

12th INTERNATIONAL DESIGN CONFERENCE

Programme Chairs

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Important Dates

FULL PAPER submission deadline:	December 9, 2011
Final acceptance of papers:	March 1, 2012
Publish-ready papers:	March 20, 2012
Final Conference program:	April, 2012
DESIGN 2012 Conference	May 21 - 24, 2012

Organisation

University of Zagreb - Faculty of Mechanical Engineering and Naval Architecture

The Design Society
University of Dubrovnik

Organising Secretariat Address

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Additional information about DESIGN 2012 CONFERENCE are available at

www.designconference.org

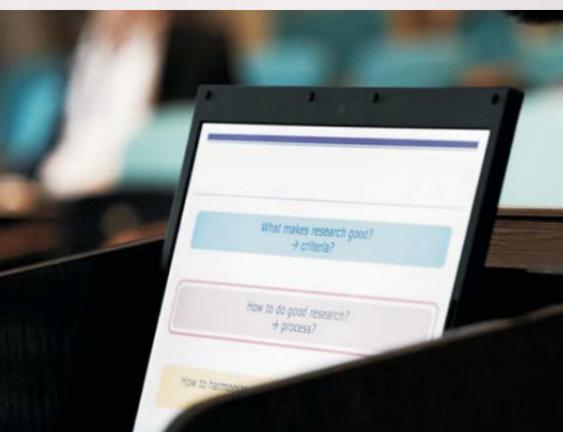
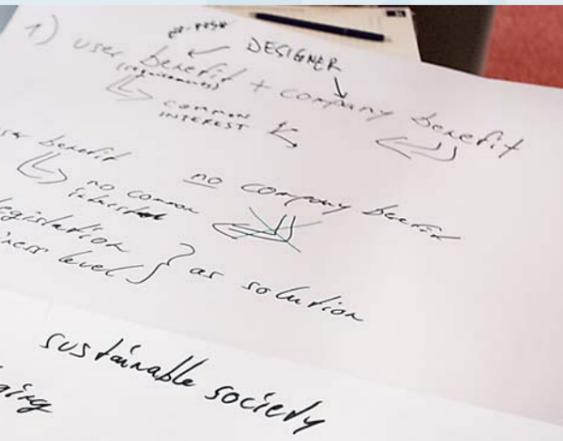
DESIGN 2012

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12th INTERNATIONAL DESIGN CONFERENCE

DESIGN THEORY AND RESEARCH • DESIGN ORGANISATION AND MANAGEMENT • DESIGN PROCESSES • DESIGN METHODS • DESIGN SUPPORT TOOLS • DESIGN INFORMATION AND KNOWLEDGE • HUMAN BEHAVIOUR AND DESIGN • ENGINEERING DESIGN PRACTICE • SYSTEMS ENGINEERING AND DESIGN • SOCIOTECHNICAL ISSUES IN DESIGN • INDUSTRIAL DESIGN

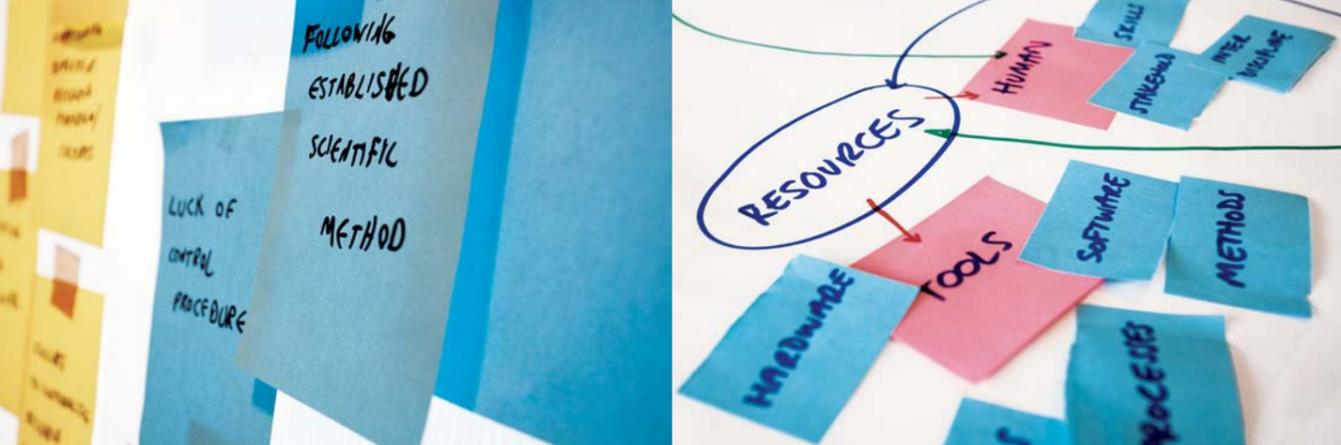
May 21 - 24, 2012
Dubrovnik - Cavtat - Croatia



www.designconference.org

CALL FOR PAPERS





DESIGN 2012 Topics

We invite high-quality submissions for DESIGN 2012. The submitted paper 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 area to emerge communities of researchers within these areas.

1. DESIGN THEORY AND RESEARCH

Engineering design research has a long history of research activities associated with it. However the establishment of credible convincing and well supported new theories and innovative research approaches is a continuing task. Papers which have a valid basis and promote to the community undertaking design research will be of particular interest in this core area.

2. DESIGN ORGANISATION AND MANAGEMENT

A critical factor in the effectiveness of designers and design teams is the way that they are organized and managed. This core area will deal with strategies, methods and tools to support innovation in everyday design work with its manifold relations to internal partners as well as to suppliers and customers. This may include such topics as collaborative working, meeting strategies, virtual organizations, distributed teams, the supplier/designer interface, idea evaluation and innovation management.

3. DESIGN PROCESSES

There are various views on the overall design process and there are a wide variety of product-, company- or branch specific approaches to structure and to support design processes. Authors will be expected to show how their results add to various design process improvement approaches. Examples of the impact of their new approaches or new implementation tactics would be highly relevant.

4. DESIGN METHODS

Papers selected for this core area will be expected to include a novel design approach or method or an example and assessment of how a method or methods have been implemented in practice. The papers will be expected to relate to the state of the art in the area and show how their approach has contributed to the overall effectiveness of the design process.

5. DESIGN SUPPORT TOOLS

The provision of innovative support tools within the engineering design process is essential for the effective delivery of high quality products and systems. Papers submitted for this core area may be associated with tools for any design related activity and for any phase of the design process. Papers which prove novelty or include examples of use or application case studies are particularly welcome.

6. DESIGN INFORMATION AND KNOWLEDGE

The provision of the appropriate amounts of high quality and relevant design information and knowledge is seen as being critical to the success of a product or system design and development activity. Papers submitted to this core area may take a technical or human view of the issues. Examples of information and knowledge strategies that have been evaluated in practice, with a reflection of the difficulties are of particular interest.

7. HUMAN BEHAVIOUR AND DESIGN

The human aspect of design is crucial and arguably has two aspects, one being the role that the designer has in producing products and systems that relate to the users themselves. The other is the way that the designer can be supported to be more creative and innovative. As well as other research in the engineering design area, any cross-reference to human-computer interface work or other human aspect work would be of interest.

8. ENGINEERING DESIGN PRACTICE

This topic is to provide articles of practical relevance to the working engineer. Programme chairs will welcome papers demonstrating engineering competence, experience and usefulness in manufacturing, assembly, use, recycling and sustainability. We are particularly keen on contributions that may indicate transfer of everyday design methods to research community.

9. SYSTEMS ENGINEERING AND DESIGN

We are interested to receive the papers that relate systems engineering with engineering design methodology. Contributions considering similarities and differences among two approaches, considering processes, methods, tools, and education should help community to better understand life cycle, business and technical needs of the engineering design process and products integration in the complex systems engineering process.

10. SOCIOTECHNICAL ISSUES IN DESIGN

Technology has a profound influence on society. New possibilities and new risks arise as a consequence of the implementation of new technologies and products. Decisions made during design processes shape the possibilities and risks of products. Contributions in this topic should address engineering values and ethics, social sustainability, explore and define the research agenda of interdisciplinary collaboration.

11. INDUSTRIAL DESIGN

The papers addressing multidisciplinary aspects of design, systematically discussing methods and tools relevant for both Industrial and Engineering designers will be welcomed under this topic.

Invitation

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. Participants of DESIGN conferences contributed to the understanding of design building relationships across multidisciplinary design domains including engineering and product development, innovation, management, complexity, human behaviour and system design. DESIGN conference is a biannual event with robust academic and industrial attendance presenting state-of-the-art research projects.

By tradition DESIGN conference is a forum for discussion and further development of all aspects of design knowledge from cognition and methodology to methods and philosophy, 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.

Programme

The organizers of the DESIGN Conferences are tending to develop the conference beyond the traditional role of delivering research reports and findings in to a interactive environment where participants pro-actively create opportunities for knowledge exchange regardless if they are novices or experienced professionals in Engineering Design, Product Development or Design Research.

• **Advanced and innovative design tools** • Design science research methods • **Design tactics or methods for specification** • Designer's attitudes and skills • **ECO Design** • Empirical studies of design and design support • **Engineering design in mechatronics** • Engineering design practice • **Research quality** • Computational design synthesis • **Conceptual design cognition** • Configuration and modularization • **Creativity and innovation** • Dealing with complexity • **Design Management** • Decision Making • **Design education** • Design for product life cycle • **Design for X** • Design knowledge and collaboration • **Design process modelling & management** • Evaluation and decision • **Evaluation and decision methods** • Business and life cycle issues • **Collaborative systems** • Complex system theory • **Geometrical modelling and tolerancing** • Globalization, legislation, remanufacturing • **Handling design knowledge** • Human thinking • **Industrial and product design** • IT in product development • **New approaches to the design theories** • Risk management • **Organizational understanding of product development** • Product development models and strategies • **Product family** • Product service design • **Product service engineering** • Representations of design information • **Researching of design methods** • Simulation Based Design • **Teamwork, cooperation, networking** • Artificial Intelligence in Design • **Knowledge intensive design** • Life cycle Management • **User-centred design** • Virtual product development • **Market and business implications** • Modelling and management of engineering processes • **Multi-product development** • Usage and integration of supportive technologies

Plenary sessions - will host invited presentations representing the leading thoughts, new ideas and visions. Speakers will be allocated 30-35 minutes for presentation and discussion of their paper.

Topic oriented sessions - will host selected papers grouped by topics. Speakers will be allocated 20-25 minutes for presentation and discussion of their contributions.

Workshops - By tradition workshop sessions at DESIGN conference aim to bring together users and experts in interactive, half-day sessions elaborating specific topics. DESIGN 2012 workshops will be organised to 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 organized on Monday, 21st of May 2012. DESIGN 2012 Conference team will encourage workshop proposals that enlighten the multidisciplinary aspects of design. Particularly proposals of two or more Design Society SIGs for a joint workshop on specific topic will be welcomed.

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 series of grouped presentations will be used to raise the questions and stimulate debate in a round table style.

Industrial Forum - DESIGN 2012 Forum will offer a platform for debate among decision makers, practitioners and academics about the future of design research, needs and expectations. Companies that have consistently invested in research and development have been seeing their competitiveness increase. The global operation paradigm has raised new questions. Innovation, sustainability, environmental awareness, social, and governance issues are becoming driving forces of new product development. The design research is maturing into an overall and consistent theory of engineering design, but the results still seem to be used in a fragmented manner. 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.

Contributions

We invite high-quality submissions for DESIGN 2012 covering substantial, original and previously unpublished research. 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. Submissions should fit into one of proposed conference topics.

Instructions for online submission are available at www.designconference.org.

Topics

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 2012 papers should focus on.

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 conferences proceedings are included in Thompson Reuters Conference Proceedings Citation Index since 2002.