



Embassy of India, Berne

# INDIA SCIENCE AND INNOVATION WEEKLY

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*Ask the right questions, and nature will open the door to her secrets  
- Dr. C.V. Raman, The Nobel Prize in Physics 1930*

## **Bengaluru Science & Technology Cluster (BeST) Launched During 'Bengaluru Tech Summit, 2022'**

During the 'Bengaluru Tech Summit, 2022' the Principal Scientific Adviser (PSA), Government of India, formally launched the Bengaluru Science & Technology Cluster (BeST). BeST is a collaboration of more than fifty organisations from Bengaluru, including industry partners, major academic institutions, start-ups, civil society organizations, and government bodies. The Indian Institute of Science (IISc) coordinated the effort in partnership with Centre for Cellular and Molecular Platforms (C-CAMP), India's leading biotech research and innovation hub supported by the Department of Biotechnology (DBT), Govt. of India. BeST, the latest in this set of clusters, has identified health & wellness, urban life, and futuristic technologies as its core sectors.

## **CCMB Developed Environmental DNA (eDNA)-based Molecular Methods to Detect Invasive Catfish in Waterbodies**

To detect invasive species i.e. North African Sharptooth catfish, which was banned by Govt. of India from culturing and selling, the Centre for Cellular and Molecular Biology (CSIR-CCMB) developed Environmental DNA (eDNA)-based molecular methods that provide a time and cost-effective alternative. The North African Sharptooth catfish is one such species that was illegally introduced in India for aquaculture purposes. Now the species has invaded most freshwater ecosystems and posing a severe threat to biodiversity, causing local extinction of native species and impacting ecosystem services, human livelihood, economy, and health.

## **Scientists Found How Noise in the Quantum Domain Could Affect a Charged Particle in a Magnetic Field**

Physicists from the Raman Research Institute (RRI), an autonomous institute funded by the Department of Science and Technology, Govt. of India, and TIFR - International Centre for Theoretical Sciences (ICTS), probed the role of noise in quantum technology and the evolving area called quantum Brownian motion. They found how noise in the quantum domain can affect a charged particle in a magnetic field and traced the role of quantum noise in the decay of correlations at ultra-cold temperatures in the context of a charged particle in a magnetic field. RRI scientists involved in the study commented that the latest findings could deepen existing knowledge and explore ways to control noise in the domain of quantum technology.

## **IIT-Madras Developed an Information Technology Tool to Monitor & Improve Health in Communities Living Rural Areas of Andhra Pradesh**

Researchers at Indian Institute of Technology Madras (IIT-Madras) developed an Information Technology tool to monitor and improve the health of rural communities in Chittoor district of Andhra Pradesh. The IT Tool, developed using open source software, was deployed to gather detailed household-level annual health-related information. Further, the IT Tool was also utilized to make an objective assessment of the impact of medical treatment and dietary advice on priority health issues. Researchers commented that this would lead to evolving an optimal rural healthcare plan based on treatment efficacy.

## **Special Update: ISRO Launched 'EOS-6' the 3rd Generation Indian satellite for Monitoring the Oceans**

Department of Space, Govt. of India, reported that Indian Space Research Organization (ISRO) in partnership with Ministry of Earth Sciences launched the third generation Indian satellite for monitoring the oceans, formally named as Earth Observation Satellite-6 (EOS-6) from its First Launch Pad (FLP) at Satish Dhawan Space Centre (SDSC), Sriharikota. The Oceansat-3 is expected to provide improved accuracy in wide range of operational and research applications including fishery resource management, ocean carbon uptake, harmful algal bloom alerts, and climate studies. The major operational user of this satellite would be MoES institutions viz Indian National Centre for Ocean Information Services (INCOIS), Hyderabad and National Centre for Medium Range Weather Forecasting (NCMRWF), Noida that provide a bouquet of services every day.