Sam Tantana

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OBJECTIVE: Seeking an entry level job in MEMS design and processing.

EDUCATION

M.S. Electrical Engineering, San Jose State University, Aug 2007
Concentration: Microelectromechanical Systems (MEMS), VLSI Technologies
GPA: 3.51/4.00

B.S. Electrical Engineering, **Chulalongkorn University**, Thailand, June 1999
Concentration: Control and Power Systems

WORK EXPERIENCE

Teaching Assistant, MEMS Design & Fabrication Course, Fall 2006

- Developed experimental and testing sets for students to obtain hands-on experience in MEMS**,** including bulk-micromachining, surface micromachining, microfludics
- Provided a MEMS process support, including photolithography, RIE etching, Wet etching, Evaporation

Electrical Engineer, Sino-Thai Engineering & Construction Co., Ltd (Thailand)
National Geological Museum Project, 06/99 – 03/01
Bang-Bo Combine Cycle Power Plant Project, 04/01- 07/01

- Managed and consulted sub-contractors for electrical system installation
- Estimated the overall cost of electrical system in the project
- Provided material supply on site for electrical system installation

PROJECTS

Silicon Pressure Sensor: Fabrication and Testing, MSEE project

- Fabricate silicon pressure sensor at SJSU microelectronics laboratory: fabrication process include photolithography, oxidation, diffusion, etching and bulk micromachining
- Develop test protocol for pressure sensor testing

Microfluidics Technologies, Fall 2005

- Studied and evaluated an electrowetting technique used in microfludics (in this case, glucose detection system)

Cross-Coupled VCO Circuit Design (TSMC 0.25µm), Fall 2005
High Speed 6-bit Wallace Tree Multiplier (TSMC 0.18µm), Spring 2005
Repetitive Noise Filtering, Senior Project

- Designed and implemented a closed-loop control system using C programming in Linux with sound card interface

RELEVANT COURSEWORK

Microelectromechanical Systems, IC Process, Semiconductor Physics and Devices, Quantum Mechanics, VLSI Technologies, Control System, Power System Design, Statistical Process Control (Audit)

SKILLS

Software: AutoCAD, Ledit, COMSOL Multiphysics, MEMSPro 5.1, Minitab, Sentaurus
Process Experience: Deposition (PVD, diffusion, oxidation), Dry etching (RIE), Wet etching, Surface micromachining and Bulk micromachining