



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*

## IIT Delhi inaugurated State-of-the-art Laboratories at CART Center

Indian Institute of Technology (IIT Delhi) inaugurated the state-of-the-art Battery Research, Charging Infrastructure and Automotive Health Monitoring (AHM) laboratories at its Centre for Automotive Research and Tribology (CART). CART was established in 2019 and it focuses on conducting high end research and development in the areas of battery-operated electric vehicles, hybrid electric vehicles, storage and alternate energy sources, autonomous and connected vehicles. The Battery Research laboratory is equipped with advanced equipment for battery testing at cell, module and pack levels and the AHM laboratory is equipped with high-end equipment for condition monitoring and automotive Noise, Vibration and Harshness (NVH) testing.

## IIT Madras adopted satellite technology to make cheaper and better ultrasound scans

Professor at Dept. of Applied Mechanics, Indian Institute of Technology (IIT Madras) improved the quality of ultrasound image, by adopting satellite technology 'synthetic aperture radar', or SAR', which also made the ultrasound scans much cheaper as well. Modern satellites use SAR, for imaging from above that lets them image a large area without losing the sharpness of the picture, this principle of SAR was incorporated into ultrasound scans.

## CSIR to develop machinery for cultivation of sea buckthorn berry in Ladakh

In collaboration with the Govt. of the Union Territory of Ladakh, Council of Scientific and Industrial Research (CSIR) to start commercial cultivation of sea buckthorn berry in Ladakh. CSIR would also develop better harvesting machinery as currently only 10% of the berry is being extracted from the wild sea buckthorn plants. The sea buckthorn berry is a natural immunity-boosting fruit having medicinal properties.

## 650 teraflops supercomputing facility inaugurated at National Agri-Food Biotechnology Institute (NABI) at Mohali

Minister of State for the Ministry of Science and Technology inaugurated an advanced 650 teraflops supercomputing facility at National Agri-Food Biotechnology Institute (NABI) at Mohali which would act as a facilitator for start-ups working in areas i.e. telemedicine, digital health, AI & Blockchain. The supercomputing facility would also cater to the needs of the interdisciplinary cutting-edge research being carried out at the Institute related to agricultural and nutritional biotechnology and help analyse big data accruing from the large-scale genomics, functional genomics, structural genomics, and population studies. The facility would be available to the scientists of NABI and Centre of Innovative and Applied Bioprocessing (CIAB).

## Special Update: DRDO & IAF successfully tested indigenously-developed smart anti-airfield weapon

Defence Research & Development Organisation (DRDO) and Indian Air Force (IAF) successfully tested the indigenously-developed smart anti-airfield weapon which are based on satellite navigation and electro optical sensors. The smart anti-airfield weapon has been designed and developed by Research Centre Imarat (RCI) in coordination with other DRDO laboratories and extensive support from IAF. The key highlights of the indigenously-developed smart anti-airfield weapon are:

- First Electro optical seeker based flight test of this class of bomb in the country
- Equipped with Imaging Infra-Red Seeker technology to enhance precision strike capability of the weapon
- Maximum range of 100 kms