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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

New material to split water using solar power

Indian Institute of Technology Madras (IIT Madras) researchers have discovered a new Indian Institute of Technology Madras Researchers have discovered a new material to effectively split Water into Hydrogen and Oxygen using Solar Power. This research is expected to create a renewed interest in solar fuels domain, which can potentially bring the conversion and storage part in a single system, thereby reducing the cost per kWh of solar energy. Solar energy conversion to electricity and its storage at low cost, is an integral part of renewable energy research. The research aims to reduce the world's reliance on fossil fuels and in turn move out of anthropogenic greenhouse gases like carbon dioxide. It is an immediate requirement to develop low-cost solar energy conversion and storage systems that can produce energy equal to, or lower than the cost of grid power.

CCMB and IICT study traces of COVID in STPs

Council of Scientific and Industrial Research (CSIR) institutions Centre for Cellular and Molecular Biology (CCMB) and Indian Institute of Chemical Technology (IICT) in a joint study have harvested sewage samples to estimate the number of potentially infected individuals in the city of Hyderabad. The study covers about 80% of the Sewage Treatment Plants (STPs) in Hyderabad, which revealed that there are 2 lakh people who are shedding viral materials.

NCPOR shed light on Antarctic lacustrine systems

National Centre for Polar and Ocean Research (NCPOR), Goa's scientists have shed light on the functioning of major biogeochemical cycles by researching that rock-water interactions are the primary source for dissolved metals in lake water, followed by sea spray and long-distance atmospheric transport in the form of aeolian dust. This will help scientists better understand the hydrogeochemical characteristics of lakes.

DBT-BIRAC to cement tech transfer capabilities in India

Department of Biotechnology's (DBT's) Biotechnology Industry Research Assistance Council (DBT-BIRAC) is implementing the Department's Industry-Academia Collaborative Mission to accelerate discovery research to early development for biopharmaceuticals. Also known as the National Biopharma Mission (NBM), this program supports establishment of Technology Transfer Offices (TTOs) that are critical for value realization of biotech innovation for inclusive growth. Five TTO's in Hyderabad, Bengaluru, Bhubaneswar, New Delhi and Pune have already been created to strengthen technology transfer capacity.

Indian and US scientists collaborate to pursue research on Covid-19

Eight binational teams of researchers from India and the US have been selected for pursuing cutting-edge research in pathogenesis and disease management of COVID-19. The teams will pursue research in areas such as antiviral coatings, immune modulation, tracking SARS CoV-2 in wastewater, disease detection mechanisms, reverse genetics strategies and drug repurposing. The eight teams are among the best few who had submitted proposals in response to an invitation of proposals to harness the combined expertise of the Indian and US Science & Technology communities, facilitate partnerships between teams of Indian and US scientists and engineers currently engaged in COVID-related research.

India's Chandrayaan-2 moon mission hits 1-year mark in lunar orbit

India's Chandrayaan-2 lunar orbiter has finished one year and 4,400 trips around the moon. According to the India Space Research Organisation (ISRO), the spacecraft is healthy and performance of subsystems are normal. After a year of operations, Chandrayaan-2 has mapped nearly 4 million square kilometers of terrain. Chandrayaan-2 also spotted small-scale tectonic landforms called lunar lobate scarps. These structures are thought to be young features on the moon, but are often hard to detect due to their small size.

Special Update: Central Soil and Materials Research Station

The Central Soil and Materials Research Station (CSMRS), an attached office of the Department of Water Resources, River Development & Ganga Rejuvenation, Ministry of Jal Shakti, Government of India, is a premier institute in the country located at New Delhi, which deals with field and laboratory investigations, basic and applied research, and problems in Geotechnical engineering, construction materials and allied fields relevant to river valley projects within India and neighbouring countries viz. Nepal, Bhutan, Afghanistan, Myanmar etc.

CSMRS has been providing assistance to the Government of India, mostly through the Central Water Commission, on the development of water resources sector in the country. In addition, the central government organizations like the Central Electricity Authority, various Public Sector Undertakings, state government organizations, responsible for construction of multipurpose river valley projects form the clients; though many organizations, including private ones, dealing with major industrial complexes, multi-storied buildings, thermal and nuclear power stations etc. also receive consultancy services from CSMRS.

Further details can be found at: <http://www.csmrs.gov.in/>

For more information, please visit our website www.indembassybern.gov.in or write to dcm.berne@mea.gov.in