Call for Papers / Invited Session

DIGITAL CITY SCIENCE
Modeling and Decision Support Tools for Urban Systems

THEMATIC SCOPE

The invited KES session is to present and cross-link new findings in the field of Digital City Science – a research area that has emerged from ICT application in the urban context. Data-based approaches have challenged the conventional practices of how cities are designed and developed. Large bodies of city information generated by crowdsourcing, by networked technologies or cyberphysical systems (e.g. sensor and actuators in buildings and infrastructures) pave the road for evidence-based approaches in urban design and development. Besides implicit professional knowledge and experience, planning decisions will be increasingly based on the thorough and efficient analysis of urban data. For this purpose, new digital tools and methods are emerging. They allow the comprehensive modelling and simulation of the complex dynamics of urban environments. Thus, the invited session wants to put focus on digital technologies that support data analysis and decision making in the context of urban development and city management. Papers, however, may address one or more of the following topics too:

- urban cyberphysical systems
- crowdsourcing urban data
- urban data platforms
- integration of qualitative and quantitative data
- digital technologies for urban analysis and diagnostics
- urban data visualisation and interpretation
- data-driven design and development
- digital co-design technologies
- interactive urban design media.

Within this thematic scope, original research paper as well as reports on innovative projects are invited. Contributions should clearly indicate the opportunities, as well as pitfalls of current digital city science and provide an outlook how to approach them methodically.

The specific goal of the KES 2017 session is to clarify key trends and eminent challenges that may inform future research and innovation. The long-term goal of the session is to build an international research community in the field of Digital City Science which will closely collaborate e.g. in international project initiatives, scientific publications, workshops or conferences.

TIMELINE

17.03. Deadline for structured abstracts (5000 characters, 2 pages)

24.03. Notification of acceptance of abstracts

28.04. Deadline for full paper (25.000 characters, 10 pages)

05.05. Editorial review & comments on full paper from session hosts

19.05. Deadline for camera-ready full paper

26.05. Full paper will be forwarded by session hosts to KES publisher

PUBLICATION OF ACCEPTED PAPERS

Accepted papers will be published in the KES conference proceedings (Elsevier Procedia in Computer Science). For the final paper to be submitted, please follow the submission instructions issued by KES   http://kes2017.kesinternational.org/submission.php

Weblink to Call for Paper:

http://kes2017.kesinternational.org/cmsISdisplay.php

SESSION CHAIRS

The session will be chaired by Prof. Jörg Rainer Noennig and Prof. Gesa Ziemer of the CityScienceLab at HafenCity University Hamburg, a cooperation with the MIT Media Lab. The CityScienceLab is a new research unit established by the Free and Hanseatic city of Hamburg to propel its urban transformation towards a liveable and high-quality digital city. www.hcu-hamburg.de/research/citysciencelab

For details or requests, please contact:

joerg.noennig@tu-dresden.de

Weblink to KES2017 Homepage:

http://kes2017.kesinternational.org/