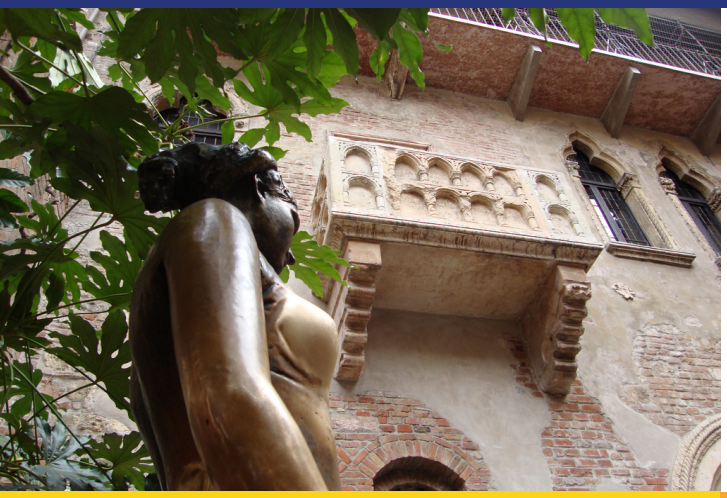
1th PhD School on Emerging Technologies for Design and Engineering of Electronics Systems

SCHEME 2018

October 5-7, 2018
Verona, Italy
Department of Computer Science
University of Verona



The PhD school on emerging technologies for design and engineering of electronic systems addresses foundations, techniques, and tools concerning architectures, circuits, devices, design automation, verification, test, and security, within digital, analog, and mixed-signal systems.
This first edition of the school (Verona, October 5-7, 2018) has the goal of presenting the state of the art of the current techniques in **emerging technologies for design and engineering of electronic systems** to enable doctoral students and young researchers to advance the field and apply the developed methodologies to concrete scenarios promoting their application in the industrial practice.

The school will be co-located with the 26th IFIP/IEEE International Conference on Very Large Scale Integration (VLSI-SoC 2018), to be held in Verona, 8-10 October 2018.
Special fees are aviable for students for the packet SCHEME school and VLSI-SoC conference registration.

Lectures
Lectures will concern emerging technologies in the following fields, with the goal of providing students with a homogeneous background ranging from architectures to application without forgetting verification and testing issues:

Lecture 1: Machine learning techniques for resilient system design (Mehdi B. Tahoori, Karlsruhe Institute of Technology, Germany)

Lecture 2: Secure processor architectures (Todd Austin, University of Michigan, USA)

Lecture 3: Memristive devices for computing: circuits, architectures and applications (Said Hamdioui, Delft University of Technology, Netherlands)

Lecture 4: Advances in Wearable Sensors and Interfaces: Cyber-Physical Systems for Bio-signals Real-time Processing and Actuators Control (Daniela De Venuto, Politecnico di Bari, Italy)

Lecture 5: It is not AI, it is ML: a product perspective on ML applications (Alessandro Fin, Google ML/AI, Mountain View, USA)

Technical theme
In the general context of design and engineering of electronics systems, the technical theme for this edition is focused on new computing paradigms by addressing cutting-edge research fields like **heterogeneous, neuromorphic** and **brain-inspired, biologically-inspired, approximate computing systems**, as well as **machine-learning** based solutions for design and engineering of electronic systems.

Travel, **accomodation**, and **fees** information are available on the school website **scheme.di.univr.it**.

Registration fee includes: school materials, 3 lunches, 2 coffee breaks per day and one welcome reception.

Students can take a final exam (The grades will be given following the ECTS grading scale). The course will involve a total of 24 hours of teaching. Passing the final exam gives right to an equivalent of **6 ECTS credits** in any Ph.D. program.

Contact the organizers, prof. Graziano Pravadelli (graziano.pravadelli@univr.it), and prof. Nicola Bombieri (nicola.bombieri@univr.it) for any quastion about the school.

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