

Symposium on "Embedded Multicore and Compilation for Automatic Parallelization and Power Reduction in the Post Moore Era"

Tokyo, July 19th , 2017

Oscar Technology Corporation and the Advanced Multicore Processor Research Institute of Waseda University jointly held the first "Symposium on Embedded Multicore and Compilation for Automatic Parallelization and Power Reduction in the Post Moore Era".

The symposium serves as a forum for leading industry experts to exchange views and opinions regarding the application of multicore processors, accelerators, and novel technologies. In the focus of the event is the theory and practice of how to improve performance and reduce power consumption by using automatic parallelization. Moreover, future trends in the application of such technologies are highlighted, as well as how future applications can benefit from the symbiosis of accelerator-augmented multicore hardware and automatically parallelizing compiler technology.

Following the opening remarks by Dr. Katsuhiko Shirai, director of Oscar Technology Corporation and former president of Waseda University,



Dr. Kazuo Kyuma, executive member of the Council for Science and Technology and Innovation, Cabinet Office, introduced the "Society 5.0" that the Government has set as goal.



Next, the talk of Mr. Yuzuru Utsumi, President of ARM K.K., entitled "ARM's recent Product Trends and Expectations for Compilers" followed, highlighting ARM K.K.

trends and expectations of the company regarding compiler technologies.



Mr. Katsuhisa Shibata, principal marketing specialist industry marketing of MathWorks Japan, gave insights on model-based design and its processing environments relevant within the automobile industry during his talk "Model-Based Development and Promotion of Code Generation Products and Current Trends".



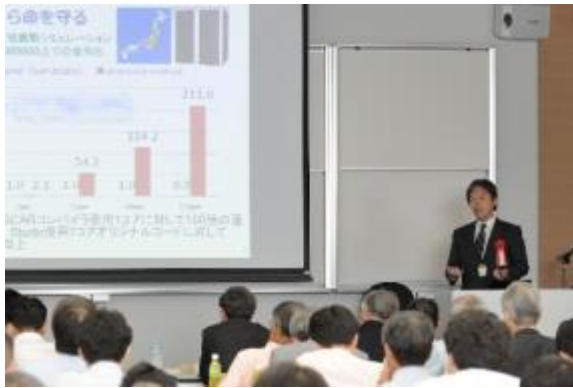
Mr. Hiroshi Mori, project general manager at the basic electronic technology unit of the semiconductor IP Department of DENSO corporation, explained about the state-of-the-art in in-vehicle systems development and presented results of joint research with the group of Prof. Kasahara and Prof. Kimura of Waseda University during his talk "Application of Next-Generation Computing Technology for Automotive Electronic Control Systems".



Dr. Kunio Uchiyama, Technical Advisor, R & D Group of Hitachi, Ltd., highlighted examples how research results of joint research with the group of Prof. Kasahara and Prof. Kimura are put into practice, and discussed how AI technology can be exploited for Society 5.0 applications in this talk "Expectations for Multicore Technology to Support Society 5.0".



From the organizer side, Waseda University Professor · IEEE Computer Society 2018 Chairman Hiroki Kasahara lectured about the foundations of the OSCAR automatically parallelizing compiler, the power saving technology developed in his laboratory, as well as future research subjects in his talk "The latest trends of automatic parallelization and power saving".



Dr. Toshiaki Kitamura, fellow of our company, introduced a hardware architecture with a compiler-driven design that maximizes achievable speed-ups of the latest compiler developed in the group of Prof. Kasahara and Prof. Kimura of Waseda University Kasahara-Kimura laboratory, during his presentation entitled "Vector Accelerator Concept".



Mr. Akira Nodomi, Director and CTO of our company, introduced the OSCARTech® compiler, which is the commercialization of the Oscar compiler developed in the group of Prof. Kasahara and Prof. Kimura of Waseda University and reported on the future development roadmap of the company during his talk

"Introduction and Development Road Map of OSCARTech® compiler".



About 130 participants from a variety of companies and organizations attended the event. Lively discussions took place in the demonstration session after the presentations, concluding the event with great success.

(July 26, 2017)