

Travel Report for IEEE NORCHIP 2005

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Introduction

The NORCHIP conference the main microelectronics event of the Nordic countries. Conference topics usually cover all areas of microelectronics (both digital and analogue) thus providing a large platform for collaboration among researchers in different fields but related to microelectronics. The conference provides an annual forum for presentations and discussions of advances in design and prototyping of VLSI circuits and systems and focuses on design concepts and results, verification, prototyping and testing of VLSI systems.

The Conference

This conference sponsored by the IEEE Circuits and Systems Society and the University of Oulu took place at Oulu, Finland on 21-22 November 2005. The focus of this year's conference was radio frequency (RF) technology. The keynote speech "Digital RF processors for Cellular Radios" was given Dirk Leipold, Texas Instruments, USA. I presented a paper at this conference. There were sixteen presentation sessions and two poster sessions.

The Presented Paper

My paper "Embedded FPGA Memory Requirements for Real-Time Video Processing Applications" was presented as a poster since it was not directly related to RF technology which is the subject of the conference. The paper is an analysis of the current and future requirements of video processing systems allocated on FPGA embedded memory resources and concludes that FPGAs should support multiple memory sizes to take full advantage of the architecture. The analysis was performed such that a set of video processing systems are allocated onto different existing and extrapolated FPGA architectures.

Conclusions

Although the conference is for Nordic countries there were researchers from all parts of the world. I met Arnaldo Azevedo from Brazil whose work is related to mine and we had excellent discussions on the challenges related to efficient use of FPGA embedded memories in video processing. I found the technical sessions on logic circuits and digital application to be very informative. Also I found discussions during the poster session very practical and personal since only researchers whose works are closely related and who are really interested in a poster come forward to ask questions. There is always enough time for a one-on-one discussion and opportunity to present their arguments. There is also enough room for people to explain why the suggestions would contribute to the work in the poster. I had the privilege of having intensive discussions with two people.