

The FPGA High Performance Computing Alliance invites you to the Energy Technology Leaders Lunch

Date - Thursday 30th August 2007

Location - The Marcliffe at Pitfodells, Aberdeen

Time - 12:30 - 14:00

Overview

Many companies in the energy sector, particularly those involved in oil and gas exploration and production, use significant computing resources. The performance of conventional microprocessors is no longer increasing as it did in the past. This means that companies need to evaluate new technologies to address their demand for ever greater processing capability. Field Programmable Gate Arrays (FPGAs) have the potential to satisfy that demand.

The FHPCA (FPGA High Performance Computing Alliance) has recently built a supercomputer using FPGAs instead of conventional microprocessors. This new supercomputer, called "Maxwell", achieves much greater levels of performance than are possible with conventional systems and can provide orders-of-magnitude speedups for compute-intensive algorithms, with greatly reduced power consumption.

The FHPCA is currently working with the Aberdeen-based company, OHM Surveys plc, which specialises in finding oil using electromagnetic techniques. We have taken one of its numerical applications and successfully ported it to Maxwell in order to demonstrate how FPGAs can greatly speed up numerically intensive applications.

About the FHPCA

The FHPCA was established in 2004 to pioneer the use of FPGAs for high-performance computing. Led by EPCC at The University of Edinburgh, the Alliance comprises Alpha Data, Nallatech, Xilinx, Algotronix and the ISLI. The FHPCA is funded by Scottish Enterprise and each of the partners. Over £3.6 million has been invested in the development of the Maxwell supercomputer during the last two years.

Why attend?

This is an excellent opportunity to find out more about FPGA technology and how you could gain commercial advantage from its use. Maxwell is a key resource for Scottish business which can exploit its potential through engagement with EPCC and other members of the FHPCA.

This event is focused on the business benefits of FPGAs for the energy sector and will feature a case study from OHM Surveys plc.

How to register

Registration is complimentary.

To register please email "m.wilkinson@epcc.ed.ac.uk" or telephone Maureen Wilkinson on 0131 650 5027.

Places are limited and will be allocated on a first come first served basis.

Agenda

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| 12:30 - 13:15 | Buffet Lunch & Networking |
| 13:15 - 13:45 | Presentations from Dr Mark Parsons of the FHPCA and Dr Lucy MacGregor of OHM Surveys plc |
| 13:45 - 14:00 | Questions & Close |

