

SO Session S, Room 106, June 22 (Sat) PM
--

Session S: GIGAKU and Safety

14:00 ~ 15:20 Nuclear System Safety Engineering I

(Chairperson: Prof. Junichi Katakura)
Welcoming Address by Prof. Toru Ogawa)

SO-1: Plenary talk;

“U.S. and Chernobyl Radiological Environmental Assessments and Remediation”

Yasuo Onishi (Pacific Northwest National Laboratory, U.S.A)

SO-2: “E-learning Contents on Realistic Perception of Severe Accidents”

Toru Ogawa (NUT, Japan)

SO-3: “An Assessment of Early Radionuclide Doses to Human: A Case Study of Hypothetical Reactor Accident in Ninh Thuan Province, Vietnam”

Ho Quoc Dung, Yoshiki Mikami (NUT, Japan)

15:20 ~ 15:40 Coffee Break

15:40 ~ 16:40 Nuclear System Safety Engineering II (Chairperson: Prof. Toru Ogawa)

SO-4: “Education framework of risk communication for nuclear system safety Engineering; case study by combining stakeholder discussions and technical Presentations”

Yuichi Otsuka (NUT, Japan)

SO-5: “Small-Size MHD Experiments and Simulation in WNCT and NUT” (invited)

Shinji Takeshita¹, Yusuke Sasaki², Toru Sasaki², Takashi Kikuchi², Nob. Harada²(1:Wakayama National College of Technology, Japan,2:NUT, Japan)

SO-6: “Recent Progress in the Intense Pulsed Power Generator “ETIGO-II” Kenji Kashine ,(Yuge National College of Maritime Technology, Japan)

16:40 ~ 17:00 Panel discussion (Chairperson: Prof. Toru Ogawa)

SO Session S, Room 106, June 23 (Sun) AM
--

Session S: GIGAKU and Safety

9:00 ~ 10:30 Doctoral Safety Paradigm I (Chairperson: Prof. Yuji Hirao)
Welcoming Address by Prof . Kiyoshi Ohishi)

- SO-7: **Plenary talk;**
“Research and Higher Education on Safety related Topics at the Magdeburg Safety Cluster”
Ronald Zinke (Otto-von-Guericke-University Magdeburg, Germany)
- SO-8: “Hardware Safety Principles for Computer-based Control Systems and their Significance for Functional Safety” Yuji Hirao (NUT, Japan)
- SO-9: “Talent Cultivating Pattern Reform of Safety Engineering and Conception of the Discipline Construction” Dong-Sheng Yuan., Jian-Liang Gao, Guo-Qing Niu (Henan Polytechnic University, China)
- SO-10: “Phase Unwrapping in Remote Sensing using SAR Interferometry Based on Statistical Mechanics of Information” Yohei Saika¹, Tatsuya Uezu²,(1Gunma National College of Technology, Japan, 2 Nara Women’s University, Japan)
- SO-11: “Usability Evaluation of Steering System for Pleasure Boat with Eye Tracking Device” Kohei Iihama¹, Shigehiro Tomoya¹, Fujio Ikeda¹, Hiroaki Seta², Nobuo Ezaki² (1 Nagaoka National College of Technology, Japan 2 Toba National College of Maritime Technology, Japan))

10:30-10:50 Coffee Break

10:50-11:50 Doctoral Safety Paradigm II (Chairperson: Dr. Yuichi Otsuka)

- SO-12: **Plenary talk;**
“Conceptual requirements for digital safety I&C in German nuclear power”
Yongjian Ding, C. Gu, Ulrich. Krause (University of Applied Sciences Magdeburg-Stendal, Germany)
- SO-13: “Probabilistic Inference for Forecasting Electricity Power Used in Gunma National College of Technology Using Climate Statistics”
Yohei Saika, Yoshinobu Haruyama (Gunma National College of Technology, Japan)
- SO-14: “Coming Back of Nuclear Power with enhanced safety and regulatory foresight” (invited)
Keith Franklin (British embassy, U.K.)

POSTER S June 22 (Sat), 12:00 ~ 14:00

*Authors are expected to be at their posters for the poster session with the following schedule.

Even-numbered posters: 12:00-13:00.

Odd-numbered posters: 13:00-14:00.

Session S: GIGAKU and Safety

Master Course Students in Nuclear System Safety Engineering

(Chairperson: Prof. Toru Ogawa)

- SP-1: “High-Temperature Chemical Reactions of Basalt Concrete with Zircaloy-2”
Kentaro Ishizu, Do Thi Mai Dung and Toru Ogawa (NUT, Japan)
- SP-2: “Adsorption behavior of molybdenum species on benzimidazole-type resin in hydrochloric acid solutions”
Masafumi Inaki¹, Yu Tachibana¹, Masao Nomura² and Tatsuya Suzuki¹, (1 NUT, Japan, 2 Tokyo Institute of Technology, Japan)
- SP-3: “Identification of External Hazards to Ninh Thuan Nuclear Power Plant ”
Vu Manh Kha, Yoshiki Mikami (NUT, Japan)
- SP-4: “Applying STAMP/STPA to accident management”
Tomoya Osaki, Yoshiki Mikami (NUT, Japan)
- SP-5: “Examination of spontaneous fission yield data”
Seima Okamura, Jun-ichi Katakura (NUT, Japan)
- SP-6: “Reconsideration of Fail-safe logic of emergency cooling system”
Yuji Kawasaki, Yoshiki Mikami (NUT, Japan)
- SP-7: “Study of Vitrified Waste Form of Zeolite on Its Basic Characters”
Isamu Kudo¹, Isao Yamagishi², Toru Ogawa¹ (1 NUT, Japan, 2 Japan Atomic Energy Agency, Japan)
- SP-8: “Examination of the Anti-neutrino Spectra in a Nuclear Reactor”
Kazuma Komuro, Jun-ichi Katakura (NUT, Japan)
- SP-9: “Nuclear Power Potential Index”
Yoshihiro Tsuchida, Yoshiki Mikami (NUT, Japan)
- SP-10: “Examination of criticality of melted fuel”
Takashi Nishiyashiki, Junichi Katakura (NUT, Japan)
- SP-11: “Experimental study of the mechanism of intergranular stress corrosion cracking”
Masataka Hiruta, Yuichi Otsuka, Hisayuki Suematsu (NUT, Japan)

- SP-12: “Water Radiolysis of Mixed Oxides of Zirconium”
Takuma Heshikiri, Do Thi Mai Dung, Yoshinobu Matumoto and Toru Ogawa (NUT, Japan)
- SP-13: “Syntheses of novel phenol-type absorbents for decontamination of radioactive elements from contaminated water containing seawater”
Yuki Yamazaki¹, Yu Tachibana¹, Toshitaka Kaneshiki², Masao Nomura², Tatsuya Suzuki¹ (1 NUT, Japan, 2 Tokyo Institute of Technology, Japan)

Doctoral Safety Paradigm Course (Chairperson: Prof. Kiyoshi Ohishi)

- SP-14: “Application of Fault Tree Analysis for Cyber Security: A Case Study of Myanmar IDN registration System”
Tin Htay Hlaing, Yoshiki Mikami (NUT, Japan)
- SP-15: “An Assessment of Early Radionuclide Doses to Human: A Case Study of Hypothetical Reactor Accident in Ninh Thuan Province, Vietnam”
Ho Quoc Dung, Yoshiki Mikami (NUT, Japan)
- SP-16: “Crystal Morphology and Mechanical Properties in Transparent Glass-ceramics with Nanocrystals”
Kenji Shinozaki, Tsuyoshi Honma, Takayuki Komatsu (NUT, Japan)
- SP-17: “Analysis of Global Commitment and Policy Convergence in Occupational Safety and Health Standards”
Lien Thi Quynh Le, Yoshiki Mikami (NUT, Japan)
- SP-18: “Analysis of the accident occurrence characteristic based on the life cycle statistics of the consumers' durables goods”
Batumengke, Yoshiki Mikami (NUT, Japan)
- SP-19: “A Tentative Plan Including the Viewpoint of Safety in the Land Use Plan in Japan”
Yuya Sato, Bumpei Nakade (NUT, Japan)
- SP-20: “Advanced Contact Detection Method for Industrial Robot Without Force Sensor”
Naoki Shimada, Takashi Yoshioka, Kiyoshi Ohishi, Toshimasa Miyazaki, Yuki Yokokura (NUT, Japan)
- SP-21: “Proposal of Monitoring System using Vision Based Protective Device for Industrial Robot”
Takashi Yoshioka, Naoki Shimada, Kiyoshi Ohishi, Toshimasa Miyazaki, Yuki Yokokura (NUT, Japan)

General Safety Engineering Topics

- SP-22: “Vibration Isolation Stand for Transporting the Injured using Pleasure Boat”
Yoshiaki Mitsuma¹, Shigehiro Toyama¹, Fujio Ikeda¹, Hiroaki Seta² (1 Nagaoka National College of Technology, Japan, 2 Toba National College of Maritime

Technology ,Japan)

- SP-23: “Experimental Study on Turn Operation of 3D Quasi-Passive Dynamic Walking Robot”
Fujio Ikeda¹, Shigehiro Toyama¹, Yuki Hirasawa² ((1 Nagaoka National College of Technology, Japan,2 NUT ,Japan)
- SP-24: “Factors for Breaking Back Float Position Carried out By Victim of Water Accident”
Takahiko Kimura, Hidetoshi Saitoh, and Akira Shionoya (NUT, Japan)
- SP-25: “Study on the mechanism of market supervision based on product-related injury surveillance system”
KunZhang¹, JinxingWang¹, Yoshiki Mikami²
(1 Henan Polytechnic University, P.R. China, 2 NUT, Japan)