Chung-Hau Wang

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EDUCATION

University of Southern California (USC), Los Angeles, CA — Dec 2013

Master of Science, Mechanical Engineering (Specialized in Control and Design)

Chen Kuo Professional Education Institute, Taichung, Taiwan — 2008-2010

Student, Chinese Medicine

National Chung Cheng University (CCU), Chiayi, Taiwan — 2007

Bachelor of Science, Mechanical Engineering

Moscow Aerospace School's 2005 Program, Russia — Sep 2005

TECHNICAL SKILLS

Mechanical Engineering, SolidWorks, MatLab, Visual C++, Robotics, Linux, Java, Android, CATIA, AutoCAD, Visual Basic, Python, Verilog, and MS Office

WORK EXPERIENCE

Associate Engineer

Industrial Technology Research Institute (ITRI), Hsinchu County, Taiwan (R.O.C) — May 2016-Present

- Established and managed Taiwan's 1st Robot Laboratory; Assisted in legislation on Taiwan's robotic standards
- Designed testing methods and verification standards for Robot Laboratory
- Introduced robots into Taiwan's traditional industries and designed robot grippers for the manufacturing use

Junior Manufacturing Engineer

Meritek Electronics Corp., Baldwin Park, CA — Feb 2015-May 2016

- Ensured smooth manufacturing/assembling process; Promoted the management system by 60% of efficiency

Volunteer

Aminggo Lu Tech, Arcadia, CA — Feb 2014-Feb 2015

- Assisted the engineers in hardware and software maintenance

Grader for Engineering Vibrations

USC, Los Angeles, CA — Jan 2013-May 2013

- Corrected the students' homework and guided the students in academic learning

Directing Officer (Military Service)

Level A Ordnance Repair Depot, Combined Logistics Command, DOD, Taiwan — Jul 2007-Jun 2008

- Managed the repair technicians and maintained the armament (rifle, artillery, telescopes, etc.)

HONORS & AWARDS

Taiwan Patent (Patent No: M506597)

This patent is about a wheelchair of all-terrains

First Place (Work Name: Running Chair) — Oct 2006

2006 Taiwan Innovative Mechanism Design Competition (National Science Council of Taiwan sponsored)

This project was to modify wheelchairs' mechanism and function to make them more ergonomic

・ Led the team to design the prototype and the mechanism, and determined the configuration

Finalist (Work Name: Swift-Cart) Sep 2006

The 7th International Creativity-in-Action Contest for University Student (National Science Council of Taiwan sponsored)

This project was to add functions to shopping carts to make them more functional and user-friendly

・ Led the team to design the prototype and the mechanism, and determined the configuration

Finalist (Work Name: Reusable Chop-Pen-Sticks) Sep 2006

The 7th International Creativity-in-Action Contest for University Student (National Science Council of Taiwan sponsored)

This project was to combine chopsticks and pens to create more functions and quality of convenience

・ Led the team to design the prototype and determined the coating paint material

PROJECT EXPERIENCE

Manual Wheelchair for All-Terrains

This project is to design an ergonomic manual wheelchair for all-terrains

・ Designed the prototype with SolidWorks and simulated the wheelchair with 3D printers

Toothpaste Dispenser Design Challenge from Apple Inc.

This project is to design an automatic toothpaste dispenser dispensing with constant volume and without drips

・ Designed the prototype and configuration of the toothpaste dispenser

Regenerative Speed Reducer (RSR)

This project is to design a device to recycle the energy from vehicles

・ Led the team to design RSR and analyzed RSR by FEA with SolidWorks and CATIA

Computer-Aided Design of Mechanical Systems

This project is to apply FEA to analyzing different models with SolidWorks and CATIA

・ Analyzed stress/strain problems, vibration systems, and thermal stress/strain problems

SpaceBot

This project is to design a Geosynchronous (GEO) satellite life-extension vehicle

・ Determined SpaceBot's parameters and evaluated the feasibility of the project

Da Vinci's Flyer

This project is to reconstruct Da Vinci's flyers

・ Designed the Da Vinci's flyers, determined their parameters, and simulated the flyers with SolidWorks

Vibrating Systems

This project is to analyze and simulate the vibrations of lump-mass systems and continuous systems

・ Modeled, analyzed, and simulated vibration systems with MatLab

EXTRACURRICULAR ACTIVITIES

Taiwanese American Chamber of Commerce - Young Career Adult Group 2014-2016

Club of Initiative Design & Engineering CCU, 2004-2007

ADDITIONAL INFORMATION

Languages: Native in Mandarin/Taiwanese, Fluent in English