

2015 IEEE International Conference on Microelectronics Systems Education

(MSE 2015)

**Pittsburgh, Pennsylvania, USA
20 – 21 May 2015**



**IEEE Catalog Number: CFP15106-POD
ISBN: 978-1-4799-9916-3**

Table of Contents

2015 International Conference on Microelectronic Systems Education—MSE'15

Towards Multidisciplinary for Microelectronics Education: A Strategy of the French National Network	1
<i>Olivier Bonnaud and Laurent Fesquet</i>	
All Aspects of Computer Engineering Undergraduate Education in Turkey	5
<i>Deniz Dal, Tolga Aydin, and Sinan Kul</i>	
A Project-Based Embedded Systems Design Course using a Reconfigurable SoC Platform	9
<i>Daniel Roggow, Paul Uhing, Phillip Jones, and Joseph Zambreno</i>	
Using Industry-Grade Test Equipment in a Digital Test and Product Engineering Lab Course	13
<i>Christopher Miller, Tina A. Hudson, and Shannon Sipes</i>	
Flexible Controller for Educational Robot Kit	17
<i>Priit Ruberg, Aivar Guitar, and Peeter Ellervee</i>	
The Impact of Industry-Organized Contests on EDA Education	21
<i>Nima Karimpour Darav, Amin Farshidi, Aysa Fakheri Tabrizi, Emily Marasco, Amir Karbalaei, Andrew Kennings, Ismail S. Bustany, and Laleh Behjat</i>	
Enhancing EDA Education through Gamification	25
<i>Emily Marasco, Laleh Behjat, and William Rosehart</i>	
Satisfying ABET Criterion using an Industrial Microelectronic Skills Incubator	28
<i>Matthew A. Swabey and Mark C. Johnson</i>	
Analog Systems Education: An Integrated Toolset and FPAA SoC Boards	32
<i>Michelle Collins, Jennifer Hasler, and Suma George</i>	
Technological Fluency through Circuit Bending	36
<i>Erik Brunvand</i>	
A Cost-Effective Way to Expand the Scope of FPGA based Projects	40
<i>Pong P. Chu</i>	
A System-Level Mixed-Signal Design Course	44
<i>Lars Svensson and Lena Peterson</i>	

An Ad-Hoc Implementation of a Remote Laboratory	48
<i>Siavoosh Payandeh Azad, Hannes Kinks, Muhammed Adeel Tajammul, and Peeter Ellervee</i>	
Digital System Modeling and Synthesis as an Introduction to Computer Systems Engineering	52
<i>Muhammad Adeel Tajammul, Siavoosh Payandeh Azad, and Peeter Ellervee</i>	