

Toward Designing an Advanced Neuroscience Platform - Simultaneous Stimulation and Recording in-vivo, Real Time Neural Signal Processing On-chip

GUEST SPEAKER

Prof. Zhi Yang

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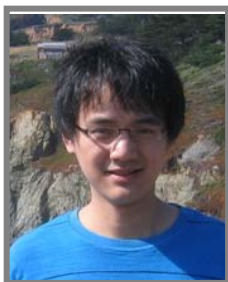
When: **16th September 2010, 2.00 p.m. to 3.00 p.m.**

Where: **Institute of Microelectronics, Singapore**
11 Science Park Road Singapore Science Park II Singapore 117685

Abstract

Neural prostheses aim to improve the quality of life for patients suffering from neurological diseases and injuries. They mimic biological functionality by translating external data inputs (e.g. images, sounds, movements) and electrical/chemical signals from the brain (e.g. action potentials, field potentials, neurotransmitters) into control signals for assistive devices. The major functional modules include electrical stimulation, neural recording, and bio-signal processing, which demand solutions from many fronts: circuits, systems, algorithms, and technologies. This talk will discuss the mentioned functional modules of neural prostheses with emphasis on bio-signal processing.

About the Speaker



Prof. Zhi Yang is an assistant Professor at the Department of Electrical and Computer Engineering, National University of Singapore. He received a B.S. degree from Zhejiang University in China in 2004, and an M.S. degree and a Ph.D. degree from University of California at Santa Cruz in 2007 and 2010, respectively. His research interests include mathematic modelling, biophysics, bio-signal processing, analog circuit, biotelemetry, computational neuroscience, and machine learning. During the past 5 years in the Integrated Bioelectronics Research group at Santa Cruz, he has published more than 30 technical papers in a broad field spanning his research interests.

Registration

Pre-registration is required. Closing date is 14th September 2010. To register, please log on:
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Location Map

