Ask the right questions, and nature will open the door to her secrets
- Dr. C.V. Raman, The Nobel Prize in Physics 1930

Global Innovation Index 2020

The Global Innovation Index provides information on the innovation performance of countries on a Rank based system. As per the GII 2020, India ranked 1st in the Top 3 innovation economies by region category 'Cetnral & South Asia'. Also for the first time, India ranked 3rd among the Lower Middle-Income Group category, which is a new milestone. As on overall performacen, India ranked 48th among the top 50 countries in the Global Innovation Index 2020. On conclusion, India's performance exceeded and achieved high ranks in Knowledge and Technology Outputs and Market sophistication.

IIT Delhi Developed Smart and Modular Electric Vehicle Charger

IIT-Delhi researchers at the Smart Grid Lab have developed a 20 kW truly modular, scalable and environmentally friendly Electric Vehicle (EV) with an in-built solar photovoltaic interface capability charging station. The charging station is a works as a multi-functional charger, with the capability of charging a wide range of EVs like cars, three-wheelers and two-wheelers.

Environment Friendly – IIT Delhi on the Way to Green Energy by reducing 50% Carbon Footprint

On 01st April 2021, IIT Delhi became the 1st Central Government funded Technical Institute, which successfully reduced its Carbon Footprint by more than 50%. IIT Delhi made a power purchase contract with hydropower generator in Himachal Pradesh for 2 MW and achieved this milestone. On annual basis the purchase and installation of 2 MW of power hydro generator is equivalent to off-setting about 14000 tonnes of CO_2 emissions. IIT Delhi contributed towards the Nationally Determined Contribution (NDC) target as part of climate change pledge by the Government of India during the Paris agreement.

India's Mission Towards Becoming Leader in Supercomputing

The National Super Commuting Mission (NSM) has led India to meet the increasing computational demands of various sectors including genomics and drug discovery. NSM was launched to enhance the research capacities and capabilities in the country by connecting them to form a Supercomputing grid, with National Knowledge Network (NKN). 14 premier Institutes of India including IITs, NITs, National Labs, and IISERs has signed MoUs for establishing Supercomputing Infrastructure with Assembly and Manufacturing in India. Infrastructure planned in NSM Phase I has already been installed and Phase II to be completed by Sept. 2021. Phase III, was initiated in Jan. 2021 and aimed to achieve the computing speed of 45 Petaflops.

Affordable Antiviral Protection Kit Launched by Indian Start-ups

Two Start-ups incubators from IIT Delhi, E-TEX & Clensta launched an affordable antiviral protection kit to fight against COVID-19 pandemic. The experts from IIT Delhi Chemical and Textile dept. approved the E-TEX Kawach Antiviral Garment, as the antiviral fabric was designed using advanced technology, which reduces the speed of contaminations and transmissions by destroying micro-organisms. Whereas, Clensta Protection Lotion, 'COVID-19 Protection Lotion', offered 99.9% virus protection with antiviral and antiseptic properties. IIT Delhi also confirmed that the antiviral efficacy of the Clensta lotion was found to be 99.95% effective protection against virus.

Study on Prediction of Space Debris Collision – IIIT Delhi

The National Super Computing Mission (NSM) granted funds to Indraprastha Institute of Information Technology (IIIT)-Delhi for the project titled 'Orbit computation of Resident Space Objects for Space Situational Awareness'. The research aims to develop a method to predict collision from space debris. IIIT-Delhi, Head of the project said "there are more than 20000 man-made objects are floating around in near-earth space which pose collision threats to functional satellites. The outcome of this project will directly support the Indian Space sector, valued at USD 7 billion by providing an operationally flexible, scalable, transparent and indigenous collision probability solution." The project would also provide and contribute to the the global efforts towards space sustainability.

Special Update: National Super Commuting Mission (NSM)

The National Super Computing Mission (NSM) project was initiated by the Department of Science and Technology (DST), in collaboration with the Ministry of Electronics and Information Technology (MeITy) and is being implemented by the Centre for Development of Advanced Computing (C-DAC), Pune and the Indian Institute of Science (IISc), Bengaluru. The aim of NSM is to ensure India's position as Supercomputing nation by bringing computing speed to around 45 Petaflops. The project is focussed on promotion of indigenous products as efforts are being made to design and develop parts like server board, interconnect, processor, system software libraries, storage, and HPC-AI converged accelerator domestically.