2021 IEEE International Midwest Symposium on Circuits and Systems (MWSCAS 2021)

Lansing, Michigan, USA
9 – 11 August 2021

Pages 1-558

IEEE Catalog Number: CFP21MID-POD
ISBN: 978-1-6654-2462-2

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IEEE Catalog Number:	CFP21MID-POD
ISBN (Print-On-Demand):	978-1-6654-2462-2
ISBN (Online):	978-1-6654-2461-5
ISSN:	1548-3746

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A0L-1 Keynote 1: Sepp Hochreiter

Date: Monday, August 9, 2021
Time: 08:30 - 09:30
Location: Virtual Room 1
Chair(s): Fathi M. Salem, *Michigan State University*

A1L-1 Analog and Mixed-Signal Circuits and System I

Date: Monday, August 9, 2021
Time: 10:00 - 12:00
Location: Virtual Room 1
Chair(s): Maher Rizkalla, *Indiana University Purdue University Indianapolis*
Steve Kang, *University of California, Santa Cruz*

A1L-2 Bio-Inspired Circuits and Systems

Date: Monday, August 9, 2021
Time: 10:00 - 12:00
Location: Virtual Room 2
Chair(s): Mohammad Alhawari, *Wayne State University*

A1L-3 Hardware Implementation of Intelligent Systems

Date: Monday, August 9, 2021
Time: 10:00 - 12:00
Location: Virtual Room 3
Chair(s): Sebastian Hoyos, *Texas A&M University*

A1L-4 Energy Harvesting and Wireless Power

Date: Monday, August 9, 2021
Time: 10:00 - 12:00
Location: Virtual Room 4
Chair(s): Rashid Rashidzadeh, *University of Windsor*

A1L-5 Digital Circuit Reliability and Synthesis

Date: Monday, August 9, 2021
Time: 10:00 - 12:00
Location: Virtual Room 5
Chair(s): Khawja Sikander, *University of Windsor*

A1L-6 Adaptive Digital Filtering

Date: Monday, August 9, 2021
Time: 10:00 - 12:00
Location: Virtual Room 6
Chair(s): Bibhu Datta Sahoo, *IIT Kharagpur*

A1L-7 Student Paper Contest Session I

Date: Monday, August 9, 2021
Time: 10:00 - 12:00
Location: Virtual Room 7
Chair(s): Randall L. Geiger, *Iowa State University*
Robert Newcomb, *University of Maryland*

A2L-1 Analog and Mixed-Signal Circuits and Systems II

Date: Monday, August 9, 2021
Time: 13:00 - 15:00
Location: Virtual Room 1
Chair(s): Igor Filanowsky, *University of Alberta*

A2L-2 Circuits and Systems for Neural Networks I

Date: Monday, August 9, 2021
Time: 13:00 - 15:00
Location: Virtual Room 2
Chair(s): Wasfy Mikhael, *University of Central Florida*

A2L-3 Hardware Realization of Deep Learning

Date: Monday, August 9, 2021
Time: 13:00 - 15:00
Location: Virtual Room 3
Chair(s): Baker Mohammad, *Khalifa University*
Hani Saleh, *Khalifa University*

A2L-4 Power Management, Energy Harvesting and Smart Power I

Date: Monday, August 9, 2021
Time: 13:00 - 15:00
Location: Virtual Room 4
Chair(s): Dong Sam Ha, *Virginia Tech*

A2L-5 Digital Synthesis and Routing Congestion

Date: Monday, August 9, 2021
Time: 13:00 - 15:00
Location: Virtual Room 5
Chair(s): Digvijay Rajurkar, *Intel Corp.*

A2L-6 Digital Image Processing

Date: Monday, August 9, 2021
Time: 13:00 - 15:00
Location: Virtual Room 6
Chair(s): Majid Ahmadi, *University of Windsor*

A2L-7 Student Paper Contest Session II

Date: Monday, August 9, 2021
Time: 13:00 - 15:00
Location: Virtual Room 7
Chair(s): Robert Newcomb, *University of Maryland*
Randall L. Geiger, *Iowa State University*

A3L-1 Data Conversion Techniques I

Date: Monday, August 9, 2021
Time: 15:30 - 17:30
Location: Virtual Room 1
Chair(s): Jose M. de la Rosa, *IMSE-CNM (CSIC/University of Seville)*

A3L-2 Circuits and Systems for Neural Networks II

Date: Monday, August 9, 2021
Time: 15:30 - 17:30
Location: Virtual Room 2
Chair(s): Masoumeh Kalantari Khandani, *University of Central Florida*

A3L-3 Intelligent Systems and IoT

Date: Monday, August 9, 2021
Time: 15:30 - 17:30
Location: Virtual Room 3
Chair(s): Syed Rafay Hasan, *Tennessee Tech University*

A3L-4 Power Management, Energy Harvesting and Smart Power II

Date: Monday, August 9, 2021
Time: 15:30 - 17:30
Location: Virtual Room 4
Chair(s): Cheng Huang, *Iowa State University*

A3L-5 Implementation of Digital Circuits & Systems

Date: Monday, August 9, 2021
Time: 15:30 - 17:30
Location: Virtual Room 5
Chair(s): Maher Rizkalla, *Indiana University Purdue University Indianapolis*

A3L-6 Linear and Non-Linear Filter Designs

Date: Monday, August 9, 2021
Time: 15:30 - 17:30
Location: Virtual Room 6
Chair(s): Igor Filanowsky, *University of Alberta*

A3L-7 Special Session: COVID-19 Detection, Modeling & Prevention

Date: Monday, August 9, 2021
Time: 15:30 - 17:30
Location: Virtual Room 7
Chair(s): Jennifer Blain Christen, *Arizona State University*

B1L-1 Analog and Mixed-Signal Circuits and Systems III

Date: Tuesday, August 10, 2021
Time: 08:30 - 10:00
Location: Virtual Room 1
Chair(s): Steve Kang, *University of California, Santa Cruz*
Manohar Das, *Oakland*

B1L-2 Circuits and Systems for Neural Networks III

Date: Tuesday, August 10, 2021
Time: 08:30 - 10:00
Location: Virtual Room 2
Chair(s): Kasem Khalil, *University of Louisana at Lafayette*

B1L-3 Neural Learning in Biological Applications

Date: Tuesday, August 10, 2021
Time: 08:30 - 10:00
Location: Virtual Room 3
Chair(s): Majid Ahmadi, *University of Windsor*
Sebastian Hoyos, *Texas A&M University*

B1L-4 Voltage Regulators and Power Converters

Date: Tuesday, August 10, 2021
Time: 08:30 - 10:00
Location: Virtual Room 4
Chair(s): Lucien Ngalamou, *Lewisu University*
Cheng Huang, *Iowa State University*

B1L-5 Implementation of Digital Modules

Date: Tuesday, August 10, 2021
Time: 08:30 - 10:00
Location: Virtual Room 5
Chair(s): Ahmed Amar, *Ohio Northern University*

B1L-6 Medical Image Processing

Date: Tuesday, August 10, 2021
Time: 08:30 - 10:00
Location: Virtual Room 6
Chair(s): Wasfy Mikhael, *University of Central Florida*

B1L-7 Special Session: Medical Image Processing and Computational intelligence

Date: Tuesday, August 10, 2021
Time: 08:30 - 10:00
Location: Virtual Room 7
Chair(s): Bhupinder Mavi, *HNC Virtual Solution*
Harpreet Singh, *Wayne State University*

B2AL-1 Keynote 2: Stephen Boyd

Date: Tuesday, August 10, 2021
Time: 12:00 - 12:55
Location: Virtual Room 1
Chair(s): Fathi M. Salem, *Michigan State University*

B2L-1 Data Conversion Techniques II

Date: Tuesday, August 10, 2021
Time: 13:00 - 15:00
Location: Virtual Room 1
Chair(s): Fei Yuan, *Ryerson University*
Jose M. de la Rosa, *IMSE-CNM (CSIC/University of Seville)*

B2L-2 Communication Baseband Processing

Date: Tuesday, August 10, 2021
Time: 13:00 - 15:00
Location: Virtual Room 2
Chair(s): Sangho Shin, *Rowan University, NJ*

B2L-3 Neural Network Applications

Date: Tuesday, August 10, 2021
Time: 13:00 - 15:00
Location: Virtual Room 3
Chair(s): Shervin Erfani, *University of Windsor*

B2L-4 Circuits and Systems for Wearables

Date: Tuesday, August 10, 2021
Time: 13:00 - 15:00
Location: Virtual Room 4
Chair(s): Cheol-Hong Min, *University of St. Thomas*

B2L-5 Novel Circuit and System Architectures

Date: Tuesday, August 10, 2021
Time: 13:00 - 15:00
Location: Virtual Room 5
Chair(s): Dursun Baran, *Informatics and Information Security Research Center- BILGEM*

B2L-6 Digital Oscillatory Circuits and Systems

Date: Tuesday, August 10, 2021
Time: 13:00 - 15:00
Location: Virtual Room 6
Chair(s): Majid Ahmadi, *University of Windsor*

B2L-7 Special Session: Internet of Things (IoT) Growth Acceleration in a Post-pandemic World

Date: Tuesday, August 10, 2021
Time: 13:00 - 15:00
Location: Virtual Room 7
Chair(s): Love Kumar Sah, *Western New England University*
Neeraj Magotra, *Western New England University*

B3L-1 Mixed Signal Circuits I

Date: Tuesday, August 10, 2021
Time: 15:30 - 17:30
Location: Virtual Room 1
Chair(s): Jose M. de la Rosa, *IMSE-CNM (CSIC/University of Seville)*

B3L-2 Voltage Controlled Oscillators

Date: Tuesday, August 10, 2021
Time: 15:30 - 17:30
Location: Virtual Room 2
Chair(s): Armin Tajalli, *The University of Utah*

B3L-3 Wireless and Microwave Circuits and Systems I

Date: Tuesday, August 10, 2021
Time: 15:30 - 17:30
Location: Virtual Room 3
Chair(s): G. Rick Branner, *University of California, Davis*

B3L-4 Nonlinear Sensing Applications

Date: Tuesday, August 10, 2021
Time: 15:30 - 17:30
Location: Virtual Room 4
Chair(s): Nipun Kaushik, *Oklahoma State University*

B3L-5 Novel Implementations of Digital Circuits

Date: Tuesday, August 10, 2021
Time: 15:30 - 17:30
Location: Virtual Room 5
Chair(s): Nader Rafla, *Boise State University*

B3L-6 Efficient Nonlinear Circuits

Date: Tuesday, August 10, 2021
Time: 15:30 - 17:30
Location: Virtual Room 6
Chair(s): Zahra Katbay, *Wayne State University*
Rashmi Jha, *University of Cincinnati*

B3L-7 Special Session: Advances in Cybersecurity Defense for Trusted Systems

Date: Tuesday, August 10, 2021
Time: 15:30 - 17:30
Location: Virtual Room 7
Chair(s): Carla Purdy, *University of Cincinnati*
Rashmi Jha, *University of Cincinnati*

B4L-7 Edgar Sanchez Memorial Session

Date: Tuesday, August 10, 2021
Time: 18:00 - 19:30
Location: Virtual Room 7
Chair(s): Jose Silva-Martinez, *Texas A&M*
David J. Allstot, *Oregon State University*

C0L-1 Keynote 3: Khurram Waheed

Date: Wednesday, August 11, 2021
Time: 08:30 - 09:30
Location: Virtual Room 1
Chair(s): Fathi M. Salem, *Michigan State University*

Chalking the Path to Limitless Wireless Connectivity ..... No Paper
Khurram Waheed
NXP Semiconductors, United States

C1L-1 Mixed Signal Circuits II

Date: Wednesday, August 11, 2021
Time: 10:00 - 12:00
Location: Virtual Room 1
Chair(s): Maher Rizkalla, *Indiana University Purdue University Indianapolis*
Sinan Yilmaz, *Columbia University*

C1L-2 Security in Circuits and Networks

Date: Wednesday, August 11, 2021
Time: 10:00 - 12:00
Location: Virtual Room 2
Chair(s): Shervin Erfani, *University of Windsor*
Rashmi Jha, *University of Cincinnati*

C1L-3 RF and Microwave Circuits

Date: Wednesday, August 11, 2021
Time: 10:00 - 12:00
Location: Virtual Room 3
Chair(s): Rashad Ramzan, *National University of Computer and Emerging Sciences*
G. Rick Branner, *University of California, Davis*

C1L-4 Processing and Circuits for Sensors and Wearables

Date: Wednesday, August 11, 2021
Time: 10:00 - 12:00
Location: Virtual Room 4
Chair(s): Yiming Deng, *Michigan State University*

C1L-5 Late Breaking News - Wireless & RF Systems

Date: Wednesday, August 11, 2021
Time: 10:00 - 12:00
Location: Virtual Room 5
Chair(s): Muhammad Haider, *University of Alabama at Birmingham*

C1L-6 Non-Linear Circuits and Systems

Date: Wednesday, August 11, 2021
Time: 10:00 - 12:00
Location: Virtual Room 6
Chair(s): Sakib Hasan, *University of Mississippi*

C1L-7 Special Session: Low-Power Circuit Techniques for Energy-Autonomous IoT Devices

Date: Wednesday, August 11, 2021
Time: 10:00 - 12:00
Location: Virtual Room 7
Chair(s): Mohammad Alhawari, *Wayne State University*
Zahra Katbay, *Wayne State University*

C2L-1 Mixed Signal Circuits III

Date: Wednesday, August 11, 2021
Time: 13:00 - 15:00
Location: Virtual Room 1
Chair(s): Jose M. de la Rosa, *IMSE-CNM (CSIC/University of Seville)*
Bryan Orabutt, *Washington University in St. Louis*

C2L-2 Control Systems and Mechatronics

Date: Wednesday, August 11, 2021
Time: 13:00 - 15:00
Location: Virtual Room 2
Chair(s): Reyad El-Khazali, *Khalifa University*
Wei Tang, *New Mexico State University*

C2L-3 Wireless and Microwave Circuits and Systems II

Date: Wednesday, August 11, 2021
Time: 13:00 - 15:00
Location: Virtual Room 3
Chair(s): G. Rick Branner, *University of California, Davis*

C2L-4 Sensing Circuits

Date: Wednesday, August 11, 2021
Time: 13:00 - 15:00
Location: Virtual Room 4
Chair(s): Muhammad Haider, *University of Alabama at Birmingham*

C2L-5 Late Breaking News -- Neural Networks

Date: Wednesday, August 11, 2021
Time: 13:00 - 15:00
Location: Virtual Room 5
Chair(s): Arash Ahmadi, *University of Windsor*
Syed Rafay Hasan, *Tennessee Tech University*

C2L-6 Nonlinear Time-Domain Signal Processing

Date: Wednesday, August 11, 2021
Time: 13:00 - 15:00
Location: Virtual Room 6
Chair(s): Wolfgang Mathis, *Leibniz Universität Hannover*
Ljiljana Trajkovic, *Simon Fraser University*

C2L-7 Late Breaking News -- CMOS and Memory Elements

Date: Wednesday, August 11, 2021
Time: 13:00 - 15:00
Location: Virtual Room 7
Chair(s): Rashid Rashidzadeh, *University of Windsor*
Baker Mohammad, *Khalifa University*

C3L-7 Anthony N. Michel Memorial Session

Date: Wednesday, August 11, 2021
Time: 15:30 - 17:00
Location: Virtual Room 7
Chair(s): Derong Liu, *University of Illinois at Chicago*
Fathi M. Salem, *Michigan State University*

Yih-Fang Huang
University of Notre Dame, United States