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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*

India Took Several Initiatives to Promote & Create New Markets in RE Sector

Ministry of New and Renewable Energy (MNRE) reported that India took following steps to promote and create new markets in Renewable Energy sector:

- FDI up to 100 percent under the automatic route
- Declaration of trajectory for Renewable Purchase Obligation (RPO) up to the year 2029-30
- Setting up of Ultra Mega Renewable Energy Parks; Setting up of Project Development Cell for attracting and facilitating investments
- Imposing Basic Customs Duty on cells and modules to encourage domestic manufacturing
- Implementation of Production Linked Incentive (PLI) scheme for solar PV manufacturers
- Laying of new transmission lines and creating new sub-station capacity under the Green Energy Corridor Scheme.

IISc-Bengaluru, deciphered How Specific Essential Protein Complexes are Distributed Across Two Different Regions in the Cell Membrane

Researchers at Department of Microbiology and Cell Biology (MCB), Indian Institute of Science (IISc), Bengaluru, deciphered how specific essential protein complexes are distributed across two different regions in the cell membrane. The findings also helps to understand how proteins play a crucial role in coordinating chromosome segregation with cleavage furrow formation during anaphase. The researchers carried out immunofluorescence and live-imaging analysis and found how the mutual restriction of the protein complexes controls their confinement to the equatorial.

IIT-Madras Developed an Effective Data Analytics Approach to Detect Petroleum in Underground

To characterize subsurface rock structure and detect petroleum and hydrocarbon reserves underground, researchers at Indian Institute of Technology Madras (IIT-Madras) developed an effective Data Analytics approach, which was successful in providing critical information on the rock type distribution and hydrocarbon saturation zones in 'Tipam formation' located in the Upper Assam basin. With the method, researchers were able to get accurate information on the rock type distribution and the hydrocarbon saturation zones at such depth zones of 2.3 km.

Researchers at IIT-Roorkee Developed Plant-based Edible Ink

From, 01 July 2022, India banned manufacture, sale, and use of identified single-use plastic and as an alternative day-to-day items are carried in paper bags made of recycled newspaper, however the ink in printing the newspaper could potentially harm the items in contact, posing health hazards, as commercial printing inks used in the process have harmful components, pungent smells, and other problems like toxicity, set-off, gas-phase transfer, ink migration, biodegradability, etc therefore, researchers at Department of Paper Technology, Indian Institute of Technology (IIT-Roorkee) developed a plant-based edible ink having all the ingredients that could be safely used for a wide range of printing and packaging applications and the edible ink would help address such risks.

Special Update: IIT-Madras Prof. Won 'VinFuture Prize' for Tech to Remove Arsenic from Groundwater

Indian Institute of Technology-Madras (IIT-Madras) Professor Padma Shri Thalappil Pradeep won the 'VinFuture Prize', one of the largest ever annual prizes globally, under the category 'Innovators from Developing Countries' in recognition of his work on a low-cost filtration device for the removal of heavy metals such as arsenic and others from groundwater. his could provide access to clean water for hundreds of millions of people who currently live in areas with dirty water. Professor Thalappil Pradeep of IIT-Madras bagged the award in one of the four categories of the annual 'VinFuture Prizes'. Nearly 1,000 nominations from 71 different countries were scanned through to choose the winners. This technique, which makes use of straightforward designs, offers a low-cost way to cleanse groundwater and get it to millions of affected households also the technology is more useful in distant locations because it doesn't need electricity.