

First Announcement

ISSI 2024

International Symposium on Structural Integrity Structural Integrity for Advanced Manufacturing



Dongguan, China, November 5-8, 2024

AIMS AND SCOPE OF THE SYMPOSIUM

The 2024 International Symposium on Structural Integrity (ISSI2024) will be held in Dongguan, China, by Centre of Excellence for Advanced Materials (CEAM), during November 5-8, 2024. The predecessor of the annual symposium, Fracture Mechanics series, took place each year from 2003 to 2009, was renamed as Structural Integrity series after 2010, and organized by China Structural Integrity Consortium (CSIC).

In the rapidly evolving domain of advanced manufacturing, the pursuit of structural integrity emerges as an important theme, underpinning the success and reliability of fabricated engineering components. The synthesis of cutting-edge materials, sophisticated manufacturing techniques, and the escalating demand for high-performance engineering components necessitates a profound comprehension of structural integrity principles. Beyond serving as a fundamental tenet for safety, the emphasis on robust structural integrity becomes a linchpin for fostering innovation and enhancing global competitiveness in this transformative industrial landscape.

Advanced manufacturing is now applied in the aerospace, automotive, electronics, or healthcare sectors and beyond. In order to achieve the rapid development of advanced manufacturing technology and ensure the reliable and long-term service of advanced manufactured engineering components, it is necessary to enhance the reliability of engineering components from the holistic point of view including material, process, design, operation, failure analysis and integrity management, which is now known as reliability-centered manufacturing. This places higher demands on the theory and technology of structural integrity, involving key technological areas such as material genetic engineering, innovative manufacturing processes, failure assessment, life prediction, non-destructive testing and health condition monitoring.

The aim of this symposium is hence to bring together people from both academic and industrial communities to exchange ideas and network friendship by discussing emerging structural integrity issues in the advanced manufacturing field, where papers toward are mostly welcome.

KEY DATES

Deadline for submission of abstract-----1 June 2024
Notification of acceptance of abstract-----15 June 2024
Deadline for pre-conference registration-----30 Sept 2024
Conference registration-----5 Nov 2024

ORGANIZERS

China Structural Integrity Consortium

- Including following members:
- East China University of Science and Technology
- Hefei General Machinery Research Institute
- China Special Equipment Inspection and Research Institute
- Zhejiang University
- Beihang University
- Nanjing Tech University
- Zhejiang University of Technology
- Zhengzhou University
- Southwest Jiaotong University
- Shandong University
- Changsha University of Science and Technology
- Tianjin University
- Jiangsu Province Special Equipment Supervision Institute
- Suzhou Nuclear Power Research Institute Co., Ltd.
- Centre of Excellence for Advanced Materials, Dongguan

Local Organizer

- Centre of Excellence for Advanced Materials

Sponsors

- International Council on Pressure Vessel Technology - Asian-Oceanic Regional Committee
- International Institute of Welding (IIW) - Pressure Vessels, Boilers & Pipelines
- Chinese Materials Institution - Committee of High Temperature Strength of Materials
- Chinese Pressure Vessel Institution
- Chinese Failure Analysis Institution

Symposium Chairs

- Prof. Shan-Tung Tu, ECUST (Chairman of symposium series)
- Dr. Shu-Yan Zhang, CEAM (Executive Chairman)

Symposium Secretariat

- Dr. Gui-Yi Wu, CEAM (guiyi.wu@ceamat.com)

Symposium Coordinator

- Prof. Jian-Feng Wen, ECUST (jfwen@ecust.edu.cn)

SCOPE AND TOPICS

- Structural integrity for advanced manufacturing
- Reliability-centered manufacturing
- Fatigue and fracture under extreme conditions
- Innovative non-destructive testing and monitoring techniques
- Multi-scale material testing, modelling and analysis
- Genetics-based material design
- Additive manufacturing
- Design and assessment codes and standards
- Time-dependent failure (creep, corrosion, fatigue etc.)
- Structural health monitoring and life extension
- Artificial intelligence and big data
- Residual stress and deformation

Topics not covered above but fall within the general scope of this symposium are also welcome. Abstracts and full papers should be written in English. Early submission of full papers is advisable in order to get the full benefit of editorial assistance and fast publication.

Contact Information

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CALL FOR PAPERS

The official language of the conference is English. Abstracts (less than 500 words) prepared according to the layout should be submitted to symposium website: <http://issi2024.china-sic.net>

Extended version of qualified papers presented in the symposium will be published in special issues of selected international journals after the symposium.

REGISTRATION AND ACCOMMODATION

Registration fee will be 360 USD. Students are welcome with a reduced registration fee of 270 USD. The registration fee covers admission to all technical sessions, two refreshment breaks each day of the conference, lunches, dinners, conference banquet, and a copy of the conference proceedings, but not accommodation. Accommodation needs to be pre-booked at the conference venue.

BEST STUDENT PAPER & BEST POSTER AWARDS

The Conference Organizers are delighted to sponsor Best Student Paper Awards and Best Poster Awards for full-time students and poster authors, respectively, with a bonus of 300-1500 USD.

CONFERENCE AGENDA

Full-day registration-----	5 Nov 2024
Conference opening and series sessions-----	6 Nov 2024
Parallel sessions-----	7 Nov 2024
Parallel sessions and conference closing-----	8 Nov 2024
Technical visiting-----	8 Nov 2024

