

# Chung-Hau Wang

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## EDUCATION

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<b>University of Southern California (USC)</b> , Los Angeles, CA	Dec 2013
Master of Science, Mechanical Engineering (Specialized in Control and Design)	
<b>Chen Kuo Professional Education Institute</b> , Taichung, Taiwan	2008-2010
Student, Chinese Medicine	
<b>National Chung Cheng University (CCU)</b> , Chiayi, Taiwan	2007
Bachelor of Science, Mechanical Engineering	
<b>Moscow Aerospace School's 2005 Program</b> , Russia	Sep 2005

## TECHNICAL SKILLS

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SolidWorks, CATIA, MatLab, AutoCAD, Visual C++, Java, Visual Basic, Python, Verilog, and MS Office

## WORK EXPERIENCE

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### Grader for Engineering Vibrations I

USC, Los Angeles, CA Jan 2013-May 2013

- Corrected the students' homework

### 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

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**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 7<sup>th</sup> 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 7<sup>th</sup> 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

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### Regenerative Speed Reducer (RSR):

This project is to design a device to collect and transform vehicle's kinetic energy to electrical power

- Led the team to Design the prototypes and configurations, and to determine the components' materials
- Analyzed the model by finite element analysis (FEA) with SolidWorks and CATIA

### Computer-Aided Design of Mechanical Systems

This project is to analyze different models by FEA with SolidWorks and CATIA

- Analyzed the stress/strain and their distributions, the vibration natural frequencies and the corresponding vibration modes, the buckling boundary conditions, and thermal stress/strain for different models

### SpaceBot

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

- Determined the required propellant masses, scales of SpaceBot and its subsystems
- Evaluated the feasibility and the cost for the whole project

### Da Vinci Flyer

This project is to reconstruct Da Vinci's flyer

- Designed the model and determined the flyer's scales, flying modes, and the feasibility with SolidWorks

### Modeling and Analyzing Vibrating Systems

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

- Modeled and analyzed a suspension system model of automobiles and a model of airplane wings with mounted engines with MatLab

## EXTRACURRICULAR ACTIVITIES

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Club for Initiative Design & Engineering	CCU, 2004-2007
Club of Taijiquan (a soft Chinese martial arts)	CCU, 2003-2007

## ADDITIONAL INFORMATION

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Languages:	Native in Mandarin/Taiwanese, Fluent in English
Interests & Hobbies:	Taijiquan (10-year formal training), Chinese martial arts, sports, Chinese calligraphy, reading, and traveling (visited England, France, Russia, Singapore, Vietnam, Japan, the US)