

**IEEE Council on Electronic Design Automation  
Distinguished Lecturer Program Summary Report**

Please return completed summary report to the CEDA DLP Coordinator, Tsung-Yi Ho  
(tyho@cs.nthu.edu.tw).

<p><b>Organizer</b> Name: _Evangeline F.Y. Young __ Affiliation: _The Chinese University of Hong Kong __ Email address: fyyoung@cse.cuhk.edu.hk</p>	<p><b>Sponsoring Chapter</b> Chapter Name: _IEEE CEDA, Hong Kong_ Chapter Chair: _Ngai Wong_____ Email address: _nwong@eee.hku.hk____</p>
<p><b>Event</b> Lecturer name: __Prof. Giovanni De Micheli_____</p> <p>Lecture topic: _New Horizons for electronic systems: Devices, Design methods and applications_____</p> <p>Location of event: _ERB 1009, 10/F, Willam M.W. Wong Engineering Buliding, The Chinese University of Hong Kong, Hong Kong__</p> <p>Date of event: __5 Feb. 2018_____</p> <p>Approximate attendance: __40 persons_____</p> <p>If co-organized by other IEEE OU, specify here (<i>OU and name / contact information of Chair</i>): __Nil._____</p>	

**Feedback**

Did the chapter find these slides useful? Yes
Was the technical content of the lecture(s) valuable? Yes
Was the length of the overall lecture(s) adequate? Yes
Did the audience seem responsive to the overall lecture(s)? Yes
After the lecture(s), was the lecturer available to answer any questions/comments? Yes

**Please provide any additional comments regarding this DL event.**

<p>In the afternoon of Feb. 5, 2018, Prof. Micheli delivered a lecture under the support of IEEE CEDA distinguished lecturer program. Before the lecture, a joint lunch meeting was held by IEEE CEDA Hong Kong Chapter, so all IEEE CEDA members got a chance to know and talk with Prof. Micheli.</p>
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There were over 40 students and professors attending the lecture. Prof. Micheli's wonderful talk stimulated a lot of discussions and questions, ranging from technique details, future research topics and next-10-year plan. After the lecture, Prof. Micheli had a meeting with a group of research students from Chinese University of Hong Kong to share his research experiences.

IEEE CEDA Hong Kong would like to express our gratitude to IEEE CEDA and Prof. Micheli for this wonderful event. We feel that the lecture and sharing meeting are extremely useful.

### Photo(s) of this event

**Faculty of Engineering Distinguished Lecture Series**

IEEE Council on Electronic Design Automation (CEDA) DLP

**New horizons for electronic systems:  
Devices, design methods and applications**

**Prof. Giovanni De Micheli**  
Professor and Director,  
Institute of Electrical Engineering and  
Integrated Systems Centre,  
EPFL Lausanne, Switzerland

Giovanni De Micheli is Professor and Director of the Institute of Electrical Engineering and of the Integrated Systems Centre at EPFL Lausanne, Switzerland. He is program leader of the Nano-TeraX program. Previously he was Professor of Electrical Engineering at Stanford University. He holds a Nuclear Engineer degree (Politecnico di Milano 1979), an M.Sc. and a Ph.D. degree in Electrical Engineering and Computer Science (University of California at Berkeley, 1980 and 1982).

Prof. De Micheli is a Fellow of ACM and IEEE, a member of the Accademia Europea and an International Honorary member of the American Academy of Arts and Sciences. His research interests include several aspects of design technologies for integrated circuits and systems, such as synthesis for emerging technologies, hardware co- and 3D integration. He is also interested in heterogeneous platform design including electrical components and biosensors, as well as in data processing of biomedical information. He is author of Synthesis and Optimization of Digital Circuits (McGraw-Hill), Total, co-author and/or co-editor of eight other books and of over 350 technical articles. His citation h-index is 93 according to Google Scholar. He is member of the Scientific Advisory Board of IMEC (Leuven, B), CIMEA (Dresden, D) and STMicroelectronics.

DATE	TIME	VENUE
5 Feb 2018	2:30 pm - 3:30 pm	ERB 1009, 10/F, William M.W. Mong Engineering Building, CUHK

Three new game changers enable the design of emerging electronic systems: the use of new devices and materials, the combined integration of circuits and sensors and the application of new design methods and tools that support the compact composition of complex systems from regular components. These ingredients are crucial to design electronic systems in various key areas, such as precision medicine, the Internet of Things, and environmental monitoring/protection.

I will first present the landscape of emerging areas, such as cyber medical systems. Then I will describe enhanced-functionality devices exploiting new materials and geometries, their application into circuits that provide direct data acquisition from the environment by fabricating sensors and actuators, as well as new design methods and tools for the creation of complex systems. Finally, I will focus on new methods for synthesis of integrated circuits based on majority algebra and I will conclude by presenting results from experimental design tools.

ALL ARE WELCOME  
Scan to register

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