



## Director's Message

Dear Readers,

It gives me immense pleasure to share with you the series of programs conducted by IGCAR as part of "Azadi ka Amrit Mahotsav" to commemorate the 75<sup>th</sup> Independence Day. Nuclear Science Yatra was carried out to create awareness on nuclear science and technology and highlight the activities of the Department of Atomic Energy among the youth, especially in the rural areas of all districts in Tamil Nadu. The yatra started at Kalpakkam and culminated at Kudankulam, covering a distance of more than 1000 km. It was flagged off by Chief Administrative Officer and it covered 10 institutions. Each of these institutions served as a nodal point where exhibitions and competitions were conducted and more than 2000 students participated in the exhibitions. IGCAR and GSO, had organized a sand art sculpture in the Kalpakkam beach during August 27-28, 2022 depicting various technologies of DAE applied to the societal benefits. The sculpture was inaugurated by Revenue Divisional Officer, Chengalpattu Smt. Shajeevana IAS. IGCAR also organized a one day awareness event in the higher secondary school, Sadurangapattinam as a part of DAE-ICONIC week. As a part of the event, mathematician Shri Jothi Lingam, Retired Station Master, Indian Railways explained generation of magic square to the students.

Important achievements of various groups of IGCAR were highlighted during the 75<sup>th</sup> Independence Day. FBTR has operated for 78 effective full-power days generating about 15.6 million units of electricity. UO<sub>2</sub> pin chopping was inaugurated at DFRP. The incubation centre has transferred four technologies to various companies. I appreciate the efforts of the editorial committee and the author's contributions to the Newsletter.

Jai Hind

(B. Venkatraman)

Director, IGCAR

### Technical Article

- Development of Indigenous SEESPEC Code for the Modeling and Simulation of Solvent Extraction Process

### Young Researcher's FORUM

- Post Synthetic Modification of Metal-Organic Frameworks for Development of Phosphors and Sensing / Recovery of U(VI)

### News and Events

- Azadi ka Amrit Mahotsav Indira Gandhi Centre for Atomic Research Program on Anu Awareness – a brief report
- DAE-ICONIC Week Celebration Indira Gandhi Centre for Atomic Research

### Awards, Honours and Recognitions

### Bio-diversity @ DAE Campus, Kalpakkam

## Awards, Honours and Recognitions

**Dr. John Philip and Dr. Vasudevan** featured in the world's top 2% Scientist list in the career-long category with 128,190, and 255,412 ranks, respectively published by Elsevier and Stanford university in 2022.

**Dr. John Philip, Dr. Vasudevan and Dr. B. B. Lahiri** featured in the world's top 2% Scientist list in the single-year category with 46,826, 100,534 and 215,992 ranks, respectively published by Elsevier and Stanford university in 2022.

**Manali Nandi**, SMARTS, MCG received the Best PhD Research Award (Physics) 2022 of Dr. K. V. Rao Scientific Society, Hyderabad for the thesis "Inter-droplet force measurement between gamma alumina Stabilized Pickering nanoemulsion droplets: role of electrostatic and electric dipolar interactions"

**Dr. Geetisubhra Jena**, CSTD, MCG, received the Best thesis award by NACE International India Section – during CORCON 2022, 19th – 22nd September, Udaipur, India for her thesis titled "Development of graphene oxide based composite coating with improved corrosion resistance and antibacterial properties".

**E. Premkumar**, SIRD, IGCAR won the Bronze medal on Uganda Para-badminton International tournament 2022 in both Men's Singles and Men's Doubles categories.

## Best Paper Award

**Reshma. T. S, Sourav Pan and Arindam Das**

Selective Adsorption and Fast Photocatalytic Degradation of Mixture of dyes by Uncapped SnO<sub>2</sub> QDs.

International Conference on Frontiers for Technological Applications (FIMTA 2022) (Gold Medal)

**Dr. Anandkumar, Surdharshan, T. Nandakumar, Ravishankar and J. Philip** of CSTD received the Best Poster Award of CORCON 2022 held during Sept 19-22, 2022 for the poster titled "Development of silane-based epoxy hybrid coating on water transporting pipeline materials for enhanced microbiologically influenced corrosion protection performance"