

Report on the  
**109<sup>th</sup> National workshop on**  
**“Radiochemistry and Applications of Radioisotopes”**  
**at**  
**Department of Physics, Government College (Autonomous),**  
**Rajahmendravaram, Andhra Pradesh, India, during February 03-07, 2025**

The 109<sup>th</sup> BRNS-IANCAS National Workshop on “Radiochemistry and Applications of Radioisotopes” was organized at the Department of Physics, Government College (Autonomous), Rajamahendravaram, Andhra Pradesh, during February 03-07, 2025. Dr. P.S. Ramanjaneyulu was the coordinator and Dr. B. Gowri Naidu, Dept. of Physics, Govt. College (A), Rajahmundry was the local Co-ordinator of the Workshop. There were 85 registered participants in the workshop which included faculty members, research scholars and post graduate students from various departments of Govt. College and other institutes in Andhra Pradesh, Karnataka, Maharashtra and Delhi. Dr. P.K. Mohapatra, President, IANCAS and Former Director, RC & IG, BARC inaugurated the workshop. In his inaugural address, Dr. Mohapatra described about various activities of IANCAS like organizing symposiums, national workshops and awards for researchers/scientists working in nuclear and allied sciences. He also mentioned about the thematic bulletins published by IANCAS on its website. Dr. Ramanjaneyulu briefly explained the aim of organizing this workshop and structure of the Workshop. Later in his key note address, Dr. Mohapatra described about programs of Department of Atomic Energy, emphasizing the application of radiation and radioisotopes in healthcare, food and industry etc. The technical program of the Workshop (enclosed) comprised of 13 lectures and 4 experiments. The lectures and experiments were held during the forenoon and afternoon sessions, respectively. All the lectures were received very well by the participants, which was evident from the questions & answer session following each lecture and subsequent lively discussions. On each day at the end of forenoon technical session, quiz was conducted on topics discussed in previous lectures and participation of students and research scholars was overwhelming. Valedictory function was held in the afternoon of February 07, 2025 and Dr. Tapas Das, Head, RPhD, BARC was the Chief Guest. A few participants, including students, shared their impressions about the workshop. Dr. Tapas Das and Dr. Ramanjaneyulu responded to the feedbacks and emphasized the participants to apply radioisotopes in their research work. They appealed the participants to inform the people about the societal benefits of nuclear energy and radioisotopes. On behalf of IANCAS, G.M. Counter was donated to the host-institute for their academic use. All the participants were given workshop participation certificates. The Workshop was concluded with a vote of thanks by Dr. P.S. Ramanjaneyulu. The workshop was well covered by local media, covering the prominent places in Telugu and English News Papers (enclosed).

## Technical Programme

Lecture / Title	Speaker
Inauguration	Chief Guest Dr. P.K. Mohapatra, President IANCAS
<b>Keynote Lecture 1:</b> DAE at a glance: Peaceful uses of atomic energy	Dr. P.K. Mohapatra
<b>L1:</b> Theory of Radioactive Decay- Part I	Dr. Sabyasachi Patra
Introduction to Practicals & formation of groups for practical	Dr. Sabyasachi Patra
<b>L2:</b> Theory of Radioactive Decay- Part II	Dr. Sabyasachi Patra
<b>L3:</b> Interaction of Radiation with Matter	Shri. Atanu Jha
<b>L4:</b> Career Opportunities in DAE	Dr. P.S. Ramanjaneyulu
<b>Interaction with Participants: Quiz Competition</b>	
<b>L5:</b> Radiation Detection and Measurements	Dr. Sabyasachi Patra
<b>L6:</b> Nuclear Reactors	Dr. P.S. Ramanjaneyulu
<b>L7:</b> DAE Technologies for Societal Applications	Shri. P. Daniel Babu
<b>Interaction with Participants: Quiz Competition</b>	
<b>L8:</b> Application of Radioanalytical Techniques in Research	Dr. P.S. Ramanjaneyulu
<b>L9:</b> Radioisotopes in Health care (Diagnosis)	Dr. Tapas Das
<b>L10:</b> Radioisotopes in Health care (Therapy)	Dr. Tapas Das
<b>Interaction with Participants: Quiz Competition</b>	
<b>L11:</b> Production of Radioisotopes	Dr. Tapas Das
<b>L12:</b> Application of Radioisotopes and Radiation in Industry	Shri. Atanu Jha
<b>L13:</b> Radiation Safety and Setting up a Radiological Laboratory	Dr. P.S. Ramanjaneyulu
<b>Interaction with Participants: Quiz Competition</b>	
Valedictory & Distribution of Participation Certificates: Chief Guest: Dr. Tapas Das, Head, RPhD, BARC.	

**Experiments:**

1. G.M. Counter - (Plateau, Dead time & Statistics)- Dr. Sabyasachi Patra & Shri Sahiralam Khan, RPhD
2. NaI(Tl) - (Determination of resolution of detector & attenuation Coefficient)- Shri. D. Chandra Sekhar, PDD
3. Environmental (Soil/ Air/Fruits) radioactivity demonstration- Shri. Atanu Jha
4. Application of Radioactivity in Separation Science – (U/Th Separation) - Dr. P.S. Ramanjaneyulu

**Coordinator of the workshop: Dr. P.S. Ramanjaneyulu, Head, HTAS, RACD, BARC**

**Practical coordinator of the workshop: Dr. Sabyasachi Patra, Senior Scientific Officer, RCD, BARC**

