

ISSI 2022



International Symposium on Structural Integrity

Changsha, China, October 14-16, 2022

<https://issi2022.china-sic.net>

## Second Announcement

### Aims and Scope of the Symposium

The 2022 International Symposium on Structural Integrity (ISSI2022) will be held in Changsha, China, by Changsha University of Science and Technology, during October 14-16, 2022. 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).

Critical infrastructure encompasses a vast array of engineered systems and assets, including the facilities for gas and oil storage, electrical power systems, transportation systems, etc. They are so vital that their incapacity or destruction would have a debilitating impact on the safety of people's lives and property. Undoubtedly, there is a significant need to ensure the security and durability of these infrastructure systems. All this underpins the theme of ISSI2022, "**Structural Integrity of Critical Infrastructure**".

The stock of major energy and chemical infrastructure is huge, and a large part of it has entered or will enter the middle or late stage of service. It is facing severe damage and disaster risks, and the problem of service safety is becoming increasingly prominent. In addition, with the gradual and wide application of new energy such as hydrogen energy, its storage and transportation safety supervision and disaster prevention are also extremely urgent. Mastering the service safety status of massive major energy and chemical infrastructure and realizing efficient and accurate diagnosis are the keys to ensure its safe operation.

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 related to critical infrastructure, where papers toward are mostly welcome.

## **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**

- Changsha University of Science and Technology

## **Sponsors**

- National Natural Science Foundation of China
- Chinese Materials Institution (Technical Committee of High Temperature Strength of Materials)
- Chinese Pressure Vessel Institution
- Chinese Failure Analysis Institution

## Venue



The symposium will be held at Hunan Huatian Hotel, located at 300 Jiefang East Road, Changsha, China.

## International Advisory Board Committee

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## Scope and Topics

Topics of ISSI2022 are included but not limited to:

- Structural Integrity for Critical Infrastructure
- Additive Manufacturing
- Advanced Materials Testing and Modeling
- Artificial Intelligence and Big Data
- Design and Assessment Codes and Standards
- Fatigue and Fracture under Extreme Conditions
- Fluid-Structure Interaction
- Genetics-Based Material Design
- Life Management and Extension
- Miniaturized Specimen Technique
- NDT and Evaluation

- Reliability-Centered Design, Manufacturing and Maintenance
- Residual Stress
- Structure Health and Integrity Monitoring
- Structural Integrity for Carbon Reduction
- Structural Integrity of Biologically Inspired Materials
- Time-Dependent Failure (Creep, Corrosion, etc.)
- .....

Topics not covered above but fall within the general scope of this symposium are also welcome. Abstracts, presentations, posters and papers should be given in English.

## 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: <https://issi2022.china-sic.net>.

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

*International Journal of Pressure Vessels and Piping*

*Fatigue & Fracture of Engineering Materials & Structures*

*Chinese Journal of Mechanical Engineering*

*Nondestructive Testing and Evaluation*

## 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 300-750 USD.

More info: <https://issi2022.china-sic.net>.

## Key Dates

Deadline for submission of abstract-----	10 Aug 2022
Notification of acceptance of abstract-----	15 Aug 2022
Deadline for pre-conference registration-----	15 Sept 2022
Conference registration-----	14 Oct 2022

## Symposium Chairs

Prof. Shan-Tung Tu, ECUST (Chairman of symposium series)

Prof. Jian Chen, CSUST (Executive Chairman)

## Symposium Secretariat

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## Symposium Coordinator

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