

Croatian Nuclear Society

in cooperation with







12th International Conference of the

C R O A T I A N NUCLEAR SOCIETY

Nuclear Option for CO₂ Free Energy Generation

June 3-6, 2018, Zadar, Croatia Conference Programme

UNDER THE AUSPICES OF

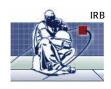




















PROGRAMME COMMITTEE

Ivan VRBANIĆ, Chairman, Croatia

C. Allison, USA

T. Bajs, Croatia

I. Bašić, Croatia

T. Brajković, Croatia

P. Breitenstein, France

D. Conger, USA

N. Čavlina, Croatia

M. Čepin, Slovenia

Z. Čorak, Croatia

F. D'Auria, Italy

V. Dimitrijević, USA

D. Feretić, Croatia

A. Fristedt-Ablad, Sweden F. Reitsma, IAEA

M. Giot, Belgium

D. Grgić, Croatia

J. Haščik, Slovakia

Z. Heruc, Slovenia

A.I. Jalal, IAEA

V. Jelavić, Croatia

I. Jenčič, Slovenia

D. Kavšek, Slovenia

V. Knapp, Croatia

M. Kromar, Slovenia

V. Kuznetsov, IAEA

J. Lebegner, Croatia

A. Lubarsky, Russia

K. Mancheva, Bulgaria

G. Marović, Croatia

B. Mavko, Slovenia

S. Medaković, Croatia

J. Mišák, Czech Republic

M. Modro, USA

T. Nemec, Slovenia

B. Niceno, Switzerland

H. Ninokata, Italy

I. Pasztor, Hungary

H. Perharić, Slovenia

B. Petrović, USA

A. Petruzzi, Italy

D. Pevec, Croatia

A. Prošek, Slovenia

J.M. Garcia Cerecedo, Spain N. Rendić-Miočević, Croatia

F. Reventos, Spain

M. Ricotti, Italy

S. Rimkevicius, Lithuania

S. Rožman, Slovenia

P. Samanta, USA

E. Staron, Poland

Z. Šimić, EC

P. Širola, Slovenia

Ž. Tomšić, Croatia

H. Tuomisto, Finland

B. Tyobeka, South Africa

J.-P. Van-Dorsselaere, France

K. Velkov, Germany

M. Zeljko, Croatia

T. Žagar, Slovenia

ORGANISING COMMITTEE

Siniša ŠADEK, Chairman, Croatia

A. Holjak, Croatia

M. Pavić, Croatia

I. Iveković, Croatia

D. Pevec, Croatia

N. Škorić, Croatia

Ž. Tomšić, Croatia

K. Trontl, Croatia

Š. Vlahović, Croatia

CONFERENCE LOCATION

The conference will take place in the **Hotel Kolovare** in Zadar.

CONFERENCE PROCEEDINGS

All papers, presented orally or as posters, accepted upon peer review are included into the proceedings on memory stick. Book of Abstracts and Conference Proceedings can be found in the conference package.

INFORMATION

For further information and possible questions please refer to the Conference registration desk in the Hotel Kolovare.

SOCIAL EVENTS

WELCOME RECEPTION

The welcome reception will take place on **Sunday**, **June 3**rd **2018**, **at 20:00 h** in the **Hotel Kolovare**, **Wine Boutique area**. You are welcome to attend.

CONFERENCE DINNER

The conference dinner will take place on **Tuesday**, **June 5**th **2018**, in the **Foša Seafood Restaurant** at **20:00 h** in Zadar. The restaurant is within walking distance from the conference venue.

CONFERENCE OVERVIEW

ORAL PRESENTATIONS

From Monday, June 4th, till Wednesday, June 6th, following 9 sessions with oral presentations are foreseen:

- Session 1. **Nuclear Power in Energy and Environmen**tal Planning (NPEP)
- Session 2. Regulatory Practice and Emergency Preparedness (RPEP)

- Session 3. **Operation and Maintenance Experience** (OME)
- Session 4. Power Reactors and Technologies (PRT)
- Session 5. Nuclear Safety Analyses (NSA)
- Session 6. Reactor Physics and Nuclear Fuel Cycle (RPNFC)
- Session 7. Severe Accident Analyses and Risk Assessment (SAA)
- Session 8. Radioactive Waste Management and Decommissioning (RWMD)
- Session 9. Safety Culture, Knowledge Management and Public Relations (SCPR)

INVITED LECTURES

Seven invited lectures will be held in the course of the conference. The details are given in the programme.

ROUND TABLE

A round table discussion on "Knowledge Management's Challenges and Opportunities in Nuclear Safety, Security, Safeguards and Engineering" is taking place on Monday, June 4th 2018, at 17:00 h.

POSTER PRESENTATIONS

Poster session will take place on Tuesday, June 5th 2018, from 14:00 h to 15:00 h.

IAEA PANEL DISCUSSION

A special panel discussion, organized by the IAEA, titled "Technology Developments in Small Modular Reactors and Prospects in Europe as an Emission Free and Flexible Electricity and Heat Source" is taking place on Tuesday, June 5th 2018, from 9:00 h to 11:00 h.

YOUNG AUTHORS AWARD CEREMONY

The Young Authors Award Ceremony will take place on Wednesday, **June 6**th **2018**, during the Conference Closing session.

CONFERENCE

	Sunday, June 3 rd	Monday, June 4 th	
8:00		- Pogistration	
8:30		Registration	
9:00		Welcome Addresses	
9:30		Invited Lectures 1	
10:00		Invited Lectures 2	
10:30		Session 1 NPEP	
11:00		Coffee Break	
11:30			
12:00		Session 2: RPEP	
12:30			
13:00		Lunch Break	
13:30		Lunch Break	
14:00		Invited Lecture 3	
14:30			
15:00		Session 3: OME	
15:30			
16:00		Coffee Break	
16:30		Invited Lecture 4	
17:00		Round Table	
17:30		Round Table	
18:00			
18:30	Conference Registration		
19:00			
19:30			
20:00	Welcome		
20:30	Reception		

Sessions:

NPEP Nuclear Power in Energy and Environmental Planning

RPEP Regulatory Practice and Emergency

Preparedness

OME Operation and Maintenance Experience

PROGRAMME

		1
Tuesday, June 5 th	Wednesday, June 6 th	
		8:00
		8:30
	Invited Lecture 7	9:00
IAEA Panel		9:30
Discussion	Session 6: RPNFC	10:00
		10:30
Coffee Break	Coffee Break	11:00
		11:30
Session 4: PRT	Session 7: SAA	12:00
		12:30
		13:00
Lunch Break	Lunch Break	13:30
		14:00
Poster Session	Session 8: RWMD	14:30
Invited Lecture 5		15:00
Invited Lecture 6	Session 9: SCPR	15:30
Coffee Break	Coffee Break	16:00
	Conference Closing	16:30
Session 5: NSA		17:00
		17:30
		18:00
		18:30
		19:00
		19:30
		20:00
Conference Dinner		20:30

Sessions:

PRT Power Reactors and Technology NSA **Nuclear Safety Analyses**

RPNFC Reactor Physics and Nuclear Fuel Cycle

SAA Severe Accident Analyses and Risk Assessment

RWMD Radioactive Waste Management and Decommissioning **SCPR** Safety Culture, Knowledge Management and Public Re-

lations

CONFERENCE SCHEDULE

MONDAY, June 4th

8:00-9:00	Registration of participants	
9:00-10:30	OPENING SESSION Chairs: Ivica Bašić, Ivan Vrbanić, Siniša Šadek (Croatian Nuclear Society) Welcome Addresses Invited Lectures	
	IL-1 Alastair Laird New Nuclear Build in the UK - Including the Move towards Small Modular Reactors IL-2 Janez Krajnc Krško NPP Safety Upgrade Program - Basis and Scope	
10:30-11:00	Nuclear Power in Energy and Environmental Planning (NPEP) Chairs: Petros Papadopoulos (ENS YGN), Željko Tomšić (FER University of Zagreb, Croatia)	
	S1-162 Paolo Errani, Pierluigi Totaro, Enrico Brandmayr Nuclear Power in Italy: Lost and Potential Role in Decarbonizing the Electric System S1-199 Dinka Lale, Dubravko Pevec, Vladimir Knapp, Mario Matijević A Comparison of Different Nuclear Energy Development Scenarios According to Production of Radioactive Waste	
11:00-11:30	Coffee Break	
11:30-13:00	Regulatory Practice and Emergency Preparedness (RPEP) Chairs: Tomaž Nemec (URSJV, Slovenia), Saša Medaković (DZRNS, Croatia)	
	S2-143 Petr Mach Database Approach for Review and Assessment of NPP Licensing Documentation S2-120 Tomaž Nemec, Andrej Stritar, Djordje Vojnovič, Siniša Cimeša, Tomi Živko Activities of the Slovenian Nuclear Safety Administration related to the Design Extension Conditions and the Severe Accidents	

ſ	1	
	S2-103	Nevenka Novosel Preparation for the IRRS Follow-up Mission in Croatia
	S2-193	Saša Medaković, Davor Rašeta, Davor Grgić Hazard Assessment of NPP Krško for Republic of Croatia
	S2-130	Andreja Peršič
		Design Extension Conditions for Spent Fuel Storage
	S6-107	Zohreh Gholamzadeh, Atiyeh Jozvaziri, Ebrahim Abedi, Seyed Mohammad Mirvakili, Nafiseh Tehrani
		Design of Transport Cask for SFE and CFE Fuel Assemblies of Tehran Research Reactors
	S8-124	Elham Bavarnegin, Zohreh Gholamzadeh, Atiyeh Jozvaziri, Yaser Kasesaz
		Dose assessment for decommissioning plan of some core components of Tehran Research Reactor
13:00-14:00		Lunch Break
14:00-14:30		Invited Lecture
	IL-3	Dorian Conger
		Achieving Balance in the Corrective Action Program
	Оре	eration and Maintenance Experience (OME)
14:30-16:00	Оре	Chairs:
14:30-16:00	Оре	
14:30-16:00		Chairs: Predrag Širola (NPP Krško, Slovenia),
14:30-16:00		Chairs: Predrag Širola (NPP Krško, Slovenia), Mario Gluhak (NPP Krško, Slovenia) Sung Hwan Kim, Il Seon Hwang, Kwang Jeok Ko, Min Gyu Kim, Yeon Ho Cho, Hyun Min Kim Development and Application of the Spent Fuel
14:30-16:00	S3-102	Chairs: Predrag Širola (NPP Krško, Slovenia), Mario Gluhak (NPP Krško, Slovenia) Sung Hwan Kim, Il Seon Hwang, Kwang Jeok Ko, Min Gyu Kim, Yeon Ho Cho, Hyun Min Kim Development and Application of the Spent Fuel Transfer Device in APR 1400 NPPs Miodrag Stručić, Miguel Peinador Veiera, Tea
14:30-16:00	S3-102	Chairs: Predrag Širola (NPP Krško, Slovenia), Mario Gluhak (NPP Krško, Slovenia) Sung Hwan Kim, Il Seon Hwang, Kwang Jeok Ko, Min Gyu Kim, Yeon Ho Cho, Hyun Min Kim Development and Application of the Spent Fuel Transfer Device in APR 1400 NPPs
14:30-16:00	\$3-102 \$3-129	Chairs: Predrag Širola (NPP Krško, Slovenia), Mario Gluhak (NPP Krško, Slovenia) Sung Hwan Kim, Il Seon Hwang, Kwang Jeok Ko, Min Gyu Kim, Yeon Ho Cho, Hyun Min Kim Development and Application of the Spent Fuel Transfer Device in APR 1400 NPPs Miodrag Stručić, Miguel Peinador Veiera, Tea Bilić Zabric International Reporting System Events
14:30-16:00	\$3-102 \$3-129	Chairs: Predrag Širola (NPP Krško, Slovenia), Mario Gluhak (NPP Krško, Slovenia) Sung Hwan Kim, Il Seon Hwang, Kwang Jeok Ko, Min Gyu Kim, Yeon Ho Cho, Hyun Min Kim Development and Application of the Spent Fuel Transfer Device in APR 1400 NPPs Miodrag Stručić, Miguel Peinador Veiera, Tea Bilić Zabric International Reporting System Events Detection Mode Trends Hrvoje Grganić, Marko Valjak, Gregor Škorc, Luka Romac Ensuring Electromagnetic Compatibility in Nuclear Power Plant beyond Equipment
14:30-16:00	\$3-102 \$3-129 \$3-137	Chairs: Predrag Širola (NPP Krško, Slovenia), Mario Gluhak (NPP Krško, Slovenia) Sung Hwan Kim, Il Seon Hwang, Kwang Jeok Ko, Min Gyu Kim, Yeon Ho Cho, Hyun Min Kim Development and Application of the Spent Fuel Transfer Device in APR 1400 NPPs Miodrag Stručić, Miguel Peinador Veiera, Tea Bilić Zabric International Reporting System Events Detection Mode Trends Hrvoje Grganić, Marko Valjak, Gregor Škorc, Luka Romac Ensuring Electromagnetic Compatibility in Nuclear Power Plant beyond Equipment Qualification Tests
14:30-16:00	\$3-102 \$3-129 \$3-137	Chairs: Predrag Širola (NPP Krško, Slovenia), Mario Gluhak (NPP Krško, Slovenia) Sung Hwan Kim, Il Seon Hwang, Kwang Jeok Ko, Min Gyu Kim, Yeon Ho Cho, Hyun Min Kim Development and Application of the Spent Fuel Transfer Device in APR 1400 NPPs Miodrag Stručić, Miguel Peinador Veiera, Tea Bilić Zabric International Reporting System Events Detection Mode Trends Hrvoje Grganić, Marko Valjak, Gregor Škorc, Luka Romac Ensuring Electromagnetic Compatibility in Nuclear Power Plant beyond Equipment Qualification Tests Jiri Randa Analysis of Open Phase Condition Impact on
14:30-16:00	\$3-102 \$3-129 \$3-137	Chairs: Predrag Širola (NPP Krško, Slovenia), Mario Gluhak (NPP Krško, Slovenia) Sung Hwan Kim, Il Seon Hwang, Kwang Jeok Ko, Min Gyu Kim, Yeon Ho Cho, Hyun Min Kim Development and Application of the Spent Fuel Transfer Device in APR 1400 NPPs Miodrag Stručić, Miguel Peinador Veiera, Tea Bilić Zabric International Reporting System Events Detection Mode Trends Hrvoje Grganić, Marko Valjak, Gregor Škorc, Luka Romac Ensuring Electromagnetic Compatibility in Nuclear Power Plant beyond Equipment Qualification Tests Jiri Randa Analysis of Open Phase Condition Impact on Electrical Systems of NPP Nikola Bunčić, Marko Čanađija, Marko
14:30-16:00	\$3-102 \$3-129 \$3-137	Chairs: Predrag Širola (NPP Krško, Slovenia), Mario Gluhak (NPP Krško, Slovenia) Sung Hwan Kim, Il Seon Hwang, Kwang Jeok Ko, Min Gyu Kim, Yeon Ho Cho, Hyun Min Kim Development and Application of the Spent Fuel Transfer Device in APR 1400 NPPs Miodrag Stručić, Miguel Peinador Veiera, Tea Bilić Zabric International Reporting System Events Detection Mode Trends Hrvoje Grganić, Marko Valjak, Gregor Škorc, Luka Romac Ensuring Electromagnetic Compatibility in Nuclear Power Plant beyond Equipment Qualification Tests Jiri Randa Analysis of Open Phase Condition Impact on Electrical Systems of NPP Nikola Bunčić, Marko Čanađija, Marko Budimir
14:30-16:00	\$3-102 \$3-129 \$3-137	Chairs: Predrag Širola (NPP Krško, Slovenia), Mario Gluhak (NPP Krško, Slovenia) Sung Hwan Kim, Il Seon Hwang, Kwang Jeok Ko, Min Gyu Kim, Yeon Ho Cho, Hyun Min Kim Development and Application of the Spent Fuel Transfer Device in APR 1400 NPPs Miodrag Stručić, Miguel Peinador Veiera, Tea Bilić Zabric International Reporting System Events Detection Mode Trends Hrvoje Grganić, Marko Valjak, Gregor Škorc, Luka Romac Ensuring Electromagnetic Compatibility in Nuclear Power Plant beyond Equipment Qualification Tests Jiri Randa Analysis of Open Phase Condition Impact on Electrical Systems of NPP Nikola Bunčić, Marko Čanađija, Marko

	S3-235 Gordan Janković Krško NPP Experience with RTD Bypass Elimination	
16:00-16:30	Coffee Break	
16:30-17:00	Invited Lecture	
	IL-4 Zdenko Šimić Operating Experience and Nuclear Safety	
17:00-18:00	Round Table: Knowledge Management's Challenges and Opportunities in Nuclear Safety, Security, Safeguards and Engineering Chair: Franck Wastin (EC-JRC Petten, The Netherlands) Panelists: Bojan Petrović (Georgia Institute of Technology, USA), Nikola Čavlina (FER University of Zagreb, Croatia)	

TUESDAY, June 5th

8:30-9:00	Pogistration of participants	
0.30-3:00	Registration of participants	
9:00-11:00	IAEA Panel Discussion: Technology Developments in Small Modular Reactors and Prospects in Europe as an Emission Free and Flexible Electricity and Heat Source Chairs:	
	Frederik Reitsma, Christoph Henrich (IAEA, Austria)	
11:00-11:30	Coffee Break	
	Power Reactors and Technologies (PRT)	
11:30-13:00	Chairs: Frederik Reitsma (IAEA, Austria), Nikola Čavlina (FER University of Zagreb, Croatia)	
	S4-250 Frederik Reitsma, M. Hadid Subki The IAEA Support to Member States to Facilitate Capacity Building for Small Modular Reactors in Advanced Technology Development and Utilization	
	S4-230 Marin Constantin ALFRED Demonstrator as a Crucial Step for LFR SMR Development – Stepwise Approach for the Implementation in Romania	
	S4-241 Evžen Losa, Miloš Tichý, Ľubomír Sklenka Small Modular Reactors as a Part of Carbon Free Solution for the Czech Republic	
	S4-243 Melpomeni Varvayanni, Panayiota Savva, Nicolas Catsaros	
	SMRs Implementation Potentialities in the Greek Environment	
	S4-245 Dominique Hittner, Michael Fütterer, Grzegorz Wrochna	
	Nuclear Cogeneration of Heat and Power: An Asset for Sustainable Development. Why and how? A European Approach	
	S4-246 Rauli Ilmari Partanen, Ville Aleksis Tulkki Decarbonizing Municipal Energy Use With Nuclear Energy	
	S4-252 Frank Yulong Wu The Status of the HTR-PM Project in China	
13:00-14:00	Lunch Break	
14:00-15:00	Poster Session Chair: Krešimir Trontl (FER University of Zagreb, Croatia)	
	S1-101 Sergiu Robu The Possible Role of Small and Modular Reactors to Paris Commitments of the Republic of Moldova	

S1-192 Željko Tomšić

Electricity Market and Energy Policies Uncertainties for Investment in Life Time Operation of Nuclear Power Plants

S2-179 Darko Cicvarić

Construction of the Emergency Control Room at NPP Krško

S3-117 Hrvoje Lukačević

Operation of Auxiliary Feedwater Turbine Driven Pump Used in Nuclear Power Plant Krško

S3-118 Ivan Hrabar, Antonio Petošić, Petar Franček, Marko Budimir

Possibilities of Reliable Ultrasonic Detection of Subwavelength Pipework Cracks

S3-144 Petar Vejić, Jurica Vugrin, Marko Budimir

Ultrasonic Inspection Scanner for Early Detection of Defects in Industrial Pipelines

S3-152 Sanja Smirić, Saša Šupica

Surface Repair and Anticorrosion Protection of Component Cooling Heat Exchanger (CC101HEX-002) Internal Surfaces

S3-171 Davorin Marić, Nataša Kovjanović, Amir Beširević, Zdravko Huzak

Testing and Diagnostic of Electronics Printed Circuit Boards at NPP Krško

S3-172 Robert Kelavić, Marko Turalija

Sludge Removal Activities in Krško NPP Steam Generators During the Outage

S3-191 Dragoslav Djaković

Welding Quality Guidelines at Krško NPP

S3-196 Zdenko Šimić, Barbara Fernandez Andújar, Miguel Peinador Veira

Topical Study on Flooding and Flooding Protection Related Events

S3-228 Violeta Čalić

Passive Autocatalytic Recombiners Periodic Testing Issue

S5-140 Anuj Trivedi, Marina Perez-Ferragut, Z. Fu, Chris Allison

Implementation of sodium single phase properties in RELAP/SCDAPSIM and preliminary assessment for EBR-II SHRT-17

S5-141 Klemen Debelak, Luka Štrubelj

Comparing Analysis of Loss of Coolant Accident on Bethsy Facility with Apros 6.05 and 6.06

S5-142 Vesna Benčik, Davor Grgić, Siniša Šadek, Štefica Vlahović

NPP Krško 3 inch Cold Leg Break LOCA Calculation using RELAP5/MOD 3.3 and MELCOR 1.8.6 Codes

S5-163 Andrej Prošek, Mitja Uršič

Review of Design Extension Conditions Experiments and Analyses for Non-degraded Core

S6-115 Zohreh Gholamzadeh, Atyeh Jozvaziri, Elham Bavarnegin, Seyed Mohammad Mirvakili, Yeser Kasesaz, Mahdi Keivani, Omid Borojerdi Computational Study of Decommissioning of Silver-Indium-Cadmium Alloy Control Rods of Tehran Research Reactor at the End of Their

S6-122 Zohreh Gholamzadeh, Elham Bavarnegin, Atiyeh Jozvaziri, Mohadeseh Golshanian

Dose Mapping around the Tehran Research Reactor after the Core Coolant Loss Accident

S6-123 Elham Bavarnegin, Zohreh Gholamzadeh, Atiyeh Jozvaziri

Investigation of Possibility of the C-14 Radioisotope Standard Source Production in Tehran Research Reactor

S6-149 Paulina Dučkić, Krešimir Trontl, Dubravko Pevec, Mario Matijević

Total Ambient Dose Equivalent Neutron **Buildup Factor Calculation Using TART**

S6-154 Mario Matijević, Dubravko Pevec, Bojan Petrović

PARTISN5.97 Code Verification Using keff Analytical Benchmarks

S6-155 Paulina Dučkić, Krešimir Trontl, Davor Grgić, Mario Matijević

Point Kernel Code Modification Including Support Vector Regression Neutron Buildup Factor Model

S6-157 Mario Matijević, Krešimir Trontl, Paulina Dučkić, Davor Grgić

Hybrid Shielding Methods Validation Using **Graphite Shielding Measurements**

S6-168 Radomir Ječmenica, Davor Grgić, Mario Matiiević

Influence of Spacer Grids Homogenization on Core Reactivity and Axial Power Distribution

S6-177 Martin Chambers, Bojan Kurinčič **Fuel Assembly Performance**

S7-105 Reni Banov, Zdenko Šimić, Davor Šterc BDD Based Fault Tree Analysis in Brief

S7-125 Mitja Uršič, Matjaž Leskovar, Vasilij Centrih Study on Premixture Formation During Fuel-Sodium Interaction

S7-167 Štefica Vlahović, Davor Grgić, Radomir Ječmenica, Ivica Bašić

Calculation of Radioactive Inventory for Severe Accident and Consequence Codes

S7-170 Siniša Šadek, Davor Grgić, Vesna Benčik, Kristina Mileta, Srđan Špalj

Influence of Detailed PCFV Model on Containment Behaviour During SBO

S7-176 Ivica Bašić, Ivan Vrbanić, Davor Grgić, Mario Mihalina

Potential Impact of Reactor Core Damage on Severe Accident Management Actions in Vicinity of Spent Fuel Pool

S7-178 Ivan Vrbanić, Ivica Bašić, Pranab K. Samanta

Basic Relation between RAW and RRW and Some of Its Implications on Risk Reduction Strategies

S7-180 Robert J. Lutz, George L. Vayssier

New Lessons of the Fukushima Accident for Severe Accident Management Guidance - Some Important Short Term and Long Term Aspects

S8-126 Alemka Knapp, Ivica Levanat, Diana Šaponja-Milutinović

Issues in Croatian Plans for Radioactive Waste Management

S8-159 Brigita Masnjak, Vladimir Jelavić

The Main Results of the Strategic Environmental Assessment of the National Programme for Implementation of the Radioactive Waste Disposal Strategy in Croatia

S8-183 Ivica Prlić

Environmental habit monitoring Program – EHMP; implementing systematic research and monitoring of ionizing radiation in Sisak Moslavacka municipality across the Dvor county - subject for discussion

S8-184 Ivica Prlić, Mladen Hajdinjak

A citizen monitoring network around future Croatian RadWaste Centre - a pilot project proposal and subject for discussion

S9-147 Krešimir Trontl, Dubravko Pevec, Ana Holjak, Mario Matijević, Paulina Dučkić, Radomir Ječmenica, Andrea Rapić

Student Polling on Nuclear Energy and Radioactive Waste Management

S9-166 Irena Jakić, Renato Filipin

Analysis of public opinion survey "Nuclear energy - the present and the future" (2000-2017)

15:00-16:00 Invited Lectures IL-5 Petros Papadopoulos How Nuclear Energy can help to meet the Paris Agreement IL-6 Jose R. Maiorino, Francesco D'Auria, Reza Akbari An overview of Thorium Utilization in Nuclear

Reactors and Fuel Cycles

16:00-16:30	Coffee Break	
16:30-18:00	Nuclear Safety Analyses (NSA) Chairs: Marko Čepin (University of Ljubljana, Slovenia), Davor Grgić (FER University of Zagreb, Croatia)	
	S5-132 Katarzyna Skolik, Anuj Trivedi, Marina Perez- Ferragut, Chris Allison	
	Integrated Uncertainty Analysis of the Turbine Trip Transient in NuScale SMR using RELAP/ SCDAPSIM	
	S5-139 Anuj Trivedi, Marina Perez-Ferragut, Judy K. Hohorst, Chris Allison	
	Integrated Uncertainty Analysis of LBLOCA in AP1000 Using RELAP/SCDAPSIM	
	S5-146 Marko Čepin Use of Simplified Nuclear Power Plant Simulator	
	S5-153 Vaclav Hakl, Petr Dlabal Functional analysis (FA) as a tool for demonstrating the preservation of independence of individual levels in Defence in Depth (DiD) for the design of the NPP Dukovany	
	S5-174 Davor Grgić, Tomislav Fancev, Siniša Šadek, Vesna Benčik, Srđan Špalj Fuel Handling Building Response to SFP Loss of Cooling	
	S5-248 Francesco D'Auria, Nenad Debrecin, Horst Glaeser	
	Introduction of an Additional Safety Barrier for Nuclear Power Reactors	
20:00	Conference Dinner	

WEDNESDAY, June 6th

9:00-9:30	Invited Lecture
	IL-7 Milutin Jevremović, Jadranka Djuričić, Dalibor Arbutina, Nataša Lazarević, Ivan Knežević Activities Related to Solving Legacy Radioactive Waste and Decommissioning of Old Radioactive Waste Storage Facilities
	Reactor Physics and Nuclear Fuel Cycle (RPNFC)
9:30-11:00	Chairs: Bojan Petrović (Georgia Institute of Technology, USA), Marjan Kromar (Jožef Stefan Institute, Slovenia)
	S6-194 Bojan Petrović, Timothy Flaspoehler, Kyle Ramey
	Benchmarking FHR Core Physics Simulations: 2D Fuel Assembly Model
	S6-116 Ján Haščík, Filip Osuský, Štefan Čerba, Jakub Lüley, Branislav Vrban
	Coupled Neutronics and Thermal-Hydraulics Calculation of the GFR 2400 Core with Reflector
	S6-156 Mario Matijević, Dubravko Pevec, Krešimir Trontl, Bojan Petrović
	PCA Benchmark Analysis with ADVANTG3.0.1 and MCNP6.1.1b Codes
	S6-110 Reza Akbari, Jose R. Maiorino, Francesco D'Auria, Dariush Rezaei
	Conversion of Small Modular Reactors fuel to use mixed (U-Th)O2 fuel
	S6-127 Marjan Kromar, Bojan Kurinčič Assessment of the Photon and Neutron Source Term for the NPP Krško Spent Fuel
	S6-106 Grigory Ponomarenko Innovation in Power Maneuvering Mode for NPP Hanhikivi with WWER-1200 Reactor
11:00-11:30	Coffee Break
	Severe Accident Analyses and Risk Assessment (SAA)
11:30-13:00	Chairs: Robert Prior (R. P. Safety Consulting Ltd., UK), Ivica Bašić (APOSS d.o.o., Croatia)
	S7-202 Robert Prior, Arunas Bieliauskas, Laura Genutis, Anthony Nowinowski, Kyle Shearer, Bruno Glaser, Stanko Manojlović, Robi Jalovec, Mirko Bevc Validating the PWROG International Plant
	SAMG using the Krško Full Scope Simulator S7-185 George L. Vayssier, Robert J. Lutz, Yasunori Yamanaka The Risks of Late Portable Injection during a Severe Accident
•	

1	
	S7-109 Takuya Yamashita, Ikken Sato, Yuta Abe, Toshio Nakagiri, Akihiro Ishimi, Yuji Nagae The CMMR Program: BWR Core Degradation in the CMMR-1 and the CMMR-2 Tests
	S7-165 Luka Štrubelj, Evelyne Foerster, Giuseppe Rastiello, James Daniell, Behrooz Bazargan- Sabet, Pierre Gehl, Philip J. Vardon, Varenya Kumar Duvvuru Mohan The Goal of the New Approach to Reactor
	Safety Improvements Project S7-175 Štefica Vlahović, Davor Grgić, Josip Đaković, Siniša Šadek, Ivica Bašić Effectiveness of SFP Spray Cooling during Loss
	of Coolant Accidents S7-173 Davor Grgić, Štefica Vlahović, Mario Matijević, Paulina Dučkić, Srđan Špalj Dose Calculation for Emergency Control Room HVAC Filter
13:00-14:00	Lunch Break
14:00-15:00	Radioactive Waste Management and
	Decommissioning (RWMD)
	Chairs: Tomaž Žagar (GEN energija d.o.o., Slovenia),
	Milutin Jevremović (PC NFS, Serbia)
	S8-161 Ondrej Uhrik, Peter Gerhart, Tomas Hrncir Experience from Decommissioning and Radioactive Waste Management in the Slovak Republic
	S8-158 Vladislav Krošelj, Jože Kerin, Peter Požun Radwaste Management at Krško NPP – While Waiting for Repository
	S8-135 Dalibor Arbutina, Milutin Jevremović, Jadranka Djuričić, Nataša Lazarević, Ivan Knežević
	Upgrading of National Capabilities in the field of Radioactive Waste Management in Serbia
	S8-169 Tomaž Žagar Multinational Approaches to Spent Fuel and High Level Waste Disposal – Overview of Recent Developments
15:00-16:00	Safety Culture, Knowledge Management and Public Relations (SCPR)
15:00-16:00	Chairs: Sanda Pleslić (FER University of Zagreb, Croatia), Zdenko Šimić (JRC Petten, EC)
	S9-131 Jure Jazbinšek, Garsia Kosinac, Anže Molan Interactive simulator of NPP Krško (NEK) start- up sequence

25.55 17.65	Ivica Bašić, Ivan Vrbanić, Siniša Šadek (Croatian Nuclear Society)
16:30-17:00	Conference Closing
16:00-16:30	Coffee Break
	3rd European Radiological Protection Research Week (3rd ERPW2018) in Croatia
	S9-181 Ivica Prlić, Marija Surić Mihić, Luka Pavelić, Želimir Veinović, Ana Mostečak
	Organizational Culture Embedded in Organizational Knowledge
	S9-249 Sanda Pleslić
	The Challenge for Small Countries to foster Nuclear Knowledge to assure independent Nuclear Safety Assessments
1	S9-164 Petros Papadopoulos, Moritz Vischer

CONFERENCE SPONSORED BY



CROATIAN NUCLEAR POOL



















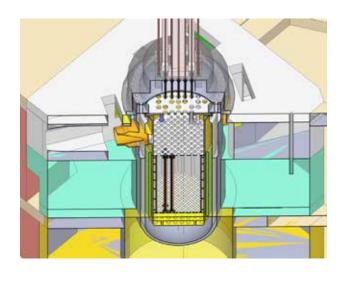














Zadar 3-6 June, 2018