

International Symposium on Upcoming Prominent ENGINEERING solutions

September 26, 2025

Online, The Japan Society for Precision Engineering (JSPE)

The International Symposium on Upcoming Prominent ENGINEERING solutions (ISUPEN) will be held online on September 26, 2025. The symposium aims to strengthen cooperation with related overseas organizations and further promote the internationalization of JSPE. In this symposium, innovative R&D activities of researchers and engineers in the field of precision engineering will be introduced to reveal prominent engineering solutions for various recent social issues. The direction in which precision engineering should move toward to form an international community in the future will also be discussed. The symposium will consist of 3 keynote lectures and 6 invited talks.

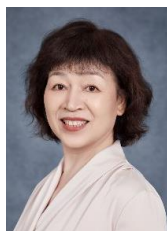
Registration FREE



Japan Time
(GMT+9:00)

Opening Address and Introduction to ISUPEN

13:30



Prof. Yanhua Zou

Chairman of International Affair Committee of JSPE

Professor
Utsunomiya University
Japan

13:35

Special talk: Message from the President of JSPE

13:40



Keynote 1 : Advances in Nano-focusing Synchrotron Radiation X-rays Enabled by Precision Engineering

Prof. Kazuto Yamauchi

President of JSPE
Specially Appointed Professor (Distinguished professor)
Osaka University - RIKEN Center for Science and Technology Japan

Session1: Advanced Manufacturing

Chair: Prof. Ryo Koike (Keio University, Japan)



Prof. Ryo Koike

Associate Professor
Keio University
Japan

14:20



Measurement and Monitoring of Wire Electrode Temperature in Wire Electrical Discharge Machining to Prevent Wire Breakage

Prof. Tomohiro Koyano

Associate Professor
Kanazawa University
Japan

14:40



Fabrication and In-situ Observation of Functional Micro/nanostructures Using Ultrashort Pulse Laser

Prof. Shuhei Kodama

Associate Professor
Tokyo City University
Japan

15:00



Innovations in Electrochemical Micromachining Technologies: Hybrid Laser-ECM and AFM-ECM Processes

Prof. Krishna Kumar Saxena

Assistant Professor
KU Leuven
Belgium

15:20

Break

Session2: Bioengineering, Processing and Tribology

Chair: Prof. Soo Hyeon Kim (The University of Tokyo, Japan)



Prof. Soo Hyeon Kim

Associate Professor
The University of Tokyo
Japan

15:30

Cutting and Grinding Processes of Biological Tissues for Enhanced Surgical Outcomes



Prof. Urara Satake

Assistant professor
Osaka University
Japan

15:50

High-speed Atomic Force Microscopy and Its Recent Advances for Biological Studies



Prof. Takayuki Umakoshi

Lecturer
Osaka University
Japan

16:10

Toward Next-generation Bioelectronic Interfaces: 3D Nanoelectrode Array Platforms for In Vitro Neural Network Analysis



Dr. Guilhem Larrieu

CNRS Director of Research
Laboratory for Analysis and Architecture of Systems, LAAS-CNRS
France

16:30

Keynote 2: Technical Solutions for Grinding Aerospace Alloys and Enabling the Machining-to-grinding Transition



Prof. Mark J. Jackson

Affiliate/Professor
University of Cambridge
United Kingdom

17:10

Keynote 3: Design of High Precision Machines: Fundamentals, Technological Innovation and Industrial Applications



Prof. Kai Cheng

Theme Leader on Ultraprecision and Micro/Nano Manufacturing,
Chair Professor
Brunel University of London
United Kingdom

17:50

Closing

Prof. Yanhua Zou

Organizing committee

Chair

| | |
|-------------------------|----------------------------|
| Yanhua Zou | Utsunomiya University |
| Yukie Nagai | The University of Tokyo |
| Soo Hyeon Kim | The University of Tokyo |
| Ryo Koike | Keio University |
| Daisuke Matsuura | Institute of Science Tokyo |
| Tatsuya Sugihara | Osaka University |
| Shuhei Kodama | Tokyo City University |
| Ryunosuke Sato | Utsunomiya University |

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