



3 keynotes >

27 workshops >

8 tutorials >

33 papers >



#HiPEAC18

January 22-24, 2018, Manchester, United Kingdom

520+ participants >

12th HiPEAC Workshop on Reconfigurable Computing (WRC 2018) January 24th, 2018, Manchester, UK

General Chairs

Juergen Becker, *KIT, Germany*

João M. P. Cardoso, *University of Porto, Portugal*

Technical Program Chairs

Christos-Savvas Bouganis, *Imperial College London, UK*

Vanderlei Bonato, *ICMC/USP, Brazil*

www.fe.up.pt/wrc2018



**HiPEAC Conference: January 22-24, 2018,
Manchester, UK**

Topics

- **WRC'2018 is based on**
 - 2 keynote speeches
 - 6 invited presentations
 - and one panel
 - **This year we focus on the following two topics:**
 - Topic 1: Reconfigurable Computing in the era of Machine Learning
 - Topic 2: Reconfigurable Computing for ADAS

Organizing Committee

- **General Chairs**
 - Juergen Becker, KIT, Germany
 - João M. P. Cardoso, University of Porto, Portugal
- **Program Chairs**
 - Christos-Savvas Bouganis, Imperial College London, UK
 - Vanderlei Bonato, ICMC/USP, Brazil
- **Web Chair**
 - João Bispo, University of Porto, Portugal
- **Publicity Chairs**
 - Ramachandran Vaidyanathan, Louisiana State University, USA
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- Cristiana Bolchini, Politecnico di Milano, Italy
- Luigi Carro, UFRGS, Brazil
- Daniel Chillet, Univ. Rennes, France
- Martin Danek, daiteq, , Czech Republic
- Eduardo De La Torre, Univ. Politecnica de Madrid, Spain
- Carlo Galuzzi, TU Delft, The Netherlands
- Georgi N. Gaydajiev, Chalmers Univ. of Technology, Sweden
- Roberto Giorgi, Univ. di Siena, Italy
- Juergen Becker, KIT, Germany
- Marco D. Santambrogio, Politecnico di Milano, Italy
- Joao M. P. Cardoso, Univ. of Porto, Portugal
- Yannis Papaefstathiou, Technical Univ. of Crete, Greece
- Mario Porrmann, Univ. of Bielefeld, Germany
- Michael Hübner, Ruhr-Universität Bochum, Germany
- Wolfgang Karl, Univ. of Karlsruhe, Germany
- Costas Kyriacou, Frederick Univ., Cyprus
- Stavrou Kyriakos, Intel Labs Barcelona, Spain
- Andreas Koch, TU Darmstadt, Germany
- Dirk Koch, Univ. of Manchester, UK
- Bilha Mendelson, IBM, Israel
- Aleksandar Milenkovic, Univ. of Alabama in Huntsville, USA
- Nacho Navarro, UPC, Spain
- Gianluca Palermo, Politecnico di Milano, Italy
- Dionisios N. Pnevmatikatos, Technical Univ. of Crete, Greece
- Paolo Rech, UFRGS, Brazil
- Theocharis Thecoharidis, Univ. of Cyprus, Cyprus
- Leonel Sousa, Univ. of Lisbon, Portugal
- Luca Sterpone, Politecnico di Torino, Italy
- Dirk Stroobandt, Ghent Univ., Belgium
- Bertil Svensson, Halmstad University, Sweden
- Dimitrios Soudris, NTUA, Greece
- Ioannis Sourdis, Chalmers Univ. of Technology, Sweden
- Pedro Trancoso, Univ. of Cyprus, Cyprus
- David Thomas, Imperial College, UK
- Theo Ungerer, Univ. of Augsburg, Germany
- Stephan Wong, TU Delft, The Netherlands
- Jason Xue, City Univ. of Hong Kong, Hong Kong

Program

- 2 Keynotes and 6 Invited Talks

10:05 am - 11:00 am



Keynote:

Are FPGAs ready for accelerating datacenters?

by Dr. Dirk Koch, University of Manchester

Chair: João Cardoso. University of Porto and INESC TEC

11:30 am - 1:00 pm



Invited Talks:

Energy proportional binarized neural networks with adaptive voltage and frequency scaling,

by Dr. Jose L. Nunez-Yanez, Bristol University

Tool-flows for mapping CNNs into FPGAs: trends and challenges,

by Dr. Christos Bouganis, Imperial College London, UK

Ultra-low power features of Nema GPUs,

by Dr. Georgios Keramidas, CSO (Think Silicon S.A.)

Chair: João Bispo, Univ. of Porto and INESC TEC, Portugal



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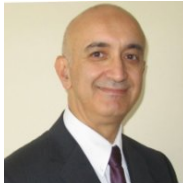
January 24th, 2018, Manchester, United Kingdom

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Program (cont.)

- 2 Keynotes and 6 Invited Talks

2:00 pm - 3:00 pm



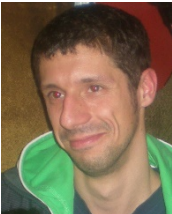
Keynote:

Reconfigurable Embedded Systems for Autonomous Driving,

by Dr. Smail Niar, University of Valenciennes & CNRS, France

Chair: Dr. Christos Bouganis, Imperial College London, UK

3:00 pm - 3:30 pm



Invited Talk:

Convolutional Neural Networks on embedded systems: an exploratory study,

by Dr. Paolo Burgio, Università degli Studi di Modena e Reggio Emilia - UNIMORE

Chair: Dr. Christos Bouganis, Imperial College London, UK

4:00 pm - 5:00 pm



Invited Talks:

Next Generation Automotive Networks for ADAS and Autonomy ,

by Dr. Suhaib Fahmy

Multi-level control of reconfigurable architectures for autonomous vehicles,

By Jean-Philippe Diguët, CNRS, Lab-STICC, Lorient

Chair: Dr. Christos Bouganis, Imperial College London, UK



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Program (cont.)

- 5:00PM-5:45PM - Panel
 - **RC + ADAS and the role of machine learning**
 - **Moderator:**
 - Joao Cardoso
 - **Panelists:**
 - Dirk Koch
 - Smail Niar
 - Jean-Philippe Diguët
 - Suhaib Fahmy

Thanks!