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1K Opening & Keynote I

Time: 9:00 - 10:30, Tuesday, January 23, 2018
Location: Halla Hall
Chair: Youngsoo Shin (KAIST, Republic of Korea)

1K-1 (Time: 9:30 - 10:30)

(Keynote Address) Designing Heterogeneous Systems in the AI Era: Challenges and Opportunities
Jeff Burns (IBM, U.S.A.)

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Time: 11:00 - 12:15, Tuesday, January 23, 2018
Location: Room 302
Organizer: Deming Chen (Univ. of Illinois, Urbana-Champaign)

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Time: 11:00 - 12:15, Tuesday, January 23, 2018
Location: Room 401
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Time: 15:55 - 17:35, Tuesday, January 23, 2018
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Location: Halla Hall
Chair: Youngsoo Shin (KAIST, Republic of Korea)

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Time: 10:30 - 12:10, Wednesday, January 24, 2018
Location: Room 302
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Chairs: Sri Parameswaran (Univ. of New South Wales, Australia), Jing-Jia Liou (National Tsing Hua Univ., Taiwan)

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Chairs: Shigeru Yamashita (Ritsumeikan Univ., Japan), Wujie Wen (Florida International Univ., U.S.A.)

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Location: Room 402B

Chairs: Masanori Hashimoto (Osaka Univ., Japan), Martin D. F. Wong (Univ. of Illinois, Urbana-Champaign, U.S.A.)

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5A (IS) Machine/Deep Learning for Semiconductor Design, EDA Technologies, and Application

Time: 13:40 - 15:45, Wednesday, January 24, 2018

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Organizer: Kyu Myung Choi (Seoul National Univ., Republic of Korea)

5A-1 (Time: 13:40 - 14:05)
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 *Andrew B. Kahng (Univ. of California, San Diego, U.S.A.)

5A-2 (Time: 14:05 - 14:30)
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 *Manish Pandey (Synopsys, U.S.A.)

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 *Norman Chang, Ajay Baranwal, Hao Zhuang, Ming-Chih Shih, Rahul Rajan, Yaowei Jia, Hui-Lun Liao, Ying-Shiun Li (ANSYS, U.S.A.), Ting Ku, Rex Lin (Nvidia, U.S.A.)

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 *Jeff Dyck (Solido Design Automation, U.S.A.)

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5B System Design Methodologies

Time: 13:40 - 15:45, Wednesday, January 24, 2018

Location: Room 401

Chairs: Naehyuck Chang (KAIST, Republic of Korea), Akash Kumar (Tech. Univ. Dresden, Germany)

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*Bin Lin, Fei Xie (Portland State Univ., U.S.A.)

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*Qi Nie, Sharad Malik (Princeton Univ., U.S.A.)

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*Omayma Matoussi, Frédéric Pétrot (Tima Laboratory, Grenoble INP, France)

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*Byung Su Kim (Samsung Electronics, Republic of Korea), Joon-Sung Yang (Sungkyunkwan Univ., Republic of Korea)

5C Synthesis, Routing and Timing

Time: 13:40 - 15:45, Wednesday, January 24, 2018

Location: Room 402A

Chairs: Jason C. Verley (Sandia National Laboratory, U.S.A.), Mark Po-Hung Lin (National Chung Cheng Univ., Taiwan)

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*Dustin Peterson, Yannick Boekle, Oliver Bringmann (Univ. of Tübingen, Germany)

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*Eric Schneider, Michael A. Kochte, Hans-Joachim Wunderlich (Univ. of Stuttgart, Germany)

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*Sunmean Kim, Taeho Lim, Seokhyeong Kang (Ulsan National Inst. of Science and Tech., Republic of Korea)

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*David M. Moore (Univ. of Michigan, U.S.A.), Jeffrey A. Fredenburg, Muhammad Faisal (Movellus, U.S.A.), David D. Wentzloff (Univ. of Michigan, U.S.A.)

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Time: 13:40 - 15:45, Wednesday, January 24, 2018

Location: Room 402B

Chairs: Yasuhiro Takashima (Univ. of Kitakyushu, Japan), Ting-Chi Wang (National Tsing Hua Univ., Taiwan)

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*Tao-Chun Yu, Shao-Yun Fang (National Taiwan Univ. of Science and Tech., Taiwan)

6A (SS-3) Training Deep Neural Networks: Algorithms and Architectures

Time: 16:15 - 17:30, Wednesday, January 24, 2018

Location: Room 302

Organizer: Kiyong Choi (Seoul National Univ., Republic of Korea)

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*Minsoo Rhu (POSTECH, Republic of Korea)

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6B Emerging Memory Management Techniques

Time: 16:15 - 17:30, Wednesday, January 24, 2018

Location: Room 401

Chairs: Minsoo Rhu (POSTECH, Republic of Korea), Pi-Cheng Hsiu (Academia Sinica, Taiwan)

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*Chieh-Fu Chang (Academia Sinica, Taiwan), Che-Wei Chang (Chang Gung Univ., Taiwan), Yuan-Hao Chang (Academia Sinica, Taiwan), Ming-Chang Yang (Chinese Univ. of Hong Kong, Hong Kong)

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Time: 16:15 - 17:30, Wednesday, January 24, 2018
 Location: Room 402A
 Chairs: Deliang Fan (Univ. of Central Florida, U.S.A.), Bing Li (Duke Univ., U.S.A.)

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Time: 16:15 - 17:30, Wednesday, January 24, 2018
 Location: Room 402B
 Chairs: Shouyi Yin (Tsinghua Univ., China), Jaeyong Chung (Incheon National Univ., Republic of Korea)

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3K Keynote III

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Location: Halla Hall
Chair: Youngsoo Shin (KAIST, Republic of Korea)

3K-1 (Time: 8:30 - 9:15)

(Keynote Address) CAE Challenge on High Capacity/High Bandwidth Memory Design
Woojong Han (SK Hynix, Republic of Korea)

3K-2 (Time: 9:15 - 10:00)

(Keynote Address) TeraByte/s Bandwidth 2.5D HBM (High-bandwidth Memory Module) Designs for Deep Learning Artificial Intelligent Servers
Joungho Kim (KAIST, Republic of Korea)

7A Multiplier Design: From Accurate to Approximate

Time: 10:30 - 11:45, Thursday, January 25, 2018
Location: Room 302
Chairs: Kazuyoshi Takagi (Kyoto Univ., Japan), Youngjoo Lee (POSTECH)

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*Tongxin Yang, Tomoaki Ukezono, Toshinori Sato (Fukuoka Univ., Japan)

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*Min Soo Kim (Univ. of California, Irvine, U.S.A.), Alberto Antonio Del Barrio, Román Hermida (Univ. Complutense de Madrid, Spain), Nader Bagherzadeh (Univ. of California, Irvine, U.S.A.)

7B (SS-4) Reliability and Aging-Aware Designs for sub-10nm ICs

Time: 10:30 - 11:45, Thursday, January 25, 2018
Location: Room 401
Organizer: Sheldon Tan (UC Riverside, U.S.A.)

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Mohammad Saber Golanbari, Anteneh Gebregiorgis, Elyas Moradi, Saman Kiamehr, *Mehdi B. Tahoori (Karlsruhe Inst. of Tech., Germany)

7C (SS-5) Design Automation and Methodology for Flexible Electronics

Time: 10:30 - 11:45, Thursday, January 25, 2018

Location: Room 402A

Organizers: Mehdi Tahoori (Karlsruhe Inst. of Tech., Germany), Jim Huang (Hewlett Packard Labs)

7C-1 (Time: 10:30 - 10:55)

(Invited Paper) Mechanical Strain and Temperature Aware Design Methodology for Thin-Film Transistor Based Pseudo-CMOS Logic Array 645

*Wenyu Sun, Yuxuan Huang, Qinghang Zhao, Fei Qiao (Tsinghua Univ., China), Tsung-Yi Ho (National Tsing Hua Univ., Taiwan), Xiaojun Guo (Shanghai Jiao Tong Univ., China), Huazhong Yang, Yongpan Liu (Tsinghua Univ., China)

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*Leilai Shao (UCSB, U.S.A.), Tsung-Ching Huang (Hewlett Packard Labs, U.S.A.), Ting Lei, Zhenan Bao (Stanford Univ., U.S.A.), Raymond Beausoleil (Hewlett Packard Labs, U.S.A.), Kwang-Ting Cheng (Hong-Kong Univ. of Science and Tech., China)

7C-3 (Time: 11:20 - 11:45)

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Gabriel Cadilha Marques, Farhan Rasheed, Jasmin Aghassi-Hagmann, *Mehdi B. Tahoori (Karlsruhe Inst. of Tech., Germany)

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Time: 10:30 - 11:45, Thursday, January 25, 2018

Location: Room 402B

Chairs: Kyu-Myung Choi (Seoul National Univ., Republic of Korea), Sangdo Park (Samsung Electronics, Republic of Korea)

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*Zhufei Chu (Ningbo Univ., China), Mathias Soeken (EPFL, Switzerland), Yinshui Xia (Ningbo Univ., China), Giovanni De Micheli (EPFL, Switzerland)

8A Energy Efficient System Design

Time: 13:15 - 14:30, Thursday, January 25, 2018

Location: Room 302

Chairs: Jae-Joon Kim (POSTECH, Republic of Korea), Jaeyong Chung (Incheon National Univ., Republic of Korea)

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*Behnam Khodabandeloo, Ahmad Khonsari (Univ. of Tehran/Institute for Research in Fundamental Sciences, Iran), Alireza Majidi (Texas A&M Univ., U.S.A.), Mohammad Hassan Hajiesmaili (Univ. of Tehran/Institute for Research in Fundamental Sciences, Iran)

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 *Christian Pilato (Univ. della Svizzera italiana (USI), Switzerland), Luca P. Carloni (Columbia Univ., U.S.A.)

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Time: 15:00 - 16:15, Thursday, January 25, 2018
 Location: Room 302
 Chairs: Wujie Wen (Florida International Univ., U.S.A.), Taewhan Kim (Seoul National Univ., Republic of Korea)

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10A Deep Learning and Architectural Security

Time: 16:45 - 18:00, Thursday, January 25, 2018
 Location: Room 302
 Chairs: Taewhan Kim (Seoul National Univ., Republic of Korea), Ji-Hoon Kim (Seoul National Univ. of Science and Tech., Republic of Korea)

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