

Universities and Research Institutions Around the World Embrace Parallel Computing Using GPUs

More Than 400 Institutions Now Using CUDA to Address Challenges in Biology, Computer Science, Medicine, Meteorology, Pharmaceuticals, Physics

SANTA CLARA, CA -- NVIDIA today announced the addition of 35 new CUDA Research Centers and CUDA Teaching Centers in 14 countries, further advancing the growth of parallel computing across the globe.

More than 400 universities are now teaching parallel programming using GPUs (graphics processing units) based on NVIDIA® CUDA® architecture, empowering the tens-of-thousands of students graduating each year with the knowledge and expertise to leverage the immense parallel processing power of GPUs. The 35 new centers supplement the wide number of institutions already using GPUs to address today's most challenging computing issues, and drive the next wave of scientific discovery across multiple fields.

CUDA Research Centers are recognized institutions that embrace and utilize GPU computing across multiple research fields. They are at the forefront of some of the world's most innovative and important scientific research. Examples of CUDA-related work taking place at the new centers include:

- **University of Pennsylvania/Children's Hospital of Philadelphia** -- GPU acceleration of data analysis in pharmacokinetics (what the body does to new drugs) and pharmacodynamics (what the drugs do to the body) to enable rapid determination of the effectiveness and safety of new drugs, greatly reducing the time and cost of drug development.
- **Pacific Northwest National Laboratory** -- As part of the Extreme Scale Initiative, GPU-acceleration of STOMP (<http://stomp.pnnl.gov>), a subsurface transport simulator, which can help improve public safety by predicting flow of contaminants into underground waterways, and GPU acceleration of NWChem (<http://www.nwchem.org>), a computational chemistry tool to address key questions about processes such as photosynthesis, protein functions and combustion.
- **Technische Universität Dresden (Germany)** -- NVIDIA CUDA architecture-enabled Particle-in-Cell (PIC) (<http://en.wikipedia.org/wiki/Particle-in-cell>) algorithm greatly increases the scope and accuracy of plasma simulation to foster cancer treatment using laser-driven ion beams and create new radiation sources for materials research.

Other new CUDA Research Centers include:

- ETH Zurich (Switzerland)
- Lobachevsky State University of Nizhni Novgorod (Russia)
- Technische Universität Braunschweig (Germany)
- Technische Universität Darmstadt (Germany)
- Universidade Federal Fluminense (Brazil)
- University of Arkansas
- University of Pittsburgh
- University of Sheffield (U.K.)
- Virginia Tech

CUDA Teaching Centers have integrated GPU computing techniques into their mainstream computer programming curriculum. New ones include:

- Brunel University (U.K.)
- Carnegie Mellon University Silicon Valley
- Conservatoire National des Arts et Metiers (France)
- Facultad de Ingeniería, Universidad de la República (Uruguay)
- Florida State University
- Grinnell College
- Kazimierz Wielki University (Poland)
- MS Ramaiah Institute of Technology (India)
- New Mexico Institute of Mining and Technology
- Norwegian University of Science and Technology (Norway)
- Purdue University
- Universidad de Málaga (Spain)

- Universidade Anhembi Morumbi (Brazil)
- Universidade Federal de São Paulo (Brazil)
- Università di Catania (Italy)
- University of Akron
- University of Alabama
- University of Arizona
- University of Arkansas
- University of Moratuwa (Sri Lanka)
- University of Rochester
- University of Wisconsin - Madison
- Wake Forest University

The CUDA Research Center Program fosters collaboration at institutions that are expanding the frontier of parallel computing. Among the benefits are exclusive events with key researchers and academics, a designated NVIDIA technical liaison, and access to specialized online and in-person training sessions.

The CUDA Teaching Center Program is the first program of its kind to be developed and offered to universities and colleges by a hardware vendor. Among the program's benefits is the donation of teaching kits, including [textbooks](#), software licenses and NVIDIA [CUDA architecture-enabled GPUs](#) for teaching lab computers, as well as academic discounts for additional hardware, if required.

For more information on NVIDIA research activities and these programs, please visit the [NVResearch site](#).

Tags / Keywords:

NVIDIA, CUDA, GPU, GPU computing, supercomputing, parallel computing, GPGPU, high performance computing, OpenCL, DirectCompute, developers, scientific computing

About NVIDIA

NVIDIA (NASDAQ: NVDA) awakened the world to the power of computer graphics when it invented the GPU in 1999. Since then, it has consistently set new standards in visual computing with breathtaking, interactive graphics available on devices ranging from tablets and portable media players to notebooks and workstations. NVIDIA's expertise in programmable GPUs has led to breakthroughs in parallel processing which make supercomputing inexpensive and widely accessible. The Company holds more than 1,800 patents worldwide, including ones covering designs and insights that are essential to modern computing. For more information, see www.nvidia.com.

Certain statements in this press release including, but not limited to statements as to: the features, capabilities and impact of NVIDIA CUDA architecture and NVIDIA GPUs; the benefits and impact of The CUDA Research Center Program; and the effects of the company's patents on modern computing are forward-looking statements that are subject to risks and uncertainties that could cause results to be materially different than expectations. Important factors that could cause actual results to differ materially include: global economic conditions; our reliance on third parties to manufacture, assemble, package and test our products; the impact of technological development and competition; development of new products and technologies or enhancements to our existing product and technologies; market acceptance of our products or our partners products; design, manufacturing or software defects; changes in consumer preferences or demands; changes in industry standards and interfaces; unexpected loss of performance of our products or technologies when integrated into systems; as well as other factors detailed from time to time in the reports NVIDIA files with the Securities and Exchange Commission, or SEC, including its Form 10-K for the fiscal year ended January 30, 2011. Copies of reports filed with the SEC are posted on the company's website and are available from NVIDIA without charge. These forward-looking statements are not guarantees of future performance and speak only as of the date hereof, and, except as required by law, NVIDIA disclaims any obligation to update these forward-looking statements to reflect future events or circumstances.

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