

ICMR-2022

6th International Conference on Materials and Reliability

December, 7-9, 2022
Yamaguchi, Japan

Organized by JSMS committees on
Biomedical Materials,
Composite Materials,
Fatigue of Materials,
Fracture Mechanics,
Multiscale Materials Mechanics,
Reliability Engineering
(JSMS: The Society of Materials Science, Japan)

Welcome to ICMR-2022

We are very pleased to inform that ICMR-2022 will be held at KDDI Ishin Hall* in Yamaguchi, Japan, December 7-9, 2022. In this conference, various topics of development, characterization, mechanical analysis, theoretical and experimental reliability analysis, technologies for reliability assessment, and prognostics and health management for various materials, systems and products will be presented and discussed. We have a Japanese tatami-style banquet, so please enjoy mutual exchange in this event. Yamaguchi's historic sightseeing tour is also prepared.

*Home page <https://ishinhall.com>

Scope of the Conference

1. Materials and Characterization

- 1.A Stress analysis
- 1.B Fracture & Failure
- 1.C Fatigue
- 1.D Creep
- 1.E Corrosion
- 1.F Metals
- 1.G Alloys/Composites/Polymers
- 1.H Advanced Materials
- 1.I Surface & Coatings
- 1.J Wear/Tribology
- 1.K Others

2. Reliability

- 2.A Reliability analysis and modeling
- 2.B Design for reliability
- 2.C Failure modes and effects analysis
- 2.D Quality assurance & control
- 2.E Risk assessment and safety
- 2.F Software reliability and testing
- 2.G Accelerated life testing and analysis
- 2.H Non-destructive testing and evaluation

- 2.I Reliability-Based Design and Regulations
- 2.J Reliability-Based Optimization and Control
- Reliability Theory
- 2.K Others

3. Structural Safety & Reliability

- 3.A Resilience of Structures, Networks and Communities
- 3.B Risk Analysis and Risk-Informed Decision Making
- 3.C Risk Perception and Communication
- 3.D Hazards Analysis
- 3.E Human Factors
- 3.F Life Extension
- 3.G Lifeline Risk Assessment
- 3.H Loads and Load Combinations
- 3.I Structural Health Monitoring
- 3.J Structural Systems

4. Reliability of Biomaterials

- 4.A Biomedical Materials
- 4.B Medical Instruments
- 4.C Prosthetic, Orthopedic and Rehabilitation Devices (including Risk Assessment)
- 4.D Tissue Engineering
- 4.E Cellular Biomechanics
- 4.F Surgical Support System

Organized Session

In ICMR-2022, the following Organized Sessions are planned by JSMS committees as topics of interest to participants.

1. Fracture of Materials and Structures

Organizers

- Licheng Guo (Harbin Inst. Tech.)
- Masaki Omiya (Keio Univ.)
- Yoshinobu Shimamura (Shizuoka Univ.)
- Hongjun Yu (Harbin Inst. Tech.)

2. Nano-Micro Mechanics of Materials

Organizers

Takashi Sumigawa (Kyoto Univ.)
Shimokawa Tomotsugu (Kanazawa Univ.)
Yoshitaka Umeno (The Univ. of Tokyo)
Yoshimasa Takahashi (Kansai Univ.)

3. Fatigue

Organizers

Yuki Nakamura (Natl. Inst. Tech., Toyota Coll.)
Yuichi Ono (Tottori Univ.)

4. Reliability of Biomaterials

Organizers

Mototsugu Tanaka (Kanazawa Inst. Tech.)
Shogo Miyata (Keio Univ.)
Masayoshi Mizutani (Tohoku Univ.)
Shoichi Kikuchi (Shizuoka Univ.)
Yuichi Ostuka (Nagaoka Univ. Tech.)
Mitsugu Todo (Kyusyu Univ.)

5. Material Strength Reliability and Risk Management

Organizers

Tsutomu Ito (Toyama Pref. Univ.)
Hitoshi Inomo (Kagawa Univ.)
Noriyasu Oguma (Univ. of Toyama)
Kyosuke Takahashi (Kagawa Univ.)

6. Composites

Organizers

Tetsusei Kurashiki (Osaka Univ.)
Junji Noda (Kindai Univ.)
Masaaki Nishikawa (Kyoto Univ.)
Hyun-Bum Kim (Natl. Inst. Tech., Numazu Coll.)
Hayato Nakatani (Osaka City Univ.)

Please note that due to the limited number of presentations, some speakers may be moved to the general session even though you have applied for the Organized Session. For more detailed information, please refer to the official website: <https://www.icmr2022.com>

Submission of Abstract

Abstracts should be submitted electronically by the due date, following the template provided on the ICMR-2022 website. At least one of the authors must register for ICMR-2022 in order to be included in the proceedings.

Important Dates

- Deadline for 2-page abstract submission
July 30, 2022
- Notification of abstract acceptance
September 20, 2022
- Early registration due date
October 10, 2022
- Full Paper Submission
December 24, 2022 (tentative date)

Full paper submission is planned as an option. A number of conference papers will be recom-

mended for major SCI(E) international journal publication as a special issue.

Awards

During ICMR-2022, several awards for students, postdocs and young researchers will be presented at the Awards Session and Poster Session. Winners will be selected based on the quality of their papers and presentations.

Key Organizing Members

Conference Chairman

Koichi Goda, Yamaguchi University, Japan

Conference Co-chairman

Kolar Deepak, Vardhaman College of Engineering, India

Licheng Guo, Harbin Institute of Technology, China

Hong-Zhong Huang, University of Electronic Science and Technology of China

Insu Jeon, Chonnam National University, Korea

Nguyen Truong Thinh, Ho Chi Minh City University of Technology and Education, Vietnam

Secretary General

Tetsuya Miyoshi, Hannan University, Japan

Financing Secretary

Shinya Matsuda, Kagawa University, Japan

International Secretary

Arnaud Macadre, Yamaguchi University, Japan

Local Committee Chairman

Junji Ohgi, Yamaguchi University, Japan

Program Committee Chairman

Masatoshi Kuroda, Kumamoto University, Japan

Program Committee Members

Tsutomu Ito, Toyama Prefectural University, Japan

Tetsusei Kurashiki, Osaka University, Japan

Yuki Nakamura, National Institute of Technology Toyota College, Japan

Yoshinobu Shimamura, Shizuoka University, Japan

Takashi Sumigawa, Kyoto University, Japan

Mototsugu Tanaka, Kanazawa Institute of Technology, Japan

Mitsugu Todo, Kyushu University, Japan

Registration Fee

	Not later than October 10	After October 10
Regular	JPY 55,000	JPY 68,000
Student	JPY 33,000	JPY 45,000

Accompanying person fee : USD 150 / JPY 18,000 (Includes conference banquet, welcome party and tour ticket)

Registration fee includes :

- Conference proceedings in USB format, conference access and program booklet.

- Two lunch coupons, welcome party, conference banquet and tour ticket.

(Students must present a proof of their student status at the REGISTRATION DESK)

Banquet and Contact Information

Performance of Banquet (Kagura-mai)



Kagura-mai is designated as an intangible folk cultural asset by Yamaguchi-city. Kagura-mai is based on Japanese mythology and has been handed down as a traditional performing art.

Kagura-mai is scheduled for the banquet on the night of December 8.

Contact Information

ICMR-2022 Secretariat
2-16-1 Tokiwadai, Ube,
Yamaguchi 755-8611,
Japan

Tel : +81-836-85-9157

E-mail : info@icmr2022.com

<https://www.icmr2022.com>



*National treasure
Rurikoji temple*

Tourist information on Yamaguchi Prefecture can be viewed at the following site.

[YAMAGUCHI JAPAN TRAVEL GUIDE \(visit-jy.com\)](http://visit-jy.com)