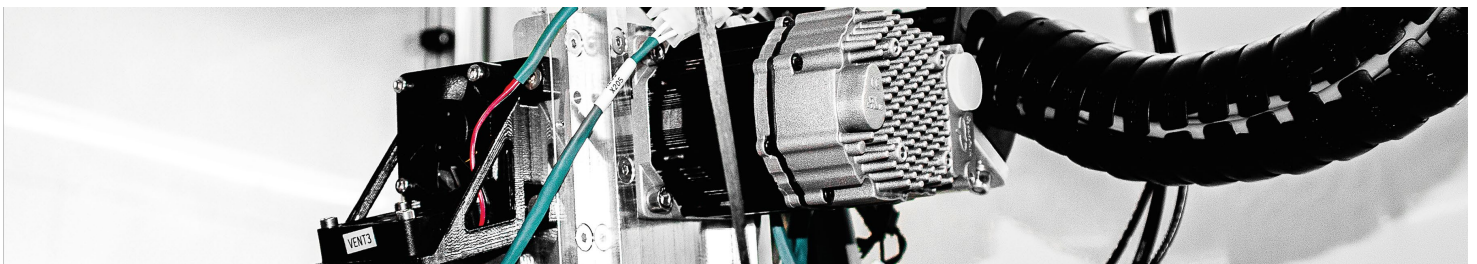




DESIGN IN A COMPLEX WORLD



ICED.DESIGNSOCIETY.ORG



DESIGN IN
A COMPLEX
WORLD

CALL FOR PAPERS

It is clear that we have entered a world full of **promising technologies**, a hyper-connected world in which information is paramount. In such a world, the keys to success will be true value creation for people and companies, combined with simplicity of solutions. To achieve this, **design will doubtless need to reinvent itself** by embracing the broader issues of **designing complex systems**. These complex systems are made up not only of physical products but also of automation, human services, processes, organizations, infrastructures, skills development and a host of socio-technical, ethnological and cultural issues and socio-economic compromises.

Design paradigms are changing because of the human involvement in these complex systems and their extensive interaction with other systems.

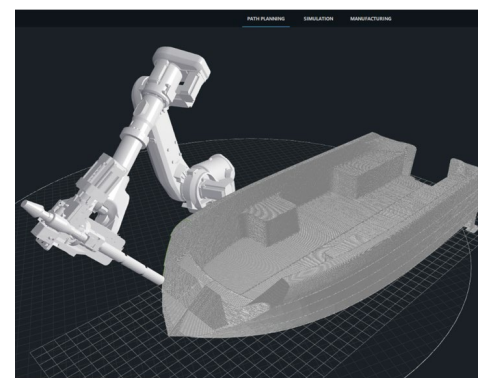


Inventing and deploying new solutions for applications such as mobility, health, and industrial and agricultural production requires a new, integrated and holistic approach to design (including user-centric approaches). How to **model** a design solution needs to be rethought (systems engineering, team of teams and system of systems concepts), as does how to **simulate** it (virtual and augmented reality, multi-agent systems, human models in the loop), how to **operate** it (digital twins, connected services), how to make it **intelligent** (machine learning), and how to **make** it globally profitable (innovation in sustainable business models). As the environmental consequences of new products are difficult to predict, and as resource use will become more and more critical, the need to **rethink design approaches** and their links with **societies and business models** also becomes crucial.

Finally, **industry itself needs to be redesigned**, using opportunities such as Industry 5.0, but also to imagine and enable resilient value chains in which more sustainable business models will be created for the benefit of society.

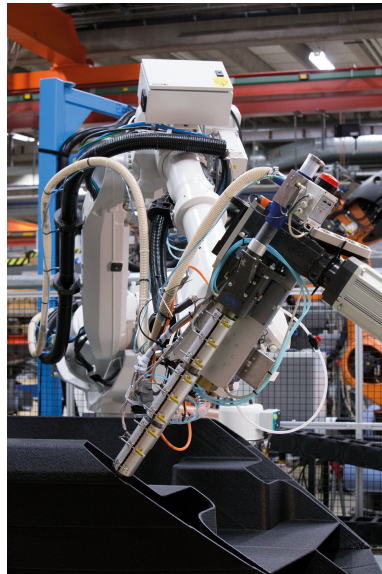
The Design Society wishes to participate in tackling these challenges by **educating new generations**, and by **renewing theories and practices of design and engineering**. ICED23 should be a unique opportunity to collectively discuss the state of the art and the future of our discipline.

The conference will be held from 24 to 28 July 2023 at the University of Bordeaux's Place de la Victoire campus, in the heart of the city of Bordeaux. The organising team wishes to make ICED23 a **rejuvenating academic event** that will allow delegates to share and discuss perspectives on science, engineering and education for designing a better and more sustainable world, while managing all complexity and involving all stakeholders. We are convinced this will be the next great challenge for the Design Society.



EVENT OVERVIEW

Design and engineering are fundamental activities that interact in shaping the world in which we live. Nowadays, we can see a world full of promising technologies, a hyper-connected world in which information is paramount. However, the environmental impact of these technologies is a great societal concern. Sustainability is becoming a central issue for future generations. Design must therefore surely reinvent itself by embracing the broader issues of designing complex systems in a complex socio-technical environment with limited resources. In this regard, the ICED conference is a unique forum to discuss the academic, educational and industrial issues and the needed changes.



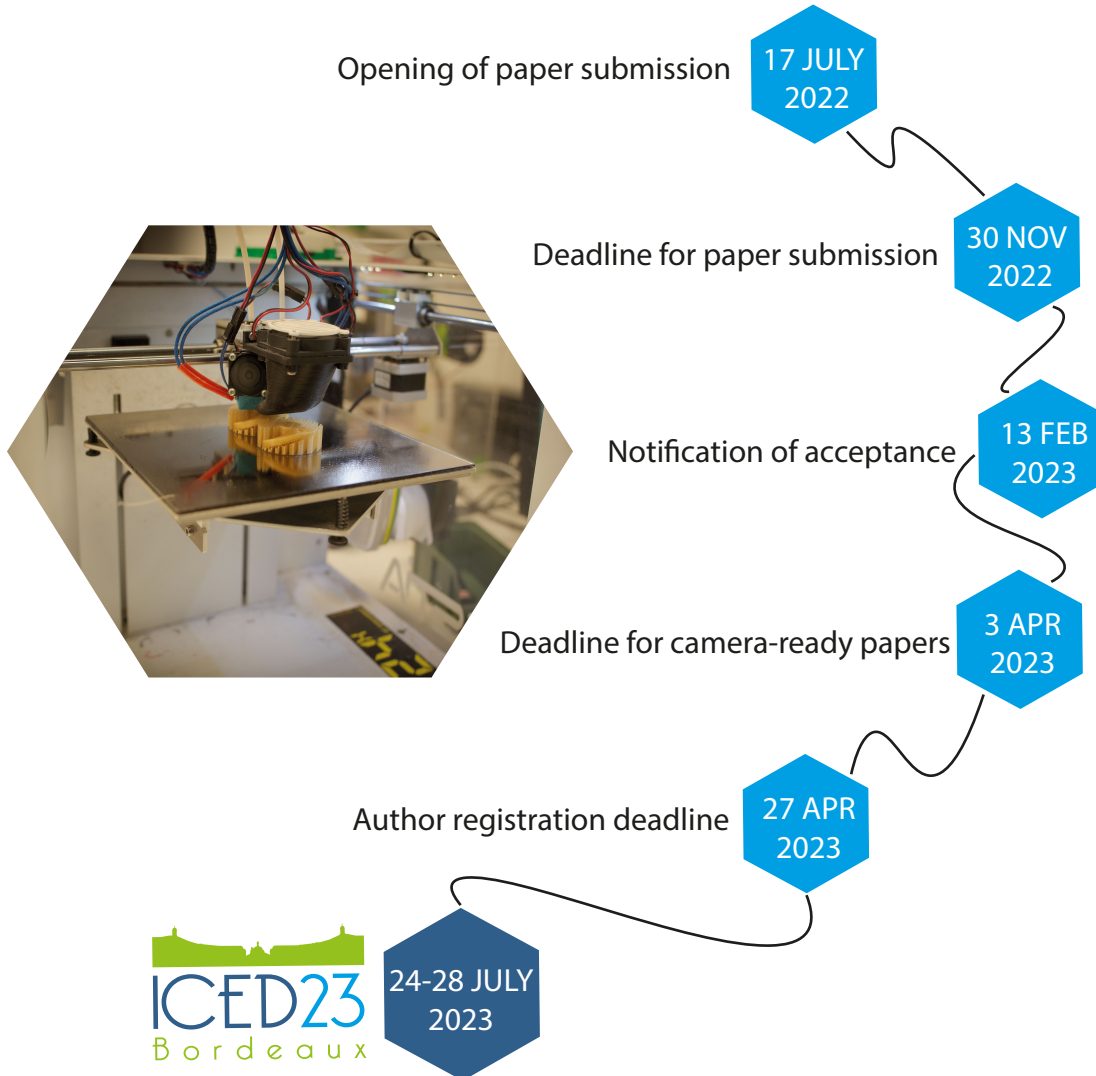
The conference will be organized around plenary, podium and discussions sessions. Academic and industrial experts will deliver high-level keynotes. The General Meeting of the Design Society, the Special Interest Group Day and a Young Members' event will offer great opportunities to share and discuss ideas. An Industrial Day will allow a deep dive into developments and innovations for sustainability and for discovering key the technical focus of companies. Finally, social events will give an opportunity to appreciate Bordeaux wine and French gastronomy.

TOPICS

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- Sustainability and resilience
 - Design for societal challenges
 - New design methods and processes
 - Innovation and new business models
 - Design on different and multiple scales
 - Design of industrial and societal systems
 - Design education and skills development
 - Digital engineering, simulation, and smart systems
 - Design for advanced manufacturing and supply chains

PAPER SUBMISSION AND PUBLISHING

Authors are invited to submit their papers via the iced.designsociety.org webpages using the ConfTool conference management system. Based on the recommendations of reviewers, the Programme Committee will identify worthy submissions for presentation by authors at the Conference. In line with Design Society policy, all accepted papers will be published in the ICED23 proceedings by Cambridge University Press with a DOI number. They will also be available on the Design Society website according to open-source principles as described on the Society's web pages.



PROGRAMME COMMITTEE

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ORGANISING COMMITTEE



LOCATION AND VENUE

The Victoire campus is ideally located at the heart of the city of Bordeaux, close to the commercial centre, restaurants and cultural sites, and only 10 minutes' walk from the Bordeaux St Jean railway station. This campus is located in a 19th century building containing both historical and modern rooms and amphitheatres.

The city of Bordeaux is very well served by public transport, with a tramway directly linking the city centre, railway station and airport. Only 2 hours are needed to reach Bordeaux St Jean station by TGV high speed train from Paris, with connexions to many European cities. The Bordeaux Mérignac international airport is connected to the Paris Charles de Gaulle Hub and all main European cities.

Bordeaux and the Nouvelle Aquitaine Region:

A destination that is world-renowned for its prestigious vineyards, Bordeaux is a beautiful city in an outstanding region, with a habit of surprising its visitors ... Beyond its architectural and cultural heritage, Bordeaux has become an influential and attractive metropolis. Bordeaux has been a UNESCO World Heritage Site since 2007 and is the world capital of wine. Major attractions of this amazing destination include chances to visit vineyards, to taste and discover their wines, and to use the exceptional setting of their châteaux for events. For many years, the city of Bordeaux has taken steps to make itself sustainable as a destination, respectful of the environment and a haven for everyone.

The Nouvelle Aquitaine ('New Aquitaine') region offers many touristic opportunities, especially along the marvellous Côte d'Argent coast (from La Rochelle to Biarritz via the Bassin d'Arcachon) and in the beautiful countryside, in particular Périgord, Lot et Garonne and the Pyrenees mountains.



Contacts

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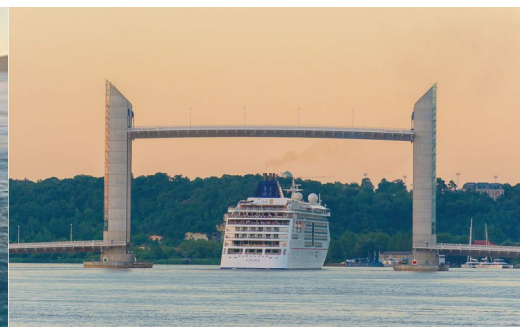
Academic event organisation - ICED23

Talence, France

Industrial Day - 28 July:

 Sustainable Innovation Workshop

 Industrial Tours



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