



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*

DRDO Conducted Two Successful Flight Tests of the Indian Army Version of Medium Range Surface to Air Missile (MRSAM)

Defence Research and Development Organisation (DRDO) successfully conducted two flight tests of the Indian Army version of Medium Range Surface to Air Missile (MRSAM) at Integrated Test Range, Chandipur. DRDO further reported that the MRSAM Army weapon system comprises multi-function radar, mobile launcher system and other vehicles and stated that these tests are the major milestones for an 'Aatmanirbhar Bharat'.

Innovations for Defence Excellence (iDEX) Framework

Ministry of Defence reported that Govt. of India with the aim to foster innovation and technology development in Defence and Aerospace Sector by engaging Industries including MSMEs, start-ups, individual innovators, R&D institutes and academia and promote self-reliance, launched Innovations for Defence Excellence (iDEX) framework. Further, Govt. has also approved a central sector scheme viz. Innovations for Defence Excellence (iDEX) with budgetary support of INR 498.78 crore for the next 5 years from 2021-22 to 2025-26. Under iDEX route, the Government focuses on innovation and design & development, and supports the start-ups and innovators for successful prototype development. Until now, 132 start-ups have been engaged and 66 contracts have been signed for prototype development.

IIT Madras Launched Sudha Gopalakrishnan Brain Centre to Map Human Brains at Cellular Level

Indian Institute of Technology (IIT)-Madras, inaugurated the Sudha Gopalakrishnan Brain Centre to map the human brains at cellular level. The center would focus on high resolution imaging of whole human brain at 'cellular and connectivity level' and it aims to become a world-renowned research centre, generating 'unprecedented' amounts of human brain data, scientific output and technology tools. With this inauguration, India has taken a huge step forward in brain mapping as through this technology platform, the centre is imaging post-mortem whole human brains of different types and ages.

Indian Scientists Indigenously Developed Platinum-Based Electrocatalyst

Indian scientists at International Advanced Research Centre for Powder Metallurgy and New Materials (ARCI), an autonomous R&D Centre of the Dept. of Science and Technology, Govt. of India, developed an indigenous platinum-based electrocatalyst for use in fuel cells through an efficient procedure 'functionalization of carbon to enhance the carbon to platinum interaction known as strong metal substrate interaction (SMSI)'. This electrocatalyst showed comparable properties to the commercially available electrocatalyst and superior corrosion resistance & durability could enhance the lifetime of the fuel cell stack performance. Scientists at ARCI-Chennai expect that the development would also pave the way for Atma Nirbhar Bharat.

Special Update: Govt. of India's Initiatives to Promote Renewable Energy

Ministry of New and Renewable Energy informed that the Govt. of India has taken following initiatives & Steps to promote Renewable Energy (RE):

- i. FDI up to 100% under the Automatic Route in RE sector
- 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. declaration of trajectory for Renewable Purchase Obligation (RPO) up to 2022
- iv. setting up of Ultra Mega Renewable Energy Parks to provide land and transmission to RE developers on a plug and play basis
- v. setting up of Project Development Cell for attracting and facilitating investments
- vi. Standard Bidding Guidelines for tariff based competitive bidding process for procurement of Power from Grid Connected Solar PV and Wind Projects.