

ISSNP2008/CSEPC2008/ISOFC2008

September 8-10, 2008

Harbin, Heilongjiang, China

Conference Website:

<http://cnst.hrbeu.edu.cn/issnp2008>

The 2nd International Symposium on Symbiotic Nuclear Power Systems for 21st Century (ISSNP2008) and Embedded with the 4th International Symposium on Cognitive Systems Engineering Approach to Process Control (CSEPC2008) and the 3rd International Symposium on Future I&C for Nuclear Power Plants (ISOFC2008).

Conference Venue:

Qi Hang Activity Center, Harbin Engineering University (<http://english.hrbeu.edu.cn/>)

Organizer

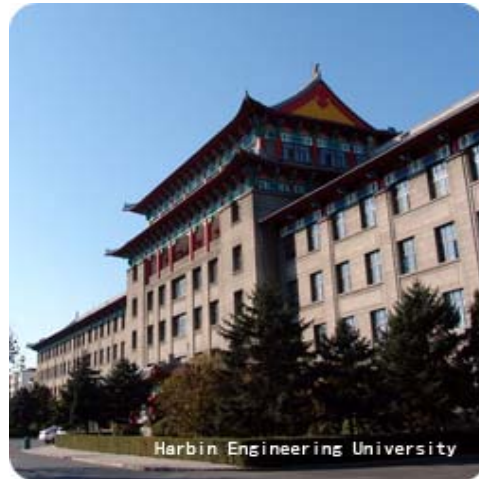
Harbin Engineering University

Cooperating with

China Nuclear Energy Association, Symbio Community Forum, Research Division of Human-Machine System Atomic Energy Society of Japan, Human Factors Division America Nuclear Society, Human Factors Division Korea Nuclear Society, Man-Machine System Division Society of Instrument & Control Engineers, Graduate School of Energy Science Kyoto University, OECD/Halden Reactor Project, etc. (Expected)

Objectives

Following the success of the first ISSNP, July 9-11, 2007, Tsuruga, Fuki, Japan, the 2nd ISSNP2008 will be held in Harbin, the beautiful city in the northeast of China. This time, the 2nd ISSNP2008 will include the 4th CSEPC2008 and 3rd ISOFC2008 because the research fields of both the conferences share the common interests with that of ISSNP and the three conference series had been held in East Asia in different cities with duplicated participants in the past. (The 1st CSEPC in 1995 in Kyoto, Japan, the 2nd in 2000 in Daejeong, Korea, the 3rd in 2004 Sendai, Japan; the 1st ISOFC in 2002 in Seoul, Korea, the 2nd in 2005 in Tongyeong, Korea.)



In the 21st century, with the worsening of environment pollution and the high demands of securing energy safety, the application of nuclear power is developing rapidly. Advanced nuclear technology can help to raise the nuclear safety and economic level, which makes the application of nuclear power in harmony with human, society and environment. The series of ISSNP aim to further explore the development of new technologies in the field of nuclear safety, consolidate the technical exchange and collaboration, and therefore promote the development of nuclear technology in the world. In fact, "Reliable safety" is not only the common concern of *all* nuclear countries, but also of many process fields other than nuclear power. Thus, ISSNP/CSEPC/ISOFC in 2008 will also be a good opportunity for the synergy of both nuclear and non-nuclear specialists in process control to gather by merging the CSEPC and ISOFC into ISSNP to discuss this common and important concept more profoundly and extensively for the future of growing human networks of researchers and engineers in the 21st century around the world.

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Chief:

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Important Dates

CPF on conference website: Scheduled from October 15 .2007

Paper proposal submission deadline: January 31.2008

Notification of proposal acceptance for full paper submission: March 31.2008

Full paper submission deadline: May 31.2008

Notification of full paper acceptance: June 20.2008

Conference Topics

1. Methods of sensing, monitoring and processing for control and communication

- Advanced Sensors and Measurement Techniques
- New Control Systems for Reactors and Plant Systems
- Digital System Reliability
- Safety Critical Software Development and Qualification
- Digital Upgrade Issues
- Next Generation I&C Systems
- I&C Security and Network Security
- Maintenance and Condition Monitoring
- Diagnostics and Predictive Maintenance Methods
- Defect Detection Methods in Component such as UT, ETC, EMAT, etc.
- Wireless Application in Nuclear Power
- Age Related Degradation of Instrumentation Systems
- New Methodologies for Online Status Monitoring of Nuclear Components
- Application of Virtual Reality and Augmented Reality Technologies for communications

2. System simulation technologies

- Plant Simulator Technologies for Nuclear Power Plants including Fast Reactors & -High Temperature Gas Reactors
- New Methodologies for Plant Simulators
- Advanced Simulation Technologies for Human-Machine Systems
- Use of Plant Systems & Component Simulation Technologies for Personnel Training and Education
- Basic Methodologies for Thermo-hydraulic Analysis of Advanced Reactors
- New Analysis and Simulation Methods for Defect Prediction and Life Estimation for Plant Components
- Use of Plant Operators for Human Factors Evaluation.
- Simulation Methods and Tools for Various Energy System Evaluation

3. Human interface technologies

- Computerized Operator Decision and Support Systems
- Utility Experience with Control Room Modernization
- New Concepts for Advanced Control Rooms
- Designing Large Information Systems
- User Interaction with Automation
- Knowledge Capture and Engineering, Applications of Technology to Enhanced Maintenance Operations
- Designing Better Alarm Systems
- Environmental Compatibility of Reactor Control Room
- Computerized Procedure Systems, Human Error Issues
- Human Reliability Analysis Methodologies
- HFE Design and Analysis Tools
- Human Behavioral Modeling
- Innovative Approaches to Training and Training Technologies

4. Symbiosis of technology with society and environment

- Regulatory Aspects of Nuclear I&C
- Incident Reports Systems and the Related Analysis such as by Data Mining
- Application of Risk Analysis in the Design and Evaluation of Human-Machine System
- Regulatory Approaches to Advanced Systems
- Organized Factors and Safety Culture in Nuclear Industries
- Risk Communication
- Social Education on Risk Literacy
- Risk Informed Regulation
- Social Investigations for Public Acceptance
- Multi-purpose utilization of nuclear energy

Paper Category for Paper Proposal

1. ISSNP deals with all topics of mainly present day's nuclear power plants. If you prefer to participate in ISSNP, please indicate either A1, A2, A3 or A4 by judging the content of your paper from the conference topics above.
2. CSEPC emphasizes the researches on human cognitive issues in human-machine system of various technical processes in general, i.e., not only for nuclear power plants but also various non-nuclear plants such as fossil plants, chemical plant, various transportation such as train, aviation, ship, etc. If you prefer to participate in CSEPC, please indicate either C1, C2, C3 or C4 by judging the content of your paper.
3. ISOFIC deals with future I&C issues of nuclear power systems. If you prefer to participate in ISOFIC, please indicate either I1, I2, I3 or I4 by judging the content of your paper.

PS:

-The technical program of the united conferences of ISSNP2008/CSEPC2008/ISOFIC2008 will be organized as parallel session formation by indicating ISSNP, CSEPC, and ISOFIC for each parallel session.

-The TPC Co-Chairs reserve the right of shifting papers presentation in the different conference from the authors' original registered paper category mainly from the view of organizing practical conference program useful to the conference participants.

Submission of Paper Proposals

The official language of the symposium is English. All submission must be original work.

The authors should submit the following data of your paper proposal through the conference web: (1) Paper category, (2) Paper title with all authors and their affiliation, (3) Name of corresponding author, his/her affiliation, Postal address, Tel/Fax, E-mail address, and (4) Paper abstract of up to 500 words which describes the objective, methods and the major results of the proposed paper.

Those abstract data should be submitted through the conference web

(URL: <http://cnst.hrbeu.edu.cn/issnp2008/paper.html>) until January 31, 2008.

Special Features at ISSNP2008

1. All papers of ISSNP2008/CSEPC2008/ISOFIC2008 will be published in "Journal of Marine Science and Application". It is the English journal of Harbin Engineering University which will be included in Springer's online database. Some best papers will be published in the "Journal of Harbin Engineering University" that is indexed by EI (Engineering Index). Also we will consult with other Chinese and foreign journals to publish some of the best papers from ISSNP2008/CSEPC2008/ISOFIC2008.

2. "China-Japan-Korea Student Summer School" will be planned so that students and young researchers from the three countries will broaden their knowledge of operational safety of nuclear power plant, by a series of keynote lectures given by internationally prominent researchers.