**PRELIMINARY PROGRAM**

**International Symposium on Natural Radiation Sources – Challenges, Approaches and Opportunities**

**National Library Building (Mircea Eliade room)**

**Bucharest, No. 22 Blvd.Unirii, district 3, zip code 030833**

**21-24 May 2019**

**SUMMARY**

**REGISTRATION**

**OPENING CEREMONY**

**POLICIES, STRATEGIES AND REGULATORY FRAMEWORK IN THE FIELD ON NATURAL RADIATION SOURCES**

Chaired by Alexandru OZUNU, Daniel DUPEAC

**MANAGEMENT OF NATURAL RADIATION SOURCES CHALLENGES AND APPROACHES**

Chaired by Alexandru TOMA, Liuba CORECHI

**Round Table, Graded approach applied to NORM**

Moderated by Constantin MILU, Rodin TRAICU

**RADON CHALLENGES AND APPROACHES**

**Session 1 - Measurement Techniques and Methods**

Chaired by Margareta CHERESTES, Cristian Nicolae DULAMA

**Session 2 - Radon indoor**

Chaired by Nicoleta BRISAN, Marian Romeo CALIN

**Session 3 - Radon in workplaces**

Chaired by Alexandra CUCOS, Laurentiu DONE

**Session 4 - Radon remediation and prevention**

Chaired by Tiberiu CATALINA, Kinga SZACSVAI

**SCIENTIFIC COMMITTEE**

**Alexandru OZUNU,** Babes Bolyai University Cluj Napoca

**Daniel DUPEAC,** Politehnica University of Bucharest

**Tiberiu CATALINA,** Technical University of Civil Engineering of Bucharest

**Constantin MILU,** Romanian Radiation Protection Society

**Liuba CORECHI,** National Agency for Public Health, Chisinau, Republic of Moldova

**Nicoleta BRISAN,** Babes Bolyai University Cluj Napoca

**Alexandru TOMA,** Nuclear Research Institute Pitesti

**Margareta CHERESTES,** radiation protection expert, Dositracker SRL

**Aurelian LUCA,** Horia Hulubei National Institute for Research&Development for Physics and Nuclear Engineering

**Marian Romeo CALIN,** Horia Hulubei National Institute for Research&Development for Physics and Nuclear Engineering

**Alexandra CUCOS,** Babes Bolyai University Cluj Napoca

**Laurentiu DONE,** Horia Hulubei National Institute for Research&Development for Physics and Nuclear Engineering

**Kinga SZACSVAI,** Babes Bolyai University Cluj Napoca

**Cristian Nicolae DULAMA,** Nuclear Research Institute Pitesti

**PROGRAMM**

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| **21 May Tuesday**  |
| **Registration** **9.00-10.00** |
| **OPENING CEREMONY** |
| 10.00 – 11.15 | Rodin TRAICU | President of National Commission for Nuclear Activities Control (CNCAN) |
| Constantin MILU | President of Romanian Radiation Protection Society (SRRP) |
| Stefan MUNDIGL | European Commission  |
| TBD | General Secretariat of Government |
| 11.15 – 11.30 | Coffee break |
| 11.30 – 12.30 | TBD, … | Ministry of Environment |
| Alexandru OZUNU | Dean, Babes Boliay University UBB Cluj Napoca |
| Daniel DUPLEAC | Professor , Politehnica University of Bucharest |
| 12.30 – 13.30  | Lunch break |
| **POLICIES, STRATEGIES AND REGULATORY FRAMEWORK IN THE FIELD ON NATURAL RADIATION SOURCES** |
| **Chaired by Alexandru OZUNU, Daniel DUPEAC** |
| 13.30 - 114.30 | Daniela DOGARU | CNCAN | Status of Implementation of Radon National Action Plan |
| 14.30 – 15.00 | Alina DUMITRESCU | Ministry of Health | Romania's Radon Communication Strategy and research support |
| 15.00 – 15.15 | Coffee break |
| 15.15 – 16.15 | Daniel DUPLEAC | Politehnica University of Bucharest | Education on radiation protection field at Power Engineering Faculty –UPB |
| * 1. -17.00
 | Maria SAHAGIA | Horia Hulubei National Institute for Research& Development for Physics and Nuclear Engineering | Education and training tradition at IFIN-HH in NORMs measurement and evaluation of radiological impact |
| **Hospitality event offered by CNCAN, location TBD** |
| **22 May Wednesday****Session 1** |
| **MANAGEMENT OF NATURAL RADIATION SOURCES CHALLENGES AND APPROACHES** |
| **Chaired by Alexandru TOMA, Liuba CORECHI** |
| 9.00-10.30 | Vasile BALANEL | National Agency for Public Health Chisinau, Republic of Moldova | Evaluation of natural radioactivity characteristics for construction materials used in the Republic of Moldova |
| Diana Maria BANU | ICPMRR Bucharest | The impact of the radioelements generated from the burning of the coals in the power plants from Craiova |
| Ileana RADULESCU | Horia Hulubei National Institute for Research& Development for Physics and Nuclear Engineering | Characterization and radiation exposure from the natural radioactivity in Romanian building materials |
| Cristian Nicolae DULAMA | Nuclear Research Institute Pitesti | Nuclear techniques applied to radiological characterization of NORM |
| Ana PANTELICA | Horia Hulubei National Institute for Research& Development for Physics and Nuclear Engineering | Naturally Occurring Radionuclides in some phosphogypsum based building materials determined by gamma-ray spectrometry |
| 10.30-11.00 | Coffee break |
| 11.00 -12-30 | Florin Iuian CUCU | National Uranium Company Feldioara | Treatment of liquid waste resulted from processing of uranium ore, concentration of product and production of sinterable powder of UO2 at CNU- Sucursala Feldioara |
| Petre MIN | CNCAN | Naturally Occurring Radioactive Materials - Risks andRisk Perception |
| Marinela ANDREI | National Uranium Company Feldioara | Environmental monitoring on and around CNU - Feldioara branch  |
| Gheorghe BULUBAȘA | ICSI Rm Valcea | Assessment of Radon, Tritium, Gross Alpha and Beta Activity Concentration in Water Intended for Human Consumption in Babeni - Valea Mare Area |
| Ioan ENCIAN | CNCAN | Methodological approaches to radon in water measurements: comparative experiences between Romania and Spain |
| 12.30-14.00 | Lunch break |
| **14.00-15.00** | **Round Table, Graded approach applied to NORM, Moderated by Constantin Milu, Rodin Traicu** |
| **RADON CHALLENGES AND APPROACHES****Session 1** |
| **Measurement Techniques and Methods** |
| **Chaired by Margareta CHERESTES, Cristian Nicolae DULAMA**  |
| 15.00-15.40 | Arthur TUNYAGI | Babes Bolyai University Cluj Napoca | The innovative monitoring prototype system for radon and indoor air quality developed by Babeş-Bolyai university |
| Marius Lucian BOTOŞ | Babes Bolyai University Cluj Napoca | Advanced Computational Models for Radon Transport at Soil-Building Interface |
| 15.40-16.00 | Coffee break |
| 16.00 -18.00 | Andrei ANTOHE | Horia Hulubei National Institute for Research& Development for Physics and Nuclear Engineering | Recent development of the radon calibration facility from IFIN-HH, Romania |
| Margareta CHERESTEȘ | DOSITRACKER S.R.L. | Indoor air quality through radon real time monitoring – the results of 2 pilot studies |
| Laurențiu DONE | Horia Hulubei National Institute for Research& Development for Physics and Nuclear Engineering | The radon concentration influence on the radionuclide characterization of the environmental samples |
| Radu Alin VASILACHE | Canberra Packard SRL | Riscul expunerii la Radon din perspectiva studiilor recente cu privire la modelele de răspuns la doză; impactul asupra comunicării cu publicul |
| Cornel-Liviu TUGULAN | Horia Hulubei National Institute for Research& Development for Physics and Nuclear Engineering | Radon concentration measurements inside and outside the Radon Chamber developed within CARSTEAM Project |
|  | All participants  | Discussions |
| **23 May Thursday** |
| **Radon indoor****Session 2** |
| **Chaired by Nicoleta BRISAN, Marian Romeo CALIN** |
| 9.00-10.30 | Francesco BOCHICCHIO | Italian National Institute of Health, Italy | Protection from radon in Italy: past, present and perspectives |
| Dobromir PRESSYANOV | Faculty of Physics, Sofia University “St. Kliment Ohridski”Sofia, Bulgaria | The problem of the temperature dependence of radon diffusion chambers with anti-thoron barrier |
| Carlos SAINZ FERNANDEZ | University of Cantabria Spain  | Notes regarding the development of the Spanish Radon Action Plan |
| 10.30-11.00 | Coffee break |
| 11.00 -12.30 | Alexandra CUCOȘ | Babes Bolyai University Cluj Napoca | Current status of indoor radon survey in Romania linked with national radon action plan |
| Sándor CSEGZI | **Scientific Cultural University TÎRGU -MURES**  | A statistical model for radon monitoring in homes and the development of radon map for localities |
| Vasile PĂTRAȘCU  | National Institute for Marine Research and Development "Grigore Antipa" | Preliminary annually results of Radon measurements in INCDM Constanța |
| Florică ȘTEFAN | Babes Bolyai University Cluj Napoca | The path from geogenic radon to indoor radon |
| **Antoaneta ENE** | Dunarea de Jos University of Galati, Faculty of Sciences and Environment | Assessment of radon, thoron and their descendants in selected indoor environments in Romania |
| **All participants** | Discussions  |
| 12.30-14.00 | **Lunch break** |
| **Radon in workplaces****Session 3** |
| **Chaired by Alexandra CUCOS, Laurentiu DONE** |
| 14.00-15.30 | Liuba CORECHI | National Agency for Public Health, Chisinau, Republic of Moldova | Methodology of radon monitoring in kindergarten and institutions of primary, gimnazial and liceal education institutions in the Republic of Moldova |
| Kinga SZACSVAI | Babes Bolyai University Cluj Napoca | Indoor radon distribution in residential and public building from some major urban agglomerations of Romania |
| Marian Romeo CALIN | Horia Hulubei National Institute for Research& Devlopment for Physics and Nuclear Engineering | Radiometric measurements and evaluation of radon concentration in salt mines and caves from Romania |
| Bety BURGHELE | Babes Bolyai University Cluj Napoca | Radon measurements in the most popular Romanian show caves to assess the radiation safety for underground workers |
| Mihai Cătălin CIOBANU | Horia Hulubei National Institute for Research& Devlopment for Physics and Nuclear Engineering | Radon concentration estimation for the working and intermediate repositories in the radioactive waste treatment plant – NIPNE-HH |
| Bogdan Tudor OBREJA | Horia Hulubei National Institute for Research& Devlopment for Physics and Nuclear Engineering | Emissions fluctuations of natural radon in Baita Bihor repository area |
| Ion POPESCU | Cernavoda Nuclear Power Plant | Preliminary results on the Radon measurements in workplaces of CNE Cernavoda |
| Gheorghe Iuri SIMIONCA | National Institute for Recovery, Physical Medicine and Balneoclimatology, Bucharest | Radiometric measurements and evaluation of radon concentration in salt mines and caves from Romania |
| All participants | Discussions |
| 15.30-16.00 | Coffee break |
| **Radon prevention and remediation**  |
| **Session 4** |
| **Chaired by Tiberiu CATALINA, Kinga SZACSVAI** |
| 16.00- 18.00 | Tiberiu CATALINA | Technical University of Civil Engineering of Bucharest | Experimental and numerical study of indoor air quality and energy consumption of a single-family detached home |
| Andrei ISTRATE | Babes Bolyai University Cluj Napoca | Experimental assessment of radon remediation between two decentralized ventilation unit, mounted in a single family detached home |
| Linda SFERLE | Babes Bolyai University Cluj Napoca | Radon mitigation or prevention for real estate developers |
| Botond PAPP | Babes Bolyai University Cluj Napoca | Scientific experience in radon mitigation in Romania |
|  | All participants | Discussions  |
| **24 May Friday** |
| **Social event - Visit to Cotroceni Palace** |