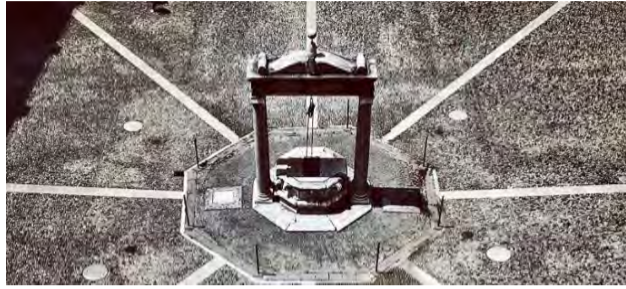


5th International Workshop on Design in Civil and Environmental Engineering October 6-8th Sapienza University of Rome, ITALY DCEE 2016 - www.dcee2016.eu



Introduction

In his 1969 book "The Sciences of the Artificial" (MIT Press), Herbert A. Simon, argues that design is the central activity that defines engineering and distinguishes it from the natural sciences. In fact, design is much more than engineering: it encompasses many different skills and disciplines.

In Civil and Environmental Engineering (CEE) in particular, design has typically been housed within each of the civil domains, shrouded by analysis, replaced by standards and building codes, and unable to cross the disciplinary boundaries as it was meant to do.

Yet, many of the greatest challenges that humanity will face in the 21st century will require civil and environmental engineers and architects to develop creative and innovative solutions that will radically alter our infrastructure and the built environment. The DCEE series of workshops explore what it would mean for design to be a discipline within CEE, what it means for design to be a discipline in other areas of engineering, and the implication for interdisciplinary design in cooperation with other fields such as architecture, urban planning, industrial design, product design and more.

It is a great pleasure to welcome you to Rome for the 5th International Workshop on Design for Civil and Environmental Engineering where we will explore the nature of design in civil and environmental engineering and establish the foundation for civil design research.

The workshop scientific program is divided in 6 sessions on design methodology and education, and on the role of the interdisciplinarity in the design process, with 18 presentations and 2 plenary lectures.

The workshop includes two guided tours. The first tour is at the *Palazzo della Civiltà Italiana* known also as the *Colosseo Quadrato* (Square Colosseum), an icon of Modern Architecture, nowadays housing the luxury fashion label Fendi. The second tour will focus on ancient Rome, and on recent and extraordinary findings in the north-eastern area of the Palatine Hill archaeological site.

We hope you will enjoy your staying in Rome and we look forward to fruitful discussions during the meetings and the other activities.

The Workshop Chairs

Prof. Franco Bontempi, Sapienza Università di Roma

Dr. Konstantinos Gkoumas, StroNGER srl

Workshop Chairs

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Workshop program

The workshop will include two guided tours and invited lectures.

You can download the up-to-date program from the workshop website.

Invited plenary lectures:

Prof. Pier Giorgio Malerba, Department of Civil and Environmental Engineering, Politecnico di Milano

Conceptual design: from abstract reasoning to consistent details.

Prof. Charis Gantes, School of Civil Engineering, National Technical University of Athens.

Interaction between education, research and practice in structural steel design.

Topics

Topics include but are not limited to:

Interdisciplinary challenges in engineering design

- Structure (Heritage structures, Civil/structural, Optimization, new materials)
- Systems (Indoor climate/energy, District and urban scale, Resilience, Energy Harvesting)
- Construction (BIM, drones, Surveying...)
- Life Cycle Assessment in engineering design
- Environmental Engineering (Flood risk and climate change design challenges)

Design methodology

- Integration and interdisciplinarity
- Philosophy
- Aesthetics
- Form finding/Parametric Design
- Influence from other sciences (e.g. biology, neuroscience)
- Innovation
- Economic challenges/governance

Design Education in engineering design

Committees

Deadlines

August 15, 2016: Abstract submission

August 30, 2016: Abstract peer review

September 15, 2016: Paper submission

September 30, 2016: Paper peer review

Review and publication

All papers will be peer reviewed and authors will be notified of the results via e-mail.

All accepted papers will be published in the conference proceedings and will be available in electronic form after the workshop.

At least one author of each accepted paper is expected to register.

Workshop venue

The workshop will be held at the School of Engineering of the Sapienza University of Rome.

Participation cost

Early (by September 15) / student: 300 €

Normal: 350 €

Extra paper: 100 €

Contact

For more information, please contact

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