

# **2019 IEEE 28th Conference on Electrical Performance of Electronic Packaging and Systems (EPEPS 2019)**

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# 28th Conference on EPEPS 2019

Electrical Performance of Electronic  
Packaging and Systems

October 6-9, 2019

Montreal, Canada

## Monday Oct 7, 2019

### Keynote Address (8:45PM – 9:45PM)

Chair: Roni Khazaka, McGill University.

#### **Machine Learning and Artificial Neural Networks for High-Speed/High-Frequency Electronic Design.....(see front matter)**

Q. J. Zhang

Chancellor Professor

Carleton University

### SESSION M-I: Advances in Interconnects and High-Speed Links (10:15AM – 11:55AM)

Chairs: Zhonggui Xiang, Huawei Technologies and Kemal Aygün, Intel Corp.

#### **M-I.1. Processing-in-memory in High Bandwidth Memory (PIM-HBM) Architecture with Energy-efficient and Low Latency Channels for High Bandwidth System (15).....1**

Seongguk Kim, Subin Kim, Kyungjun Cho, Taein Shin, Hyunwook Park, Daehwan Lho, Shinyoung Park, Kyungjune Son, Gapyeol Park, and Joungho Kim

*Korea Advanced Institute of Science and Technology (KAIST)*

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*Korea Advanced Institute of Science and Technology (KAIST).....*

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*Xilinx Inc.*

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*IBM Corp.*

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Joshua Myers, Sungjun Chun, Wiren D. Becker, and Daniel Dreps

*IBM Corp.*

### Session M-II – Embedded Tutorial (1:30PM – 3:00PM)

Chair: Roni Khazaka, McGill University.

#### **M-II.1. Machine Learning for EDA in Packaging.....(see front matter)**

Madhavan Swaminathan

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Chairs: Matthew Doyle, IBM and Benjamin Silva, Intel

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Osama Waqar Bhatti and Madhavan Swaminathan  
Georgia Institute of Technology

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Hanzhi Ma<sup>1</sup>, Er-Ping Li<sup>1</sup>, Andreas C. Cangellaris<sup>2</sup>, and Xu Chen<sup>2</sup>

<sup>1</sup>Zhejiang University, <sup>2</sup>University of Illinois at Urbana-Champaign

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Hakki Torun<sup>1</sup>, Ahmet Durgun<sup>2</sup>, Kemal Aygun<sup>2</sup> and Madhavan Swaminathan<sup>1</sup>

<sup>1</sup>Georgia Institute of Technology, <sup>2</sup>Intel Corporation.

#### [M-III.4. Evaluation of Neural Networks to Predict Target Impedance Violations of Power Delivery Networks \(11\)...25](#)

##### (Student Competition)

Christian Morten Schierholz, Katharina Scharff and Christian Schuster  
Hamburg University of Technology

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<sup>1</sup>Institute for Factory Automation and Production Systems, <sup>2</sup>Institute of Microwaves and Photonics

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Syed Bokhari  
Fidus Systems, Inc

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IBM Corporation.

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Joungho Kim<sup>1</sup>, Youngje Cho<sup>2</sup>, Byungsoo Park<sup>2</sup> and Sungmin Choi<sup>2</sup>

<sup>1</sup>KAIST, <sup>2</sup>KET

#### [M-IV.5. An Approach For Tuning Signal Integrity Properties Of Edge Card Connectors With Conductive Fixture In High-Speed Link Channels \(80\).....40](#)

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Kaisheng Hu  
Ciena

#### [M-IV.7. Improvement of Power and Signal Integrity through Layer Assignment in High-Speed Memory Systems \(49\)...46](#)

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<sup>1</sup>National Taiwan University, <sup>2</sup>DellEMC Infrastructure Solution Group

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Intel Corporation

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Mohamed Sahouli and Anestis Dounavis  
*University of Western Ontario*

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<sup>1</sup>*Ecole de Technologie Supérieure*, <sup>2</sup>*Université du Québec a Montreal*

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Bowen Li<sup>1</sup>, Brandon Jiao<sup>2</sup>, Min Huang<sup>2</sup>, Romi Mayder<sup>2</sup>, Paul Franzon<sup>1</sup>  
<sup>1</sup>*NC State University*, <sup>2</sup>*Xilinx Inc.*

**Tuesday Oct 8, 2019**

**Session T-I: Special Session in Memory of Prof. Vikram Jandhyala (8:30-AM-10:20AM)**

Chairs:

Dipanjan Gope, Indian Institute of Science,  
Albert Ruehli, Missouri University of Science and Technology.

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<sup>1</sup>*BMS College of Engineering, Bangalore*  
<sup>2</sup>*Indian Institute of Science, Bangalore*,  
<sup>3</sup>*Intel Technology India Pvt. Ltd*

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<sup>1</sup>*Univ of L'Aquila, Italy*  
<sup>2</sup>*Carleton Univ, Canada*  
<sup>3</sup>*Missouri Univ. Science & Technology*

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<sup>1</sup>*Georgia Institute of Technology*  
<sup>2</sup>*Politecnico di Torino*

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Chairs:

Piero Triverio, University of Toronto,  
Joungho Kim, KAIST.

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<sup>1</sup>Intel Corp

<sup>2</sup>ITESO The Jesuit University of Guadalajara

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KAIST

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Layne Berge, IBM

Jianyong Xie, Intel

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Heidi Barnes<sup>1</sup> and Jose Moreira<sup>2</sup>

<sup>1</sup>Keysight Technologies

<sup>2</sup>Advantest

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Chairs:

Heidi Barnes, Keysight Technologies

Mahesh Bohra, IBM

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<sup>1</sup>Intel, Israel

<sup>2</sup>Simberian, Inc

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Amit Kumar<sup>1</sup>, Brajesh Kumar Kaushik<sup>2</sup>, Sourajeet Roy<sup>1</sup> and Ramachandra Achar<sup>2</sup>

<sup>1</sup>Indian Institute of Technology Roorkee

<sup>2</sup>Carleton University

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Gaudencio Hernandez-Sosa, Intel  
Scott Powers, Qualcomm

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<sup>1</sup>Intel, India,  
<sup>2</sup>Intel, Chandler, AZ  
<sup>3</sup>Indian Institute of Science

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<sup>1</sup>Indian Institute of Technology Ropar,  
<sup>2</sup>Dell EMC

**Session W-II: Modeling and CAD II**

Chairs:

Stefano Grivet-Talocia, Politecnico di Torino  
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<sup>1</sup>McGill University  
<sup>2</sup>Lebanese American University

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Shu Wang<sup>1</sup> and Zhen Peng<sup>2</sup>  
<sup>1</sup>University of New Mexico  
<sup>2</sup>University of Illinois at Urbana-Champaign

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