University of Utah
ELECTRICAL AND COMPUTER ENGINEERING DEPARTMENT

ECE

Presentation Schedule

2009 Technical Open House
March 26, 2009

Session 1: L-3 Communications Clinic #1 — Officer's Club South
"AOA-Enabled Active Localization and Tracking in Buildings"

2:45 Brandt Hammer — "Localization without GPS: Hardware Development"

3:05 Chinh Dam — "Introduction to Data Collection"

3:25 Eliza Crandall — "Data Analysis and Further Design Requirements"

3:45 Yi Xu — "Fourier Transform Algorithm and Angle Error Calculation"

4:05 Brian Matthews — "Localization Algorithm"

Session 2: L-3 Communications Clinic #2 — Officer's Club West
"Dielectric Measurement Tools"

12:45 Jacob Tateoka — "Introduction, and Theory of the Split Post Cavity"

1:05 Rohit Pathak — "Split Post Measurements and Results"

1:25 Beau Lund — "Resonant Cavity Redesign and Theory"

1:45 Eric Seabury — "Resonant Cavity Testing Procedure and Measurement Results"

2:05 Brian Rolfe — "Resonant Cavity Design and Analysis Software"

Session 3: Micron Technology, Inc. Clinic — Officer's Club North
"Analysis and Optimization of Multi Gb/s Chip-to-Chip Communication"

12:45 Raheem Alhamdani — "Introduction and Motivation for Modeling and Verification of Interconnects"

1:05 Bryson Kent — "Worst Case Verification of High Speed Interconnects"

1:25 Jordan Kemp — "Statistical Analysis of Electrical Signaling"

1:45 Lucas Loero — "Modeling Jitter in Chip-to-Chip Communication"

2:05 Ben Meakin — "Project Software Engineering, Development and Results"

Session 4: Rocky Mountain Power Clinic — Officer's Club South
"Power Quality Event Demonstrator (PQED)"

12:25 Stephen Manrique — "PQED Solution Overview"

12:45 Calvin Yan — "FPGA"

1:05 Lance Wayment — "Mechanical System and Control"

1:25 Jack Dam — "Solid-State Relay"

1:45 Jason Wayment — "Satellite Modules and Safety"

Session 5: Sandia National Laboratories Clinic — Officer's Club North
"Low-Power, Context-Aware Global Positioning System"

3:05 Rashin Bolkameh — "Introduction to GPS Tracking System and Project History"

3:25 Chris Chadwick — "Hardware Design"

3:45 Michael B. Stevens — "Board Design"

4:05 Daniel Rolfe — "Programming the Utah GPS Stack"

4:25 Eric Hsu — "Testing and Results"

Session 6: ON Semiconductor Clinic — Officer's Club West
"Characterization of Bonding Stress on Analog Integrated Circuit Performance"

2:45 Mike Bombardier — "Bond Over Active Circuitry Project Overview"

3:05 Nikhil Handa — "Bond Over Active Circuitry Failure Analysis"

3:25 Jay Walston — "Bond Over Active Circuitry Data Analysis"

Session 7: Richard Grow Project — Officer's Club West
"A Study in Vacuum Tube Field Emission from a C60 Coated Cathode"

4:05 Seaver W. Cauch — "Physics and Physical Description of C_{60} Coated Palladium Cathode"

4:25 Paul Beard — "Attaching C_{60} to a Cathode for Testing"

4:45 Doug A. Tucker — "Field Emission Characteristics of a C_{60} Cathode"

5:05 Stephen Pendrey — "Finding the Current"

Session 8: Individual Projects – Dr. Om Gandhi Guest House Meeting Room B
Electrical Engineering – Electromagnetics: Applications

12:25 David Chick — "Multiple Band Microstrip Patch Antenna for Cell Phones: Analysis and Design"

12:45 Bryce Gardiner — "Multiple Band Microstrip Patch Antenna for Cell Phones: Fabrication and Experimental Results"

1:05 Jacob Mattson — "77 GHz Automobile Radar"

1:25 Michael J. Beck — "Magnetic Coil Design for Wireless Neural/Cardiac Stimulation"

— BREAK —

2:05 Jason R. Saberin — "Reduced Coupling Configurations of Antennas for Improved Channel Capacity"

2:25 Fernando Nelson — "HFSS Simulation of an X-Band, Radial Waveguide Band-Stop Filter"

2:45 Brian M. Wynn — "Non-Destructive Measurements of Dielectric Materials Using an HFSS-Simulated TE013 Mode Cylindrical Cavity"

3:05 Quinn Tate — "Design and Testing of a 16-Channel Coil Array for Improved Carotid Artery Imaging"

— BREAK —

3:45 Bindu Dudipala — "Fabrication of Dye-Sensitized Nanocrystalline Solar Cells"

4:05 Beena Dudipala — "Optically-Transparent Antenna for Automobile Applications"

4:25 Jason Weaver — "Multichannel Secret Key Generation"

Session 9: Individual Projects – Dr. Priyank Kalla Guest House Meeting Room A
Electrical Engineering

3:05 Chase Thompson — "Automobile Wiring Fault Locator: Noise Characterization and Interface"

3:25 Jordan Nicholls — "Automobile Wiring Fault Locator: Simulation and Algorithm Development"

3:45 Chad Mann — "Automobile Wiring Fault Locator: PCB Design and Software Integration"

4:05 Justin Ferguson — "Automobile Wiring Fault Locator: Conclusion and Test Bench"

— BREAK —

4:45 Arash Farhang — "Distributed Spectrum Sensing for Cognitive Radio"

5:05 Daryl L. Wasden — "A Distributed Spectrum Sensing Model for Cognitive Radio"

5:25 William Peter Blackham — "Translating Glove for American Sign Language"

Session 10: Individual Projects – Dr. Angela Rasmussen Guest House Meeting Room A
Electrical and Computer Engineering

12:05 Glenn Barton — "Development and Implementation of Control Logic Simulation Methods"

12:25 Stephen Sieb — "The $20 Oscilloscope"

12:45 Matthew M. Maddex — "Analog Maximum Power Point Tracking Circuit"

1:05 Gregg Durrant — "Miniature Remote Controlled Conduit Vehicle"

1:25 Isaac D. Jensen — "Simple Video Streaming Viewer"

1:45 Shahene A. Pezeshki — "Engineering Education: Teleology Applied to Electrical Engineering High School Outreach"