



Embassy of India, Berne

INDIA SCIENCE AND INNOVATION WEEKLY

25 October 2021

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

S&T launched Air Quality Early Warning System (AQEWS)

On the occasion of Azadi Ka Amrit Mahotsav week organised by the Ministry of Earth Sciences, Minister of Science and Technology launched Air Quality Early Warning System (AQEWS). The Air Quality Early Warning System (AQEWS) and New Decision Support System (DSS) has been developed by Indian Institute of Tropical Meteorology (IITM), an autonomous Institute of Ministry of earth Sciences. Further the Ministry also informed that AQEWS could become user friendly tool for air-quality management in and around Delhi as a dedicated website has also been created to deliver quantitative information about the contribution of emissions from Delhi and the surrounding 19 districts.

DRDO successfully flight-tested High-Speed Expendable Aerial Target

Defence Research and Development Organisation (DRDO) successfully flight-tested the indigenously developed High-Speed Expendable Aerial Target (HEAT) – ABHYAS from the Integrated Test Range (ITR), Chandipur. The vehicle can be used as an aerial target for evaluation of various missile systems and has been developed by the Aeronautical Development Establishment (ADE), Bengaluru. DRDO further reported that the indigenous target aircraft, once developed, would meet the requirements of High-speed Expendable Aerial Targets (HEAT) for Indian Armed Forces.

IIT Madras researchers developed a white light emitter for use in LEDs

Since conventional LED materials cannot emit white light and to do so it requires a specialized techniques, therefore as a solution to emit white light without loss of efficiency, Indian Institute of Technology, IIT Madras researchers successfully developed a white light emitter for use in LEDs. Development of energy-efficient LEDs replaced the energy-inefficient incandescent lamps in lighting and display applications. The innovation has been patented by the researchers and was recently granted the Government of India's 'SERB-Technology Translation Award.

'One Health' consortium launched by Dept. of Biotechnology, Govt. of India

Department of Biotechnology (DBT), Ministry of Science and Technology, GoI supported mega consortium on 'One Health' and launched the First 'One Health' project of DBT. This project envisages carrying out surveillance of important bacterial, viral and parasitic infections of zoonotic as well as transboundary pathogens in India, including the North-eastern part of the country. One Health fosters the concept where man, animal, plants and environment are needed to be considered complimentary to each other for maintaining health of all.

Special Update: IIT Delhi Establishes SMITA Research Lab Centre of Excellence in Smart Textiles

To work in the area of Smart and Functional Textiles using emerging materials and process technologies, which can directly benefit the country's textile industry Indian Institute of Technology, IIT Delhi converted its state-of-the-art SMITA (Smart Materials and Innovative Textile Applications) Research Lab to a Centre of Excellence (CoE) in Smart Textiles. SMITA Research Lab has been actively engaged & instrumental in developing several novel technologies i.e. nanomaterial based antibacterial, antiviral, self cleaning finishes, nanofibre based nostril filters and automobile filters, textile based sensors and energy harvesting devices etc. The Major thrust areas of CoE is:

- i. Development of highly functional and high-performance textile materials using nanomaterials, nanofibres, and nano engineered materials.
- ii. Development of wearable textiles, also known as Electronic-Textiles.
- iii. Development of functional textiles for healthcare applications.