

# The Intel<sup>®</sup> Higher Education Program: Innovation Through Collaboration

For nearly 40 years, Intel has been cultivating the next generation of innovators through its extensive commitment to education, including wide-ranging support of universities and university students around the world.

The Intel® Higher Education Program is a collaborative worldwide effort between Intel and more than 150 universities in 34 countries. The program provides students with access to world class research leadership, direct technology support and technology entrepreneurship skills to help move the resulting technology expertise and knowledge to the local economy

## **Technology Curriculum**

Intel provides free cutting-edge technology curriculum to engineering universities. This curriculum, developed by leading faculty around the world, helps professors include the latest technology in their lesson plans. It encompasses the following disciplines:

- Intel Multi-Core Technology
- Signal Integrity
- Microelectronic Fabrication
- MicroElectronics Packaging

- VLSI
- Network Processing
- Embedded Computing
- Wireless Computing

#### Entrepreneurship

To encourage and prepare students everywhere to become tomorrow's technology entrepreneurs, Intel provides entrepreneurship education, including educational seminars, global faculty colloquiums and local and global entrepreneurship competitions. Intel, in collaboration with the Lester Center for Entrepreneurship and Innovation at University of California, Berkeley, provides:

- Seminars that encourage entrepreneurial creativity at universities around the world;
- The Technology Entrepreneurship Challenge, which rewards business plans that move technology
  out of labs and into local communities where they can have a positive impact on society; and
- A Global Faculty Colloquium that helps university faculty create and operate a multi-disciplinary, multi-functional entrepreneurship center.

# **Research with Universities**

Investment in high tech research is key to developing the next generation of technological breakthroughs. To help foster such innovation, Intel is working with universities worldwide through a variety of programs, including regional academic forums, university research grants and the funding of open and collaborative research labs. More than 250 Intel-sponsored research engagements are underway at universities throughout the world.

From the University of the Philippines to the University of Costa Rica to National Taiwan University, Intel has supported research on everything from silicone modification to digital health, resulting in global recognition, increased credibility and funding, and the furthering of the boundaries of science.

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#### The Intel Research Network of Labs

Wholly owned and funded Intel labs allow scientists and engineers to dream up new ways to meet performance challenges. What makes these labs unique is the open and collaborative research model under which they operate. Pioneered to enhance and accelerate long-term research, this system eliminates conflicts over intellectual property rights that often hinder or prevent many collaborations between companies and universities, allowing for the free exchange of ideas.

#### Intel Academic Forums

For more than a decade, these regional forums have fostered interaction between Intel and leading universities by providing faculty and researchers direct access to Intel technologists, as well as a forum to highlight their ongoing research. This link with global technology leaders fosters innovative discussion and lays the frameworks for ongoing partnerships.

# **Student Support Programs**

Intel's student support programs target students studying technical disciplines that support the Information Technology industry such as electrical engineering, computer science and manufacturing. Student support programs are tailored to meet the needs of the specific region or country where they are implemented, and include undergraduate scholarships, graduate level fellowships and student research contests.

# Intel Scholarship Support

Intel scholarship programs are tailored by the Intel regional sites. In the US, for example, programs include undergraduate scholarships available at schools local to Intel site communities, masters level programs supported through a national consortium focusing on diverse populations and Intel PhD fellowship programs supported through national tier one universities. Globally, all programs are administered directly through supporting universities.

#### Intel Student Research Contests

Research contests seek to highlight emerging technology by providing students the hands-on opportunity to experience a specific technology and develop a targeted project. These contests are supported regionally by Intel sites. The 2007 Intel National Multi-core Programming Contest in China received over 5,750 applicants and almost 1,000 participants moved to the 1st-round of the competition. Students work with their college or university professor to develop their product or skills, consulting with designated Intel researchers along the way who provide key technical expertise. These contests traditionally conclude with the student presentations to an Intel panel of experts, and are currently in place in India, the People's Republic of China, Mexico and Taiwan.

### Undergraduate Research

Intel's undergraduate research program engages students directly in ongoing research teams at their university to provide them with "hands on" research experience in their chosen field. Programs such as these have been shown to dramatically increase the retention of technical students in their fields and encourage students to continue their education and enter graduate programs.

Students are assigned to standing research teams under the direction of a professor and matched with a mentor who oversees his or her day-to-day activity.

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# Intel® Education Initiative: Four Decades of Educational Excellence

Intel believes all students, everywhere, deserve to have the tools they need to become the next generation of innovators. From local schools to global universities, Intel works to help improve the quality of education around the world. Over the past decade alone, Intel has invested more than USD 1 billion in cash and in-kind contributions to help teachers teach, students learn and universities innovate – particularly in the areas of math, science and technology.

To learn more about Intel's commitment to education, please visit <a href="www.intel.com/education">www.intel.com/education</a>.

To learn more about Intel, the world leader in silicon innovation, please visit www.intel.com.

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