

First Call for Papers

www.IFAC2023.org

22nd IFAC World Congress 2023

July 9 - 14, 2023, Yokohama, Japan



The IFAC World Congress Since 1957, the International Federation of Automatic Control (IFAC) has contributed greatly to promoting scientific activities and technological developments in the field of automatic control. The IFAC World Congress is the largest event in the field of control science and technology, held every three years. It offers the most up-to-date and complete view of control techniques, with the widest coverage of application fields, and is attended by a worldwide audience of scientists and engineers from academia and industry. This is the second congress hosted in Japan with the first being IFAC 1982 in Kyoto.

YOKOHAMA - Japan's First Port of Call The IFAC 2023 will be held in Yokohama, the historical gateway to Japan since the nation opened up to the outside world in 1859. Today, while it has evolved into a leading metropolis, Yokohama retains an easy-going atmosphere that is unique in Japan. Less congested than other cities, it enjoys breezes off the Pacific Ocean and visitors can experience its unrivaled outdoor way of life. Yokohama is the location of choice for hundreds of internationally minded companies and is a hub of academia and research. Organizations and businesses choose to be based in Yokohama because it is a place where ideas come together, where alliances can be forged, and where innovation is happening every day. Those same attributes have made this city the ideal location for global conferences.





Important Dates

PaperCept site opens May 2022 Open Invited Track proposals Sep. 2022 Oct. 2022 Invited Session proposals Oct. 2022 Regular / Invited papers submission

Tutorials / Workshops /

Extended Abstracts submission Nov. 2022 Feb. 2023 Notification of acceptance Final Paper submission Mar. 2023

Submission Categories

Regular papers (6 to 8 pages) Extended abstracts (2 to 4 pages) Discussion papers (2 to 4 pages) Survey papers (up to 12 pages) Dissemination papers **Demonstration papers** Tutorials / Workshops

Organizers

Organizers

IFAC Japan NMO (Science Council of Japan) Japan Association of Automatic Control (JAAC)

Co-Organizers

The Society of Instrument and Control Engineers (SICE) The Institute of Systems, Control and Information Engineers (ISCIE)

JAAC SICE, 18CIE

Contact

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Conference Highlights

Special technical events at IFAC2023 will include plenary/semi-plenary lectures, panel discussions, forums on focused topics, competitions, demonstrations, and tutorials/workshops on the state of the art in the general area of control science and technology. Collaboration between academia and industry will be highlighted by events organized by the IFAC Industry Committee and the IFAC2023 Industry Group.

Different options will be available for presentations and paper categories. In addition to regular and invited contributions, papers can be submitted to open invited tracks focusing on specific research topics (to be specified in the congress webpage). One may also present their works in shorter formats as extended abstracts and discussion papers. Moreover, under the new category of dissemination contributions, papers recently accepted by IFAC journals may be presented. The papers will be published both in the IFAC2023 proceedings and IFAC PapersOnLine.

Vision of IFAC2023 "WA: Control for Solving Societal Problems and Creating Societal Values"

Today, application domains in our society to which control engineers can contribute are vast, including transportation, power systems, smart cities, and medical and social services. At IFAC 2023, we have proposed the vision of "Wa" (Harmony in Japanese) as one of the future directions of control science and technology. In a broad sense, it represents the design of large harmonious control loops to solve societal problems in these domains. To this end, our efforts would require close cooperation with experts not only those in specific application domains, but also those with whom we can share methodologies for tackling emerging problems.

We may envision that "control" will be integrated with the new technological trends in Artificial Intelligence, Internet of Things, and Data Science. At IFAC 2023, we plan to have various events related to this vision in the form of forums and panel discussions.

Technical Areas

Systems & Signals
Design Methods
Computers, Cognition & Communication
Mechatronics, Robotics & Components
Manufacturing and Logistics Systems
Process and Power Systems
Transportation & Vehicles Systems
Bio- & Ecological Systems
Social Systems

IFAC2023 Industry Group (Chair: Kazuya Asano)

Mechatronic Systems
Power & Energy Systems
Machinery and Robotics
Steel Manufacturing Processes
Chemical Processes
Automotive Control
Smart Cities
Smart Agriculture
Control in Construction

Aerospace Technology
Marine Systems
Environmental Systems
Biological & Medical Systems
Systems Science & Technology
Internet of Things
Artificial Intelligence
Measurement & Instrumentation

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