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Editor's Note: *A full list of universities and companies in attendance is available following this news release.*

Purdue University Undergraduate Students Present Research at 16th Annual TECHCON Conference

West Lafayette, Indiana, September 18, 2014 – Students from Purdue University joined the nation's top semiconductor scholars and industry leaders to share their research at the Semiconductor Research Corporation's (SRC) 16th annual TECHCON conference. The conference, held Sept. 7-9 in Austin, Texas, showcased the forefront of semiconductor research and recognized professional and university participants for their contributions to the industry.

Four undergraduate students from Purdue University were among the 250 undergraduate and graduate students invited from top-flight universities across the country to present their research at the conference. Through SRC's Undergraduate Research Opportunities (URO) program, students receive hands-on research experience and mentorship to attract them to semiconductor industry careers. Their attendance at the conference was made possible through the support of Intel Corporation and SRC Education Alliance.

The following undergraduate students from Purdue University presented their research at the conference:

- **Isabella Ramirez**, Materials Science Engineering, "Layer by Layer Construction of Amperometric Lactate Biosensors Using Polyelectrolyte-Enzyme Interaction"
- **Branden Burns**, Physics, "Removing Metallic Samples to Yield Pure Semiconductor Carbon Nanotubes and Test Their Effectiveness"
- **Manuel Gutierrez**, Electrical Engineering, "Energy Harvesting from Human Motion for Powering of Wearable Electronics"
- **Rebecca Schumm**, Mechanical Engineering, "Interface/Bulk Crack Path Selection in IMC-rich Solder Joints"

Additionally, the following Purdue URO students attended the conference: Nina Bragg, Chemical Engineering; Stuart Hilsmier, Chemical Engineering; Austin Scherbarth, Materials Science Engineering.

The papers selected for presentation at TECHCON represent a summary of the best research in SRC's portfolio across all of the organization's research programs. To be invited, students submitted an abstract of a research project for review by an SRC-coordinated committee, which selected projects based on rigorous and competitive criteria.

At the conference, students presented their papers during sessions organized by technical area of interest. They also made a poster presentation during a TechFair session where they could discuss their research one-on-one with other attendees. Industry experts, including Gil Vandentop, Executive Director, STARnet, Semiconductor Research Corporation; Shameeka Emanuel, Diversity Scholar Program Manager, Intel Corporation; and Kristen Parrish, Design Engineer, Texas Instruments, judged each session and recognized the best undergraduate posters with awards.

From Purdue, Branden Burns, SRC STARnet undergraduate Intern Scholar, won third place for his research poster on "Removing Metallic Samples to Yield Pure Semiconductor Carbon Nanotubes and Test Their Effectiveness."

TECHCON brings university students from a variety of science and engineering majors together with scholars and leaders from the semiconductor industry to explore cutting-edge silicon-based research and network with other students and professionals. Altogether, more than 436 attendees participated in the 2014 conference.

Invited speakers from both the industry and academia provided a glimpse of an exciting future for the semiconductor industry. Executive leader and entrepreneur Dr. Nido Qubein, president of High Point University, delivered an opening keynote address on "Communication and Connecting in a Technical Environment". Ajit Manocha, senior strategic advisor and retired CEO of GLOBALFOUNDRIES, provided the banquet keynote titled "From Class Room to Clean Room to Board Room."

"TECHCON brings together the brightest minds in microelectronics research to exchange news about the progress of new materials and processes created by SRC's network of more than 100 of the top engineering universities," said SRC President Larry Sumney. *"Students and industry leaders discuss basic research at TECHCON that is intended to accelerate advancements for both private and public entities."*

The URO students who won top paper awards at TECHCON are as follows:

- First Place – Megan Hill from Cornell University, a native of Kansas City, Missouri, presented her research, "Dopant Activation of InGaAs using Laser Spike Annealing," under the direction of Professor Paulette Clancy and Michael Thompson, Cornell University.

- Second Place – Samantha Rahmani from University of Michigan, a native of Ann Arbor, Michigan, presented her research, "Aramid Nanofiber and Epoxy Composite as Multifunctional Insulation Materials for Implantable Electronics," under the direction of Professor Nicholas Kotov, University of Michigan.

- Third Place – Branden Burns from Purdue University, a native of Chicago, Illinois, presented his research, "Removing Metallic Samples to Yield Pure Semiconductor Carbon Nanotubes and Test Their Effectiveness," under the direction of Professor John Rogers, University of Illinois/Urbana-Champaign.

Additional awards presented at TECHCON recognized excellence within the SRC community. The 2014 Technical Advisory Boards and Science Area Coordinating Committee Chairs and the 2014 Mahboob Khan Outstanding Industry Liaison awards were presented. Professor Kenneth Goodson from Stanford University received the 2014 Technical Excellence Award. Professor Dimitri Antoniadis from Massachusetts Institute of Technology received the 2014 Aristotle Award. Graduate Best in Session awards and the Undergraduate Research Opportunity Best Poster awards also were presented.

SRC has 32 years of history producing collaborative research for the semiconductor industry. As an organization, it begins by defining industry needs and then invests in and manages the research that gives its members a competitive advantage in the dynamic global marketplace. Awarded the National Medal of Technology, America's highest recognition for contributions to technology, SRC expands the industry knowledge base and attracts premier students to help innovate and transfer semiconductor technology to the commercial industry. For more information, visit www.src.org.

Companies in Attendance:

Applied Materials, Inc, Freescale Semiconductor, Inc, GLOBALFOUNDRIES, IBM Corporation, Intel Corporation, Mentor Graphics Corporation, Micron Technology, Inc, National Institute of Standards & Technology, On Semiconductor, Qualcomm Technologies, Inc., Raytheon Company, Tokyo Electron Limited (TEL), Texas Instruments

Universities Selected to Attend:

Arizona State, Bennett College, Carnegie Mellon University, Columbia University, Cornell University, Duke University, Elon University, Georgia Institute of Technology, Harvard University, High Point University, Iowa State University, Johns Hopkins University, Khalifa University, Lehigh University, Masdar Institute of Science & Technology, Massachusetts Institute of Technology, North Carolina A&T University, North Carolina State University, Notre Dame University, Oregon State University, Penn State University, Portland State University, Princeton University, Purdue University, Rice University, Rensselaer Polytechnic Institute, Ryerson University, Simmons College, Southern Methodist University, Stanford University, SUNY Albany, Texas A&M, Texas State University, UCLA, University of Arkansas/Fayetteville, University of Central Florida, University of Nebraska/Lincoln, University of Wisconsin/Madison, University of Alabama/Tuscaloosa, University of Bologna, University of California /Berkeley, University of California/Davis, University of California /Riverside, University of California /San Diego, University of California /Santa Barbara, University of Chicago, University of Colorado/Boulder, University of Connecticut, University of Florida, University of Houston, University of Idaho, University of Illinois/Urbana-Campaign, University of Massachusetts/Amherst, University of Michigan, University of Minnesota, University of North Carolina/Greensboro, University of North Carolina/Pembroke, University of North Texas, University of Pennsylvania, University of South Carolina/Columbia, University of Southern California, University of Texas/Arlington, University of Texas/Austin, University of Texas/Dallas, University of Utah, University of Virginia, University of Washington, Washington State