



KAMARAJ IAS ACADEMY
Only IAS Academy by Grandson of "Perunthalaivar Kamarajar"

Major achievement and New initiatives

Published On: 26-12-2022

Why is in news? Year-End Review -2022: Department of Science & Technology

India's significant rise in terms of number of publications in **SCI journals** - **globally ranked 3rd now** from 6th in 2013

India occupies **3rd rank** in terms of **number of PhDs awarded** in Science and Engineering (S&E) (nearly 25,000) after the USA and China.

India **ranks 3rd** globally in terms of **number of Startups** (77,000) and in terms of **no of UNICORN's (107)** in the world.

India created a massive jump in its global ranking of **Global Innovation Index (GII)** from **81st in the year 2015 to 40th** in 2022 among 130 economies of the world. India ranks 2nd among 34 lower middle-income economies and 1st among 10 Central and Southern Asian economies in terms of **GII**.

India **ranks third** among the **most attractive investment destinations** for technology transactions in the world.

The Gross Expenditure on R&D (GERD) has increased more than three times in the last 10 years.

Women's participation in extramural R&D has also doubled in the last 9 years.

India is **ranked 9th in terms of resident patent filing**.

IMPRINT (Impacting Research Innovation and Technology) in 50:50 partnership with Ministry of Human Resource Development - aims to address and provide solutions to the most relevant engineering challenges faced by our nation by translating knowledge into viable technology (product and processes) in selected technology domains.

Railway Innovation Mission with Ministry of Railway- first phase on cyber physical industry 4.0 implementation for the modern coach factory

Science and Engineering Research Board (SERB) partners with Intel India to launch **first-of-its-kind initiative to advance deep tech-based research** in India: The Indian research community will soon be able to pursue industry-relevant research opportunities in the areas of deep technologies that are novel, transformative, and can have a ground-breaking impact on a national scale.

The opportunities will be offered by the first-of-its-kind research initiative called **'Fund for Industrial Research Engagement (FIRE)'** launched by the Science and Engineering Research Board (SERB).

SERB is a **statutory body of Department of Science and Technology (DST)**, Government of India, in collaboration with Intel India on June 29, 2021.

North East Centre for Technology Application & Reach (NECTAR) brings **saffron bowl to the Northeast**, boosts technology for sustainable solutions to the NE region's challenges: The saffron bowl of India, so far confined to parts of Kashmir, has now spread its wings to parts of the North East through the focused efforts of the

Kamaraj IAS Academy

Plot A P.127, AF block, 6 th street, 11th Main Rd, Shanthi Colony, Anna Nagar, Chennai, Tamil Nadu 600040

Phone: **044 4353 9988 / 98403 94477 / Whatsapp : 09710729833**

NECTAR.

The Northeast saw the successful cultivation of saffron for the first time in Yangang village of South Sikkim. It is now being expanded to Twang, Arunachal Pradesh and Barapani, Meghalaya.

The **National Supercomputing Mission** launched during 2015 has been boosting the national high performance computing infrastructure with 4 Entry level and 15 mid-level systems with 24PF compute capacity systems deployed in various institutions across the country.

The **National Mission on Interdisciplinary Cyber-Physical Systems** launched during December 2018 has been **boosting technology development in cyberphysical domains** like AI, robotics, IOT through research and innovation hubs.

The mission has created 25 Technology Innovation Hubs (TIHs) at reputed academic institutes across the country which working towards achieving the Mission objectives.

Various CPS and its associated technology verticals have been considered under NM-ICPS which include: Artificial Intelligence and Machine Learning, Data Banks & Data Services, Data Analysis, Robotics & Autonomous Systems, Cyber Security and Cyber Security for Physical Infrastructure, Computer Vision, Autonomous Navigation and Data Acquisition systems (UAV, RoV etc), Quantum Technologies etc.

Survey of India launched Pan India High-Resolution Geospatial Mapping: The Survey of India (SoI), a subordinate department under the Department of Science & Technology has embarked on a Pan-India geospatial mapping of the country at a very high resolution of 10 cm scale using most advanced technologies like drone technology.

With this, India joins the select club of few nations to have Ultra High-resolution National Topographic Data as foundation data.