



## First Call for Papers

### The 5th International Conference on Design Engineering and Science

November 3 - 5, 2020, Kitakyushu, Japan

**Organizer:**

Japan Society for Design Engineering

**Conference Chairperson:**

TOMIOKA, Jun, President, JSDE

**Executive Committee :**

**Chair:** MURAKAMI, Tamotsu (Univ. of Tokyo)

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**Co-chair:** IZUMI, Naoshi (National Institute of Tech., Kurume College)

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MORI, Akihisa (Sojo Univ.)

OTSU, Takefumi (Oita Univ.)

OUGIYA, Yasuhiko (Nagasaki Univ.)

TOMIZU, Haruo (SDI Japan)

**Date:**

November 3 (Tue) – 5 (Thu), 2020

**Venue:**

Kitakyushu International Conference Center

**Program ( Tentative ):**

- November 3rd (Tue)
  - Registration (with soft drinks)
- November 4th (Wed)
  - Opening ceremony
  - Special speech
  - Technical sessions (parallel)
  - Buffet dinner (Banquet)
- November 5th (Thu)
  - Technical sessions (parallel)
  - Closing ceremony

**Scope of the conference:**

Nowadays the globalization in design engineering and science field has been rapidly progressing under the background of the evolution of the computer and information technology. The systematization and reorganization of the academic field are advanced in many nations in the world. The Japan Society for Design Engineering (JSDE) was established as the Japan Society for Mechanical Design and Drafting in 1966 and has continued to contribute to the development of the design engineering especially in mechanical engineering field through the annual conferences and publishing the journals. Many researchers, engineers and educators in the world met at ICDES2005 in Vienna, Austria, ICDES2010 in Tokyo, Japan, ICDES2014 in Pilsen, Czech Republic and ICDES2017 in Aachen, Germany, and discussed on many issues on design engineering and science. Then the fifth conference will be held in Kokura, Japan in 2020 under the auspices of the City of Kokura. The conference will also promote strong interactions between academic and industry in all the aspects of design engineering and science, including human resource development and education.

**Main theme:**

The theme of ICDES2020 is then set as

***New Decade of Design Engineering and Science***

**Technical Sessions:**

In addition to the regular tracks of technical presentations, the technical program will also feature several invited sessions with country, industry and technological specific theme. Special emphasis will be placed on the innovation in design engineering and science. Topics of interest include, but are not limited to the followings:

- (1) Design Methodology  
Design process, Evaluation of design, Design assurance, Conceptual design, Ideation, Ethics in design, Design strategy, Reliability, Mechatronics design, Kansei design
- (2) Design and Development  
Design of mechanical elements, Mechanical synthesis, Robotics, Linkage, Cam mechanism, Die cast, Biomedical device, Control system design, Welfare device, Vehicle dynamics design, Thermal design, Strength of materials, FSI (fluid-structure interaction), Human engineering
- (3) Design and Production  
Design management, Life cycle design, Producibility, Production planning, Inverse manufacturing, Reverse engineering, Recycling technology, Machine tool, Automation design, Rapid prototyping, Additive manufacturing
- (4) Computer Aid for Design  
2D/3D-CAD, CAM, CAE. Artificial Intelligence, Expert system, Knowledge management, Database, Computer graphics, Tool path design, Finite element method, CFD (computational fluid dynamics), Optimization method, Dynamical simulation, Modeling
- (5) Accuracy and Measurement  
Surface characteristics, Tribology, Tolerance, Truncation, On-machine measurement, Industrial standard
- (6) Design Education  
Creative design education, Project based learning, CAI, Virtual reality, e-learning, Technology transfer, On hand learning, Robot contest, Active learning
- (7) Others Related to Design Engineering and Science and Workshop

**Important dates:**

|  |                    |
|--|--------------------|
| Submission of contributed papers                 | December 9, 2019   |
| Notification of acceptance of contributed papers | March 16, 2020     |
| Submission of camera ready manuscripts           | May 11, 2020       |
| Conference program                               | June 15, 2020      |
| Deadline for early registration                  | September 14, 2020 |

**Conference Website:**

More details are available in the following JSDE website shortly:

*<http://www.jsde.or.jp/icdes2020/>*

**Optional programs:**

The executive committee is now planning the social program for accompanying people. They will be announced soon at the website. That must be interesting.