Tzu-Kuan 'Brian' Chuang

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Education:

M.S. in Institute of Electrical Control Engineering,
National Chiao Tung University (NCTU)**,** Taiwan. 2014-present

B.S. in Electrical and Computer Engineering (ECE),
National Chiao Tung University (NCTU), Taiwan. 2010-2014

Research Interest and Related Courses:

Biomedical Imaging, Image Processing (A), Digital Signal Processing (A-), Introduction of Biomedical Engineering Research (A-), Cognitive Neuro-Engineering (A+), Colorimetry (B-), Clinical Application of Medical Electronic Devices(A+)

Robotics and AI, Robotics (A+), Mobile Robots (B), Robotic Vision, Neural Network

Research Experience:

Neural Engineering and Interface Laboratory, 2014-2015, Advisor: Prof. Charles T. M. Choi

Project: Bladder volume measurement using Electrical Impedance Tomography (EIT)

The project focuses on reminding unconsciousness elders and patients with urological disease of urinating away from urinary incontinence. I used finite element model to simulate impedance characters of bladder and tissue around and EIT system. We found a correlation between bladder volume and impedance characters.

Sensors IC & Control Lab, 2012-2013, Advisor: Prof. Paul C.-P. Chao

Project: Implement of pluses measurement circuit

The project aims at a wearable device to obtain useful impulse signals from noisy human data. I designed and implemented a filter amplifier and improve the sensor on the device to capture impulse signals.

Working & Teaching Experience:

Teaching Assistant, Robotic Vision (Spring 2016), Biomedical Engineering Laboratory (Autumn 2014, Autumn 2015),
Department of Electrical and Computer Engineering, NCTU, Taiwan

Professional Skills:

LabVIEW, Matlab, Meshlab, 3D-Doctor