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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*

IIT-Madras to Set-up State-of-the-Art Centralised Research Centre

Indian Institute of Technology-Madras (IIT-Madras) in its strategic plan document, reported that a high-end computing facilities and a high-speed network equivalent to those at top academic institutes in the world would be established in the coming years. Further, The institute added that smart classrooms with state-of-the-art facilities to facilitate hybrid online/offline teaching, and easy and effective interaction with students would be created. In addition, immovable and movable infrastructure would also be standardised to achieve uniformity and reduce cost. The institute has also decided to develop a new IT system for the active involvement of stakeholders in all the decisions and the students would be encouraged to discuss internal matters that concern them in a healthy and amicable environment.

JNCASR, Bengaluru Found Novel Pathway for Utilising GaN in Infrared Nanophotonic Applications

Researchers at Jawaharlal Nehru Centre for Advanced Scientific Research (JNCASR), Bengaluru, an autonomous institute of the Department of Science and Technology found a novel pathway for utilising GaN (Gallium Nitride) in infrared nanophotonic applications. Researchers for the first time demonstrated Infra-Red (IR) light emission and absorption with GaN nanostructures. The new method employed by the scientists to confine & absorb IR light with GaN nanostructures could help develop efficient infrared absorbers, emitters, & modulators that may find several applications including defence, energy development technologies & imaging etc.

Fifteen Start-ups Selected in the First-of-its-Kind Product Accelerator Program for Innovators Developing Sustainable Solutions

Ministry of Science & Technology, Govt. of India, through its first cohort of the NIRMAN Accelerator Program launched by Start-ups Incubation and Innovation Centre (SIIC) IIT Kanpur, which is supported by the Department of Science and Technology (DST), Govt. of India, through its NIDHI scheme portfolio selected 15 Start-ups, developing sustainable solutions towards in the healthcare and agriculture domains. The program NIRMAN is aimed to help & to solve challenges in the product development journey of indigenous innovations. Further, Ministry of Science & Technology also added that the programme takes a leaf out of the best methods and key insights from the 2 very successful national initiatives of SIIC IIT Kanpur, the Ventilator Project and Mission Bharat O2.

Researchers at IIT Kanpur Developed Organic Solar Cell

Researchers at Indian Institute of Technology, Kanpur (IIT- Kanpur) developed an organic solar cells on steel substrates which could convert a steel roof into an energy-producing device. Researcher also commented that the organic solar cells consisting of a combination of an organic polymer and PCBM (an organic semiconductor) could potentially convert a steel roof into an energy-producing device with greater efficiency than those currently available in the market. The organic solar cell devices are consisting of a blend of organic polymer PTB7 as a donor and PCBM as an acceptor and were fabricated on opaque steel substrates with a MoO₃ /Au/MoO₃ top electrode. Further, the materials and device fabrication of perovskite and organic solar cells took place in the Class 10000 clean room facility at IIT Kanpur, which was supported by funding from DST under the DST-RCUK APEX project. The facility could carry out the complete fabrication of organic and perovskite solar cells.

Special Update: India's Maiden Human Space Flight "Gaganyaan" to be Launched in 2024

Department of Space, Govt. of India, India's maiden human space flight "Gaganyaan" 'H1' is targeted to be launched in the fourth quarter of 2024 as the astronaut designates for human space flight mission are identified and are currently undergoing their mission specific training at Bengaluru. Dept. of Space further informed that the uncrewed 'G1' mission is targeted to be launched in the last quarter of 2023 followed by the second uncrewed 'G2' mission in the second quarter of 2024, before the final human space flight 'H1' mission in the fourth quarter of 2024.