

Aims and Scope of the Symposium

The 2020 International Symposium on Structural Integrity (ISSI2020) will be held at Suzhou, China, by Suzhou Nuclear Power Research Institute Co., Ltd., during October 22-24, 2020. 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).

As pointed out at the last symposium, ISSI2018, structural integrity has come to a new era as a result of the design and manufacturing of structures and components with long-life and high reliability requirements. Manufacturing of a product with high reliability needs the supports from real or virtual testing method, and strict inspection and on-line monitoring techniques, and thus covers a number of manufactures and stakeholders throughout the life cycle of a product. All of these underpin the theme of ISSI2020, “*Reliability-centered Manufacturing on the Basis of Structural Integrity*”.

The role of structural integrity in this new manufacturing paradigm involves several aspects such as material, design, manufacture and maintenance. In particular, it needs the full support of precision technology, which includes the selection of materials with high precision based on control of damage susceptibility genes, a design for reliability concept by failure probability control, a manufacture for reliability concept based on the principal of zero-defect manufacture and strengthening, and finally the maintenance for reliability recovery. During this process, the tool of failure analysis can provide the input and lay the basis for damage identification.

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 reliability-centered manufacturing field, where papers toward are mostly welcome. As a forum of education, best paper and poster presentation awards will be bestowed for young students and researchers at the closing session.

Key dates

Deadline for submission of abstract-----1 June 2020
Notification of acceptance of abstract-----15 June 2020
Deadline for pre-conference registration-----1 Oct 2020
Conference open-----22 Oct 2020

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
Zhengzhou University
Nanjing Tech University
Changsha University of Science and Technology
Zhejiang University of Technology
Southwest Jiaotong University
Shandong University
Tianjin University
Zhejiang University
Beihang University
Jiangsu Province Special Equipment Supervision Institute
Suzhou Nuclear Power Research Institute Co., Ltd.

Local organizers

Suzhou Nuclear Power Research Institute Co., Ltd.

Sponsors

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

Venue

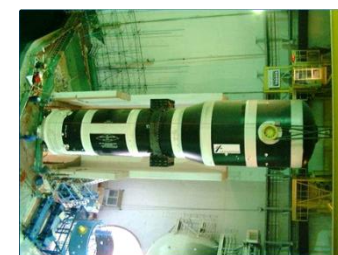
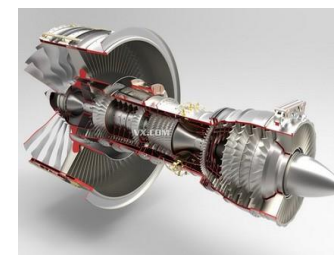


The symposium will be held at **Xiangshan Hotel, Suzhou Taihu International Conference Center**, located at No.1, Yanbo Road, Circum-Lake Avenue, Suzhou, China.



International Symposium on Structural Integrity

**RELIABILITY-CENTERED
MANUFACTURING ON THE BASIS
OF STRUCTURAL INTEGRITY**



Suzhou, China, October 22-24, 2020

中广核 CGN
苏州热工研究院有限公司
SUZHOU NUCLEAR POWER RESEARCH INSTITUTE

<http://issi2020.china-sic.net>

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Scope and Topics

- Reliability-based design and manufacturing
- Fatigue and fracture under extreme conditions
- Time-dependent failure (creep, corrosion, etc.)
- Materials testing and modeling
- Genetics-based material design
- Design and assessment codes and standards
- NDT and evaluation
- Structure health and integrity monitoring
- Life management and extension
- Additive manufacturing
- Artificial intelligence and big data

Topics not covered above but fall within the general scope of this symposium are also welcome. Abstracts should be written in English.

<http://issi2020.china-sic.net>

Symposium Secretariat

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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://issi2020.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
Chinese Journal of Mechanical Engineering
SCIENCE CHINA Technological Sciences

Registration and Accommodation

Registration fee will be 360 USD. Students are welcome with a reduced registration fee of 280 USD. The registration fee covers admission to all technical sessions, refreshment breaks, lunches, dinners, conference banquet, and a copy of the conference proceedings, but not accommodation.

Young Presenters Award

The Conference Organisers are keen for Post Graduates and early career workers below 35 years old to submit papers to win a prize for the best paper and poster presentation.

Dates to Note

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