



Research Unit
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 Government of India



National Technology Day (May 11)

(Ministry of Science & Technology)

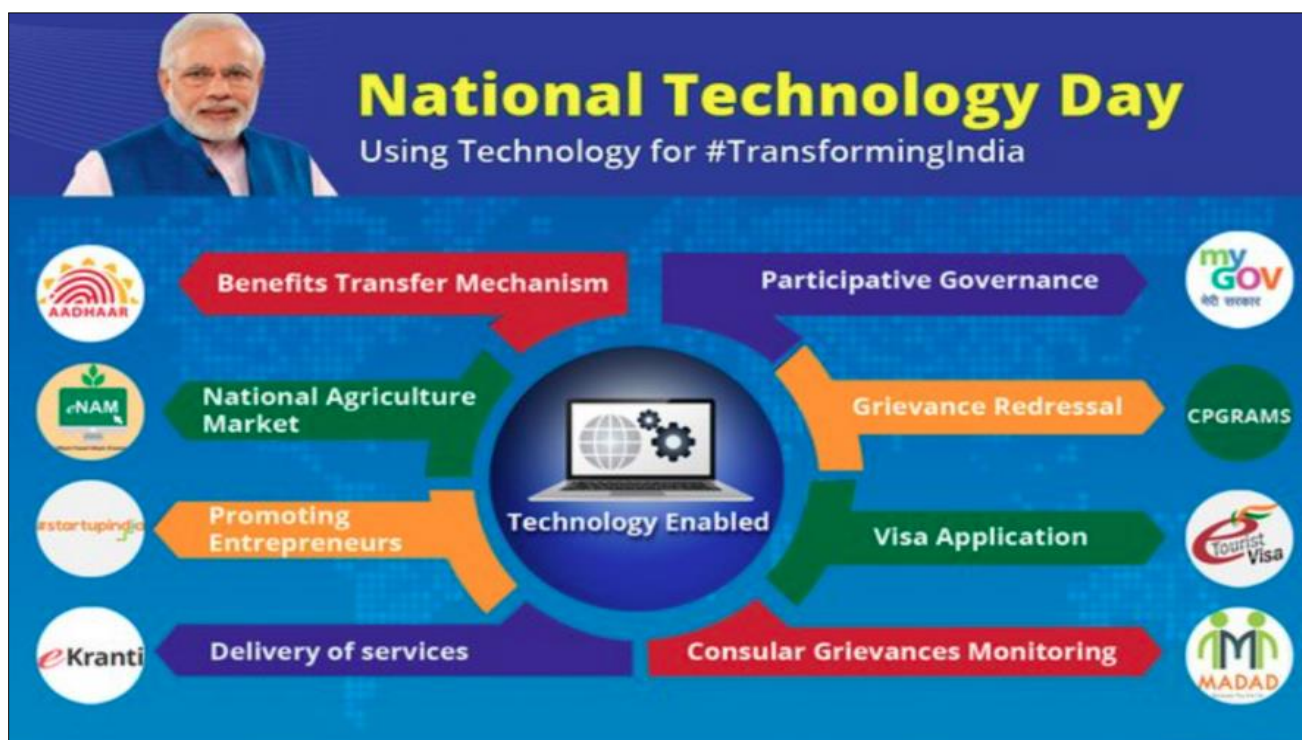
May 11, 2023

“On National Technology Day, we salute the dedication and tenacity of our scientists and those passionate about technology.

- [Prime Minister Narendra Modi](#)

On May 11, 1998, India successfully conducted the Nuclear Missile Test at the Indian Army’s Pokhran range. After this monumental accomplishment, former Prime Minister, Late Shri Atal Bihari Vajpayee declared India a Nuclear Power. Since then, May 11 has been observed as the National Technology Day, to commemorate the achievements of scientists, researchers, engineers and all others involved in the field of science and technology.¹

The celebration of Technology Day symbolizes India’s quest for scientific inquiry, technological creativity & innovations, and the integration of these developments into national socioeconomic benefits and global presence.²



¹ <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1883990>

² <https://dst.gov.in/national-technology-day-be-celebrated-focusing-rebooting-economy-through-st#:~:text=TDB%2C%20on%20behalf%20of%20the,technological%20excellence%20in%20the%20country>

NATIONAL TECHNOLOGY DAY 2023

Prime Minister Narendra Modi inaugurated the programme marking National Technology Day 2023, in New Delhi on May 2023. The programme also marked the commencement of the celebration of the 25th year of National Technology Day being held from the 11th to the 14th of May.

The programme and celebrations marking National Technology Day 2023 have a special focus on Atal Innovation Mission (AIM). During the programme, Prime Minister also inaugurated the Expo showcasing scientific & technological advancements made in India in the recent past. He also released a commemorative stamp and coin on the occasion.

On this momentous occasion, the Prime Minister laid the foundation stone and dedicated to the nation multiple projects related to scientific and technological advancement in the country worth more than **Rs 5800 crores**. This is in line with the Prime Minister's vision of Aatmanirbhar Bharat through strengthening scientific institutions in the country.

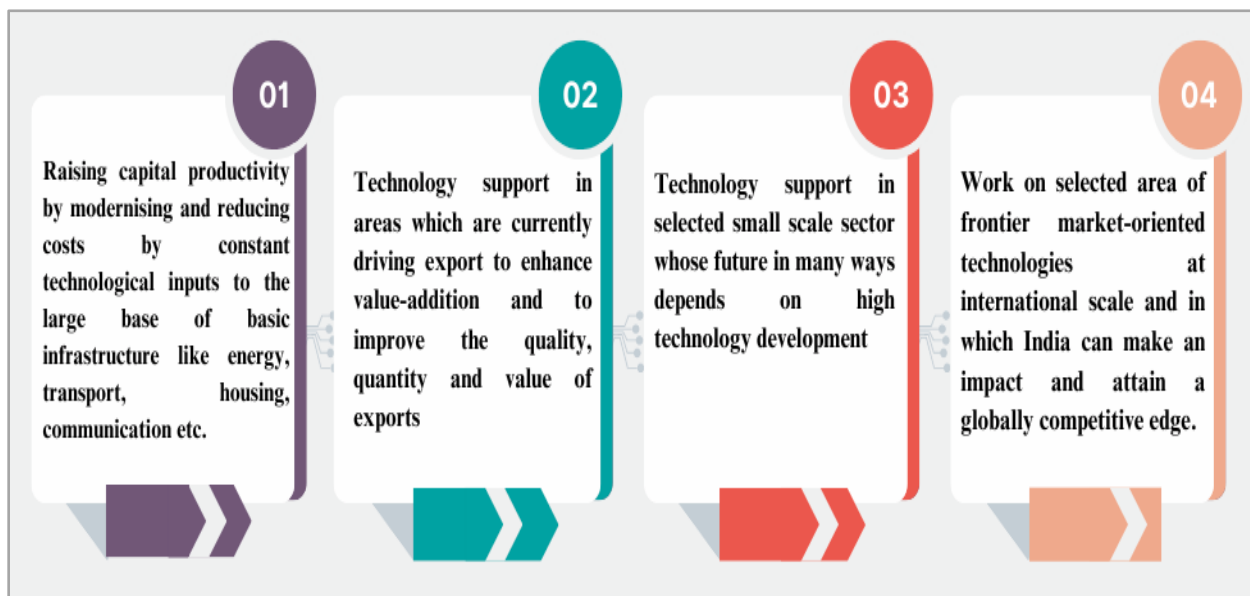
Key scientific projects

The projects whose foundation stones were laid include Laser Interferometer Gravitational Wave Observatory – India (LIGO-India), Hingoli; Homi Bhabha Cancer Hospital and Research Centre, Jatni, Odisha; and Platinum Jubilee Block of Tata Memorial Hospital, Mumbai.

The projects that were dedicated to Nation included Fission Molybdenum-99 Production Facility, Mumbai; Rare Earth Permanent Magnet Plant, Visakhapatnam; National Hadron Beam Therapy Facility, Navi Mumbai; Radiological Research Unit, Navi Mumbai; Homi Bhabha Cancer Hospital and Research Centre, Visakhapatnam; and Women & Children Cancer Hospital Building, Navi Mumbai.

To know more about these projects, click [HERE](#).

TECHNOLOGY PRIORITIES FOR INDIA



NATIONAL TECHNOLOGY AWARDS 2023

For the year 2023, TDB had invited applications from Indian companies for National Technology Awards under five categories such as Main, MSME, Start-up, Translational Research & Technology Business Incubator. These awards are conferred to various industries for the successful commercialization of innovative indigenous technology. This annual honour provides a platform of recognition to the Indian industries and their technology providers who work to bring innovation to the market and help in contributing to the vision of “Aatma Nirbhar Bharat”. The awards will be presented on National Technology Day on May 11, 2023.³

To know more about the National Technology Awards, click [HERE](#).



The poster for National Technology Awards 2023 features the Government of India logo and a quote from Prime Minister Narendra Modi: "Technology for us is a medium to empower the people of the country. For us, technology is the mainstay of making the country Aatma Nirbhar." It lists five award categories: Main (₹25 Lacs), MSME (₹15 Lacs), StartUp (₹15 Lacs), Translational Research (₹5 Lacs), and Technology Business Incubator (₹5 Lacs). The application deadline is 15th January 2023, and awards are presented on Technology Day (11th May 2023). A QR code is provided for more information.

MAJOR ACHIEVEMENTS DURING THE LAST 9 YEARS

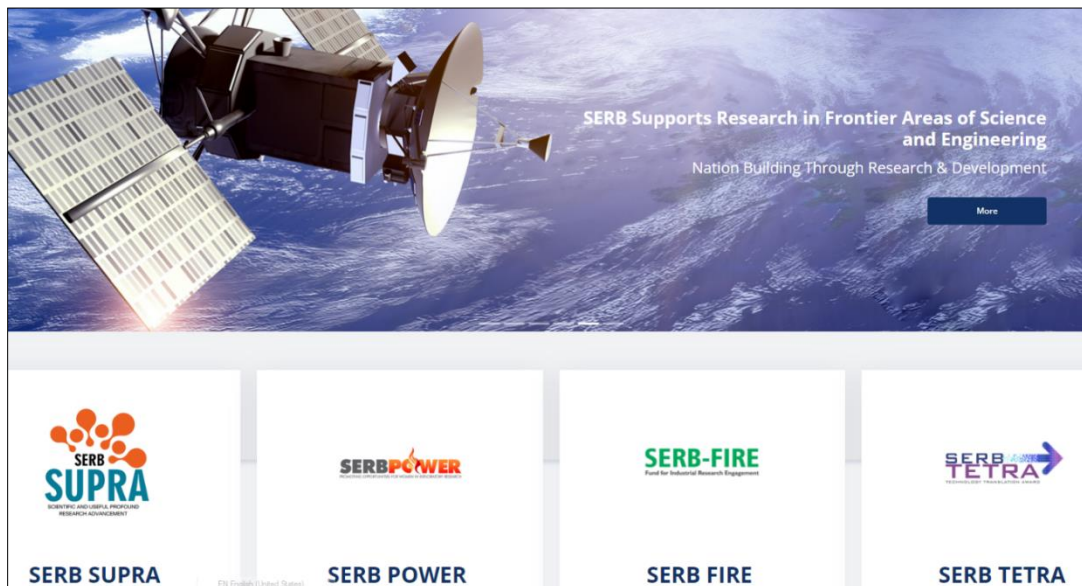
- **India's significant rise in terms of the number of publications in Science Citation Index (SCI)** – now globally ranked 3rd from 6th in 2013.
- **India occupies 3rd rank in terms of the number of PhDs** awarded in Science and Engineering (S&E), nearly 25,000, after the USA and China.
- **India ranks 3rd globally in terms of the number of Startups (77,000) and number of UNICORNs (107)** in the world.
- **India witnessed a massive jump in its global ranking on Global Innovation Index (GII) from 81st in the year 2015 to 40th in 2022** among 130 economies of the world
- **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 now **ranked 9th in terms of resident patent filing.**⁴

³ <https://www.pib.gov.in/PressReleasePage.aspx?PRID=1883990>

⁴ <https://pib.gov.in/PressReleasePage.aspx?PRID=1886528>

PROGRAMME LEVEL ACHIEVEMENTS

- *Department of Science & Technology's investment into the S&T system* got more than doubled from about Rs. 2900 Crore in 2014-15 to Rs 6002 Crore in 2022-23.
- The *National Supercomputing Mission* launched in 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 at a total outlay of Rs. 3660 crores in December 2018 has been *boosting technology development in cyber physical domains like AI, robotics, and IOT through research and innovation hubs*.
- *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.
- *DST's Programmes triggered extraordinary performance of the innovation ecosystem:* A national programme titled **NIDHI** (National Initiative for Developing & Harnessing Innovations) which addresses the entire value chain of Innovations has been launched. This has made some major impacts on India's Innovation Ecosystem by nurturing 3,681 startups through a network of 153 incubators created by DST, which generated 65,864 jobs as cumulative direct employment, created wealth of Rs 27,262 crore and generated 1,992 intellectual properties.
- *Taking Innovation to Schools:* The "Million Minds Augmenting National Aspirations and Knowledge (MANAK)" programme launched during 2018 targets to bring one million ideas from middle and high schools across the country and the selected brilliant ones are being shortlisted for showcasing at district, state and then at the National Level Exhibition & Project Competition.
- *Empowering Women Scientists:* To address gender imbalance, a new scheme viz. **KIRAN** was launched and a pilot scheme **VIGYAN JYOTI** was tested on a limited scale and duration to attract and encourage young women.
- *AWSAR* scheme launched to encourage young scientists to write popular science articles on their research pursuits.
- *SERB launches several new schemes to promote Science and Technology among all masses equitably:* Science and Engineering Research Board (SERB), a Statutory body under DST, initiated several schemes like "**SERB-POWER** (Promoting Opportunities for Women in Exploratory Research)" has been designed exclusively for women scientists to take up R&D at the highest level; **SERB-VAJRA** targeting to bring best of global science and scientists to India including NRIs; State University Research Excellence (**SERB-SURE**) to create a robust R&D ecosystem in state universities and colleges; Fund for Industrial Research Engagement (**SERB-FIRE**) to support research and development to solve critical problems which are relevant to industries on a public-private partnership mode.



- **Boosting Technology Commercialization:** Technology Development Board provides financial assistance to Indian industrial concerns and other agencies, attempting development and commercial application of indigenous technology, or adapting imported technology to wider domestic applications witnessed several key success stories in the recent year.
- **A victorious march to combat COVID-19:** Several Autonomous Institutions, DST Programmes and the Technology Development Board had come out with several domestic solutions in a very short timescale to deal with different challenges arising due to the COVID-19 pandemic.
- **The Autonomous Institutions** of DST contribute both to basic research and translational research significantly with several breakthroughs in different themes.⁵

KEY ACHIEVEMENTS & WAY FORWARD

***IMPRINT (Impacting Research Innovation and Technology) in 50:50 partnership with MHRD** - 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

***SERB-DST 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), a

⁵ <https://pib.gov.in/PressReleasePage.aspx?PRID=1886528>

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

***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 North East Centre for Technology Application & Reach (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.

- **Mission Innovation** programme with smart grid and off grid leadership of India
- Excellent progress made in programmes on **Clean Energy and Water, Nano Science and Technology, Climate Change research and outreach.**
- **International Connects:** New international S&T collaboration to connect with the best global science initiated that includes participation in Thirty Meter Telescope Project and India-Israel Industrial R&D and Technological Innovation Fund
- **Policy formulation in some key areas:** Brought out two guidelines during the year 2022 and two major policies are in the process of finalization. These are listed below.
 - a. Scientific Research Infrastructure Sharing maintenance and Networks (SRIMAN) guidelines
 - b. Scientific Social Responsibility (SSR) Guidelines
 - c. Science, Technology and Innovation (STI) Policy
 - d. National Geospatial Policy

PROMOTING PARTICIPATION OF YOUNG MINDS IN R&D

- 6,39,550 INSPIRE (Innovation in Science Pursuit for Inspired Research) awards to school children of class VI to X
- 75,000 INSPIRE scholarships for university level education
- 6800 INSPIRE doctoral Fellowships in last 5 years to young students
- 1000 INSPIRE faculty to young researchers in last 5 years

References:

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NR/HP/RK/PK/PS