



Non Profit Organization SYMBIO COMMUNITY FORUM <http://sym-bio.jpn.org/>

**Symbio International Workshop 2012  
on Advanced Condition Monitors for Nuclear Power  
and Other Process Systems, September 3, 2012, Kyoto, Japan**

Time : September 3, 2012 at Kyoto University  
Place : Seminar Room II, Shiran-Kaikan, International Hall,  
Centennial Memorial Hall of Medical School, Kyoto University  
(<http://www.shirankai.or.jp/e/facilities/access/index.html>)

**Co-organizing institutions:**

Symbio Community Forum, Kyoto, Japan  
111 Project on Nuclear Power Safety and Simulation supported by the Ministry of  
Education of China and State Administration of Foreign Expert Affairs, College of  
Nuclear Science and Technology, Harbin Engineering University, Harbin, China

**Cooperation with:**

Institute of Nuclear Safety Systems  
Japan Atomic Energy Agency  
Nuclear Training Center  
Research Institute of Applied Sciences, Kyoto, Japan  
Department of Electrical Engineering, Technical University of Denmark  
Human-Machine Research Division, Atomic Energy Society of Japan

**Number of Participants with nationalities to the one day workshop:**

Total 40 (Japan(26),China(10),Denmark( 2),U.S.A.(1),Romania(1))

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■ One day workshop September 3, 2012 at Shiran-Kaikan, Kyoto University

### Workshop program

Time	Items	Speakers
9:00	Registration	
9:25	Opening address	Prof. Hidekazu Yoshikawa
9:30	<u>Session 1 Risk Monitor and the application methodologies</u> Chair: Prof. Akio Gofuku (Okayama U.)	
	Paper 1-1: Risk Monitoring by Multilevel Flow Models for Nuclear Power Plant	Prof. Ming Yang (HEU)
	Paper 1-2: Modeling Operating Modes for the Monju Nuclear Power Plant	Prof. Morten Lind (DTU)
	Paper 1-3: Installation of GO-FLOW into the risk monitor being developed at Harbin Engineering University	Prof. Takeshi Matsuoka (Utsunomiya U.)
	Paper 1-4: Study for Modeling of Control and Condition Monitoring Integrated System for Nuclear Power Plant	Dr. Zhi Chen (NPIC)
12:00	Lunch break	
13:00	<u>Session 2 Prediction-Monitor Fusion for Aged Nuclear Plants and other machines</u> Chair: Prof. Masato Mochizuki (Osaka U.)	
	Paper 2-1: Advanced Management of Pipe Wall Thinning based on Prediction-Monitor Fusion	Prof. Fumio Kojima (Kobe U.)
	Paper 2-2: Non-Destructive Evaluation of Material State by Acoustic, Electromagnetic and Thermal Techniques	Prof. Eiji Matsumoto (Kyoto U.)
	Paper 2-3: Crack growth monitoring by strain measurement	Dr. Masayuki Kamaya (INSS)
	Paper 2-4: Non-contact acoustic emission measurement for condition Monitoring of a bearing on a rotating machine using laser interferometry	Dr. Yasufumi Ohta (JAEA)
15:00	Coffee break	



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15:20	Special session: Chair: Prof. Toshio Shibata (Professor Emeritus Osaka University) <u>Invited lecture: On-line monitoring for passive structures in nuclear power plants</u> Invited speaker: Prof. . Lenard Bond (USA) Director, Center for Nondestructive Evaluation, Professor of Aerospace Engineering, Iowa State University
16:30	Break
17:00	Session 3: Demonstration of Risk Monitors of NPP and Online Diagnosis Monitors of Electric Machines Chair: Prof. Hidekazu Yoshikawa (Professor Emeritus Kyoto University) Paper 3-1: Risk Monitoring for Nuclear Power Plant Applications using PRA Mr. Takahiro Kuramoto (NEL) Paper 3-2: Condition monitor system for electric equipments by diagnosing higher modes of electric current in real operation state Mr. Junya Nitta (Arcadia ltd.)
18:00	Buffet party

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