

*Power Supply for a Curve Tracer*

Project Supervisor: Joel Falk

**Al Bortak**

**Chris Dobson**

*Remote Reset & Temperature Sensing Device*

(ECE 1898)

Project Supervisor: Steve Jacobs

**Richard Graham**

**Victor Puchkarev**

*Standardized Speech Recognition Evaluator*

Project Supervisor: Amro El-Jaroudi

**Sam Fahnestock**

**Joe Ross**

*VHDL Model for Thumb-2 Architecture*

Project Supervisor: Allen Cheng

**Ben Johnson**

**Don Koenig**

*Versatile Processing Unit (VPU) Instruction Fusion  
and Parallelization*

Project Supervisor: Allen Cheng

**David Bitel**

**Trevor Patrie**

**Brett Rettura**

*Water Harvesting and Storage Solutions for Southern  
Brazil (ENGR 1610)*

Project Supervisor: Matthew Mehalik

**Michael Edeke**

**Amanda Meyer\***

**Rachel Pasternak\***

**Leslie Wheeling\***

*Wheelchair Rotational Data Logger*

Project Supervisor: Dan Ding

**Kevin Bailey**

**Justin Frankert**

**Daniel Johnson**

## Cooperative Education

*Department of Defense*

Department of Defense

**David Aldinger**

*Systems Engineering at ANSYS*

ANSYS Inc

**Avram Avishai**

*Honeywell*

Honeywell Specialty Materials

**Christopher Coffey**

*Vocollect Co-op*

Vocollect Inc.

**Sam Fahnestock**

*Co-op at ANSYS*

ANSYS Inc

**Dennis Heglund**

*My Co-op at the NRL*

Naval Research Labs

**Steve Huynh**

*A Day in the Life*

CEMEX, Inc

**Jeramie Iannelli**

*Systems Integration*

Advanced Integration Group

**Sean Palaastro**

*Co-op at Argon ST*

Argon ST

**John Robinson**

*Experience at ANSYS Inc*

ANSYS Inc

**Joshua Sorchik**

*school of engineering*

**electrical  
& computer  
engineering**

# SENIOR DESIGN EXPOSITION AND COOP POSTER FAIR

## SPRING 2007

### FRIDAY, APRIL 20, 2007 1 PM - 3 PM

### THIRD FLOOR BENEDUM HALL OF ENGINEERING

### UNIVERSITY OF PITTSBURGH

Projects are ECE/COE 1896 unless otherwise noted.

\*Students not participating in this expo.

## Senior Design and Engineering Projects

*Assistive Stroke Therapy Using Functional Electrical Stimulation (ECE 1898)*

Project Supervisor: Steve Levitan  
**Nicholas Alexiades**

*Automata Model Simulation (ECE 1898)*

Project Supervisor: George Novacky  
**Ryan Murray**

*BioChemical Monitoring Using NanoFilter Arrays: Improving Resolution with Software*

Project Supervisor: Heung-no Lee  
**Adam Balawejder**  
**Amy Gromen**  
**Kevin Marnik**  
**Mark Szymecski**

*Bio-Diesel Fuel (ENGR 1050)*

Project Supervisor: Mike Lovell  
**Luke Wascovich**  
**Jeff Harding\***  
**Tony Kerzmann\***  
**Florian Zink\***

*Communication Through Containment Walls (ENGR 1050)*

Project Supervisor: Mike Lovell  
**Lou Angelucci**  
**Ben Clever\***  
**Dave Steed\***  
**Joel Townsend\***

*Content Addressable Memory for Intrusion Detection (ECE 1898)*

Project Supervisor: Alex K. Jones  
**Feng Gao**

*Design and Fabrication of Carbon Nanotube Ballistic Field Effect Transistors (ECE 1898)*

Project Supervisor: Minhee Yun  
**David Perello**

*Design of a Modified Patterson-Hennessy MIPS Processor (ECE 1193)*

Project Supervisor: Steve Levitan  
**Brandon Blatnick**  
**Julius Ecker**  
**Jack Shephard**  
**Joshua Sorchik**

*Dual Spark DIS*

Project Supervisor: Gregory Reed  
**Tim Lang**  
**Jim Schilling**

*Exploring Software Defined Radio*

Project Supervisors: Luis Chaparro; Juan Manfredi  
**Jim Cavanaugh**  
**Aaron Ford**  
**Steve Huynh**  
**John Robinson**

*External Speaker and Microphone Solution for Speech-to-Speech Application Demonstration on PDA*

Project Supervisor: Alan Black  
**Justin Keogh**  
**Jason Zsak**

*Frequency Selector*

Project Supervisor: Steve Jacobs  
**Mark Gruber**  
**Tim Gruber**  
**Josh Pasqualini**  
**Liz Renninger**

*Genetic Algorithm Radar Filtering on the STI Cell*

Project Supervisors: Donald Chiarulli; Steve Levitan  
**Nigel Foucha**  
**Matthew Kowalsky**

*Heat Transfer Monitoring in ICF Construction (ENGR 1050)*

Project Supervisor: Mike Lovell  
**Loran Dipko**  
**Sam Sanders**  
**Joe Coleman\***  
**Mike Vindler\***

*Heated Windshield Wiper System*

Project Supervisor: Gregory Reed  
**Ephorm Freeman**  
**William Radomski**

*Implementing Perl Regular Expressions in CAM for Intrusion Detection*

Project Supervisor: Alex K. Jones  
**Alec Dundes**  
**Garrett Krutilla**

*Inertial Measurement System*

Project Supervisor: Zhi-Hong Mao  
**Brian Antoniazzi**  
**Robert Francis**  
**Pranesh Patel**

*Locating Patients via Received Signal Strengths*

Project Supervisor: Taieb Znati  
**Dan Albano**  
**Chris Comeau**  
**Jeramie Iannelli**  
**Sean Palastro**

*Multi-Wavelength Illuminator with Designable Spectral Profiles*

Project Supervisor: Hong-Koo Kim  
**David Aldinger**  
**Mike Szot**

*NASA Decision Support System for Spacecraft Power System Design*

Project Supervisor: George Kusic  
**Jeremy Herrman**  
**Sheena Sands**

*Okay Auction: Auction Management Software for eBay*

Project Supervisor: John Ramirez  
**Alissa Schneider**  
**Natalie Schneider**