

Tarun Datta Memorial Award to BARC scientist

Dr. Tirumalesh Keesari, a Scientific Officer in Isotope Hydrology Section of Isotope Radiation and Application Division (BARC), recently received the prestigious Tarun Datta Memorial Young Scientist Award in recognition of his outstanding contributions in the field of nuclear and radiation chemistry – “fundamental or applied research”.

The Indian Association of Nuclear Chemists and Allied Scientists (IANCAS) presents the annual Tarun Datta Memorial Young Scientist Award to scientists for their outstanding contributions in the field of Nuclear and Radiochemistry.

Dr. Keesari's research interests include water contamination, geochemical modeling, groundwater recharge, spring revival in Himalayan regions, coastal salinity and studies on extreme climatic regions of India. He is currently working on the application of isotope technology employing environmental isotope and injected tracers for sustainable water resources management.

In the recent past, Dr. Keesari played a pivotal role in the application of isotope technology consisting of environmental isotopes (^2H , ^{18}O , ^{13}C , ^{34}S , ^3H , ^{14}C , ^{222}Rn) and injected tracers (^3H , ^{82}Br) for sustainable water resources management. Besides this, he was also successful in delineating the anthropogenic and natural sources for fluoride contamination in many parts of India through isotope finger-printing. His endeavor has benefited water authorities from fluoride impacted regions of Talcher (Odisha), Nalgonda (Telangana), Bagalkot (Karnataka)



Dr. Tirumalesh Keesari working on samples at a dedicated laboratory.

and central parts of Rajasthan in planning effective remediation protocols. Through application of reactor produced tracers (^{82}Br and ^3H), he has accurately demarcated the susceptible zones for contaminant migration in groundwater of Indian Rare Earths Ltd. site (Kerala) and saltpan areas in Mahim and Kelwe regions (Maharashtra). These results were crucial in adopting suitable preventive measures.

Dr. Keesari has over 80 international journal publications to his credit and is also a recipient of DAE Science and Technology Award and Indo-US Science and Technology Award. He is an Associate Professor in Chemical Sciences in Homi Bhabha National Institute, Mumbai.