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1st Innovation Excellence Awards Presented

International Data Corporation (IDC) announced the first recipients of the new HPC Innovation Excellence Award at the ISC'11 International Supercomputing Conference

Steve Conway



A truck aerodynamics (CFD) simulation
Courtesy of BMI/SmartTrucks

The HPC Innovation Excellence Award recognizes noteworthy achievements by users of high performance computing (HPC) technologies. The program's main goals are

- to showcase return on investment (ROI) and scientific success stories involving HPC
- to help other users better understand the benefits of adopting HPC and justify HPC investments, especially for small and medium-size businesses (SMBs)
- to demonstrate the value of HPC to funding bodies and politicians
- to expand public support for increased HPC investments.

"IDC research has shown that HPC can greatly improve ROI and scientific advancement. The award program aims to collect a large set of success stories across many industries and application areas," said Earl Joseph, program vice president, High Performance Computing at IDC. "The initial winners achieved clear success in applying HPC to greatly improve business ROI, scientific advancement, and/or engineering successes. Many of the achievements also directly benefit society."

The award winners and project leaders announced at ISC11 on June 20, 2011, are as follows:

- Beijing Genomics Institute (China) — BGI has created genomics solutions that speed science and commercialization. BGI estimates that the solutions have saved hundreds of thousands of dollars. Project leader: Lin Fang.
- BMI (U.S.) — Fuel-saving aerodynamic truck design. Estimated savings of \$5,000 per truck, per year. Project leader: Mike Henderson.
- Department of Defense HPC Modernization Program - DEW (U.S.) — \$13.8 million initial savings from virtual prototyping of countermeasures based on high-power microwaves, with much greater potential savings. Project leader: Cray Henry.
- Department of Defense HPC Modernization Program - COAMPS (U.S.) — Significantly improved model for tropical cyclone forecasting. Documented savings of \$6 million in one event alone, with far greater potential savings.
- Lawrence Livermore National Laboratory (U.S.) — Achieved 17 percent improvement in fuel economy of Class 8 tractor-trailers. Potential savings: \$24.2 billion annually. Project leader: Kambiz Salari.
- National Energy Research Scientific Computing Center (U.S.) — International study has enabled much more detailed and longer (100 years) record of past weather, to improve climate studies. Project leader: Gilbert P. Compo and National Energy Research Scientific Computing Center.
- Ohio Supercomputer Center-Edison Welding Institute (U.S.) — Weld Predictor simulation tool cuts costs by an average 50 percent by minimizing experimental trials. Project leaders: Ashok Krishnamurthy, Kathy Kelley.
- Shanghai Supercomputer Center (China) — New method to determine molecular configurations of large molecules on metal surfaces. Project leader: Tao Wang.
- Shanghai Supercomputer Center (China) — Substantial time and costs savings in engineering design. Project leader: Jiancheng Wu.

“The Council on Competitiveness would like to congratulate all the winners of the inaugural HPC Innovation Excellence Award and thank all of those who submitted entries. The significance of HPC to the private sector will only be fully appreciated when examples such as these are recognized for their economic value,” said Dr. Cynthia McIntyre, senior vice president for the HPC Initiative at the Council on Competitiveness.

IDC welcomes award entries from anywhere in the world. Entries may be submitted at any time by completing the brief form available at <https://www.hpcuserforum.com/innovationaward/>. New winners will be announced multiple times each year.

Submissions must contain a clear description of the dollar value or scientific value received in order to qualify. The HPC User Forum Steering Committee performs an initial ranking of the submissions, after which domain and vertical experts are called on, as needed, to evaluate the submissions.

HPC Innovation Excellence Award sponsors include

- Adaptive Computing
- Altair
- AMD
- Ansys
- Appro
- Avetec/DICE
- Boeing Company
- Council on Competitiveness
- U.S. Department of Defense
- U.S. Department of Energy
- Ford Motor Company
- Hewlett Packard
- IBM
- HPCwire
- insideHPC
- Intel
- Microsoft
- National Science Foundation
- NCS
- Platform Computing
- Scientific Computing
- SGI

“On behalf of Intel Corporation, I would like to commend all the winners of the HPC Innovation Excellence Award for leading the HPC community in showcasing the real-world benefits this community brings to society,” said Raj Hazra, general manager, High Performance Computing, Intel.

The next round of HPC Innovation Excellence Award winners will be announced at the SC11 International Conference for High Performance Computing, Networking, Storage and Analysis, taking place in Seattle, WA, in November 2011.

About IDC

International Data Corporation (IDC) is a global provider of market intelligence, advisory services, and events for the information technology, telecommunications, and consumer technology markets. IDC has helped IT professionals, business executives, and the investment community to make fact-based decisions on technology purchases and business strategy for more than 47 years. More than 1,000 IDC analysts provide global, regional, and local expertise on technology and industry opportunities and trends in over 110 countries. IDC is a subsidiary of IDG.

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