

IARPIC-2018

Day 1: 16-01-2018

SESSION II (16:00 – 22:00)

**Dr. A. K. Ganguly Birth Centenary Year Celebrations
Imperial Banquet Hall, Raghuleela Mall, Vashi, Navi Mumbai**

I : Inauguration (16:00 – 17:30)

- 1. Welcome address** : Dr. K. S. Pradeepkumar, President, IARP & AD, HS&EG, BARC
(16:00 – 16.10)
- 2. Inspiration for Dr AKG
Compendium of Memoirs :** Dr. M. R. Iyer, Ex. IAEA expert & Ex. Head, RSSD, BARC
(16:10 – 16:25)
- 3. Inaugural address** : Dr. Anil Kakodkar, Former Chairman, AEC (16:25 – 16:40)
- 4. Release of book of “Compendium of Memoirs of Dr. A. K. Ganguly &
the album “Nostalgia of footprints of Dr. A. K. Ganguly”:**
- 5. Keynote address** : Dr. Abel J González, Representative at UNSCEAR,
Ex. Director IAEA; Member IAEA CSS; Ex. Vice-Chairman
ICRP
(16:50 – 17:40)

Tea (17.40 – 18.00)

II : Memoirs of Dr AKG’s Colleagues / Students (18:00 – 20:00)

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| Dr. S. D. Soman | Shri K. S. Somayaji |
| Dr. D. V. Gopinath | Dr. M A R Iyengar |
| Dr. K. C. Pillai | Dr. P. K. Sarkar |
| Dr. L. V. Krishnan | Dr. Kamalarudran |
| Dr. S. Krishnamony | Shri A. H. Khan |
| Shri P. Abraham | Dr. M. Raghavayya |
| Dr. A. R. Reddy | Dr. Prabuddha Ganguly |
| Dr. V. K. Gupta | |

III: DINNER (20:00 – 22:00)

Day 2: 17-01-2018

SESSION III (9.30 – 11.00): Radiation Protection in Nuclear Fuel Cycle operations

(Chairman: Dr. S. Krishnamony, Ex Head, HPD; Co-Chairman: Dr. R. K. Gopalkrishnan)

IT 1: Dr. Roger Coates (IRPA): Radiation Safety Culture in Nuclear Facilities

IT 2: Dr. K. Agarwal (NRG, BARC): Safety Aspects in Fuel Reprocessing and Radioactive Waste Management

IT 3: Dr. B. Venkatraman (HSEG, IGCAR): Radiation Safety aspects of fast breeder reactor

Tea (11.00 – 11.30)

SESSION IV (11.30 – 13.30): Environmental radioactivity measurements and modeling

(Chairman: Dr. U.C. Mishra, Ex Director, HS&EG; Co-chairman: Dr. P. M. Ravi)

IT 4: Dr. R. M. Tripathi (HPD, BARC): Environmental safety assessment of frontend fuel cycle operation

IT 5: Dr. K. Higley (ICRP, Committee 4): Integration of the Environment into the System of Radiation Protection

IT 6: Dr. K. Karunakara (Mangalore University): Pre and post operational radioecology around Kaiga nuclear power station.

IT 7: Dr. Daniel Blumenthal (NNSA, US DOE) : ICRU Report 92 on Radiation Monitoring for Protection of the Public after Major Releases of Radionuclides to the Environment

Lunch (13.30 – 14.30)

SESSION V (14.30 – 15.30): Poster Presentations: (P-1 to P-170)

Tea (15.30 – 16.00)

SESSION VI (16.00 – 18.00): Radiation exposure control in nuclear facilities

(Chairman: Shri Pendharkar, Ex Head, HPD; Co-Chairman: Shri G. Ganesh)

IT 8: Donald A. Cool (ICRP Committee 4): International Recommendations for Radiation Protection – Towards a Harmonized Approach to all Exposure Situations

IT 9: Mr. Rama Somayazulu (HSEG, NPCIL): Occupational radiation exposure control in Indian NPP's

Oral Presentations: (6 papers)

- 1) **P-21:** A Study on the Feasibility of using Waste Canisters for Sewage Processing, Jain Reji George, et.al.
- 2) **P-123:** Revamping of stack monitoring system at CORAL facility and estimation of aerosol penetration using 'DEPOSITION2001' code, K.C. Ajoy et.al.

- 3) **P-159:** Thick target Neutron Dose in Cu and Cr targets by proton interactions: An observation, Sabyasachi Paul, et.al.
- 4) **P-263:** Identification of the contributors (Ag-110m) for higher radiation field on Primary Heat Transport System of TAPS-3 and its impact on collective dose, V.M. Sonwalkar
- 5) **P-309:** Comparison in detection efficiencies of whole body monitoring system using BOMAB and Voxel phantoms, D.K. Akar, et.al.
- 6) **P-372:** Activated Charcoal Adsorber Bed as a ²²²Rn Hold Up System for Application in Uranium Mining Industries, K. Sudeep Kumar et.al.

18.00 – 19.00 : Hindi SKIT (Kum main hai dum)

19.00 – 20.00 : Cultural Program

20:00 – 21:00 : Conference Dinner

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Day 3: 18-01-2018

SESSION VII (9.30 – 11.00): Regulatory Aspects and Information Systems

(Chairman: Shri Jayarajan K., Chairman, BSC; Co-chairman: Shri S. K. Pawar)

IT 10: Shri D. K. Shukla (ED, AERB): Nuclear Fuel Cycle and Regulatory Aspects

IT 11: Dr. Sanjoy Mukhopadhyay (IAEA): Overview of the International Radiation Monitoring Information System (IRMIS)

Oral Presentations: (3 papers):

- 1) **P-114:** Regulatory measures of BARC safety council to control radiation exposures, Rajdeep et.al.
- 2) **P-088:** A re-look at RIA methodology for postulated accidents in nuclear plants, R. Venkatesan et.al.
- 3) **P-219:** Indian Environmental Radiation Monitoring System at Bharati Station, Antarctica, Saurabh Garg et.al.

Tea (11.00 – 11.30)

SESSION VIII (11.30 – 13.30): Radiation Dosimetry and Bio-dosimetry

(Chairman: Dr. B. S. Rao, Ex Head, RP&AD; Co-chairman, Dr. Pramilla Sawant)

IT 12: Dr. V. Berkovskyy (ICRP Committee-2): Reference Methodologies and Datasets of ICRP Committee 2 on Doses from radiation Exposure

IT 13: Adayabalam Balajee (US DOE): Development of rapid high throughput biodosimetry tools for radiological triage

Oral Presentations: (6 papers):

- 1) **P-252:** Optimizing Conditions for the Preparation of Lymphocyte Metaphase Chromosome Slides Using an Automated Metaphase Spreader. Meetu Kaushik Tiwari et.al.
- 2) **P-376:** Estimating the Risk of Developing Radiation Induced Adverse Effects Using DNA Repair and Genetic Variant Analysis, Kamallesh Dattaram, et.al.
- 3) **P-395:** In vitro evaluation of relative biological effectiveness of 3MeV protons using γ H2AX immuno-fluorescence, Rajesh K Chaurasia et.al.
- 4) **P-315:** Computation of thyroid blocking dose of stable iodine for various age groups. Minal Nadar et.al.
- 5) **P-396:** Potentials and scopes of fusion based Premature Chromosome Condensation (PCC-F) to current needs of biodosimetry. Usha Yadav et.al.

- 6) **P-311:** Effect on biokinetics of ¹³⁷Cs after treatment with Prussian Blue. V.P. Ghare et.al.

Lunch (13.30 – 14.30)

SESSION X (14.30 – 15.30): Poster Presentations: (P-171 to P-291)

Tea (15.30 – 16.00)

SESSION IX (16.00 – 18.00): Radiation in medical applications

(Chairman: Dr. B.C. Bhatt, Ex Head, RP&AD; Co-chairman: Dr. S. D. Sharma)

IT 14: Dr. S. Banerjee (RMC, BARC): Development of Indigenous Radiopharmaceuticals for Therapy: Options and Availability

IT 15: Dr. Sarbani Laskar (TMH, DAE): Radiation Exposure Control in Medical Diagnosis and Treatment

IT 16: Dr. D. Datta (RP&AD, BARC): Radiotherapeutic Treatment via Segmentation of Cerebral Aneurysm Using Lattice Boltzmann Method

Oral Presentations: (3 papers):

- 1) **P-211:** Two-point Re-calibration methods for EBT3 Gafchromic Film Dosimetry, Rajeh Kumar, et al.
- 2) **P-290:** Establishment of standard radiation beam qualities used in Diagnostic Radiology, Vinatha S Panayam, et al.
- 3) **P-168:** The Role of Graphite Calorimetry in Advanced Radiotherapy Treatments, G. Ramanathan

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Day 4: 19-01-2018

SESSION XI (9.30 – 11.00): Nuclear & Radiological Emergencies, Nuclear forensics

(Chairman: Mr. Ranajitkumar, Nuclear Control & Planning Wing, DAE

Co-chairman: Dr. S. Murali)

IT 17: Dr. Daniel Blumenthal (NNSA, US DOE): Radiological Impact Assessment Following Nuclear Accidents: Lessons Learned from Exercises and Responses

IT 18: Dr. Pradeepkumar K.S. (HSEG, BARC): Response to Nuclear and Radiological Emergencies: Development of Radiation Emergency Response system

IT 19: Dr. Stephen V. Musolino (NNSA, USDOE): Bridging the Radiation Science Divide between Scientists and First Responders.

Tea (11.00 to 11.30)

SESSION XII (11.30 - 13.30): Radiation Standards, detectors and health physics instrumentation

(Chairman: Shri Suresh Babu R. M., Head, EISD, BARC

Co-chairman: Shri Probal Chaudhury)

IT 20: Dr. M. S. Kulkarni (RSSD, BARC): Status of Radiation Standards in India

Oral presentations (9 papers):

- 1) **P-23:** Development of a combination detector system for simultaneous measurement of Alpha and Beta/Gamma radioactivity, Vaishali M Thakur et.al.
- 2) **P-32:** QA of manual OSLD personnel monitoring badge system. Munish Kumar et al.
- 3) **P-193:** Use of Zirconium–CR-39 based detector for high energy neutron dosimetry, Rupali pal et.al.
- 4) **P-203:** National Uranium Project – An initiative to generate national database on uranium in drinking water of the country, S. K. Sahoo et.al.
- 5) **P-216:** Experience of an Inter-laboratory exercise for the determination of Carbon-14 in biological sample, A. Baburajan et.al.
- 6) **P-222:** Effect on CaSO₄:Dy TL Material on Exposure to High Dose, P.K. Sahani et.al.
- 7) **P-247:** Generation of terrestrial radiation database in the Larsemann Hills, Antarctica, Rupali Pal et.al.
- 8) **P-249:** Establishment of new CCD based imaging facility for TL/OSL dosimeters, , Kshama Srivastava et.al.

- 9) **P-296:** Estimation of Carbon-14 in air and biota around Kudankulam Environment, B. Vijayakumar et.al.

Lunch (13.30 – 14.30)

SESSION XIII (14.30 – 15.30): Poster Presentations: (P-261 to P-401)

Tea (15.30 – 15.45)

(15.45 – 16.30): Presentations by company representatives

SESSION XIV (16.30 – 18.00): Safety aspects in accelerators & nuclear facilities.

(Chairman: Dr. M. R. Iyer Ex IAEA Expert; Co-chairman: Dr. G. Haridas)

IT21: Dr. P. K. Sarkar (Prof. Manipal University): Radiation Safety in Accelerators: neutron Dosimetry and spectrometry using prompt gamma measurements

Oral presentations (6 papers):

- 1) **P-210:** LiH-SiC based Fast Neutron Detector for harsh environment, Shivang Tripathi et.al.
- 2) **P-317:** In-vitro solubility studies of Plutonium aerosols and its implication on internal dose, Mannu Mann et.al.
- 3) **P-350:** Distribution of ^{210}Po around uranium mill tailings management facility at Jaduguda, Jharkhand, D.B. Sharma et.al.
- 4) **P-359:** Development of Empirical Relation for Isotope of Uranium in Enriched Uranium Matrix, S.K. Srivastava et.al.
- 5) **P-380:** Absolute Measurement of 14 MeV neutron fluence rate using proton recoil neutron telescope, Shobha Ghodke et.al.
- 6) **P-132:** Assessment of Integrity of Containment Coating (Epoxy) using Beta Radiometry and NDT Techniques, Usha Pujara et.al.

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Day 5: 20-01-2018

SESSION XV (9.30 – 11.15): ICRP activities, Epidemiological studies and risk assessment

(Chairman: Dr. S. K. Nayak, AD (B) BSG; Co-chairman: Dr. A. Vinodkumar)

IT 22: Dr. C.H. Clement (ICRP): Mission and Activities of the International Commission on Radiological Protection

IT 23: W. Rühm (ICRP Committee 1): The Work of ICRP Committee 1 on Radiation Effects

IT 24: Dr. Vinay Kumar (RBHSD, BARC): Effect of low and chronic radiation exposure to human population: Kollam study.

Oral Presentation:

- 1) **P-400:** Epidemiological and radio-biological studies in high background radiation areas of Kerala coast: Implications in radiation protection science and human Health.
Dr. Birajalaxmi

TEA (11.15 to 11.45)

SESSION XVI (11.45 – 13.00): Accident analysis and Atmospheric dispersion modeling

(Chairman: Dr. A. S. Pradhan, Ex Head, IDD; Co-chairman: Dr. R. B. Oza)

IT 25: Dr. Suminori Akiba (Kagoshima University, Japan): Thyroid nodule prevalence among young residents in the evacuation area after Fukushima Daiichi Nuclear Accident Results of preliminary analysis using the official data

Oral presentations (4 papers):

- 1) **P-112:** Particulate size growth in a Buoyant Aerosol Cloud , Sreekanth Bathula et.al.
- 2) **P-165:** Atmospheric Dispersion modeling of Sodium Aerosols for consequence analysis during accidental leaks, C.V. Srinivas et.al.
- 3) **P-348:** Advantages of GIS in Large scale sampling of Agricultural & Food Products during Nuclear Emergency, Manish Mishra et.al.
- 4) **P-299:** Development of Nuclear Forensics for Investigation of confiscated Uranium bearing materials; S. Mishra et.al.

Lunch (13.00 – 14.00)

SESSION XVII (14.00 to 15.30): PANEL DISCUSSION

(Radiation protection of workers and public & addressing concerns on Radiological Safety)

- 1) **Shri D. K. Shukla, ED, AERB**
- 2) **Dr. K. S. Pradeepkumar, HS&EG, BARC**

- 3) Dr. Christopher Clement, ICRP
- 4) Dr. Roger Coates, IRPA
- 5) Dr. K. Higley, ICRP Committee 4
- 6) Dr. W. Rühm, ICRP Committee
- 7) Dr. V. Berkovskyy, ICRP Committee 2

Concluding Session (15:30 – 16:00) and Declaration of best Paper/Poster Awards

HIGH TEA
