

Embassy of India, Berne

INDIA SCIENCE AND INNOVATION WEEKLY

12 February 2024

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

MeitY Transferred Three Indigenous Technologies to Industries

During the launch event of "Digital India FutureLABS Summit 2024", at IIIT-Delhi, Ministry of Electronics & IT (MeitY) transferred the three Indigenous Technologies to 12 industries:

- Thermal Camera: The technology is targeted for applications across multiple domains including Smart cities, Industries, Defence. Health & others.
- ii. CMOS Camera: Industrial Vision Sensor iVIS 10GigE is a CMOS based vision processing system with a powerful onboard computing engine to perform the next generation industrial machine vision applications.
- iii. Fleet Management System: FlexiFleet aims to optimize operations and enhance the efficiency of fleet operators and transit agencies

Successful Flight Trials of High-Speed Expendable Aerial Target 'ABHYAS'

Defence Research & Development Organisation (DRDO) successfully carries out the four flight trials of High-speed Expendable Aerial Target 'ABHYAS' from Integrated Test Range, Chandipur. Designed by DRDO's Aeronautical Development Establishment (ADE), ABHYAS offers a realistic threat scenario for practice of weapon systems. It is designed for autonomous flying with the help of an auto pilot indigenously made by the ADE. With identified agencies, ABHYAS is ready for production.

Indigenous India Employed AI Methods to Address Various Challenges in the Agricultural Sector

The Ministry of Agriculture and Farmers Welfare in India employed Artificial Intelligence (AI) methods to address various challenges in the agricultural sector that includes:

- iv. 'Kisan e-Mitra' an AI-powered chatbot to assist farmers with queries about the PM Kisan Samman Nidhi scheme.
- v. National Pest Surveillance System for tackling the loss of produce due to climate change. This system utilizes AI and Machine Learning to detect crop issues.
- vi. AI based analytics using field photographs for crop health assessment and crop health monitoring using Satellite, weather & soil moisture datasets for rice and wheat crop.

MeitY Inaugurated CoE on E-waste Management at C-MET, Hyderabad

Ministry of Electronics and Information Technology (MeitY), Govt of India, inaugurated Centre of Excellence (CoE) on E-waste Management at C-MET, Hyderabad. Centre for Materials for Electronics Technology (C-MET) is an autonomous scientific society under MeitY, having three R&D laboratories located at Pune, Hyderabad & Thrissur focusing on different thrust areas on critical electronic materials. C-MET, Hyderabad lab is focusing on the development of leap frogging electronic materials and strategic materials including metals and alloys. Its one of the major thrust area is to develop environmentally benign e-waste recycling technologies to promote resource efficiency. The CoE has developed various e-waste recycling technologies viz. spent PCB, Li Ion Battery, Permanent magnet and Sisolar cells, etc. C-MET has not only developed recycling technologies but also designed and fabricated necessary processing equipment for the same.

Special Update: Pilot Project Guidelines for Utilizing Green Hydrogen in Steel Sector

Ministry of New & Renewable Energy (MNRE) issued guidelines, named "Scheme Guidelines for implementation of Pilot projects for use of Green Hydrogen in the Steel Sector under the National Green Hydrogen Mission". The use of Green Hydrogen and its derivatives in the steel sector, through the proposed pilot projects, would lead to the development of necessary infrastructure for use of Green Hydrogen in the Iron & Steel industry, resulting in establishment of a Green Hydrogen ecosystem in the steel sector. The utilization of green hydrogen in the steel industry is expected to increase over the years, with the expected reduction in its production cost. The National Green Hydrogen Mission to contribute towards India's goal to become Aatmanirbhar (self-reliant) through clean energy and serve as an inspiration for the global Clean Energy Transition.