



Embassy of India, Berne 09 March 2020

INDIA SCIENCE AND INNOVATION WEEKLY

Ask the right questions, and nature will open the door to her secrets.

- Dr. C.V. Raman, The Nobel Prize in Physics 1930

India shares two SARS-CoV-2 genome sequences

Pune-based National Institute of Virology shared two whole genome sequence data of the novel coronavirus (SARS-CoV-2) with the Global Initiative on Sharing All Influenza Data (GISAID). Sequencing the virus can help to know where the virus came from and how the virus spread.

Plant wound healing explained by IISER-tvm researcher

Researchers from the Indian Institute of Science Education and Research at Thiruvananthapuram (IISER-Tvm) has shed light on how plants regenerate their vascular system at the site of injury. Protein called Plethora and another gene called CUC2 bind together to increase the plant's growth hormone to repair its wound.

Geophysicists from CSIR-NGRI explain low magnitude quakes

Dr. Vineet K. Gahalaut, Senior Principal Scientist, Council of Scientific and Industrial Research-National Geophysical Research Institute (CSIR-NGRI), Hyderabad elucidated low-magnitude earthquakes in the western coastal region. Using seismograph and satellite-based monitoring, the reason for the occurrence was found to be aseismic slips driven by fluid migration at shallow depths.

Chandrayaan-3 to be launched

Indian Space Research Organisation (ISRO) will launch Chandrayaan-3 in first-half of 2021. Four biological and two physical science experiments related to microgravity are short-listed.

Country's first unique sewerage system

National Environmental Engineering Research Institute (Neeri) has designed the country's first decentralized shallow sewerage system for Arvi City. The first sewage treatment plant is based on phytotrid technology and the second on a moving bed biofilm reactor.

IIT Bombay, Delhi among top 50 engineering schools across globe

The prestigious Indian Institute of Technology (IIT) in Mumbai and Delhi are among the top 50 engineering colleges across the globe, according to subject-wise QS World Ranking. While IIT Bombay has been ranked 44, IIT Delhi has bagged the 47th rank. Last year, IIT Delhi was at the 61st position, while IIT Bombay was at 53rd spot. According to Human Resource Development (HRD) Minister Ramesh Pokhriyal 'Nishank', this is the result of continuous efforts of the Government of India to promote the environment of research and innovation in its educational institutions.

NML signs MoU for e-waste recycling

CSIR-National Metallurgical Laboratory (NML), Jamshedpur has inked a Memorandum of Understanding (MoU) with M/s Walle Infotech, Ranchi for the extraction of gold, silver, copper, manganese and cobalt from waste batteries to enhance cooperation in the sector of e-waste recycling. M/s Walle Infotech, Ranchi will be establishing the very first electronic waste recycling company at Jamshedpur. Association of NML with M/s Walle Infotech will not only help to process the electronic waste and convert waste into resource but also give job opportunities to local people.

India's first earth imaging satellite to be launched by ISRO

A Geosynchronous Satellite Launch Vehicle (GSLV-F10) will launch GISAT-1 from Satish Dhawan Space Centre (SDSC) in Sriharikota, Andhra Pradesh. This will be the fourteenth flight of the GSLV. The GSLV flight will have a four-metre diameter ogive-shaped payload fairing being flown for the first time. A payload fairing is a nose cone used by a spacecraft for protection against dynamic pressure and aerodynamic heating during launch. After the launch, GISAT-1 will reach the final geostationary orbit of around 36,000 km using its onboard propulsion system. Among the main objectives of GISAT-1 would be to facilitate real-time observation of India, monitoring of natural disasters, keeping a watch on borders and monitoring geographical changes in India.

Special Update: Indian Institute of Tropical Meteorology, Pune

Indian Institute of Tropical Meteorology (IITM) is an autonomous institute of the Ministry of Earth Sciences, Government of India. The need to study the fundamental atmospheric problems and understand the mechanism of monsoon, weather systems and climate related processes in the tropical region, particularly over the monsoon region, became acute for India in 1950's when the country's post-Independence economic development program was launched. Considering this urgent need the World Meteorological Organization (WMO), in its Third Congress, recommended the creation of meteorological research and training institutes in the tropical countries. The proposal was formally approved by the Government of India in February 1962 and the Institute was founded as the Institute of Tropical Meteorology (ITM) on 17 November, 1962 at Pune. IITM is a premier research Institute to generate scientific knowledge in the field of meteorology and atmospheric sciences that has potential application in various fields such as agriculture, economics, health, water resources, transportation, communications, etc.

Further details can be found at:

<https://www.tropmet.res.in/>