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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*

DST is Implementing a National Mission- Interdisciplinary Cyber Physical Systems

Ministry of Science & Technology reported that the Government has taken many effective steps with regards to the development and efficient usage of Artificial Intelligence (AI), Data Science and R&D for Science & Technology. Further, Department of Science & Technology (DST) is implementing a National Mission- Interdisciplinary Cyber Physical Systems (NMICPS), for a period of 5 years. As part of the Mission implementation, 25 Technology Innovation Hubs (TIHs) have been established in reputed institutes across the country in advanced technologies. The Mission aims at development of technology platforms to carry out R&D, translational research, product development, incubating & supporting start-ups and as well as commercialization.

MoES Developed Indigenous Technology for Conversion of Sea Water to Potable Water

Ministry of Earth Sciences (MoES) through its autonomous Institute National Institute of Ocean Technology (NIOT) has developed an indigenous Low Temperature Thermal Desalination (LTTD) technology, for conversion of sea water to potable water, which has been successfully demonstrated in Lakshadweep islands. Further, 3 desalination plants based on the LTTD technology have been developed & demonstrated at Kavaratti, Agati and Minicoy Islands of Union Territory of Lakshadweep. The capacity of each of these LTTD plants is 1 Lakh litre of potable water per day.

CeNS Bangalore Developed New Memory Device with Excellent Switching Characteristics and Low-Power Requirements

Scientists at the Centre for Nano and Soft Matter Sciences (CeNS), Bangalore, an autonomous institution of Department of Science and Technology (DST), Govt. of India, developed a memory device with excellent switching characteristics and low-power requirements for data storage applications. CeNS scientists added that the New Memory Device is made from the chemical hafnium oxide, a replacement for silicon oxide and it also exhibited good endurance, and high retention. CeNS researchers are converting these resistive memory devices into miniature forms and their research published in the *Journal of Alloys and Compounds*, which could contribute to the development of more efficient, viable, and reliable resistive memory devices in the future.

IMD is Exploring the Possibilities to Deploy Drones to Gather Atmospheric Data

Ministry of Earth Science announced that India Meteorological Department (IMD) is exploring the possibilities to deploy drones to gather atmospheric data from various locations, in place of weather balloons. For in-depth study of thunderstorms over the East India region, Ministry of Earth Sciences is setting up a Thunderstorm Testbed site. As a part of this project, the Ministry has proposed to purchase two drones for monitoring of weather parameters of the atmospheric boundary layer prior to occurrence of thunderstorms and also for post event monitoring of damages.

Special Update: MNRE - Steps by Govt. to Promote RE in India

Ministry of New and Renewable Energy (MNRE), Govt. of India, has taken several steps to promote Renewable Energy (RE) in India. These include:

- i. Permitting Foreign Direct Investment (FDI) up to 100 percent under the automatic route.
- ii. Waiver of Inter State Transmission System (ISTS) charges for inter-state sale of solar and wind power for projects to be commissioned by 30th June 2025.
- iii. Setting up of Ultra Mega Renewable Energy Parks to provide land and transmission to RE developers on a plug and play basis
- iv. Laying of new transmission lines and creating new sub-station capacity under the Green Energy Corridor Scheme for evacuation of renewable power
- v. Setting up of Project Development Cell for attracting and facilitating investments,