



DESIGN2020

16th INTERNATIONAL
DESIGN CONFERENCE

MAY, 18-21 2020 - CAVTAT - DUBROVNIK - CROATIA

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

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

THEORY AND RESEARCH METHODS

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

ENGINEERING DESIGN PRACTICE

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

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

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

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

HUMAN BEHAVIOUR

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

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


 The logo for DESIGN2020 features a stylized blue wave icon to the left of the text "DESIGN2020". The text is in a blue, sans-serif font, with "DESIGN" in a larger size than "2020".

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 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.

Programme Chairs welcome the high-quality submissions covering substantial, original and previously unpublished research.

Rigour academic research should provide designers with the next generation of method and tools that will be appropriate to the demands. The paper submitted should address the key questions of the DESIGN 2020 conference. What are the new advances in design theory and research? How to improve design methodologies and tools, projects and processes, development of products and services? Which competencies, information, and communication

technologies are needed? What is the impact on everyday design work? What social and legal issues should be considered? How we can harmonize the research outcomes so they can be transferred to design practice?

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.

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

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.

DESIGN Conference papers are indexed in SCOPUS and WOS - CPCI and referenced in CrossRef with DOI identifier.

Selected papers will be recommended for publication in international journals.

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

The new ideas and visions will be presented by the keynote speakers.

TOPIC-ORIENTED SESSIONS

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

WORKSHOPS

DESIGN 2020 workshops will promote the 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 18th of May.

PH.D. STUDENTS' FORUM

The forum will be a unique opportunity for younger researchers and Ph.D. 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 the 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.

1 Full paper submission deadline
November, 15 2019

2 Final acceptance of papers
January, 27 2020

3 Publish-ready papers
February, 21 2020

4 Final Conference programme
April, 2020

5 **DESIGN 2020 Conference**
May, 18-21 2020

CONFERENCE VENUE

Hotel Croatia Cavtat
Frankopanska ul. 10, 20210 Cavtat, Croatia

PROGRAMME CHAIRS

John Clarkson
University of Cambridge, United Kingdom

Tim McAloone
Technical University of Denmark, Denmark

Julie Stal-Le Cardinal
CentraleSupélec, Paris, France

Mario Štorga
University of Zagreb, Croatia

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

design2020@fsb.hr
www.designconference.org

the **Design Society**
a worldwide community

cad lab

FSB
100

