



## Technical Article

- Novel Magnetic Graphene Oxide Composite Material as a Solid-Phase Adsorbent for Uranium Removal

## Young Officer's FORUM

- IN-SITU Calibration System for Area Gamma Monitors and Autonomous Gamma Dose Loggers

## Young Researcher's FORUM

- Inter-droplet Force Between Magnetically Polarizable Pickering Oil-in-water Nanoemulsions Stabilized with  $\gamma$ - $\text{Al}_2\text{O}_3$  Nanoparticles: Role of Electrostatic and Electric Dipolar Interactions

## News and Events

- Role of Nuclear and other Advanced Technologies for Climate Change Control
- Hindi Workshop
- Report on Transfer of IGCAR's Conductivity Meter Technology
- Women's Day Celebrations at IGCAR 2023

## Awards, Honours and Recognitions

## Bio-diversity @ DAE Campus, Kalpakkam



Director's Message

Dear Colleagues,

The fuel handling operation required for the 32nd campaign of FBTR was planned in two stages. The first stage of fuel handling operation to load two MK-1 fuel assemblies into the core, was completed. Reactor was started on 31st March to measure shutdown margin and operated at 25kWt to measure control rod worth. Commissioning of new 670 kW, 6.6 kV HT motor for Main Boiler Feed Pump (MBFP)-"A" was completed. An integrity test of MBFP motor-A for 100 hrs continuous operation was completed. All the mandatory surveillance checks including DG load test as per the planned schedule were carried out. 64th campaign for reprocessing of 105 GWd/t Burnup FBTR fuel in CORAL facility has been completed successfully.

The upgraded Online Nuclear Emergency Response System (ONERS-2) with provisions for radiological consequence assessments using Time-Dependent source Terms has been installed along with Numerical Weather Prediction & Dispersion Models on the High Performance Computing System at the Nuclear and Radiological Emergency Monitoring Cell, AERB Mumbai. The ONERS is used by NREMC-AERB for monitoring of emergency exercises and training purposes. The installation of C-Band Doppler Weather RADAR at Kalpakkam site in collaboration with ISTRAC has been completed. Endurance test and other commissioning works are in progress.

The transfer of Pulsating sensor-based conductivity meter technology developed in IGCAR to M/s. Lablink, Mumbai based industry on a non-exclusive basis was carried out as part of 'Atma Nirbhar Bharat' mission.

Women's day was celebrated from March 1-7, 2023, at IGCAR. Ministry of Women and Child Development had directed DAE to create awareness about the schemes developed by the government for the welfare of women. The celebrations included competitions and felicitating girl students who have excelled in studies, sports, and cultural events.

I appreciate the efforts of the editorial committee and the authors for their contributions to the newsletter.

[B. Venkatraman]  
Director IGCAR & GSO

## All India Hindi Scientific Seminar Role of Nuclear and other Advanced Technologies for Climate Change Control

January 10-11, 2023



### Glimpses of the All India Hindi Scientific Seminar-2023

On the occasion of World Hindi Day (January 10), An All India Hindi Scientific Seminar was organized by the Official Language Implementation Committee of Indira Gandhi Atomic Research Centre, Kalpakkam jointly with Bhartiya NabhikiyaVidyut Nigam Limited, Kalpakkam and General Services Organisation, Kalpakkam at Sarabhai Auditorium, Homi Bhabha Bhavan, IGCAR on January 10 and 11, 2023. The title of the seminar was “Role of Nuclear and other Advanced Technologies for Climate Change Control”. Dr. G.K. Dey, Former Director, Materials Division, BARC was present as a chief guest of the inaugural function of the seminar. Dr. B. Venkataraman, Director, IGCAR presided over the seminar. Addressing the audience, he said that keeping in mind the environment protection, the Department of Atomic Energy is

committed to the development of green energy production and climate-friendly innovative technologies. Scientific and technical officers and research scholars from the units of the Department of Atomic Energy, major scientific and research institutes, public sector establishments, all India educational institutions located across the country registered their participation in the seminar. A total number of 6 technical sessions were organized during the seminar, in which 13 invited talks, 14 contributory talks and 47 posters were presented. A total of 85 general participants were present in the seminar.

*Reported by  
Prabhat Kumar Sharma, DD (OL)*