Georgia Tech Establishes Cell BE Center of Competence

The College of Computing at Georgia Tech today announced its designation as the first Sony-Toshiba-IBM (STI) Center of Competence focused on the Cell Broadband Engine (Cell BE) microprocessor. IBM Corp., Sony Corporation and Toshiba Corporation selected to partner with the College of Computing at Georgia Tech to build a community of programmers and broaden industry support for the Cell BE processor.

The revolutionary Cell BE processor is a breakthrough design featuring a central processing core, based on IBM's industry leading Power Architecture technology, and eight synergistic processors. Cell BE "supercharges" compute-intensive applications, offering fast performance for computer entertainment and handhelds, virtual-reality, wireless downloads, real-time video chat, interactive TV shows and other "image-hungry" computing environments. The groundbreaking Cell BE processor appears in products such as Sony Computer Entertainment's PLAYSTATION3, Toshiba's Cell Reference Set, a development tool for Cell products, and already is included in the IBM BladeCenter QS20, or "Cell Blade", as well as through joint collaboration with Mercury Computer Systems, Inc., targeted at aerospace and defense, semiconductor, medical imaging, and other markets.

"The College of Computing at Georgia Tech firmly believes that the Sony-Toshiba-IBM Cell BE processor represents the future of computing using heterogeneous multi-core processors, and we are pleased to work with three leading technology companies in a broad collaboration that will demonstrate the extreme performance of Cell," said David A. Bader, associate professor and executive director of High-Performance Computing in the College of Computing at Georgia Tech. "By supporting the growth of the industry-changing Cell BE processor technology, the College of Computing at Georgia Tech will drive the continued advancement of computationally-intensive applications that will directly impact the global growth of our industry and the evolution of our society."

Directed by Bader, the new STI Cell Center of Competence at Georgia Tech has a mission to grow the community of Cell BE users and developers by performing research and service in support of the Cell BE processor, and further enable students at the College to grow their skills and experience around Cell BE technology to apply in future career opportunities. The Center will sponsor discussion forums and workshops, provide remote access to Cell blade hardware installed at Georgia Tech, create and disseminate software optimized for Cell BE systems, and perform research on the design of Cell BE systems, algorithms, and applications. The award from Sony-Toshiba-IBM will support the Center's activities and research efforts in support of broadening Cell BE's impact into multiple sectors and industries, including scientific computing, digital content creation, bioinformatics, finance, gaming and entertainment.

"We are looking forward to seeing a paradigm shift in computing, and anticipate that our collaboration with the College of Computing at Georgia Tech will create innovative applications for Cell processors," said Masa
Chatani, senior general manager, Cell Development Center, Sony Corporation and also CTO of Sony Computer Entertainment Inc. "We expect that it will generate tremendous value not limited to PLAYSTATION 3 but to all Cell-based computers."

"We look forward to seeing the Center of Competence at Georgia Tech generating outstanding technology based on Cell BE," said Tomotaka Saito, general manager, Broadband System LSI Division, System LSI Division I, Toshiba's Semiconductor Company. "The future will see growing demand for multi-core processor applications, and we want to see the Center playing a key role in anticipating and responding to such demand."

"The joint collaboration by IBM, Sony and Toshiba on the Cell processor has led to tremendous advancements in computing applications and innovations," said Sharon Nunes, vice president, Business Development and Strategic Growth Initiatives, IBM Systems & Technology Group. "We are pleased to be collaborating with the College of Computing at Georgia Tech to enable a team of engineers, professors and students to create breakthrough solutions, share information among various industries and other universities, and further the Cell ecosystem overall."