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## Cell processor trio extend R&D with Georgia Tech

By John Walko

LONDON — IBM, Toshiba and Sony will continue work on the Cell processor with researchers at the Georgia Tech College of Computing.

As well as the renewal of the contracts between the partners, Georgia Tech has revealed a series of new research projects to develop applications and productivity tools based on Cell/B.E. microprocessor.

Georgia Tech also announced that it will host the Second Annual Cell/B.E. Processor Workshop in Atlanta from July 10-11, 2008, focusing on software, tools and applications for the processor, including high performance computing applications and programmability tools.

One of the key research challenges that the collaborators will address through continued applied research is the use of Cell/B.E. technology to better monitor an aircraft's structural safety in commercial and military airplanes.

The teams will develop Cell/B.E. based data-processing software that will accurately monitor structural components in flight by measuring and recording an aircraft's vibrations through a distributed network of sensors.

Although a commercial signal processing application for airplanes is a long term plan, researchers are working to develop a solid software foundation in the labs.

Projects will also focus on: the development of a signal processing kernel needed for oil and gas exploration and seismic monitoring; data compression, used for file compression or reducing the size of messages sent between computers required in multiple industries; financial services applications for consolidated debt optimization, as well as European and American options pricing; encryption libraries for securing communications for privacy; high-speed multimedia codecs, such as MPEG2 and JPEG2000 encoders and decoders; and bioinformatics, such as DNA sequence alignment and comparison.

"Within a year of the opening of the Center of Competence at Georgia Tech, researchers are already generating outstanding results on Cell/B.E.," said Mitsuo Saito, Chief Fellow, Toshiba Corporation Semiconductor Company.

"The future will see growing demand for multi-core processor applications," Saito added in a statement.

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