

Research Experiences for Undergraduates

ENEE 499

Lyndon Brown, 2004: Instrumentation for Testing CMOS Imagers

Jack Chaiyupatumpa, 2003 – 2004:

Fall 2003, Manipulation Techniques for Single Cells: Dielectrophoresis

Spring 2004, Dielectrophoretic Manipulation of Cells

Eric Chen, Fall 2006:

Bio Labs-on-a-Chip: Monitoring Cells Using CMOS Biosensors

Vincent Chiu, Fall 2003:

Instrumentation for Neural Interface and Investigation of Neural Communication

Vikansha Dwivedi, Spring 2004:

Optical Tweezers for Manipulation of Cells

Andrew E. Emeka-ugwuh, Fall 2003:

Design of Integrated Potentiostat for *in silico* Control of Polymer Actuators

Parissa Farahifar, Spring 2004:

Instrumentation and Testing of VLSI Spike Processors for Neural Interface

Allyson Gregory, Spring 2004:

Microcontrollers for Timing and Control of Imagers

Matthew Grenier, 2006:

Spring 2006: Analog Control of Robotics with Surface EMG

Fall 2006: Analog Control of Robotics with Surface EMG

Andre Hopson, Spring 2004:

Microcontrollers for Timing and Control of Imagers

Percy Domingo Hurtado, Spring 2006:

Instrumentation for Validation of Integrated Biosensors

Victor Jeng, 2005 – 2006:

Fall 2005, Long-term *in vitro* Testing of the Bioamplifier

Spring 2006, Long-term *in vitro* Testing of the Bioamplifier

Harneet Khurana, Fall 2006:

Bio Labs-on-a-Chip: Monitoring Cells Using CMOS Biosensors

Hajar Kolahdoozan, Fall 2006:

Label-free detection of DNA using CMOS Biosensors.

Ed Kornegay, Fall 2003:

Instrumentation for Integrated Imaging

Jean-Marie Lauenstein, Fall 2003:

Radiation Effects in HBT Transistors

Tony Hangsheng Li, 2004:

Spring 2004: Long Term Recordings of Cultured Cells

Fall 2004: Long Term Electrical Monitoring of Cultured Cells

Ojiako Nwugo, Spring 2006:

Characterization of Materials for Advanced Biopackaging

David K. Pierce, 2004:

EMG Circuitry

Leslie Marie Pilar, 2005:

Instrumentation for Probing Microelectronic Circuits

Ramesh Subbaraman, 2004:

Instrumentation for Testing CMOS Imagers

Thomas Swindel, Fall 2003:

Neural Interface Circuits and Testing

Other Noncredit Research

Vincent Chiu, Spring 2003:

Instrumentation and Testing of Cell Clinics and Neural Interface

Vikansha Dwivedi, Fall 2003:

Optical Tweezers for Manipulation of Cells

Muhammad Umer Ikram, Spring 2004:

Regenerative Energy Sources for VLSI Integration

Mark Nakamura, Spring 2004:

Packaging and Integration Techniques for BioMEMS Devices

Ogbonia Orji, Spring 2004:

Analysis and Characterization of Quantum Efficiency of Photodiodes

ASPIRE Program

Jean-Marie Lauenstein, Spring 2003:

Characterization of Cell Clinics for Bioelectronic Interface with Single Cells

ISR Research Experiences for Undergraduates

Hoda Edgahi, Summer 2006:

Label-free detection of DNA using CMOS Biosensors

Joanna Wong, Summer 2004:

Cell Clinics

MERIT/RITE Summer Research Program

Kevin Boyle (University of Notre Dame, Notre Dame, IN), 2004:

Neural Interface Circuits and Testing

Jack Chaiyupatumpa, 2003:

Cell Clinics for Bioelectric Interface with Single Cells

Eric Chen, 2006

Bio Labs-on-a-Chip: Monitoring Cells Using CMOS Biosensors

Bill Eisenhower, 2005:

Analog Control of Robotics with Surface EMG

Victor Jeng, 2005:

Characterization and in vitro Testing of the Bioamplifier

Harneet Khurana, 2006:

Bio Labs-on-a-Chip: Monitoring Cells Using CMOS Biosensors

Jean-Marie Lauenstein, 2002:

Cell Capturing Microstructures for Extracellular Recording and Stimulation

Tony Hangsheng Li, 2004:

Cell Clinics for Bioelectric Interface with Single Cells

Scott McMichael, 2005:

Analog Control of Robotics with Surface EMG

David Sander, (Pennsylvania State University) 2003:

Neural Interface Circuits and Testing

Joel Van Sickle (Grove City College, Grove City, PA), 2004:

Cell Clinics for Bioelectric Interface with Single Cells

Kory Schoenfliess, (University of Maryland, Baltimore County) 2003:

Cell Clinics for Bioelectric Interface with Single Cells

Thomas Swindel, 2003:

Neural Interface Circuits and Testing

Dorielle Tucker (Clark Atlanta University, Atlanta, GA), 2004:

Neural Interface Circuits and Testing

RISE Program

2003:

Project: Measuring and Modeling Performance and Efficiency of Integrated Electronic and Optoelectronic Circuits

Team:

Stefanie Bartley (Virginia Tech), RISE Scholar

Ed Kornegay, RISE Team Member

Jean-Marie Lauenstein, RISE Undergraduate Fellow,

Aimiende Negbenebor, (Stevens Institute of Technology), RISE Scholar

Lindsay Phillips, (University of Utah), RISE Scholar
Maria Stoica, RISE Scholar