

Conference Schedule

Monday 8:30 – 10:00

Workshop on Energy-Efficient High Throughput Computing, (EEHTC, 2016) (Longjing Hall)

Organizers: Xiaochun Ye, Songwen Pei

COMRANCE: A Rapid Method for Network-on-Chip Design Space Exploration, Mingzhe Zhang, Yangguang Shi, Fa Zhang, Zhiyong Liu

A parallel implementation of deblocking filter based on video array architecture for HEVC, Lin Jiang, Qian Yang, Yun Zhu, JunYong Deng

Concealed Objects Detection and Segmentation in Passive Terahertz Images of Human Body, Huixin Tong, Songwen Pei, Linhua Jiang, Xiao Lin

Workshop on Resilience and/or Energy aware techniques for High-Performance Computing (RE-HPC) (Huagang Hall)

Organizers: Anne Benoit, Jean-Marc Pierson, and Hongyang Sun

Host Management Policy for Energy Efficient Dynamic Allocation, Patricia Stolf, Damien Borgetto, Mael Aubert

Modeling and Generating Large-Scale Google-like Workload, Georges Da Costa, Léo Grange, Inès De Courchelle

Virtual Desktop Infrastructures: architecture, survey and green aspects proof of concept, Abdallah Ali Z. A. Ibrahim, Dzmityr Kliazovich, Pascal Bouvry, Ariel Oleksiak

Monday 10:00 – 10:30 Coffee Break

Monday 10:30 – 12:00

Workshop on Energy-Efficient High Throughput Computing, (EEHTC, 2016) (Longjing Hall)

Organizers: Xiaochun Ye, Songwen Pei

GB-RC4: Effective brute force attacks on RC4 algorithm using GPU, Pei Xue¹, Tao Li, Han Dong, Chunbo Liu, Wenjing Ma, Songwen Pei

A Percolation Data Migration Schema in A Hybrid Cache Hierarchy, Jiuchuan Hu, Dongrui Fan, Danping Li, Long Yan, Xiaochun Ye

On the Properties of Data Migration Based on Topology Pattern Keeping on Cache Hierarchy, Jiuchuan Hu, Dongrui Fan, Danping Li, Long Yan, Xiaochun Ye

Workshop on Resilience and/or Energy aware techniques for High Performance Computing (RE-HPC) (Huagang Hall)

Organizers: Anne Benoit, Jean-Marc Pierson, and Hongyang Sun

Fast and Effective Power Profiling of Program Execution Based on Phase Behaviors, Xiaobin Ma, Zhihui Du, Jason Liu

Monitoring Strategies for Scalable Dynamic Checkpointing, Swann Perarnau, Leonardo Bautista-Gomez

Energy Aware Software: Issues, Approaches and Challenges, Sébastien Lafond, Simon Holmbacka, Johan Lilius

Monday 12:00 – 1:30 Lunch

Monday 1:30 – 3:00

Workshop on Energy-Efficient High Throughput Computing, (EEHTC, 2016) (Longjing Hall)

Organizers: Xiaochun Ye, Songwen Pei

Exploiting Task-Based Parallelism for Parallel Discrete Event Simulation, Yizhuo Wang, Zhiwei Gao, Han Zhang, Duzheng Qing, Weixing Ji

Energy Evaluation of Sparse Matrix-vector Multiplication on GPU, Akrem Benatia, Weixing Ji, Yizhuo Wang

Workshop on Energy Efficient Computing and Storage in Data Centers (Huagang Hall)

Organizers: Gangyong Jia, Amlan Ganguly, Sonia Lopez-Alarcon , and Young Choon Lee

Exploring SSD Endurance Model based on Write Amplification and Temperature, Hui Sun, Guodong Chen, Xu Liang and Wei Liu

Research on Three-Layer Collaborative Filtering Recommendation for Online Judge, Xinqiao Yu and Wenfei Chen

Traffic Scheduling with Sustainable Cyber Physical Systems Applying in Smart Grid, Yunliang Fan and Mike Watt

Monday 3:00-3:30 Coffee Break

Monday 3:30-5:00

Workshop on Low-Power Dependable Computing (LPDC) (Longjing Hall)

Organizers: Xiaomin Zhu, Muhammad Shafique, and Dakai Zhu

Contention-Aware Reliability Enhancement Scheme for Parallel Tasks Scheduling in Heterogeneous Computing Systems, Longxin Zhang, Kenli Li, Zhicheng Wen, Cheng Peng and Keqin Li

Using an Adaptive Runtime System for time Predictability Power-Aware in HPC-oriented Application, A. Portero, J. Sevcik, M. Golasowski, R. Vavrik, S. Libutti, G. Massari, F. Catthoor, W. Fornaciari and V. Vondrak

Solving the Dark Silicon Problem: Heterogeneity to the Rescue, Siddhartha Garg

Workshop on Energy Efficient Computing and Storage in Data Centers (Huagang Hall)

Organizers: Gangyong Jia, Amlan Ganguly, Sonia Lopez-Alarcon, and Young Choon Lee

GOOSE over UDP Transmission Mechanism for Real-time Data Fast Transmission in Distribution Network, Yuanliang Fan, Qinghua Wang, Hui Peng, Lin Shu, Kaijun Fan, and Yu Chen

Energy Efficiency Analysis of Heterogeneous Platforms: Early Experiences, Youhuizi Li, Weisong Shi, Congfeng Jiang, Jilin Zhang and Jian Wan

Investigation of DVFS for Network-on-Chip Based H.264 Video Decoders with Truly Real Workload, Milad Ghorbani Moghaddam and Cristinel Ababei

Monday 5:00-6:00

Conference Panel

Moderator: Sahra Sedigh Sarvestani

Monday 6:30 Conference Dinner (Lotus Hall)

Tuesday 8:30 – 9:00 Opening session (Lotus Hall)

Tuesday 9:00 – 10:00 Keynote1 (Lotus Hall)

Session Chair: Weisong Shi, Wayne State University

Prof. Zhiwei Xu Chinese Academy of Sciences, “Green Computing Needs Elastic Processors”.

Tuesday 10:00 – 10:30 Coffee Break

Tuesday 10:30 – 12:00 Session 1: Optimization (Lotus Hall)

Session Chair: Behrooz Shirazi, Washington State University

Multiobjective optimization of CMT-Bone on Hybrid Processors, Mohamed Gadou, Tania Banerjee and Sanjay Ranka

Energy Consump. of Algorithms for Data Retrieval from Indexed Parallel Broadcast Channels, Michael Wisely, Sahra Sedigh Sarvestani and Ali Hurson

Optimizing Regional Power Production Under Thermal Pollution Constraints, Samuel Bald, Matthew Johnson and Levi Rybalov

Tuesday 12:00 – 1:30 Lunch

Tuesday 1:30 - 3:00 Session 2: Evolutionary Methods (Lotus Hall)

Session Chair: Sahra Sedigh Sarvestani, Missouri Science & Technology

A Comparison of Evolutionary Techniques for Task-To-Core Scheduling Algorithms with Performance, Energy, and Temperature Optimization, Sheheryar Ali Arshad, Hafiz Fahad Sheikh and Ishfaq Ahmad

Using Machine Learning for Black-Box Autoscaling, Muhammad Wajahat, Alexei Karve, Andrzej Kochut and Anshul Gandhi

AutoPlug: An Automated Metadata Service for Smart Outlets, Lurdh Pradeep Reddy Ambati and David Irwin

Tuesday 3:00 – 3:30 Coffee Break

Tuesday 3:30 – 5:00 Session 3: Multicores and Datacenter (Lotus Hall)

Session Chair: Song Fu, University of North Texas

Co-Scheduling of Datacenter and HVAC Loads in Mixed-Use Buildings, Tianshu Wei, Mohammad Atiqul Islam, Shaolei Ren and Qi Zhu

Towards Energy-Efficient Multicore Database Systems, Yi Zhou, Mohammed Alghamdi, Shubbhi Taneja, Wei-Shinn Ku and Xiao Qin

A Framework for Energy-efficient Optimization on Multi-Cores, Yatao Zhu, Xiaochun Ye, Da Wang, Wenming Li, Yang Zhang, Dongrui Fan, Zhimin Zhang and Zhimin Tang

Tuesday 6:00 Conference Reception (Lotus Hall)

Wednesday 8:30 – 9:30 Keynote2 (Lotus Hall)

Session Chair: Ishfaq Ahmad, University of Texas at Arlington

Prof. Sanjay Ranka, University of Florida, “Multiobjective Algorithms for Hybrid Multicore Processors”.

Wednesday 9:30 – 10:30 Session 4: Modeling (Lotus Hall)

Session Chair: Zujie Ren, Hangzhou Dianzi University

Models, Metamodels, and Model Transformation for Cyber-Physical Systems, Nathan Jarus, Sahra Sedigh Sarvestani and Ali Hurson

Modeling STT-RAM Fabrication Cost and Impacts in NVSim, Ismail Bayram, Enes Eken, Donald Kline, Nikolas Parshook, Yiran Chen and Alex K. Jones

Wednesday 10:30 – 10:45 Coffee Break

Wednesday 10:45 – 12:15 Session 5: Architecture (Lotus Hall)

Session Chair: Congfeng Jiang, Hangzhou Dianzi University

RePP-C: Runtime Estimation of Performance-Power with Workload Consolidation in CMPs, Rajiv Nishtala and Xavier Martorell

An Energy-efficient Bandwidth Allocation Method for Single-chip Heterogeneous Processor, Yatao Zhu, Shuai Zhang, Xiaochun Ye, Da Wang, Xu Tan, Dongrui Fan, Zhimin Zhang and Hongliang Li

Memory Partition for SIMD in Streaming Dataflow Architectures, Xiaowei Shen, Xiaochun Ye, Xu Tan, Da Wang, Zhimin Zhang, Zhimin Tang and Dongrui Fan

Wednesday 12:15 – 1:30 Lunch

Wednesday 1:30 – 3:00 Session 6: Energy Efficiency (Lotus Hall)

Session Chair: Gangyong Jia, Hangzhou Dianzi University

Energy Efficiency Comparison of Hypervisors, Congfeng Jiang, Dongyang Ou, Yumei Wang, Xindong You, Jilin Zhang, Jian Wan, Bing Luo and Weisong Shi

Characterizing Power and Energy Efficiency of Legion Runtime and Apps: An Early Experience, Song Huang, Song Fu, Scott Pakin and Michael Lang

PowerCap Leverage Performance-equivalent Resource Configurations for Power Capping, Faqiang Sun, Guihai Yan, Huawei Li, Yinhe Han and Jun Ma

Wednesday 3:00 – 3:30 Coffee Break

Wednesday 3:30 – 5:00 Session 7: (Lotus Hall)

Session Chair: Youhuizi Li, Hangzhou Dianzi University

Shared Solar-powered EV Charging Stations: Feasibility and Benefits, Stephen Lee, Srinivasan Iyengar, David Irwin and Prashant Shenoy

Minimizing Electricity Cost for Geo-Distributed Interactive Services with Tail Latency Constraint, Mohammad Islam, Anshul Gandhi and Shaolei Ren

Holistically Evaluating the Environmental Impacts in Modern Computing Systems, Donald Kline, Nikolas Parshook, Xiaoyu Ge, Erik Brunvand, Rami Melhem, Panos Chrysanthis and Alex Jones

Wednesday 5:00 – 6:00 Special Session (Lotus Hall)

Session Chair: Huaxi Gu, Xidian University

Towards Connectivity-Guaranteed Power-gating Large-scale On-chip Networks, Pengju Ren, Michel Kinsy, Mengjiao Zhu and Nanning Zheng

A Laser Power Management Method for On-Chip Photonic Interconnect, Xiaolu Wang, Yiming Guo, Huaxi Gu and Kun Wang

Wednesday 6:30 Conference Banquet (Lotus Hall)