

MEETING OF THE MINDS 2006



The annual "Meeting of the Minds" undergraduate research symposium provides students the opportunity to build their research skills while developing leadership and decision-making capabilities. The ECE Department is proud of our over 65 students who participated in the competition's 11th year.

Congratulations on your achievements!

Sixth Annual Lockheed Martin ECE Undergraduate Project Award

Organized by Carnegie Mellon's chapter of Eta Kappa Nu, the ECE National Honor Society, this competition encourages undergraduates in ECE to present their projects and motivates them to learn from others' work.

1st Place: DANIEL WELLER and RAHUL MANGHARAM
"GrooveSim Vehicular Network Simulator"
Advisor: Daniel Stencil

2nd Place: KERMIN FLEMING
"SPIRAL: Hardware Transform Extension"
Advisor: James Hoe

3rd Place: BOWEI GAI, ARTI THUMAR, SAMIR SHAH, JAY PATEL, and LIYANA MOHD SHARIPP
"EAST - Hardware Speech Recognition"
Advisor: Rob Rutenbar

Judge's Choice: NAJU MANCHERIL
"Multiprocessor Query Dispatching in QPIPE"
Advisor: Anastasia Nikolaki

JOSEPH TRAPASSO
"Multiplierless Hardware Implementation for Digital Signal Processing"
Advisors: Markus Poeschel and James Hoe

EHUD HALBERSTAM
"A Low-Cost Victim Detection Sensor Module for Urban Search and Rescue Robots"
Advisor: John Dolan

Ford Motor Company Undergraduate Research Award

This award encourages environmental and automotive research. Entries may cover a range of disciplines, such as environmental policy issues, vehicle emissions modeling, automotive business modeling, or electrical system development with applications in automobiles. The judges are Carnegie Mellon alumni that are employed by Ford.

1st Place: MATT WASSERMAN (MechE) and THEODORE TREBAOL (ECE)
"Design of a Power Limiter System and Vehicle-to-Driver Information Relay System for a Formula SAE Vehicle"
Advisor: John Wiza

3rd Place: WILLIAM BURKEY, NICHOLAS SELMAN, LAURA ROSE SEMO SCHARFMAN (all MechE), and DAVID KANG (ECE)
"Rapid High-Quality 3D Surface Generation for Formula SAE Application"
Advisor: John Wiza

Fifth Annual Bose Competition

This competition is open to all students with research projects related to audio: technology, signal processing, or education. This year, one of the judges was an ECE alumnus: David Breace, III, (B.S. 2002) is an electrical engineer in Bose's Automotive Systems Division.

1st Place: KYLE ANDERSON
"A Model for DFT Computation on the Cell Processor"
Advisors: José Moura, Markus Poeschel, and Franz Franchetti

2nd Place: JOSEPH TRAPASSO
"Multiplierless Hardware Implementation for Digital Signal Processing"
Advisors: Markus Poeschel and James Hoe

Sigma Xi Poster Competition

This independently sponsored competition is open to students presenting posters in the quantitative sciences. Grants were provided by a number of industrial sponsors. Sigma Xi is a national honor society for those in scientific research.

Honorable Mention: DANIEL WELLER and RAHUL MANGHARAM
"GrooveSim Vehicular Network Simulator"
Advisor: Daniel Stencil

EHUD HALBERSTAM
"A Low-Cost Victim Detection Sensor Module for Urban Search and Rescue Robots"
Advisor: John Dolan

CIT Honors Poster Competition

All students conducting research through the Carnegie Institute of Technology (CIT) Honors Program participate in this competition, judged by industry representatives and faculty from across CIT, including the following ECE faculty: Shawn Blanton, James Hoe, Radu Marculescu, Asim Smailagic, and Tom Sullivan.

1st Place: RAMAMURTHY BHAGAVATULA
"Application of Kalman Filtering to Active Face Tracking"
Advisor: Marius Savvides

3rd Place: DANIEL WELLER
"GrooveSim Vehicular Network Simulator"
Advisor: Daniel Stencil

Statistics Department Competition

The purpose of this competition is to encourage undergraduate projects and research in statistics and its applications, to inform faculty and students about these projects, and to encourage cross-departmental interaction.

1st Place: OLGA BESCHASTNYKH (Economics), WILSON CHAI (ECE), JOHN HAVRAN (Math), and STEPHANIE KUGA (Statistics)
"Share Prices and the Oil Industry: Modeling Financial Times Series"
Advisor: Alessandra Rinaldo

2nd Place: NICK SEGALLA (Business), JESSICA MCGILLEN (Statistics), MARGARET CARTAYA (History), and JAMES KERCHENFAUT (ECE)
"Detecting Sources in Astronomical X-Ray Images"
Advisors: Rhiannon Weaver and Alessandra Rinaldo



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