



Sustainable Computational Workflows

Computational Design and Fabrication towards Sustainable Products and Processes

6th eCAADe Regional International Symposium 2018, Nicosia, Cyprus

May 24-25 2018

<http://www.okont.com/eCAADe-RIS-2018-home>

Symposium theme

At a time when sustainability plays a key role in the way different disciplines approach development and production, the role of digital technology is crucial, as through smart and efficient techniques, it can lead to the creative design, analysis, evaluation and fabrication of solutions that are ecologically and economically viable and socially accessible. On the other hand, recent developments in the socio-economic context have caused changes and redevelopments in Europe, particularly in the Mediterranean region, which have a direct impact and affect the overall reflection on how new technologies, currently in open source and with a widely accessible status, contribute to a better and more sustainable future, without running isolated or far beyond today's reality.

The theme of the symposium has been shaped in the light of this concern; that is how computational processes in design and production can have a direct impact on shaping the built environment in such a way that it will achieve and offer conditions of social inclusion and economic viability with less environmental impact. Within this framework, such strategies might lie within a regional context, associated with local conditions (social, economic, environmental, etc.) that influence design and fabrication decision-making, without neglecting their influence within a universal context.

Call for papers

The symposium aims to bring together educators, researchers and professionals under the common goal of developing and presenting computational design and production workflows and to open a debate on the potential of such techniques in delivering positive results for a more sustainable future. Through a bottom-up approach, the symposium aims to cover the range of computational processes and workflows in design, analysis, performance evaluation and in the context of physical production, using digital fabrication mechanisms. Whether design methodologies include parametric and generative design processes, performance driven or performance oriented approaches, optimization techniques, and so on or whether fabrication mechanisms include additive manufacturing, robotic fabrication, and so on. Proposals following similar directions and which correspond to the theme of the symposium are welcome and may be submitted.

Given the wide range of directions that such computational workflows could get, the symposium and the workshop attempt to cover both on a theoretical and on a practical level, different approaches ranging from digital design to prototyping and possible workflows of methodological investigation in-between, by connecting the virtual with the physical and vice versa towards a more sustainable future.

Topics include, but are not limited to:

- AI for design and built environment
- Building Information Modelling
- CAAD education
- City modelling and GIS
- Collaborative and participative design
- Design concepts and strategies
- Design tools development

- Design and structure optimisation
- Digital application in construction
- Digital design for sustainable buildings
- Digital fabrication and robotics
- Generative design
- Human-computer interaction in design
- Information technologies and cultural heritage
- Internet of things for built environments
- Material studies
- Parametric modelling
- Shape, form and geometry
- Simulation, prediction and evaluation
- Smart and responsive design
- Smart cities
- Spatial reasoning and ontologies
- VR, AR and visualisation

Extended abstracts

Extended abstracts should have 1000-1500 words plus references. You may also upload one or two images. Abstracts should be strictly anonymous. Please avoid any affiliations. After a double blind peer-review process, the successful abstracts will be further developed and submitted as full papers.

Authors are invited to submit their Extended Abstracts via the eCAADe OpenConf system.

<http://www.ecaade.org/conf18/regional/openconf.php>

Important dates

- 1st call for papers: **November 24, 2017**
- 2nd call for papers: **December 8, 2017**
- Deadline for extended abstracts: **December 22, 2017**
- Notification of acceptance: **February 1, 2018**
- Full paper submission: **March 15, 2018**

Further information can be found at: <http://www.okont.com/eCAADe-RIS-2018-home>

Inquiries should be sent to: ecaade-ris-2018@ucy.ac.cy

Symposium chair

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