Chung-Hau Wang

2620 Severance St. Apt.4 · Los Angeles, CA 90007 · (213)359-9740 · chunghau@usc.edu

EDUCATION

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

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

Jian Guo Educational Institution for Chinese Medicine, Taichung, Taiwan — 2008-2010

Student, Chinese Medicine

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

Bachelor of Science, Mechanical Engineering

TECHNICAL SKILLS

Programming Languages: Visual Basic, Visual C++, Verilog, Java, Python

Applications: SolidWorks, MatLab, AutoCAD, and MS Office (Word, Excel)

WORK EXPERIENCE

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

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

USC PROJECT EXPERIENCE

Regenerative Speed Reducer (RSR):

This project is to develop a device which can reduce vehicles' speed without the driver's using the brakes and simultaneously transform the kinetic energy collected from the vehicles to electrical power for the use of street infrastructure.

- Designed the prototypes for RSR; determined the final model and its configuration, and the materials for each component
- Analyzed the model by applying finite element analysis and relative analyses with COSMOSWorks package in SolidWorks

Finite Element Analysis

This project is to analyze different models by applying finite element analysis (FEA) with COSMOSWorks package in SolidWorks

- Analyzed the stress/displacement and their distributions, the vibration natural frequencies and the corresponding vibration modes, and the buckling boundary conditions 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

- Reconstructed a layout of Da Vinci's flyer using 3D CAD, such as SolidWorks
- Developed the needed formula for flying the machine
- Designed the components and determined the relating scales for the machine
- Determined the flying mode for Da Vinci's flyer and analyzed the feasibility

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
- Modeled and analyzed a model of airplane wings with mounted engines

HONORS & AWARDS

First Place (Work Name: Running Chair) Oct 2006

2006 Taiwan Innovative Mechanism Design Competition

(Organized by the Biking & Health Industry R&D Center, and sponsored by the National Science Council of Taiwan)

Nominated (Work Name: Swift-Cart) Sep 2006

The 7th International Creativity-in-Action Contest for University Student

(Organized by CCU and sponsored by National Science Council of Taiwan)

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

The 7th International Creativity-in-Action Contest for University Student

(Organized by CCU and sponsored by National Science Council of Taiwan)

EXTRACURRICULAR ACTIVITIES

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

ADDITIONAL INFORMATION

Attended Moscow Aerospace School's 2005 Program in Russia Sep 2005

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)