IN CONTROL ENGINEERING

Sept. 2013 - Jul. 2015 | Harbin, CN Concentration. in Control Sc. & Engg. School of Astronautics

# NATIONAL UNIV. OF SCIENCES & TECHNOLOGY

BENG IN ELECTRONICS

**ENGINEERING** 

Nov. 2008 - Jul. 2012 | Islamabad, Pakistan School of FF & CS

# LINKS

Github://denoza LinkedIn://alianwar1 ResearchGate://alianwar9

# SKILLS

#### **PROGRAMMING**

Over 5000 lines:

C++ • Matlab • ATEX

Over 1000 lines:

C • Python • Assembly • Ansible Familiar:

Linux • GCC • CMake • SHELL

Libraries

OpenCV • Cafe • PCL • FLTK • ViSP

#### **LANGUAGES**

Fluency
English • Urdu
Limited Working Proficiency
Mandarin • German

#### **HARDWARE**

Efort Industrial Manipulator • Basler Industrial Cameras • Microsoft Kinect



WeChat

#### **EXPERIENCE**

#### TRADEKEY (PVT). LTD | PROJECT MANAGEMENT EXECUTIVE

Jan. 2013 - Sept. 2013 | Karachi, Pakistan

 JD included Strategic Plans, Quarterly/Bi-Annual/Annual Closeouts, Support in QMS Audit, Monitoring and Control for VIP-SD Team, Standards and Documentation, Training and Development Plan for VIP-SD Associates, Process and Functional Development

# RESEARCH

# RESEARCH INST. OF INTELLIGENT SYSTEMS AND CONTROL, HABIN INST. OF TECH. | PHD SCHOLAR

Sept. 2015 - Present | Harbin, CN

Worked in the research domain focused upon the visual servo control of industrial robots. Primary impact areas include computer programming of control algorithms and computer vision, design of state of the art robotics perception algorithms, and study of new ways to optimize the performance of visual servo control.

# HARBIN INST. OF TECH. AEROSPACE CENTER | POST-GRADUATE RESEARCHER

Sept. 2013 - Jul. 2015 | Harbin, CN

Investigated the nonlinearities affecting the system's control signal at the input. All of the major nonlinearities were covered including, backlash, dead-zone and input saturation. Their effects upon the attitude dynamics of rigid spacecrafts were studied and nonlinear control algorithms were designed for their mitigation.

### SELECTED PUBLICATIONS

- Anwar. A, Lin. W et al. "Recognition and Pose Estimation of auto-parts for a spray painting robot", IEEE Transactions of Industrial Informatics (Submitted)
- Anwar. A, Hu. Q. "Adaptive Dynamic Surface Attitude Tracking Control of Spacecraft with Input Nonlinearities and External Disturbances", Aerospace Science and Technology (Submitted)
- Anwar. A, Lin. W et al. "Remote Radio Unit Power Port Tracking using Computer Vision", IECON 2017 - 43rd Annual Conference of the IEEE Industrial Electronics Society, Beijing, 2017
- Anwar. A, Shao. X et al. "Adaptive backstepping control of uncertain nonlinear systems with input backlash", 2016 IEEE Chinese Guidance, Navigation and Control Conference (CGNCC), Institute of Electrical and Electronics Engineers (IEEE), Nanjing, 2016

### **AWARDS**

Fully Funded PhD Scholarship
 Top International Student
 Fully Funded PG Scholarship
 National ICT Scholar
 Harbin Inst. of Tech. (HIT)
 School of Astronautics, HIT
 Harbin Inst. of Tech.
 National University of Sciences & Technology

## CERTIFICATIONS

- IELTS: 8.0 / 9.0
- Certified Associate of PLC and SCADA
- 2017 Summer School on Intelligent Robotics, Harbin Inst. of Tech.