

Call for Papers



ISSNP

International Symposium on Symbiotic Nuclear Power Systems for 21st Century (ISSNP)

The Wakasa Wan Energy Research Center (<http://www.werc.or.jp/>)
Tsuruga, Fukui, Japan July 9-11, 2007

Conference Website: <http://www.issnp.org/>

The objective of this international symposium is to exchange ideas and further understanding of Symbiotic Nuclear Power Systems for 21st century.

The Wakasa Bay area is one of the big centers of Nuclear Power Developments and Nuclear Researches in Japan, where as many as 12 PWRs and 1 BWR are now in operation with 2 APWRs in licensing process, Monju (a prototype FBR plant) waiting for the re-start, Fugen (a demonstration ATR plant) in the process of decommissioning, and there are various research institutions and personnel training centers situated all along the Wakasa bay.

The organizers of this symposium wish that this symposium will contribute to the creation of human networks of the next generation peoples of those R&D areas in East Asian countries, where nuclear power developments will be further expanded towards the middle of the 21st century. From this perspective, an open forum with general public will be held by inviting prominent speakers internationally to think together for the future of sustainable energy and environment worldwide, and during the conference period, ANSJ-KNS Students Summer School 2007 will be organized by the coordination of Korean and Japanese young researchers.

Important Dates

Proposal submission deadline: February 15, 2007
Notification of acceptance: March 6, 2007
Full paper submission deadline: May 15, 2007

Submission of Paper Proposals

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

The authors should submit one page abstract which includes: Paper Title, Name of corresponding author and his/her affiliation, Postal address, Tel/Fax, and E-mail address, followed by the summary of ca. 400 words which describe the objective, methods and the major results of the proposed paper. One page abstract of Microsoft Word® format or TEXT format should be E-mailed to

office@secretari.jp

Until February 15, 2007

Co-organized by

Non-Profit Organization SYMBIO COMMUNITY FORUM,
Research Division of Human-Machine Systems, The Atomic Energy Society of Japan,
Task Group "Advancement of Operation & Maintenance Technologies for Nuclear Power Plants"
JSPS Core University Program between Seoul National University & Kyoto University on "Energy Science & Technology"

Honorary Chair

Hiroshi Morimoto
Vice President
The Kansai Electric Power, Co. Ltd.

General Chair

Hidekazu Yoshikawa
Representative, SYMBIO COMMUNITY FORUM
Professor Emeritus Kyoto University

International Advisory Boards

Seungrohk Oh (Dankook U, KR), Erik Hollnagel (Ecole des Mines de Paris, FR),
Zuoyi Zhang (Tsinghua U., CH), Zhijian Zhang (Harbin Eng. U, CH),
Fridtjov Owre (OECD/Halden, N)

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
- Social Investigations for Public Acceptance
- Risk Informed Regulation
- Multi-purpose Utilization of Nuclear Energy

Technical Program Committee:

Co-Chairperson: Akio Gofuku (Okayama U, JP), Poong Hyun Seong (KAIST, KR)
Secretaries: Makoto Takahashi (Tohoku U, JP), Tadashi Ohi (MELCO, JP)

Local Co-Ordinate Committee:

Chairperson: Eiji Matsumoto (Kyoto U, JP)
Secretaries: Hiroshi Shimoda (Kyoto U, JP), Takashi Nagamatsu (Kobe U, JP)
Chief of Site Liaisons : Shuji Shiota (KEPCO, JP)

AESJ-KNS Students Summer School Coordinators:

Chief: Professor Takuo Fukui (Fukui U, JP)
Korea Side: Na Young Lee (Seoul Nat'l U, KR)
Japan Side: Hirotake Ishii (Kyoto U, JP)