# **SWAPNIL NAMEKAR**

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## **Experience**

- Recently worked as a Graduate research assistant in MEMS/Bio-MEMS field for 3 years at University of Hawaii at Manoa, HI 96822.
- Strong experience in designing and fabricating **micro-biomedical devices** in **clean room facility** for biomedical applications such as cellular manipulations.
- Strong knowledge in micro-fluidics and PDMS device fabrication.
- Experience in designing and fabricating **smart culture dishes** to culture biological cells in 2D and 3D formats.
- Experience in designing cantilever mass sensors for measuring mass of biological cells.
- Good understanding of material science, polymer science and MSDS.
- Experience in working with microscopes and lasers.
- Studied courses such as Microsensors/Microactuators, Advanced topics in Physical Electronics, MEMS applications in Energy Harvesting, Bio-sensors and bio-actuators during masters program.
- Studied courses such as Electric circuit theory, Power Electronics, Power systems, Solid state devices, Machines, H.V. Engineering during bachelors program.
- Experience in grading courses, Microelectronic Circuits I and CMOS VLSI Design at University of Hawaii at Manoa, HI 96822.
- Experience in teaching Power electronics lab, Network analysis lab and Switchgear protection lab at University of Pune, India.
- Worked as a Quality engineer at Finolex cables, India.
- Worked as a junior engineer at Sai engineering works, India.

#### **Publications and Patents**

- Kelly S. Ishii, Wenqi Hu, <u>Swapnil A. Namekar</u>, and Aaron T. Ohta "An Optically Controlled 3D Cell Culturing System" **Advances in optoelectronics**, vol 2011, 2011.
- **Swapnil Namekar**, Wenqi Hu, and Aaron Ohta, "Smart cell culture platform" **Provisional U.S. Patent** Application filed 07/09/2010 (Serial No. 61/363,076)
- **Swapnil Namekar** et al. "Single phase induction motor without capacitor triggered by using triac," BS Thesis, University of Pune (2006).
- "An optically addressed thermoresponsive microfluidic system for cell culturing and harvesting," MS Thesis, University of Hawaii at Manoa (2012)

### Skills

Languages

- Java for processing program

Skills

- Micro-fluidics, clean room work, Image analysis,

Operating System

- MS Windows

**General Tools** 

- MATLAB, Coventorware, AutoCAD, Processing program, Image J, Google sketchup, MS Office, Photoshop.

## Education

University of Hawaii at Manoa

Master of Science in Electrical engineering

University of Pune, India

**Bachelors in Electrical Engineering** 

University of Pune, India
Diploma in Electrical Engineering

Cumulative GPA: 3.6 / 4.0

May 2012

First Class with distinction [GPA: 4.0 / 4.0]

May 2006

First Class with distinction [GPA: 4.0 / 4.0]

May 2003

| Prof. Aaron Ohta, EE UHM, <u>aohta@hawaii.edu</u> Prof. David Garmire, EE UHM, <u>garmire@hawaii.edu</u> Prof. Olga Boric-Lubecke, EE UHM, <u>olgabl@hawaii.edu</u> Prof. Vinod Malhotra, EE UHM, <u>malhotra@hawaii.edu</u> |  |
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