International Program Committee

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- Gilles Bignan, CEA-France (IGORR Chairman)
- Edward Bradley, IAEA-Austria (Scientific Secretary)
- Deshraj Rao, IAEA-Austria (Scientific Secretary)
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- Heiko Gerstenberg, FRM II -Germany
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- Kihong Lee (Neutron Beam Research, Director)
- Sangjun Park (Irradiation Service, Director)
- Sunju Choi (RI Production, Director)
- Sooyoul Oh (JRTR, PM)
- Sangik Wu (Kijang RR, PM)
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- Myungro Kim (Project Development, Director)

Secretariat

- Sunju Choi (Secretary General)
- Myongseop Kim
- Jaekwon Lee
- Eunjoo Shin
- Sunghee Jung (Chief Secretary)
Call for papers

The 15th IGORR (International Group On Research Reactors) conference combined with an IAEA Technical Meeting in cooperation with the IAEA will be hosted by KAERI in 2013 at Daejeon Convention Center (DCC) in Korea. Technical tours of Korea's nuclear technology facilities (HANARO, Fuel Factory, TH Experimental Facilities, NPP) will be provided.

The International Program Committee is calling for both oral and poster presentations in the following areas:

- **Operation and Maintenance** – Experiences during reactor operation and maintenance, training / staff succession planning
- **Ageing, Modernization and Refurbishment** – Ageing management program; Experiences related to facility ageing, upgrade, non-destructive examination / in-service inspection of reactor core or primary components (NDE/ISI), modernization and refurbishment.
- **Safety of Research Reactor** – Any issues related to safety of reactor facility, people, and environment;
- **International Issues** – Issues related on the lessons from Fukushima events (Safety Reassessments-Refurbishments) or on the public acceptance and regulation changes
- **New Research Reactor Project** – National and regional plans for new research reactors; Lessons learned from building and operating new research reactors;
- **Utilization** – Research reactor services; Utilization experience and good practices in the fields of research & development, education & training and industrial applications
- **Secondary Sources** (cold, ultra-cold, hot) for Neutron Beams Research Reactors
- **RI Production** – Production of medical and industrial Radio-Isotopes
- **NTD** – Irradiation of silicon ingots; Application of NTD semiconductors
- **Irradiation Technology** – Irradiation and post examination of materials and fuels
- **Innovative Methods in Research Reactor Analysis and Design** – Core-Physics calculation and experiments; Methods and tools for research reactor core analysis and design; Nuclear safety assessment methods and improvements for research reactors
- **Fuel** – Development and qualification of new research reactor fuels, Fuel in core management and safety, Spent fuel storage, corrosion and degradation, Fuel cycle physics

**Important Dates**

- Extended deadline for abstract submission: 17 May 2013 31 May 2013
- Notification of authors: 30 June 2013
- Deadline for full paper submission: 31 August 2013 15 September 2013
- Deadline for submission of PowerPoint presentations: 30 September 2013
- Conference: 13 - 18 October 2013
Abstract review
The abstracts received will be reviewed under the auspices of the International Program Committee. Authors will be notified of paper acceptance by 30 June 2013.

Instructions for authors
• Your full paper must be uploaded by 31 August 2013
• Your Power Point presentation must be in our possession by 30 September 2013
• Download instructions for authors

Publication Policy
The proceedings of IGORR 2013 & IAEA TM will be published on the IGORR 2013 conference website (www.igorr.com)

Secretariat
Please don’t hesitate to contact the IGORR 2013 Secretariat if you have any questions:
• Tel: 82-42-868-8057
• Fax: 82-42-862-6980
• eMail: secretariat@igorr2013.org
• Web: www.igorr2013.org
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<th>Monday, 14th October</th>
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<th>Wed.(10.16)</th>
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<th>Friday, 18th October</th>
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<td>14:00</td>
<td>Innovative Methods-1 A. Hawari</td>
<td>Safety of RR-1M. Sumfield</td>
<td>13:30 Fuel E.Koonen</td>
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<td>13:30 New RR Project-1 H.S. Jung</td>
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<td>15:40</td>
<td>Ageing-2 D. Rao</td>
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<td>Coffee break</td>
<td>Post session Vote for the 3 best posters</td>
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<td>17:00-19:00</td>
<td>Registration Reception</td>
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**Social Events**

**Technical Tour**

HANARO and Facilities

**Coffee break**

**Lunch** (Rm202)

**End of the conference**

**Banquet / Best Posters Awards** (Rm201)
201
- Ageing-1
- Banquet / Best Posters Awards
- Closing Session
- International Topics
- Opening Session

202 Lunch Reception

203
- IGORR Steering Committee Meeting
- Chair Meeting
### Invited speakers

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<th>Paper title</th>
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<td>Mr. Deshraju V.H. Rao</td>
<td>A systematic programme for ageing management of research reactors</td>
</tr>
<tr>
<td>Mr. Hyungkyoo Kim</td>
<td>Ageing management program of HANARO for continuous operation</td>
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<tr>
<td>Prof. Ken Nakajima</td>
<td>Safety Re-evaluation of Kyoto University Research Reactor by reflecting the Accident of Fukushima Daiichi Nuclear Power Plant</td>
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<td>Dr. Edgar Koonen</td>
<td>BR2: 50 years and still going strong</td>
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<td>Dr. Soo-Youl Oh</td>
<td>Status of Jordan Research and Training Reactor Project</td>
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<tr>
<td>Mr. Jerome Estrade</td>
<td>JULES HOROWITZ REACTOR: ORGANISATION FOR THE PREPARATION OF THE COMMISSIONING PHASE AND NORMAL OPERATION</td>
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<tr>
<td>Mr. Kulbir Singh</td>
<td>An Innovative In-Core Sodium Loop for Irradiation of Multiple Samples at High Temperatures: Design and Development</td>
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<td>Mr. Mark Summerfield</td>
<td>The Periodic Safety Review of ANSTO’s OPAL Reactor</td>
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<td>Mr. Young Soo Kwon</td>
<td>Life Cycle Management at the High Flux Isotope Reactor</td>
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<td>Mr. Juan Pablo Ordonez</td>
<td>Nuclear research reactors activities in INVAP</td>
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<td>Prof. Sunday Jonah</td>
<td>Planning and Implementation of a TC Project for Acquisition of a New Research Reactor for Multipurpose Applications in Nigeria</td>
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<tr>
<td>Ms. Zarina Masood</td>
<td>Refurbishment and Modernisation of PUSPATI TRIGA Reactor and Lessons Learnt</td>
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Venue

Daejeon Convention Center (DCC)

Daejeon Convention Center (DCC) is equipped with a lot of professional and convenient conference facilities: all technical devices, 2 restaurants, a business center, a convenient store, a flower shop and a tour agency. Moreover, Daejeon Convention Center (DCC) offers a one-stop service from planning to execution processes on conventions, exhibitions, and events by directly operating and managing DCC Korea. All equipment is state-of-the-art and will surely meet all participants of IGORR 2013 & IAEA TM.

The convention Complex looks down on the Gapcheon river, where Daejeon citizen enjoy the recreation and picnics. It is only 10-minute walking distance from the Convention Complex to Daejeon Culture & Arts Center, Municipal Museum of Arts, Hanbat Arboretum which is the Korea’s biggest artificial metropolitan arboretum. Moreover, there are Daedeok Innopolis, National Science Museum, and Expo Park near by the Convention Complex, which provide experiences to the latest science and technology. A lot of wonderful hotels, restaurants and stores are located closer to DCC within 10~20min. Car distance and diverse travel sources around DCC will make your visit to Korea more exciting and rewarding.

- Address: 4-19, Doryong-dong, Yuseong-gu, Daejeong, Korea
- Tel: 82-42-821-0143
Monday, 14 October 2013

08:50 - 09:30   Opening Session (Room 201)

Ageing – 1 (Room 201, Chair: G. Bignan)

09:30 - 10:00   Deshraju V. H. Rao, IAEA, Austria
A systematic programme for ageing management of research reactors

10:00 - 10:20   Giovanni Margrotti, University of Pavia, ITALY
Operational experience on ageing management at the TRIGA research reactor of LENA (Laboratory of Applied Nuclear Energy)

10:20 - 10:50   Hyungkyoo Kim, Korea Atomic Energy Research Institute, Korea
Ageing management program of HANARO for continuous operation

10:50 - 11:10   Oleksii Diakov, Institute for Nuclear Research, Kiev, Ukraine
Implementation of research reactor ageing management programme at KINR WWR-M reactor

11:10 - 11:30   Coffee Break

International Topics (Room 201, Chair: E. Bradley)

11:30 - 12:00   Ken Nakajima, Kyoto University, Japan
Safety Re-evaluation of Kyoto University Research Reactor by reflecting the Accident of Fukushima Daiichi Nuclear Power Plant

12:00 - 12:20   Andrea Borio di Tigliole, IAEA, Austria
IAEA international centers based on research reactors (ICERR): A new initiative to support and assist member states embarking in nuclear programmes

12:20 - 12:40   Sang Shim, Canadian Nuclear Safety Commission, Canada
CNSC Design Requirements for Small Reactor Facilities (Focus on Differences from those for NPPs)

12:40 - 14:00   Lunch (Room 202)

Innovative Methods – 1 (Room 107, Chair: A. Hawari)

14:00 - 14:20   Loic BARBOT, CEA, French Atomic Commission, France
OPAL REACTOR: Calculation/Experiment comparison of Neutron Flux Mapping in Fuel Coolant Channels
14:20 – 14:40 **Vincent Roland**, *PSI-EPFL, Switzerland*
NEUTRON NOISE MEASUREMENT AT CROCUS

14:40 – 15:00 **Kelly Jordan**, *University of Florida, U.S.A.*
Validation of Coupled Reactor Physics–Thermalhydraulics Calculations for Research Reactors Cooled by the Laminar Flow of Water

15:00 – 15:20 **Hyung Jin Shim**, *Seoul National University, Korea*
Estimation of Adjoint–Weighted Kinetics Parameters in Monte Carlo Wielandt Calculations

**Safety of Research Reactor – 1 (Room 103, Chair: M. Summerfield)**

14:00 – 14:20 **Jong-Oh Sun**, *Korea Atomic Energy Research Institute, Korea*
Reduction in size of bottom–mounted reactivity control mechanism of research reactor for seismic qualification test

14:20 – 14:40 **Sunjay Mistry**, *AECL, Canada*
Safe operation of the NRU research reactor now and beyond 2021

14:40 – 15:00 **Jeong Chung**, *Korea Atomic Energy Research Institute, Korea*
Influence of single–phase heat transfer correlations on safety analysis of research reactors with narrow rectangular fuel channels

15:00 – 15:20 **Christophe Kassiotis**, *Autorité de Sûreté Nucléaire, France*
Complementary Safety Assessments for Research Reactors for the French Nuclear Safety Authority

15:20 – 15:40 **Coffee Break**

**Ageing – 2 (Room 107, Chair: D. Rao)**

15:40 – 16:00 **Alexander Sapozhnikov**, *Federal Environmental, Industrial and Nuclear Supervision Service of Russia (Rostechnadzor), Russia*
Regulatory approach to safety of long time operating research reactors in Russia

16:00 – 16:20 **Surendra Kumar Agrawal**, *Bhabha Atomic Research Centre, India*
Engineering Change management during Refurbishment and upgradation of Research Reactor Dhruva

16:20 – 16:40 **Kelly Jordan**, *University of Florida, U.S.A.*
Major Refurbishment of the University of Florida Training Reactor
16:40 – 17:00  **Gaëtan Girardin.** *Ecole Polytechnique Fédérale de Lausanne, Switzerland*
Refurbishment of the safety system at the CROCUS reactor

17:00 – 17:20  **Raul Antonio Versaci.** *Comision Nacional de Energia Atomica, Argentina*
Materials surveillance program for the RA10 research reactor

17:20 – 17:40  **Samuel Thugwane.** *National Nuclear Regulator, South Africa*
The NNR requirements to address modification, modernization, refurbishment and ageing management

**IGORR Steering Committee Meeting (Room 203)**

18:10 –              Steering Committee Meeting (Restricted)
Tuesday, 15 October 2013

Irradiation Technology - 1 (Room 107, Chair: J. Estrade)

08:30 - 08:50 Sang Il Choi, Ulsan national institute of science and technology, Korea
Radiation induced growth of zirconium alloy in research reactor

08:50 - 09:10 CHRISTOPHE BLANDIN, CEA/CADARACHE, France
Fuel and material irradiation hosting systems in the Jules Horowitz Reactor

09:10 - 09:30 Heiko Gerstenberg, Technische Universitaet Muenchen, Germany
Commercial Applications at FRM II Based on Neutron Irradiations

09:30 - 09:50 Suk Hoon Kang, Korea Atomic Energy Research Institute, Korea
Radiation Damage of Beryllium Reflector for Research Reactor Application

09:50 - 10:10 Lin-wen Hu, MIT, U.S.A.
Fluoride salt high temperature reactor materials irradiation test at the MIT research reactor

Utilization of Research Reactor - 1 (Room 103, Chair: D. Ridikas)

08:30 - 08:50 WANCHUCK WOO, Korea Atomic Energy Research Institute, Korea
Neutron beam applications for stress and deformation research in engineering materials

08:50 - 09:10 Kenan Unlu, Pennsylvania State University, U.S.A.
Research, Education and Service Utilizations of Breazeale Nuclear Reactor at the Radiation Science and Engineering Center at the Pennsylvania State University

09:10 - 09:30 Francois FOULON, CEA Sacaly, France
EDUCATION AND TRAINING ON ISIS rESEARCH Reactor

09:30 - 09:50 In-Cheol LIM, Korea Atomic Energy Research Institute, Korea
Current Status and prospect of Research Reactor Utilization in Korea

09:50 - 10:10 Douglas Selby, Oak Ridge National Laboratory, U.S.A.
Neutron scattering facilities at the Oak Ridge National Laboratory high flux isotope reactor

10:10 - 10:30 Andrea Salvini, University of Pavia, Italy
Utilization of the TRIGA reactor of the Pavia university
10:30 - 10:50  **Coffee Break**

**Ageing – 3 (Room 107, Chair: J. P. Ordonez)**

10:50 - 11:10  **Timothy Rownes. ANSTO, Australia**  
OPAL Cold Neutron Guide In-Pile Replacement

11:10 - 11:40  **Edgar Koonen. SCK*CEN, Belgium**  
BR2: 50 years and still going strong

11:40 - 12:00  **ANDRZEJ GOLAB, National Centre for Nuclear Research, Poland**  
Ageing Management of Beryllium and Graphite Blocks in Research Reactor MARIA

12:00 - 12:20  **Andrea Borio di Tigliole, IAEA, Austria**  
IAEA Coordinated Research Project on the establishment of a material properties database for irradiated core structural components for continued safe operation and lifetime extension of ageing research reactors

12:20 - 12:40  **Jean-Sébastien ZAMPA, CEA, France**  
Design of a safety modular control system first implemented for the reassessment of OSIRIS irradiation devices

12:40 - 13:30  **Lunch (Room 202)**

**New Research Reactor Project – 1 (Room 107, Chair: H. S. Jung)**

13:30 - 13:50  **Khalid Almarri, Senate Member and Representative of Students of PhD Program in Project Management, United Arab Emirates**  
Developing a framework for a sustainable research reactor program in the UAE

13:50 - 14:10  **Gilles BIGNAN, French Atomic Energy Commission, France**  
The Jules Horowitz Reactor: A new high performances European MTR (Material Testing Reactor) with modern experimental capacities: Toward an IAEA International Centre on Research Reactors (ICERR)

14:10 - 14:30  **Yican Wu, Institute of Nuclear Energy Safety Technology, China**  
Development Plan and R&D Status of China Lead-based Reactor

14:30 - 15:00  **Soo-Youl Oh, Korea Atomic Energy Research Institute, Korea**  
Status of Jordan Research and Training Reactor Project
15:00 – 15:30  Jerome Estrade. Centre de Cadarache, France  
JULES HOROWITZ REACTOR: Organisation for the preparation of the commissioning phase and normal operation

15:30 – 15:50  Alexander TUZOV. MBIR, Russia  
No title

**Fuel (Room 103, Chair: E. Koonen)**

Utilizing the burnup capability in MCNPX to perform depletion analysis of an MNSR fuel

13:50 – 14:10  Yonghee Kim. Korea Advanced Institute of Science and Technology, Korea  
A Novel Plate Fuel Concept Based on Coated Particle Fuel for Research Reactor

**Secondary Source (Room 103, Chair: K. H. Lee)**

14:30 – 14:50  Weijian Lu. Australian Nuclear Science and Technology Organisation, Australia  
Rectification of the OPAL Cold Neutron Source Cryogenic System

14:50 – 15:10  Robert Williams. NIST Center for Neutron Research, U.S.A.  
A liquid deuterium cold neutron source for the NIST research reactor – Conceptual design

15:50 – 16:00  Coffee Break

**Poster session (Vote for the best poster, 1st Floor)**

16:00 – 18:00  SEUNG-GYU DOO. KAERI, Korea  
REPLACEMENT OF HANARO NEUTRON DETECTOR

16:00 – 18:00  Jae-Sam HAN. KAERI, Korea  
The present status of HANARO radiation monitoring system and investigation of the trend

16:00 – 18:00  MUN LEE. KAERI, Korea  
CHARACTERISTICS OF HVAC SYSTEM IN RADIOISOTOPE PRODUCTION FACILITY

16:00 – 18:00  Abdullah Abdullah. Jordan Atomic Energy Commission, Jordan  
Study of different types of underwater measurement methods of physical shape of inner shell for JRTR
16:00 – 18:00  **Nguyen Nhi Dien.**  *Nuclear Research Institute, Vietnam*
Ageing Management and Preventive Measures for Reactor Pool Liners, Beam Tubes and Spent Fuel Storage Tank at the Dalat Research Reactor

16:00 – 18:00  **Edward Oscar.**  *NNRI, Ghana*
Ageing management and refurbishment of Ghana Research Reactor-1 (GHARR-1)

16:00 – 18:00  **PURADWI ISMU WAHYONO.**  *BATAN, Indonesia*
Modification and Continue Monitoring of Kartini Reactor Tank Liner for Long Term Safe Operation

16:00 – 18:00  **Kwon-Yeong Lee.**  *KAERI, Korea*
A LONG-TERM COOLING METHOD FOR RESEARCH REACTORS

16:00 – 18:00  **Hade Elsayed.**  *Egyptian Atomic Energy Authority, Egypt*
CRITICALITY CALCULATIONS FOR A TYPICAL NUCLEAR FUEL FABRICATION PLANT WITH LOW ENRICHED URANIUM

16:00 – 18:00  **Chanatip Tippayakul.**  *Thailand Institute of Nuclear Technology, Thailand*
Major update of Safety Analysis Report for Thai Research Reactor-1/Modification 1

16:00 – 18:00  **SHIN JINSOO.**  *Kyung Hee University, Korea*
Semi–Quantitative Cyber Risk Assessment for Research Reactor

16:00 – 18:00  **Stephane GAILLOT.**  *CEA–France, France*
Jules Horowitz Reactor Project. Fuel irradiation device. Innovative instrumentation proposal for experimental phenomena real time measurement

16:00 – 18:00  **Eugene Park.**  *The Nelson Mandela African Institute of Science and Technology, Tanzania*
SETTING–UP OF REMOTE REACTOR LAB AND TAPPING INTO CARRN FOR DISTANCE EDUCATION AND TRAINING IN NUCLEAR FIELD

16:00 – 18:00  **TaeJoo Kim.**  *KAERI, Korea*
HANARO Neutron Radiography Facility and Fuel Cell Research

16:00 – 18:00  **Yong Sam Chung.**  *KAERI, Korea*
DESIGN AND DEVELOPMENT OF FAST PNEUMATIC TRANSFER SYSTEM (PTS) FOR INSTRUMENTAL NEUTRON ACTIVATION ANALYSIS AT JORDAN RESEARCH REACTOR
16:00 – 18:00 Ladislav Viererbl. *Research Centre Rez, Czech*  
MEASUREMENT OF THERMAL NEUTRON BEAM PARAMETERS IN THE LVR-15 RESEARCH REACTOR

16:00 – 18:00 Daeseong Jo, *KAERI, Korea*  
Neutron and thermal hydraulic analyses of irradiated fuel plates for Molybdenum-99 production

16:00 – 18:00 Haikel Jelassi, *CNSTN, Tunisia*  
NUCLEAR REACTORS AND PRODUCTION OF MEDICAL RADIOISOTOPES: CASE OF THE TUNISIAN SUBCRITICAL ASSEMBLY

16:00 – 18:00 Jintae Hong, *KAERI, Korea*  
DEVELOPMENT OF TOOLS FOR TREATING AN IRRADIATED FUEL ROD ASSEMBLY IN THE POOL OF HANARO

16:00 – 18:00 Kee–Nam CHOO, *KAERI, Korea*  
Development of a Low Temperature Irradiation Capsule for Research Reactor Materials

16:00 – 18:00 Dane Baang, *KAERI, Korea*  
Research Reactor Power Control System Design by MATLAB/SIMULINK

16:00 – 18:00 Florence JEURY, *CEA, France*  
EXPERIMENTAL REASSESSMENT OF CABRI CORE POWER AND MEASUREMENT UNCERTAINTIES

16:00 – 18:00 Young–Wook Tahk, *KAERI, Korea*  
Fuel performance evaluation of mini-plate irradiation test of U-7Mo dispersion fuel for KJRR

16:00 – 18:00 Jinho Oh, *KAERI, Korea*  
Impact Analysis for Fuel Assemblies in Spent Fuel Storage Rack

16:00 – 18:00 Jinbok Choi, *KAERI, Korea*  
Assessment of Structural Integrity of the Pool Door for Research Reactor

**Banquet**  
18:30 – Banquet / Best Posters Awards (Room 201)
Thursday, 17 October 2013

**Innovative Methods – 2 (Room 107, Chair: S. I. Wu)**

08:30 - 08:50  **Xavier Bonnetain**, AREVA TA, France
Contribution of CAD and PLM for research reactors design and construction

08:50 - 09:10  **Hesham Mohammed Nagah Abdou**, INVAP S.E., Argentina
Deterministic Analysis of a Beyond Design Basis Accident in a Low Power, Pin-Type Fuel Research Reactor

09:10 - 09:30  **Patrick Blaise**, CEA Cadarache, France
The EOLE critical facility in support to Experimental Reactor core physics validation: the example of AMMON experimental program for JHR start-up validation

09:30 - 09:50  **Paul C. Brand**, National Institute of Standards and Technology Center for Neutron Research, U.S.A.
NIST Reactor Solves Operational Nuisance Problem Using Novel Application of Vacuum Transfer Technology

09:50 - 10:20  **Kulbir Singh**, Indira Gandhi Centre for Atomic Research, India
An Innovative In-Core Sodium Loop for Irradiation of Multiple Samples at High Temperatures: Design and Development

**Safety of Research Reactor – 2 (Room 103, Chair: C. Pascal)**

08:30 - 09:00  **Mark Summerfield**, ANSTO, Australia
The Periodic Safety Review of ANSTO’s OPAL Reactor

09:00 - 09:20  **Khalil Ur Rahman**, Kyung Hee University, Korea
Study on Optimization of I&C Architecture for Research Reactors Using Bayesian Networks

09:20 - 09:40  **Kelly Jordan**, University of Florida, U.S.A.
A Fully-reconstituted Safety Basis for the University of Florida Training Reactor

09:40 - 10:00  **Hyeonil Kim**, Korea Atomic Energy Research Institute, Korea
Simulation of power maneuvering using coupled analysis of kinetics and thermal-hydraulics in a research reactor

10:00 - 10:20  **Jahirul Haque Khan**, Bangladesh Atomic Energy Commission, Bangladesh
Computational Analysis of Nuclear Safety Parameters of 3 MW TRIGA Mark–II Research Reactor Based on Evaluated Nuclear Data Libraries JENDL–3.3 and ENDF/B–VII.0
10:20 – 10:40  Coffee Break

Ageing - 4 (Room 107, Chair: Z. Masood)

10:40 – 11:00  Shane Kennedy, *Australian Nuclear Science and Technology Organization, Australia*  
Report on the repair of the OPAL neutron beam transport system

11:00 – 11:30  Young Soo Kwon, *Oak Ridge National Laboratory, U.S.A.*  
Life Cycle Management at the High Flux Isotope Reactor

11:30 – 11:50  Florence GUPTA, *Institut de Radioprotection et de Sûreté Nucléaire (IRSN), France*  
Ageing management of AG3NET beam tubes in ORPHEE reactor

11:50 – 12:10  Geni Rina SUNARYO, *Nucelar Energy Agency, Indonesia*  
Recent Status RSG GAS Ageing Management

12:10 – 12:30  Chanatip Tippayakul, *Thailand Institute of Nuclear Technology, Thailand*  
Experience on Maintenance of Thai Research Reactor’s “Small-Section” Pool

12:30 – 12:50  Rakesh Ranjan, *Government of India, India*  
Ageing Management and Refurbishment of Research Reactor Cirus

12:50 – 14:00  Lunch (Room 202)

New Research Reactor Project - 2 (Room 107, Chair: A. Borio)

14:00 – 14:20  Andrea Borio di Tigliole, *IAEA, Austria*  
IAEA GUIDELINES FOR NEW RESEARCH REACTOR PROJECTS

14:20 – 14:40  Sangik Wu, *Korea Atomic Energy Research Institute, Korea*  
New Research Reactor Project in Korea

14:40 – 15:00  Diana NABHAN, *CEA (Commissariat à l’Energie Atomique), France*  
Study of the effect of pH, surface finish and thermal treatment on the corrosion of AlFeNi aluminum alloy

15:00 – 15:30  Juan Pablo Ordoñez, *INVAP, Argentina*  
Nuclear research reactors activities in INVAP

15:30 – 16:00  Sunday Jonah, *Nigeria Atomic Energy Commission, Nigeria*  
Planning and Implementation of a TC Project for Acquisition of a New Research Reactor for Multipurpose Applications in Nigeria
NTD and RI (Room 103, Chair: H. Gerstenberg)

14:00 - 14:20  Byung-jin Jun, Korea Atomic Energy Research Institute, Korea
Design concept of Kijang research reactor for neutron transmutation doping of 300 mm ingots

14:20 - 14:40  Martin Græsvænge Hansen, Topsil Semiconductor Materials A/S, Denmark
NTD Silicon: Product Characteristics, Main Uses and Growth Potential

14:40 - 15:00  Sung-Joon Ye, Seoul National University, Korea
Calibration System for Dosimetry and Radioactivity of Beta-Emitting Sources

15:00 - 15:20  Jean-Pierre Coulon, CEA, France
Production OF Radioisotopes on the Jules Horowitz Reactor

15:20 - 15:40  Jun Sig Lee, Korea Atomic Energy Research Institute, Korea
Progress in Establishment of Fission Mo Production Technology in Korea

16:00 - 16:20  Coffee Break

Operation and Maintenance (Room 107, Chair: R. Williams)

16:20 - 16:40  Anze Jazbec, Jozef Stefan Institute, Slovenia
Periodic Safety review of JSI TRIGA Mark II and inspection of the reactor vessel

16:40 - 17:00  MASAMI KINASE, Japan Atomic Energy Agency (JAEA), Japan
Current status of JRR-3

17:00 - 17:20  Mahmoud Gad, Egyptian Atomic Energy Authority, Egypt
ETRR-2 offsite power supply reliability with consequences of momentary failure

17:20 - 17:40  Cheol PARK, Korea Atomic Energy Research Institute, Korea
Conceptual Study for development of a low power research reactor

Chair Meeting

18:00 - 19:00  Chair Meeting (Restricted, Room 203)
Friday, 18 October 2013

**Ageing – 5 (Room 107, Chair: D. Selby)**

08:30 - 08:50  Ayman I. Hawari, *North Carolina State University, U.S.A.*
PULSTAR Reactor Power Upgrade from 1-MWth to 2-MWth

08:50 - 09:20  Zarina Masood, *Malaysian Nuclear Agency, Malaysia*
Refurbishment and Modernisation of PUSPATI TRIGA Reactor and Lessons Learnt

09:20 - 09:40  Sabrina MELLAL, *COMENA, Algerie*
Ageing management experience at NUR reactor

09:40 - 10:00  M. A. Salam. *Atomic Energy Research Establishment, Bangladesh*
Refurbishment, Modernization and Ageing Management program of the 3MW TRIGA Mark-II Research Reactor of Bangladesh

**Irradiation Technology – 2 (Room 107, Chair: S. J. Park)**

10:00 - 10:20  Man Soon Cho, *Korea Atomic Energy Research Institute, Korea*
Status on Development of High Temperature Irradiation Technology for Future Nuclear System in HANARO

10:20 - 10:40  DANIEL PIERRE PARRAT, *CEA CADARACHE, France*
The future underwater Neutron Imaging System of the Jules Horowitz MTR: An equipment improving the scientific quality of irradiation programs

10:40 - 11:00  Coffee Break

**Closing Session (Room 201, E.Bradley / I.C.Lim / G.Bignan)**

11:00 - 12:40  Feedback from each session topic
Discussions - Highlights
Concluding Remarks

12:40 - 14:00  Lunch (Room 201)