



excellence in design

15th INTERNATIONAL
DESIGN CONFERENCE

MAY, 21-24 2018 DUBROVNIK, CROATIA

INVITATION

By tradition DESIGN Conference is a forum for discussion and further development of all aspects of design knowledge from cognition and philosophy to methods and tools, from research theory to practice.

The DESIGN Conference programme offers broad exchange possibilities to researchers and practitioners, strategic decision makers, managers, design and engineering professionals, national or regional agencies or governmental bodies.

The goal of DESIGN Conference is to bring together researchers and practitioners who have worked on or thought about engineering and industrial design from a variety of perspectives, disciplines, and fields: engineering, aesthetics, ergonomics, psychology, sociology and the like.

We invite high-quality submissions for DESIGN 2018 covering substantial, original and previously unpublished research. Improvements in the engineering design process have been supported by theories and methods developed by research groups around the world. There is a constant need to harmonise the findings and to ensure that these findings are built upon and developed so that they can be transferred into engineering practice.

How this influences engineering design methodologies and tools in practice? How to improve design projects and processes?

How to improve the development of products and services? Which competencies, information and communication technologies are needed? What is the impact on the everyday design work? What social and legal issues should be considered? What are the new advances in design theory and research?

Those are the key questions DESIGN 2018 papers should focus on.

Applied, theoretical and results oriented papers from both academia and industry, based on thorough analysis or argumentation, will all be considered for the conference programme.

The submitted papers should fit into one of the proposed conference topics. It is expected that these specific topics are extensive and non exhaustive. A list of examples is added for illustrating the core topics. It is required explicitly from all contributors to show how they are contributing to the overall research within these areas.

Detailed description of topics and instructions for online submission are available at www.designconference.org

PROGRAMME

The DESIGN Conference provides an interactive environment where participants proactively create opportunities to share design knowledge and new cross-disciplinary research that leads to innovation.

PLENARY SESSIONS

Will host invited keynote speakers presenting the leading thoughts, new ideas and visions.

TOPIC ORIENTED SESSIONS

Will host papers selected around common research questions in order to foster discussion.

WORKSHOPS

DESIGN 2018 workshops will promote integration of different views, approaches and methods. Workshop coordinators could invite selected presentations and demonstrations in order to stimulate the debate as well as to propose any format of delivery that inspires interaction. The workshops will be organised on the 21st of May.

PHD STUDENTS' FORUM

The forum will be a unique opportunity for younger researchers and PhD students to discuss their research questions and ideas with experienced

researchers, practitioners and R&D managers in order to facilitate their research efforts.

THE DESIGN DEBATE

The purpose of the design debate is to investigate in a forensic manner some key topics that affect the engineering design research community. Two opponents and the debate moderator will be distinguished key players in the community presenting evidence for or against a particular topic.

INDUSTRIAL FORUM

The industrial forum will be an opportunity to discuss industrial views, needs and expectations of design research, tracing emerging trends in industrial innovation and the right strategies for a sustainable future. The forum will offer a platform for debate among decision makers, practitioners and academics about the future of design research, needs and expectations.



THEORY AND RESEARCH METHODS

- Empirical studies of design and design support
- New approaches to the design theories
- Design science research methods
- Design theory

DESIGN PROCESSES

- Configuration and modularisation
- Modelling and management of engineering processes
- Product development models and strategies
- Conceptual design cognition
- Design for product life cycle
- Resilient processes

INFORMATION & KNOWLEDGE

- Design knowledge and collaboration
- Collaborative systems
- Representations of design information
- Decision making and decision support
- Knowledge intensive design
- Artificial intelligence in design
- Data driven design

DESIGN INNOVATION

- Creativity and ideation
- Innovation methods and tools
- Open innovation
- Social innovation

SYSTEMS ENGINEERING

- Defining a systems approach
- Managing structural complexity
- Simulation within complex systems
- Complex systems design
- Interdependencies in complex systems
- Model-based systems engineering (MBSE)
- Cyber-physical systems design

ENGINEERING DESIGN PRACTICE

- Geometrical modelling, simulation and tolerancing
- Simulation based design
- Optimisation
- Visualisation and virtualisation

DESIGN METHODS

- Requirements Engineering
- Design for X
- Ecodesign implementation
- Design for additive manufacturing
- Product service engineering
- Computational design synthesis
- Engineering design in mechatronics
- Change management

ORGANISATION & MANAGEMENT

- Organisational understanding of product development
- Multi-product development
- Life cycle management
- Market and business implications
- Global product development
- Globalisation, legislation, remanufacturing

DESIGN SUPPORT TOOLS

- Tools for DfX and product development
- IT in product development
- Usage and integration of supportive technologies
- Virtual product development
- PDM/PLM

HUMAN BEHAVIOUR

- Cooperation and collaboration
- Designer's attitudes and skills
- Human thinking
- Emotional engineering

SOCIOTECHNICAL ISSUES

- Approaches to socio-technical systems design
- Human factors in design
- Socially responsible design
- Technology and sustainable development
- Life science and design for healthcare

INDUSTRIAL DESIGN

- User-centred design
- Aesthetics and visual impressions
- User interaction design

DESIGN EDUCATION

- Design education strategy
- Tools and environments for design education
- Project-based education

REVIEWING POLICY

The papers will be accepted on the double blind review basis made by the members of the Scientific Advisory Board.

The review criteria will be the novelty and level of contribution, validity of conclusions, industrial or application perspective and formal qualities of the contribution.

Selected papers will be recommended for publication in international journals.

Additional information available at:
www.designconference.org/reviewing-policy

- 1** Full paper submission deadline
December, 11 2017
- 2** Final acceptance of papers
February, 23 2018
- 3** Publish-ready papers
March, 19 2018
- 4** Final Conference programme
April, 2018
- 5** DESIGN 2018 Conference
May, 21-24 2018

CONFERENCE VENUE

Hotel Dubrovnik Palace
Masarykov Put 20
Dubrovnik, Croatia

PROGRAMME CHAIRS

John Clarkson
University of Cambridge, United Kingdom

Udo Lindemann
Technical University Munich, Germany

Tim McAloone
Technical University of Denmark, Denmark

Christian Weber
Technical University Ilmenau, Germany

Dorian Marjanović
University of Zagreb, Croatia

ORGANISING SECRETARIAT ADDRESS

DESIGN Conference Secretariat
Faculty of Mechanical Engineering
and Naval Architecture
Ivana Lučića 5, 10 000 Zagreb, Croatia
Phone: +385 1 6168 432
Fax: +385 1 6168 284

design2018@fsb.hr
www.designconference.org