

**29th IARP NATIONAL CONFERENCE
ON
RECENT ADVANCES IN RADIATION DOSIMETRY
(IARPNC – 2010)**

3 – 5 FEBRUARY, 2010

**MULTIPURPOSE HALL, BARC GUEST HOUSE,
ANUSHAKTINAGAR, MUMBAI – 400 094**

**PROGRAMME
Wednesday, February 3, 2010**

- 08.30 – 09.30 Registration**
- 09.30 – 10.45 Inaugural Function**
- Welcome: Dr. D.N. Sharma, President, IARP
- Presidential Address: Shri H.S. Kushwaha,
Chairman, Organizing Committee
- Release of Souvenir/
Book of Abstracts & Remarks: Shri S.S. Bajaj, Chairman, AERB
- IARP Awards & Inaugural Address: Dr. S. Banerjee, Chairman, AEC &
Secretary, Government of India
- Vote of thanks: Shri A.H. Khan, Secretary, IARP
- Inauguration of Exhibition: Shri S. Banerjee, Chairman, AEC
- 10.45 – 11.30 High Tea**
- 11.30 – 13.00 SESSION-I: Oration Talks**
- Chairman: Shri S.D. Soman, Formerly Chairman, AERB
- A.K. Ganguly Oration Talk – Dr. K.S. Parthasarthy
A. Nagarathanam Oration Talk – Dr. A.R. Reddy
K.G. Vohra Oration Talk – Dr. A.S. Pradhan
- 13.00 – 13.45 Lunch**
- 13.45 – 15.15 SESSION-II: Recent Advances in Radiation Dosimetry-1**
- Chairman: Shri H.S. Kushwaha, Director, HS & E Group
Co-Chairman: Dr. Y.S. Mayya
- IT-1 Time Dependent Energy Deposition in the Nanometer Scale and Nano
Dosimetry

- Herwig G. Paretzke
- IT-2 Personnel Neutron Dosimetry: Principles and Limitation
Marlies Luszik Bhadra
- O-1 Automatic Read out System for Superheated Emulsion Based Neutron
Detector
J.P. Meena, A. Parihar, S.G. Vaijapurkar and Anand Mohan.
- O-2 High Temperature Exposure Risk Assessment Analysis and Classification
Performance Evaluation of BARC ¹²⁵I-Ocuprosta Seeds for Safer
Brachytherapy Applications
Sanjay Kumar Saxena, Yogendra Kumar, Pratap Singh, S. Murali,
Ashutosh Dash and Meera Venkatesh

15.15 – 15.30

Tea

15.30 – 17.00

SESSION-III: Recent advances in Radiation Dosimetry-II

Chairman: Dr. U.C. Mishra, Formerly Director, HS & E Group
Co-Chairman: Shri A.H. Khan

- IT-3 Dosimetric Materials and Techniques
B.C. Bhatt
- IT-4 Biodosimetry
B.S. Rao
- O-3 Radiochronic Dosimeter for Nuclear Emergency
S.G. Vaijapurkar, A. Bera, H.S. Chaudhary, J.S. Hoda, A. Kumar and P.
Narayan
- O-4 Monte Carlo Calculations of Effect of Chest Wall Thickness on the
Assessment of Lung Burden of ²⁴¹Am
D.K. Akar, H.K. Patni and S. Bhati

17.00 – 18.00

SESSION-IV: Poster presentation and Rapporteur

Chairman: Dr. Pushparaja

- Rapporteur-1 (Radiation Protection Dosimetry): Dr. S.D. Sharma
P-3, P-4, P-5, P-6, P-7, P-12, P-20, P-27, P-29, P-47 & P-56
- Reppporteur-2 (Radiation Protection Instruments): Dr. M.S. Kulkarni
P-1, P-10, P-19, P-21, P-22, P-34, P-35, P-41, P-46, P-52 & P-54
- Reppporteur-3 (Radiation Protection for Members of Public & Environment):
Dr. Mohan Chougaonkar
P-11, P-18, P-23, P-24, P-25, P-31, P-33, P-36, P-42, P-50 & P-51

19.00 – 20.30

Cultural Programme

20.30.1.1

Dinner

Thursday, February 4, 2010

09.30 – 11.00

SESSION -V: Recent Advances in Radiation Dosimetry-III

Chairman: Dr. M.R. Iyer, Formerly Head, RSSD

Co-Chairman: Shri S.P. Agarwal

- IT-5 Computational Methods in Several Fields of Radiation Dosimetry
Herwig G. Paretzke
- IT-6 A New Neutron Monitor for Pulsed Radiation Field
Marlies Luszik Bhadra
- O-5 Estimation of Thorium Lung Burdens in Mineral Separation Plant
Workers by Thoron-in-Breath Measurement
Sujata Radhakrishnan, K. Sreekumar, Esai Selvan, R.M. Tripathi and V.D.
Puranik
- O-6 Biokinetic Studies of Strontium for Indian Adult Population using the
Data on its Daily Intake and Serum Content
Suma Nair and Sharda Bhati

11.00 – 11.15

Tea

11.15 – 13.00

SESSION-VI: Recent Advances in Radiation Dosimetry-IV and Dose Registry

Chairman: Dr. P.K. Sarkar, Head, HPD

Co-Chairman: Dr. B.K. Sapra

- IT-7 Bubble Detector for Laboratory n & γ Dosimetry
S.G. Vaijapurkar
- IT-8 National Dose Registry
Y.S. Mayya
- O-7 In House Development of Radiation Monitor Using Dual Phosphor
A. Dhanasekaran, P. Desheeb, P. Vijayasekaran, V. Rajagopal, M. Geo
Mathews and V. Meenakshi Sundaram
- O-8 Studies to Validate the Measurement of Translocation Frequency in
Peripheral Blood Lymphocytes by GTG Banding and Chromosome
Painting for Biological Dosimetry
Harpreet Kaur, F.D. Solomon, K. Paul, M. Thayalan, M. Balu David and
P. Venkatachalam
- O-9 Influence of Radioactive Cooling and Non-ideal Heat Transfer on TL
Glow Curves: Studies Using Clamped / Exponential Heating
Munish Kumar and G. Chourasiya

13.00 – 13.45 Lunch

13.45 – 15.30 SESSION-VII: Radiation Dosimetry, Computational Methods, Risk Assessment and Safety Analysis

Chairman: Dr. A.K. Ghosh, Ex. AERB
Co-Chairman: Dr. D. Datta

- IT-9 Dosimetric Aspects of Radiation Processing of Food and Allied Products
G. Sharma
- IT-10 Computational Methods
P.K. Sarkar
- O-10 Uncertainty Analysis in Radiological Risk Assessment Using Fuzzy Approach
Brij Kumar, D. Datta, M. Pandey and H.S. Kushwaha
- O-11 A Review of the Safety Aspects of Waste Tank Farm-P3A, Kalpakkam
Chitra Subramanian, V.K. Sharma and Vijay Zade
- O-12 Monte Carlo Simulation of the Calibration Factor of a Plastic Scintillator Based ⁸⁵Kr Stack Monitor
S. Bakar, A. Dhrnasekharan, K.C. Ajoy, V. Rajagopala and V. Meenakshi Sundaram

15.30 – 15.45 Tea

15.45 – 16.45 SESSION-VIII: Radiological Safety Assessment and Occupational Radiation Protection

Chairman: Dr. O.P. Singh, Secretary, AERB
Co-Chairman: Shri R.G. Purohit

- O-13 Radiological Consequence of Rupture of a High Level Waste Storage Tank at Advanced Waste Tank Farm – Tarapur
Arti Mhatre, V.K. Sharma and Umadevi K.
- O-14 Investigation on the Source of Activity in RCB of FBTR
M.T. Jose, R. Sarangapani, S. Viswanathan, Bajeer Sulthan, I. Jaffer, T.K. Srinivasan, D.N. Krishnakumar, N. Suriyamurthy and V. Meenakshisundaram
- O-15 Operational Health Physics Experience during Receipt of Fresh High Level Liquid Waste and the Historic HLW at WIP, Trombay
A.K. Deepa, K.R. Rathish, N. Bhosale, H.S. Patel, S.K. Saroj, K. Singh, A. Nayak, A.P. Jakhete, N.S. Tomar, C.P. Kaushik and P.C. Gupta
- O-16 Development of New Criteria for TLD-DRD Discrepancy Identification
R.B. Rakesh, M.M. Adtani and MMLN Rao.

16.45 – 17.45 SESSION-IX: Poster Presentation and rapporteuring

Chairman: Dr. A.G. Hegde

Rapporteur 1 (Radiation Protection Dosimetry): Dr. M.M. Adtani

P-57, P-65, P-75, P-76, P-81, P-85, P-86, P-87 and P-88

Rapporteur 2 (Occupational Radiation on Protection): Shri S.K. Prasad

P-2, P-8, P-9, P-15, P-16, P-17, P-26, P-30, P-32, P-37 and P-39

Rapporteur 3 (Radiation Protection Instruments): Shri D.A.R. Babu

P-53, P-60, P-65, P-67, P-68, P-78, P-80 and P-84

20.00 Dinner

Friday, February 5, 2010

9.30 – 10.45 SESSION-X: Radiation Dosimetry, Management / Studies Related to Nuclear & Radiological Emergencies, Radiation Risk

Chairman: Shri K. Muralidhar, Secretary, AEC

Co-Chairman: Dr. K.S. Pradeepkumar

IT-11 High Energy Dosimetry

Werner Ruehm

IT-12 Disaster Management / Emergency Preparedness

M.C. Abani

O-17 Requirement of Trained First Responders and National Level Preparedness for Prevention and Response to Radiological Terrorism

R. Sharma and K.S. Pradeepkumar

O-18 Advantage of Chromatographic Resin over the Conventional Nitrate Radiochemical Separation for ^{89,90}Sr in Milk in Case of Radiological Emergency

S.T. Mehenderge, V. Sudheendran, D.D. Rao and A.G. Hegde

O-19 Effect of Tumour Promoter Iodoacetate on Radiation Induced Chromosomal Aberrations in Human Lymphocytes

K.B. Anjaria, K.B. Shirsath, N.N. Bhat and B. Sreedevi

10.45 – 11.00 Tea

11.00 – 12.15 SESSION-XI: Radon Monitoring and Measurement System

Chairman: Dr. Y.S. Mayya, Head, RP & AD

Co-Chairman: Dr. G.G. Pandit

IT-13 Measurement of Individual Radon Exposure

Werner Ruehm

O-20 Indigenous Development and Networking of Real Time Radon Monitors In the Underground Uranium Mines

J.J. Garware, B.K. Sahoo, B.K. Sapra and Y.S. Mayya

- O-21 Measurement of Radon Flux and Tailings Parameters for Quantifying the Source Term due to Radon Exhalation from U Tailings Pile at Jaduguda
B.K. Sahoo, Y.S. Mayya, B.K. Sapra, J.J. Gaware and H.S. Kushwaha
- O-22 A Simple Technique for the Measurement of ^{222}Rn in Soil Gas Using LLRDS
N. Karunakara

12.15 – 12.50 SESSION-XII: Radiation Protection of Environment and Public

Chairman: Shri V.D. Puranik, Head, EAD
Co-Chairman: Dr. R.M. Tripathi

- O-23 A Comparison of Effects of Build-up Factors on the Estimation of External Exposure due to Elemental Release of Noble Gases
M.K. Chatterjee, R. Singh, K.S. Pradeepkumar and D.N. Sharma
- O-24 Gaseous and Liquid Effluents Releases to the Environment and Public Dose Index from MAPS-A Trend Analysis
L. Moolya, L. Chitra Balaji, K. Varalakshmi, Radhika Ravi, R.K. Kannan and P.G. Mohan Das

12.50 – 13.35 Lunch

13.35 – 14.30 Continuation SESSION-XII

- O-25 Estimation of Natural Radioactivity in the Ash Generated from Coal Fired Thermal Power Plants
R.C. Bhangare, S.K. Sahu, P.Y. Ajmal, G.G. Pandit and V.D. Puranik
- O-26 Repeated Readout of TLD Cards Based on CaSO_4 : Dy for Environmental Gamma Radiation Monitoring
T.A. Takale, M. Swarnkar, P.G. Shetty, S.K. Sahu, G.G. Pandit and V.D. Puranik
- O-27 Determination of Ionic Strength and Activity Coefficients in the Natural Ground Water of Mumbai
Ajay Kumar, S. Rout, D.Datta and V.M. Joshi

14.30 – 15.30 SESSION – XIII: Poster Presentation and Rapporteur

Chairman: Shri K.A. Pendharkar

Repporteur-1 (Occupational Radiation Protection): Ms. Pramilla Sawant
P-40, P-44, P-45, P-48, P-58, P-59, P-64, P-73 and P-77

Repporteur-2 (Radiation Protection of Environment & Public): Dr. P.C. Verma
P-53, P-61, P-63, P-66, P-71, P-72, P-74, P-79, P-82 and P-89

Repporteur-3 (Radiation Risk / Safety Assessment): Shri V.V. Sanyasi Rao
P-13, P-14, P-28, P-70, P-38, P-43, P-49 and P-69

15.30 – 15.45 Tea

15.45 – 16.15 CONCLUDING SESSION