

|                                   | Hana Square Auditorium   | Hana Square Multimedia Room  | Hana Square Lobby |
|-----------------------------------|--|--|-------------------|
| September 18 <sup>th</sup> , 2017 | 8:30 AM Breakfast (Sandwich and coffee available at Lobby)   |  |                   |
|                                   | 9:30 AM <b>Opening Remark</b>  |  |                   |
|                                   | 10:00 AM <b>Keynote 1:</b> TV SoC Solutions for the Immersive Display and Intelligent Platform by Seung Jong Choi, Senior VP (System IC Center, LG Electronics Inc)  |  |                   |
|                                   | 11:30 AM Lunch at University Restaurant  |  |                   |
|                                   | <b>Session 1: Architectures</b>  | <b>Session 2: Interconnection Networks 1</b>   | Registration      |
|                                   | 1:00 PM Improving Memory Access Efficiency for Heterogeneous Multiprocessor Systems. Hyun-moon Park (KETI, Korea); Jinsan Kwon (Korea Electronics Technology Institute, Korea); Tae-ho Hwang (KETI, Korea); Dong-Sun Kim (Korea Electronics Technology Institute, Korea)   | An Efficient Deadlock-Free Adaptive Routing Algorithm for 3D Network-on-Chips. Jindun Dai (The Graduate School of Information Production and Systems, Waseda University); Xin Jiang (Graduate School of Information Production and Systems, Waseda University, Japan); Renjie Li (The Graduate School of Information Production and Systems, Waseda University, Japan); Takahiro Watanabe (The Graduate School of Information, Production and Systems Of Waseda University, Japan) |                   |
|                                   | 1:30 PM Orthogonal Instruction Processing: An Alternative to Lightweight VLIW Processors. Marcel Brand (Friedrich-Alexander-University Erlangen-Nuremberg, Germany); Frank Hannig (University of Erlangen-Nuremberg, Germany); Alexandru Tanase (Friedrich-Alexander-University Erlangen-Nuremberg, Germany); Jürgen Teich (University of Erlangen-Nuremberg, Germany)                                 | Thermal Management in 3D-Homogeneous NoC Systems using Optimized Placement of Liquid Microchannels. Ranjita Dash (National Institute of Technology Rourkela, India); Vinod Pangracious (American University in Dubai, United Arab Emirates); Ashok Turuk (National Institute of Technology, Rourkela, India); Amartya Majumdar (National Institute of Technology Rourkela, India); Jose Risco-Martin (Complutense University of Madrid, Spain); Jose Ayala (UCM, Spain)            |                   |
|                                   | 2:00 PM The Design and Implementation of Scalable Deep Neural Network Accelerator Cores. Ryuichi Sakamoto, Ryo Takata, Jun Ishii and Masaaki Kondo (The University of Tokyo, Japan); Hiroshi Nakamura (University of Tokyo, Japan); Tetsui Ohkubo, Takuya Kojima and Hideharu Amano (Keio University, Japan)   | Comparing synchronous, mesochronous and asynchronous NoCs for GALS based MPSoCs. Johannes Ax, Nils Kucza, Marten Vohrmann, Thorsten Jungeblut, Mario Pormmann and Ulrich Rueckert (Bielefeld University, Germany)  |                   |
|                                   | 2:30 PM Representing Contiguity in Page Table for Memory Management Units. Jae Young Hur (Vietnamese German University, Vietnam)   |  |                   |
|                                   | 3:00 PM Coffee Break   |  |                   |
|                                   | <b>Session 3: Programming and Runtime Systems</b>  | <b>Session 4: Interconnection Networks II</b>  |                   |
|                                   | 3:30 PM A Study of Conflicting Pairs of Compiler Optimizations. Yosi Ben Asher (CS, University of Haifa, Israel); Gadi Haber (Intel, IDC., Israel); Esti Stein (CS, Tel Aviv-Yaffo Academic College, Israel)   | Enhanced Long Edge First Routing Algorithm and Evaluation in Large-Scale Networks-on-Chip. Thiem V. Chu (Tokyo Institute of Technology, Japan); Myeonggu Kang (Korea Advanced Institute of Science and Technology, Korea); Shi FA and Kenji Kise (Tokyo Institute of Technology, Japan)  |                   |
|                                   | 4:00 PM Hypervisor-Induced Negative Interference in Virtualized Multi-Core Platforms: The P4080 Case. Sourav Dutta and Dimitri Kagaris (Southern Illinois University Carbondale, USA); Harini Ramaprasad (University of North Carolina, Charlotte)   | Run-time scalable NoC for FPGA based virtualized IPs. Hiliwi Leake Kidane (University of Burgundy & Laboratory Le2i, France); El-Bay Bourennane (University of Burgundy & LE2I Laboratory, France); Gilberto Ochoa-Ruiz (CONACYT Research Fellow, Mexico)  |                   |
|                                   | 4:30 PM Comparative Study on Edge Detection Algorithms using OpenACC and OpenMPI on Multicore Systems. Haklin Kimm (East Stroudsburg University, USA); Aakashdeep Goyal (East Stroudsburg University of Pennsylvania, USA)   | Temporal Partitioning in Mixed-Criticality NoCs using Timely Blocking. Hamidreza Ahmadian and Roman Obermaisser (University of Siegen, Germany)  |                   |
|                                   | 5:00 PM Reliability and Power optimization in 3D-stacked cache using a run-time reconfiguration procedure. Fatemeh Arezoomand (Iran University of Science & Technology, Iran); Arghavan Asad (Ryerson University, Canada); Mahdi Fazeli (IRAN University of Science and Technology, Iran); Mahmood Fathy (Iran University of Science & Technology, Iran); Farah Mohammadi (Ryerson University, Canada) |  |                   |

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| September 19 <sup>th</sup> ,<br>2017 | 8:30 AM                 | Breakfast (Sandwich and coffee available at Lobby)   |                   |
|                                      |                         | <b>Session 5: Benchmarks and Applications</b>  |                   |
|                                      | 9:00 AM                 | Performance Evaluation of Tsunami Simulation Using OpenCL on GPU and FPGA. Fumiya Kono, Naohito Nakasato and Kensaku Hayashi (University of Aizu, Japan); Alexander Vazhenin (University of Aizu, Japan, Japan); Stanislav G Sedukhin (The University of Aizu, Japan)                            |                   |
|                                      | 9:30 AM                 | A Computational Model for Improving the Accuracy of Multi-criteria Recommender Systems. Mohammed Hassan (University of Aizu, Japan); Mohamed Hamada (UoA, Japan)   |                   |
|                                      | 10:00 AM                | <b>Keynote 2:</b> High-performance Mobile MP-SoC Design: Walls and Breakthroughs by Jae Choel Son, Senior VP (SoC IP Development Team, Samsung Electronics Co., Ltd.)  |                   |
|                                      | 11:30 AM                | Lunch at University Restaurant   |                   |
|                                      |                         | <b>Session 6: System Design</b>  |                   |
|                                      | 1:00 PM                 | Real-Time Audio Processing on the T-CREST Multicore Platform. Daniel Sanz Ausin, Luca Pezzarossa and Martin Schoeberl (Technical University of Denmark (DTU), Denmark)   |                   |
|                                      | 1:30 PM                 | Designing Efficient Parallel Processing in 3D Standard-chip Stacking System with Standard Bus. Takeshi Ohkawa, Kanemitsu Ootsu and Takashi Yokota (Utsunomiya University, Japan); Katsuya Kikuchi (AIST, Japan); Masahiro Aoyagi (National Institute of AIST, Japan)                             |                   |
|                                      | 2:00 PM                 | Real-time Attitude Heading Reference System Using Extended Kalman Filter for Programmable SoC. Shunsuke Mie and Yuichi Okuyama (The University of Aizu, Japan); Yusuke Sato (University of Aizu, Japan); Ye Chan (The University of Yangon, Myanmar); Khanh Dang (The University of Aizu, Japan) |                   |
|                                      | 2:30 PM                 | Multi-Objective Optimization for Application Mapping and Body Bias Control on a CGRA. Nguyen Anh Vu Doan, Yusuke Matsushita, Naoki Ando, Hayate Okuhara and Hideharu Amano (Keio University, Japan)  |                   |
|                                      | 3:00 PM                 | Coffee Break   |                   |
|                                      | 3:30 PM                 | <b>Keynote 3:</b> A building block computing system for AI applications by Prof. Hideharu Amano (Keio University, Japan)   |                   |
|                                      | 6:30 PM<br>~ 9:00<br>PM | Banquet  |                   |
|                                      |                         |  | Registration      |

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| September 20 <sup>th</sup> ,<br>2017 | 8:30 AM  | Breakfast (Sandwich and coffee available at Lobby)   |                             |                   |
|                                      |          | <b><i>Special Sessions: Auto-Tuning for Multicore and GPU / Data Analytics and Machine Learning on Multicore, GPU, and Big Data Center</i></b>   |                             |                   |
|                                      | 9:00 AM  | Construction of performance model of tile CAQR and performance result of the implementation. Masatoshi Takayanagi and Tomohiro Suzuki (University of Yamanashi, Japan)   |                             |                   |
|                                      | 9:30 AM  | Parallel Longest Common Sequence Algorithm on Multicore Systems Using OpenACC, OpenMP and OpenMPI. Haklin Kimm (East Stroudsburg University, USA); Zuqing Li (East Stroudsburg University of Pennsylvania, USA)                        |                             |                   |
|                                      | 10:00 AM | Efficient Service Discovery Using Social Service Network Based on Big Data Infrastructure. Paik Incheon (The University of Aizu, Japan); Thenuwara Hannadige Akila Sanjaya Siriweera (University of Aizu, Japan)                       |                             |                   |
|                                      | 10:30 AM | Incremental Training of SVM-based Human Detector. Tatsuya Hanyu (University of Aizu, Japan); Zhao Qiangfu (The University of Aizu, Japan)  |                             |                   |
|                                      | 11:00 AM | Key Frame Extraction from Video Based On Determinant-Type of Spare Measure And DC Programming. Paik Incheon (The University of Aizu, Japan); Yujie LI (National Institute of Advanced Industrial Science and Technology (AIST), Japan) |                             |                   |
|                                      | 11:30 AM | <b><i>Closing Remark</i></b>   |                             |                   |