Eric Huang

PERSONAL INFORMATION

- E-mail: huangeric@gatech.edu Date of birth: 07/25/1992
- Phone number: (424) 325-8777 Nationality: U.S. Citizen

EDUCATION

- **Georgia Institute of Technology (World QS Ranking: 14 in Electrical Engineering)**
  ***PhD in Electrical & Computer Engineering* (Jan 2018 – Present)**
  - GPA: 3.5/4.0
  - Focused Area: Motion Planning, Trajectory Optimization, Robotic Control, Optimization
- **University of California, Los Angeles – UCLA (World QS Ranking: 19 in Mechanical Engineering)**
  ***Master of Science in Mechanical & Aerospace Engineering* (Sep 2015 – Jun 2017)**
  - GPA: 3.6/4.0
  - Focused Area: Linear Dynamic Systems, Stochastic Dynamic Systems, System Identification, Digital Control, Optimal Control, Robotics, Optimization
- **National Central University, Taiwan (Asian QS ranking: 53)**
  ***Bachelor of Science in Mechanical Engineering* (Sep 2010 - July 2014)**
  - GPA: 3.3/4.0
  - Focused Area: Dynamics, Applied Mechanics, Elasticity, Fluid Mechanics, Finite Element Analysis, Computer Aided Engineering, Mechanical Design

TECHNICAL SKILLS

- **Computer Languages/Tools:**
  - **Programming Languages:** Matlab, C++, Python
  - **Design Software:** Arduino, SolidWorks, AutoCAD, Inventor3D
  - **Analysis Software:** Simulink, ANSYS, KISSsoft, SAM
- **Languages**: English- Fluent, Mandarin- Fluent

WORK EXPERIENCE

- 2016 Summer Intern at **Shini Plastics Technologies, Inc**. **in Atlanta, Georgia, USA**. Product portfolio: Injection Molding Machine Auxiliaries, Heating Systems, and Automation Systems
  - Practical works such as robot arm installation, robot arm repair, and customer service
  - Written documents and videos for customers to use in robot arm troubleshooting
- 2014 Summer Intern at **Advanced Semiconductor engineering (ASE Taiwan).** Semiconductor assembly and testing
  - Characterization of packaging materials
  - Process monitoring and quality control

PAPER PUBLICATIONS

- Huang, C.Y., Hong, J.H. and **Huang, E**., 2019, '**Developing a machine vision inspection system for electronics failure analysis**', IEEE Transactions on Components, Packaging and Manufacturing Technology, vol. 9, no. 9, pp. 1912-1925.
- **Huang, E**. and Huang, H., 2017, "**Applying TRIZ method and PID control for problem solving in the TFT-LCD manufacturing process**", *International Journal of Systematic Innovation*, vol.4, no.4.
  This study aimed to identify and resolve issues in the TFT-LCD manufacturing process through a systematic approach, and then propose applying the concept of PID control to a liquid crystal dispenser to improve pressure control and thus achieve an accurate volume of liquid crystal.
- Huang, C.Y., Lin, Y.H. and **Huang, E**., 2014, "**DOM products: activation energy estimation and reliability assessment**", *Applied Mechanics and Materials*, Vol. 470, pp. 781-784. (Engineering Index)
  A scientific approach was proposed in this research to investigate a disk on module (DOM) product's activation energy based on experimental data that eliminates subjective experience.

AWARDS

- Independent study titled **"Innovative Rework Process for Electronics Component using TRIZ"**. Awarded the Gold Medal at *The 4th Global Competition on Systematic Innovation*, held by The Society of Systematic Innovation, in San Jose, California, USA, 2014 July.
  This study used TRIZ theory to develop effective rework processes for underfilled electronic components.

ENGINEERING PROJECTS

- **Calibration of the Accelerometer using GPS Measurements/Missile State Estimation (Jan 2016)**
  - Applying a discrete-time Kalman Filter to filter out random noises and biases from accelerometers and GPS position measurements.
  - Estimating the relative position, velocity, and acceleration between missile and target using a continuous-time Kalman Filter.
  - Validating the Kalman Filter performance by running a multiple-realization Monte Carlo simulation.
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