



		Room A Conference Hall
June 3rd	8:15	Departure to ICN from Muntenia Hotel
	08:30 - 09:30	Registration
	09:30 - 10:30	Opening Ceremony, Key Notes
	10:30 - 11:30	Poster Session 1 with Coffee & Tea
	11:30 - 13:30	Plenary Session 1
	13:30 - 14:20	Lunch
	14:30 - 15:50	Plenary Session 2
	16:00 - 16:30	Coffee Break
	16:30 - 18:00	Plenary Session 2
June 4	09:00 - 18:00	Student Poster Session 2 at Ramada Hotel
June 5	19:00 - 23:00	Nuclear 2019 Awards; Conference closure
June 6	14:30 - 17:00	3 minute Pitch of Awarded Nuclear 2019 Student Papers

## Monday, June 3

**08:30 - 09:30 Registration**

**Welcome**  
**Opening Remarks**

**09:30 - 10:30 Key notes**  
Roger Garbil – European Commission, DG RTD  
.....

**10:30 - 11:30 Poster Session 1 with Coffee & Tea**

### PLENARY SESSION I Relevance of European Framework Programme for national R&D priorities

**Room A**

*Chair:* Serban Constantin Valeca

*Co-chair:* Maria Roth

**11:30 - 12:00 Euratom R&D Programme. RATEN Contribution and Benefits**  
Cristian Gentea, Maria Roth, Constantin Paunoiu, Alexandru Toma  
*RATEN, Romania*

**12:00 - 12:30 Relevance of H2020 Calls for Radioactive Waste Management in Slovenia**  
Nadja Železnik  
*Elektroinstitut Milan Vidmar -EIMV, Ljubljana, Slovenia*

**12:30 - 13:00 The Role of CFD Simulations in CRS4 Support to Liquid Metal Fast Reactors Design**  
Manuela Profir, Vincent Moreau  
*CRS4, Sardinia, Italy*

**13:00 - 13:30 Design of New Coatings and Sintered Materials based on Mixed Rare Earth Oxides**  
Radu-Robert Piticescu, Corban Mircea, Maria Luisa Grilli, Mythili Prakasam  
*National R&D Institute for Nonferrous and Rare Metals-IMNR, Romania*

**13:30 - 14:20 Lunch**

## PLENARY SESSION II

### *Major R&D Projects in nuclear: Status and challenges*

Room A

*Chair:*

*Co-chair:*

- 14:30 - 15:00**    **A Catalyst for Excellence: CANDU Owners Group as a Worldwide Centre of Knowledge Management**  
Fred Dermarkar  
*CANDU Owners Group, Canada*
- 15:00 - 15:30**    **ELI-NP – An Unique R&D infrastructure in the World (TBC)**  
Ioan Ursu  
*IFIN-HH Bucharest, Romania*
- 15:30 - 16:00**    **Title to be provided**  
*Alessandro Alemberti*  
*ANSALDO NUCLEARE, Italy*
- 16:00 - 16:30**    *Coffee Break*
- 16:30 - 17:00**    **R&D Infrastructure for ALFRED in Romania**  
Ilie Turcu/ Marin Constantin (TBC)  
*RATEN ICN Pitesti, Romania*
- 17:00 - 17:30**    **Nuclear R&D Priorities and Projects In Lithuania**  
Gintautas Poskas  
*LEI, Lithuania*
- 17:30 - 18:00**    **Contributions of RATEN ICN Pitesti in IAEA INPRO Program**  
Cristina Alice Margeanu  
*RATEN ICN Pitesti, Romania*

# Monday, June 3 - ICN Conference Hall

## Poster Sessions 1

### Nuclear Energy

<b>S1-P1</b>	M. Sallah <i>Mansoura University, Egypt</i>	<b>Stochastic Neutrons Transport in Clumpy Nuclear Reactors using Fractional Approach</b>
<b>S1-P2</b>	N. H. Moadab, M. K. Saadi, M. Akbari <i>Islamic Azad University, Iran</i>	<b>Investigation on the Use of Advanced Materials in Am-Be Neutron Shield Design</b>
<b>S1-P3</b>	C. M. Moraru, I. Stefan, C. Bucur, O. Balteanu <i>ICSI-Rm. Valcea, Romania</i>	<b>Considerations on Measuring Low Temperatures with PT 100 type Transducers in Cryogenic Plant for Tritium Separation</b>
<b>S1-P4</b>	M.C. Arva, M. Stoica <i>RATEN ICN, Romania</i>	<b>Uninterrupted Temperature Acquisition and Monitoring System for Coolant Overheating in LFR Reactor</b>
<b>S1-P5</b>	O. Popescu, M. Vitan, M. Stefan <i>RATEN ICN, Romania</i>	<b>Image Analysis for Cerenkov Effect in Nuclear Reactor Core</b>
<b>S1-P6</b>	V. Cojocaru, M. Ungureanu, M. Hororoi, A. Arjoca <i>RATEN ICN, Romania</i>	<b>Device for Testing Sealing Gaskets to the Insulation of Molten Lead</b>
<b>S1-P7</b>	I.V. Gondac, C.F. Constantinescu <i>RATEN ICN, Romania</i>	<b>The Improvement of Nuclear Installations Operation using PSA Applications</b>
<b>S1-P8</b>	M. Șerbănel, I. Prodea <i>RATEN ICN, Romania</i>	<b>Thermahydraulic Model for CANDU Core Loaded with NUE Fuel Bundles</b>
<b>S1-P9</b>	I. Prodea <i>RATEN ICN, Romania</i>	<b>Investigating the Influence of Refueling Scheme Pattern on Core Parameters of a CANDU Reactor Fed with Thorium-based Fuel</b>
<b>S1-P10</b>	A. Moise, I. Visan, A. Rizoiu <i>RATEN ICN, Romania</i>	<b>Evaluations of Th-based CANDU 6 Fuel Bundle Performance using Monte Carlo and Collision Probability Methods</b>
<b>S1-P11</b>	I. Visan, A. Moise <i>RATEN ICN, Romania</i>	<b>Isotopic Inventories of the T37 Discharged Fuel Bundle</b>
<b>S1-P12</b>	D. Lucan, L. Velciu, M. Fulger, G. Jinescu <i>RATEN ICN, Romania</i>	<b>Corrosion Behavior of Structural Materials from CANDU NPP Key Equipment</b>
<b>S1-P13</b>	B. Corbescu, T. Gyongyosi, Puiu, V. N. Panaitescu <i>RATEN ICN, Romania</i>	<b>Forming an Ice Plug Inside a Horizontal 200 mm Nominal Diameter Pipeline using a 55% Nitrogen Vapours Exhaust Nozzle Restriction</b>

<b>S1-P14</b>	T. Gyongyosi, B. Corbescu, D. Puiu, S. Valeca, V. N. Panaitescu <i>RATEN ICN, Romania</i>	<b>The Influences of Reducing with up to 25% the Nitrogen Vapour Exhaust from the Ice Plugging Device Mounted on a 200 mm Nominal Diameter Pipe Containing Stationary Water</b>
<b>S1-P15</b>	T. Gyongyosi, G. Deloreanu, D. Puiu, B. Corbescu, N. Anghel, R. Nastase, E. Dinu <i>RATEN ICN, Romania</i>	<b>Ageing Behaviour of the Pressure Tube Simulator – Spacer – Calandria Tube Simulator (by Stages), in the Second Half Service Period</b>
<b>S1-P16</b>	D. Pantazi, A. Popa <i>RATEN CITON, Romania</i>	<b>Study on Nuclear Reactions that can Influence Design Solutions for Ionized Radiation Protection Shielding using Monte Carlo Codes</b>
<b>S1-P17</b>	I. P. Nita, R. Pancef <i>RATEN CITON, Romania</i>	<b>Designing of Main Equipment and Systems from Regenerative Circuit of Advanced Lead Fast Reactor European Demonstrator</b>
<b>S1-P18</b>	R. Popovici, M. Vlad, F. Vacariu, I. Zarif, B. Blănaru <i>RATEN CITON, Romania</i>	<b>Advantages of using Field Programmable Gate Array for Processes Control at Cernavoda NPP</b>
<b>S1-P19</b>	R. Muşoiu, V. Bilegan, A. Vişan <i>RATEN CITON, Romania</i>	<b>Piping Vibration Analysis using MatLab and ANSYS Dynamic Simulation</b>
<b>S1-P20</b>	F. Vasiloiu, A. Sabie, V. Vasile, D. Ionescu, B. Blănaru <i>RATEN CITON, Romania</i>	<b>Condition Monitoring of Induction Motor in Cernavoda NPP Using Motor Current Signature Analysis Technique</b>
<b>S1-P21</b>	Š. Čerba, B. Vrban, J. Lúley, F. Osuský, D. Flamíková, V. Nečas <i>Institute of Nuclear and Physical Engineering, Slovakia</i>	<b>Optimization of the Operation Process at the Diffusion Length and Fermi Age Measurement Facility</b>
<b>S1-P22</b>	O. Ichim, C. Gentea, O. Uta, I. Man <i>RATEN ICN, Romania</i>	<b>THERATRON Medical Radiological Installations Decommissioning and Intermediary Storage of the Spent Radiological Sources in PIEL as Radioactive Waste</b>

## Environmental Protection

<b>S1-P23</b>	Y. Khmurovska, P. Stemberk, S. Sikorin, J. Zak, Y. Kaladkevich, E. Pavalanski, V. Fatseyeu <i>Czech Technical University in Prague, Czech Republic</i>	<b>Cement Mortar Creep under Exposure of Gamma-ray Irradiation</b>
<b>S1-P24</b>	D. Flamíková, V. Nečas <i>Institute of Nuclear and Physical Engineering, Slovakia</i>	<b>Analysis of Selected Biosphere Parameter Changes Using Probabilistic Methods</b>

<b>S1-P25</b>	A. Yazdani, D. Giosanu <i>Tarbiat Modares University, Iran</i>	<b>From Filtering of the Sunlight Gama Radiation to Controlling the Earth Soil Radiation</b>
<b>S1-P26</b>	M. Alipour, M. K. Saadi, A. A. Rouhani <i>Islamic Azad University, Iran</i>	<b>Investigation on Concrete Neutron Shielding Properties Filled by B<sub>4</sub>C, CdO and BN microparticles</b>
<b>S1-P27</b>	M. I. Cucu, D. Dupleac <i>Nuclearelectrica SA , Romania</i>	<b>Study of Radon Concentration and Methods for its Reduction in Various Spaces</b>
<b>S1-P28</b>	I. Petre, V. Fugaru, M. Gheorghe, R. M. Fechet, A. Moanță <i>CEPROCHIM S.A., Romania</i>	<b>Sustainable Materials for Gamma Radiation Shielding</b>
<b>S1-P29</b>	G.S. Stana, M. Vitan, A. Florea, G. Serbanescu <i>RATEN ICN, Romania</i>	<b>PLC based Digital Systems for Radiation Monitoring in Nuclear Objective</b>
<b>S1-P30</b>	G. Mihai <i>RATEN CITON, Romania</i>	<b>Drying Installation for Solid Waste Material Contaminated with Tritium Water</b>
<b>S1-P31</b>	I. Zabet, M. Bigu <i>RATEN CITON, Romania</i>	<b>Methods for Improving the Thermal Transfer of Water-Gas Heat Exchangers with Externally Finned Pipe</b>

## Research Infrastructure

<b>S1-P31</b>	C. Meglea, M. Teodorescu, G. Petre, R. Nicolae, S. Meglea <i>RATEN CITON, Romania</i>	<b>General aspects regarding the feasibility of the Experimental Facilities ATHENA and ChemLab – Research Support Infrastructure for ALFRED</b>
---------------	---	---

*Tuesday, June 4 – RAMADA Hotel*

## Student Poster Session

<b>S2-P1</b>	R. Susala, S. C. Valeca, G. Serbanescu <i>University from Pitesti, Romania</i>	<b>Nuclear Dose Rate Field Monitoring. Wireless LoRa and ZigBee Technologies for Real Time Data Communications</b>
<b>S2-P2</b>	V. Morlova, S. C. Valeca, M. Ioncescu <i>University from Pitesti, Romania</i>	<b>Metallographic and Ceramographic Examination of Irradiated Nuclear Fuel</b>
<b>S2-P3</b>	F. A. Florea, S. C. Valeca, M. Darie <i>University from Pitesti, Romania</i>	<b>Tensile Tests on 304L Stainless Steel, in Water Environment, at High Temperature and Pressure</b>

<b>S2-P4</b>	E. M. Breazu, C. Bucur, Ş. C. Valeca <i>University from Pitesti, Romania</i>	<b>Degradation of Spent Ion Exchange Resins During Wet Storage Period</b>
<b>S2-P5</b>	M.C. Petreanu, S. C. Valeca, E.M. Ana <i>University from Pitesti, Romania</i>	<b>A Qualitative Analysis of the TRIGA Control Rod System Ageing</b>
<b>S2-P6</b>	L. Moga, S. C. Valeca, E. Ioncescu, G. Enache <i>University from Pitesti, Romania</i>	<b>Water Quality Monitoring in Spent Fuel Storage Pool – Safe Storage Aspect</b>
<b>S2-P7</b>	E. D. Morlova, M. Valeca, O. Hirica <i>University from Pitesti, Romania</i>	<b>Methods of Radiation Monitoring in Case of Nuclear Accidents or Radiological Emergency</b>
<b>S2-P8</b>	T.I. Marin, M. Valeca, V.Neculae <i>University from Pitesti, Romania</i>	<b>Quality Control of Gamma Spectrometry Measurements</b>
<b>S2-P9</b>	I. A. Gardin, Ş.C.Valeca, I. Dumitrescu <i>University from Pitesti, Romania</i>	<b>Determination of Trace Elements in Uranium-Zirconium Alloys Using Time of Flight Inductively Coupled Plasma Mass Spectrometry</b>
<b>S2-P10</b>	I. Sandu (Nicolae), M. Valeca, M. Pătraşcu, A. Marin, D. Diniiaşi, E. Coacă, V. Ion, O. Rusu <i>University from Pitesti, Romania</i>	<b>Analysis of Micro-Discharges during Plasma Electrolytic Oxidation on the Zr-2.5Nb Alloy</b>
<b>S2-P11</b>	R. Joitescu, D. Chirlesan, L. Popa, M. Tunaru, L. Velciu <i>University from Pitesti, Romania</i>	<b>Study of Corrosion Behaviour of some Dissimilar Welds from CANDU NPP Primary Circuit</b>
<b>S2-P12</b>	A. Radu, C. Diaconescu, Ş.C.Valeca <i>University from Pitesti, Romania</i>	<b>Methods Applied on Characterization Process of Spent Resins</b>
<b>S2-P13</b>	V. G. Ionescu, S. C. Valeca, L. Velciu <i>University from Pitesti, Romania</i>	<b>Metallographic Characterization of Inconel 718 Nickel-Alloy Subject to Heat-Cycling</b>
<b>S2-P14</b>	D. Rotari, S. C. Valeca, C. Roth <i>University from Pitesti, Romania</i>	<b>Bonner Spheres Neutron Spectrometer Calibration</b>
<b>S2-P15</b>	R. A. Preda, S. C. Valeca, D. Predescu <i>University from Pitesti, Romania</i>	<b>Functional Simulation for the Separators Assembly and F/M Head Magazine Supply System using an ISAGRAF / OS9 – VME System</b>
<b>S2-P16</b>	M. Ene, S. C. Valeca, V.Pitigoi <i>University from Pitesti, Romania</i>	<b>Mechanical Parameters Characterization of CANDU Pressure Tube</b>
<b>S2-P17</b>	M. Stoica, S. C. Valeca <i>University from Pitesti, Romania</i>	<b>Preliminary Investigation on the Potential for Severe Accidents of Some Accidental Situations at ALFRED</b>
<b>S2-P18</b>	A. Glont, S. C. Valeca, C. Roth, B. Corbescu <i>University from Pitesti, Romania</i>	<b>Establishing the Theoretical Limit of the Liquid Nitrogen Requirement for the Freeze Isolation of a Horizontal Pipeline</b>
<b>S2-P19</b>	A. I. Popescu, V. Cojocaru, S. C. Valeca	<b>Monitoring and Control Systems used in the LECOTELO Experimental Installation</b>

	<i>University from Pitesti, Romania</i>	
<b>S2-P20</b>	A. Simion, S. C. Valeca, G. Dragoi <i>University from Pitesti, Romania</i>	<b>Electrical and Temperature Measurements for Monitoring of Inductive Brazing Processes</b>
<b>S2-P21</b>	E. A. Danescu, M. Valeca, A. F. Bucsa <i>University from Pitesti, Romania</i>	<b>Chlorine Determination Using NAA-k0 On Nuclear Industry Materials</b>
<b>S2-P22</b>	C. S. Ionita, S. C. Valeca, P. Busuioac <i>University from Pitesti, Romania</i>	<b>Experimental Method of Molybdenum-99 Obtained in TRIGA SSR Reactor</b>
<b>S2-P23</b>	A. M. Nicolae, M. N. Ionescu, M. Ancuta, A. Pulpa, M. Valeca <i>University from Pitesti, Romania</i>	<b>In Core Mobile System for Simulating Power Cycling Irradiation Conditions of Nuclear Fuel</b>
<b>S2-P24</b>	S. D. Mircea, L. D. Stoenescu, M. Valeca <i>University from Pitesti, Romania</i>	<b>Static Investigation of CANDU Experimental Nuclear Fuel using Metallic Foils and Radiographic Films</b>
<b>S2-P25</b>	M. Sarbu, M. Valeca, A. Marin, O. Rusu, E. Coaca, M. Patrascu, V. Ion <i>University from Pitesti, Romania</i>	<b>Plasma Electrolytic Oxidation Treatment of 316L Stainless Steel: Assessment on the Surface Chemistry</b>
<b>S2-P26</b>	A. Marin, L. Savu, S. C. Valeca <i>University from Pitesti, Romania</i>	<b>Radiographic Assessment of Experimental Fuel Rods Homogeneity at INR Pitesti</b>
<b>S2-P27</b>	I. Neacsu, S. C. Valeca, M. Apostol <i>University from Pitesti, Romania</i>	<b>CANDU Severe Accident Late Phase. Simulation of Molten Core Concrete Interaction</b>
<b>S2-P28</b>	A.Ciocirlan, M. Valeca, D.Bujoreanu <i>University from Pitesti, Romania</i>	<b>Measurement of the Leachability of Solidified Radioactive Waste for Disposal at National Repository Baita-Bihor</b>
<b>S2-P29</b>	A.Popescu, G.Duna, S. C. Valeca <i>University from Pitesti, Romania</i>	<b>The Water Injection into the Fuel Channel using the Mechanical Simulator</b>
<b>S2-P30</b>	S. C. Gheorghe, S. C. Valeca, C. Roth <i>University from Pitesti, Romania</i>	<b>Low Intensity Thermal Neutron Flux Density Measurements</b>
<b>S2-P31</b>	I. Pietriș, M.Valeca, G.Zăvoianu <i>University from Pitesti, Romania</i>	<b>Determination of Natural Uranium Content in Environmental Samples</b>
<b>S2-P32</b>	V. Slujitoru, S. C. Valeca <i>University from Pitesti, Romania</i>	<b>Monte Carlo Studies for Advanced CANDU Fuel Containing Thorium-Plutonium Mixed Oxide</b>
<b>S2-P33</b>	S. F. Stan, S. C. Valeca, M. Sorin <i>University from Pitesti, Romania</i>	<b>Radiological Characterization of Materials Resulting from Authorized Nuclear Practices</b>
<b>S2-P34</b>	A. Tudor, S C. Valeca, D. Diaconu <i>University from Pitesti, Romania</i>	<b>Sensitivity and Uncertainty Analysis for a Generic Concept of Spent Fuel Disposal in Clay Rocks in Romania</b>



<b>S2-P35</b>	B. Chiriac, R. Dobrin, M. Valeca <i>University from Pitesti, Romania</i>	<b>Measurement of Beta Activity by Spectrometry with Liquid Scintillators</b>
<b>S2-P36</b>	L. Heber, S. C. Valeca, S. Ionescu <i>University from Pitesti, Romania</i>	<b>Mechanical Tests on Materials Used in the Nuclear Industry</b>
<b>S2-P37</b>	A. Pîrvu, M. Valeca, R. Iordache <i>University from Pitesti, Romania</i>	<b>Assessing the Radiological Impact of Normal Operation of a Nuclear Installation</b>
<b>S2-P38</b>	M. M. Mateescu, M. Valeca, G. Barbu <i>University from Pitesti, Romania</i>	<b>Individual Radiological Monitoring of Occupationally Exposed Personnel to Ionizing Radiation</b>
<b>S2-P39</b>	G. Radu, M. Dulama, M. Valeca <i>University from Pitesti, Romania</i>	<b>Study of Methods Recommended for the Treatment of Radioactive Liquid Waste from Chemical Decontamination Processes</b>
<b>S2-P40</b>	G. Pislaru, M. Valeca, G. Tudor <i>University from Pitesti, Romania</i>	<b>Gross Beta Activity Concentration Monitoring in Soil and Vegetation from the INR Site and its Surroundings</b>
<b>S2-P41</b>	A. Despa, S. Valeca, O. Popescu <i>University from Pitesti, Romania</i>	<b>Gas Detectors for Measurement of Alfa and Beta Gamma Contamination</b>
<b>S2-P42</b>	M. Cirstea, S. C. Valeca, G. Ghita <i>University from Pitesti, Romania</i>	<b>Modeling a Venturi Flow Meter Using Fluent CFD Computer Code</b>
<b>S2-P43</b>	R. C. Popescu, D. Chirlesan, D. Puiu, T. Gyongyoşi, E. Dinu, B. Corbescu <i>University from Pitesti, Romania</i>	<b>The Assessment of the Power Cables Ageing Degree by Thermal Methods</b>
<b>S2-P44</b>	C. Catrina, S.C. Valeca <i>University from Pitesti, Romania</i>	<b>Neutronic Characterisation of the Advanced CANDU fuel Bundle using Monte Carlo Methods</b>