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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

CSIR-CMERI Oxygen Enrichment Unit

CSIR-CMERI has developed 'Oxygen Enrichment' technology which has been transferred virtually to M/s. Apollo Computing Laboratories. CSIR-CMERI said that the unit requires easily available oil free reciprocating compressor, Oxygen grade zeolite sieves and pneumatic components. It is capable of delivering medical air in the range of up to 15 LPM with oxygen purity of more than 90%.

Virafin gets emergency nod for treating moderate COVID-19

Drug Controller General Of India (DCGI) gave a restricted emergency use approval to the Zydus Cadila's 'Virafin' for treating the patients showing moderate COVID-19 symptoms. Virafin is a pegylated interferon alpha-2b(PegIFN), which when subcutaneously injected to the patient in the early stages of infection, resulted in their faster recovery.

Cost-effective technology to recycle aluminium scraps

A team of scientists has developed a cost-effective technology to recycle aluminium scraps efficiently minimizing material losses in the process, which can be used by small and medium scale industries. The technology was developed with support from the Advanced Manufacturing Technologies programme of the Department of Science & Technology (DST), Government of India aligned with the 'Make in India' initiative.

India targets 450 GW power generation by 2030 from renewables

Eminent experts, scientists, and technocrats from India and Japan discussed the most recent innovations, trends, concerns, and solutions adopted in the field of decarbonisation and promotion of Hydrogen based technologies at the India-Japan Webinar on De-carbonisation. DST has supported about 30 projects in last few years related to Hydrogen production, distribution, and storage at a cost of USD 5 Million, looking into new catalysts like producing hydrogen from water splitting. 38% of India's total installed electricity generation is from renewables, which is 135 Giga Watts (GW) as of today and is close to the target set by the Government (175 GW by 2022 and 450 GW by 2030).

Satellite-based real-time monitoring of Himalayan glacial catchments

According to a study conducted by scientists from IIT Kanpur, satellite-based real-time monitoring of Himalayan glacial catchments would improve understanding of flood risk in the region and help inform an early flood warning system that could help curb disaster and save human lives. The glaciers in the Himalayas are melting at a faster rate creating new lakes and expanding the existing ones. Besides, the rising temperatures and extreme precipitation events make the region increasingly prone to a variety of natural hazards, including devastating Glacial Lake Outburst Floods (GLOFs). IIT Kanpur team suggests that efforts to help mitigate GLOF events in the future should include the creation of a network of satellite-based monitoring stations that could provide in situ and real-time data on GLOF risk.

Special Update: Indian SARS-CoV-2 Genomic Consortium (INSACOG)

Government of India had established a national multi-agency consortium, Indian SARS-CoV-2 Genomic Consortium (INSACOG) in December 2020, consisting of ten laboratories of the Department of Biotechnology, Council of Scientific and Industrial Research (CSIR), Indian Council of Medical Research (ICMR) and Ministry of Health & Family Welfare (MoH&W) with the overall aim of monitoring the genomic variations in the SARS-CoV-2 on a regular basis.