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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 Develop Next-Gen Sensor

Professor at the Indian Institute of Technology Madras (IIT Madras) is working on developing the next generation sensor which would improve the current medical imaging technology, making for sharper images. IIT Madras further added that the project is still in R&D phase and it would be sent to Israel for fabrication and later to CERN. After completion, the sensor could be used for particle detector and developing medical imaging as the research would benefit the wider medical technology. India became an associate member of CERN in 2016.

TDB-DST Aids in Commercializing ROVs

With an aim to commercialize cutting edge technologies contributing to the goal of Atmanirbhar Bharat, Technology Development Board (TDB), a statutory body under Department of Science & Technology, Govt. of India, extended its support to Chennai based start-up for commercialization of 'Remotely operated vehicles (ROVs)essential to inspection and monitoring of ports & terminals, process industry plants and civil structures. The deep tech start-up aims to develop cutting edge robotics and a sophisticated AI-enabled digital analytics platform that would be implemented extensively across the Inspection-maintenance-repair (IMR) industry. The company has been incubated in IIT Madras and mentored by senior professors and is promoted by well-qualified professionals. Since inception, the company has delivered 200+ contracts across 8 industries, has indigenously developed 6 prototypes & working on some cutting-edge R&D projects i.e Internet of Underwater Things (IoUT).

IIT Madras Researchers Developed 'Ocean Wave Energy Converter'

Researchers at Indian Institute of Technology Madras (IIT Madras) developed an 'Ocean Wave Energy Converter' that generates electricity from sea waves and successfully conducted the trials of this device in November 2022. The Device was deployed at the coast of Tuticorin, Tamil Nadu, with a depth of 20 metres and its target is to generate 1MW of power from ocean waves in the next three years. Researchers also reported that the device is targeted towards remote offshore locations that require reliable electricity and communication either by supplying electric power to payloads that are integrated directly in or on the device or located in its vicinity as on the seabed and in the water column. The targeted stakeholders are the oil and gas, defence and security installations and communication sectors. Further the device could help India meet its climate change-related goals of generating 500 GW of electricity by 2030 through renewable energy.

Researchers at NCPOR Revealed Reasons behind the Lowest SIE

Researchers from the National Centre for Polar and Ocean Research (NCPOR), Goa, in their study revealed the reasons behind the lowest Antarctic Sea Ice Extent (SIE) in Feb. 2022 by investigating the role of atmospheric forcing and climate fluctuations. Due to the regional nature of Antarctic sea ice variability, small changes in atmospheric circulation in any sector may impact the SIE. The findings of the study indicates that ASL and SAM play a more significant role in controlling sea ice variability in specific regions.

Special Update: ISRO Successfully Launched 177 Foreign Satellites in Last 5 Years

Department of Space, Govt. of India, reported that in last 5 years (2018 - 2022), Indian Space Research Organisation (ISRO) through its commercial arms had successfully launched 177 foreign satellites and generated approximately USD 94 million and Euro 46 million. The 177 foreign satellites belonged to countries like Australia, Brazil, Canada, Colombia, Finland, France, Israel, Italy, Japan, Lithuania, Luxembourg, Malaysia, Netherlands, Republic of Korea, Singapore, Spain, Switzerland, United Kingdom and USA, on-board PSLV and GSLV-MkIII launchers under commercial agreement. Further, Dept. of Space also added that the creation of IN-SPACe as a single-window agency for the promotion and hand-holding of Non-Government Entities in conducting end-to-end space activities has resulted in a remarkable interest in the Start-up community, with 111 space-startups registered, as on date, on the IN-SPACe digital platform.