DESIGN2024

18TH INTERNATIONAL DESIGN CONFERENCE

20–23 MAY 2024, CAVTAT – DUBROVNIK – CROATIA

INVITATION

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

The transition from known and comfortable to unknown and challenging is ubiquitous. It is challenging every aspect of our being. How can design research and practice respond to changes, influence wellness, ensure sustainable development, reimagine the future, rethink product design and development in new and emerging contexts?

How to improve design methodologies, tools, projects, and processes? How to develop products and services to make the world a healthier place? Which competencies, information, and communication technologies are needed? What is the impact on everyday design work? Which social and legal issues should be considered? How will we teach future designers, communicate ideas and share knowledge?

Applied, theoretical, and results-oriented papers from academia and industry, based on thorough analysis or argumentation, will 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 nonexhaustive.

A list of example keywords is added to illustrate the core topics. It is required explicitly from all contributors to show how they contribute to the overall research within these areas. A detailed description of topics and instructions for online submission is available at www.designconference.org.

Programme chairs welcome the high-quality submissions covering substantial, original, and previously unpublished research.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 methods and tools appropriate to the demands.

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 2024 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 20th 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.

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 published online with open access. All papers are indexed in SCOPUS and WOS - CPCI and referenced in CrossRef with DOI identifier.

DESIGN
2024
T O P I C S

DESIGN THEORY AND RESEARCH METHODS

Multidisciplinary research approaches

Design theories and models

Experimental design research

Design typology

New paths in design research

DESIGN ORGANISATION, COLLABORATION AND MANAGEMENT

Organisational processes for Industry 4.0

Product development models and agile management

Market and business implications

Co-design and collaboration

Design teams and communication

Open/social innovation

DESIGN INFORMATION AND KNOWLEDGE

Design representations of information and knowledge

Decision-making rationale and support

Knowledge-intensive design

Knowledge-based engineering

Emerging IT technologies

DESIGN METHODS AND TOOLS

Product families and modularisation

Prototyping methods and tools

CAx/PDM/PLM

Requirements and change management

Usage and integration of supportive technologies

HUMAN BEHAVIOUR AND DESIGN CREATIVITY

Human factors in design

Designer's attitudes and skills

Design thinking, cognition and problem-solving

Cognitive processes in design creativity

Supporting and assessment of design creativity

Bioinspired design

DESIGN FOR SUSTAINABILITY

Sustainability awareness

Design for social equity and cohesion

Design for the circular economy

Technology and sustainable society

Product-service systems

Sustainable transition

DESIGN FOR HEALTHCARE

Healthcare ecosystems

Healthcare design

Healthcare services

Use of advanced technologies in healthcare

Life sciences and design

DESIGN FOR ADDITVE MANUFACTURING

Design approaches for additive manufacturing

Design digitalisation approaches

Design optimisation frameworks

Generative design and topological optimisation

Architecting materials for additive manufacturing

DESIGN FOR EXCELLENCE

Design for product improvement and quality

Design for manufacturing and assembly

Design for packaging and ergonomics

Design for robustness and reliability

Design for maintainability

ARTIFICIAL INTELLIGENCE AND DATA-DRIVEN DESIGN

Artificial intelligence in product development

Data-driven design process

Knowledge discovery and data mining in design

AI for smart product-service systems

Digital twins

Autonomous vehicles and electromobility

INDUSTRIAL DESIGN

User-centred design

Aesthetics and visual impressions

Product semantics and perceptions

Visual and haptic interactions

User experience

Social relationships and emotional design

SYSTEMS ENGINEERING AND DESIGN

Architecting complex engineering systems

Simulation within complex systems

Model-based systems engineering (MBSE)

Complex cyber-physical systems design

Approaches to socio-technical systems design

DESIGN EDUCATION

Competency and skills development

Digital learning and ICT in education

Project-based learning

Adopting different teaching and learning environments

Lifelong and organisational learning

ENGINEERING DESIGN PRACTICE

Geometrical modelling and advanced CAx use cases

Advanced visualisation and virtualisation

Case studies of design methods application

Best design practices from industry

IMPORTANT DATES

1 Full paper submission deadline
15 November 2023

2 Final acceptance of papers
31 January 2024

3 Publish-ready papers
23 February 2024

4 Final Conference programme
April 2024

5 DESIGN 2024 Conference
20-23 May 2024

PROGRAMME CHAIRS

P. John Clarkson
University of Cambridge, United Kingdom

Tim McAloone
Technical University of Denmark, Denmark

Julie Stal-Le Cardinal
CentraleSupélec, France

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CONFERENCE VENUE

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ORGANISING SECRETARIAT

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