Winners of IC Design Competition Announced

Purdue, University of Minnesota, Carnegie Mellon teams take top prizes in IC design competition sponsored by SRC, SIA.

Mar 21, 2008
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RESEARCH TRIANGLE PARK, N.C.--(BUSINESS WIRE)--Semiconductor Research Corporation (SRC), the world's leading university research consortium for semiconductors and related technologies, named a team of graduate students from Purdue University as winners in the SRC/SIA IC Design Challenge. The Purdue team's winning design was for a chip-to-chip wireless data link using a 60 GHz transceiver. More than 40 universities and 120 engineering students competed to design circuits with potential future electronic applications.

"This is a once-in-a-lifetime experience for the students and certainly affects their futures in a very positive way," said Professor Byunghoo Jung, faculty advisor of the winning Purdue team. Professor Jung is no stranger to these contests. Four contests ago, SRC held the Copper Design Challenge, its first design contest. Professor Jung was then a graduate student and was on the winning team from University of Minnesota.

"This also is a great opportunity for the industry as SRC and SIA member companies cultivate future designers for the semiconductor business," said SRC's Dale Edwards, an AMD assignee and contest organizer.

The Design Challenge theme is "Performance at the Limits" and the winning design exemplifies this theme, pushing the chip-to-chip data link to 7.5 Gbps using 60 GHz wireless technology. Wireless data links show many advantages compared to existing techniques such as wired or optical data links. Wired data link paths exhibit severe signal attenuation requiring complex and power hungry circuitry to overcome while optical techniques usually require difficult and costly IC fabrication technologies. Several unique circuit techniques were used in the winning design.

The Purdue team consisted of five students and one co-lead. Teams from University of Minnesota with their entry, "Ultra-low Power, Battery-less RFID Blood Monitoring System," led by Professor Ramesh Harjani, and Carnegie Mellon University with their entry, "A Tunable Multiband RF MEMs Transceiver Front-End," led by Professor Tamal Mukherjee, took second and third places in the competition, each having three students per team.

In addition to receiving cash awards that total $18,000, the three winning university teams along with five other finalists have qualified to compete in the final phase of the Design Challenge where they will fabricate these designs in Jazz Semiconductor's SBC18 180nm SiGe technology. All eight teams will present posters at SRC's TECHCON 2008. The eight finalists will vie for $50,000 in cash prizes, to be announced in December.

Thanks go to the Design Challenge sponsors who provide the awards that are made as gifts to the winning universities to be used in support of IC design education programs at their university. These include Advanced Micro Devices, Inc., Analog Devices, Inc., Cadence Design Systems, Freescale Semiconductor, Inc., IBM Corporation, Intel Corporation, Intersil Corporation, Jazz Semiconductor, LSI Corporation, Mentor Graphics Corporation, National Semiconductor Corporation, NVIDIA Corporation, Quik-Pak Division of Delphon Industries, Texas Instruments Incorporated, SRC and SIA. Special thanks go to Jazz Semiconductor for donating the fabrication support.

About SRC
Celebrating 26 years of collaborative research for the semiconductor industry, SRC defines industry needs, 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.

About SIA
The SIA is the leading voice for the semiconductor industry and has represented U.S. semiconductor companies since 1977 and SIA member companies comprise more than 85% of the U.S. semiconductor industry. Collectively, the chip industry employs a domestic workforce of 232,000 people.

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