

Government of India
Ministry of Science and Technology
Department of Science and Technology
(CDN Section)

Technology Bhawan,
New Mehrauli Road
New Delhi-110016
Dated: 10.06.2022

OFFICE MEMORANDUM

Subject: Monthly Summary to the Cabinet for the month of May, 2022.

The undersigned is directed to enclose herewith a copy of the Monthly Summary of important policy decisions taken and major achievements of the Department of Science & Technology for the month ending 31.05.2022 for information.

2. This has already been approved by Secretary, DST.

(Pulok Sen Gupta)
Under Secretary to the Govt. of India

To,

All Members of the Council of Ministers

Copy with enclosures, forwarded to:-

- i. Vice Chairman, NITI Aayog, NITI Bhawan, New Delhi. (vch-niti@gov.in)
- ii. The Chairman, Union Public Service Commission (chairman-upsc@gov.in)
- iii. Chief Executive Officer, NITIAayog, NITI Bhawan, New Delhi (ceo-niti@gov.in)
- iv. The Principal Secretary to the Prime Minister, Prime Minister Office, South Block, ND (pkmishra.pmo@gov.in)
- v. All members of NITI Aayog, NITI Bhawan, New Delhi. (vk.saraswat@nic.in, rc.niti@gov.in, vinodk.paul@gov.in)
- vi. Secretary to the President of India. (secy.president@rb.nic.in)
- vii. Secretary to the Vice-President of India. (secyvp@nic.in)
- viii. Principal Scientific Advisor to the Govt. of India. (vijayraghavan@gov.in)
- ix. All Secretaries to the Government of India (secy-goi@lsmgr.nic.in)
- x. The Principal Director General, Press Information Bureau, Ministry of Information and Broadcasting. (pdg-pib@nic.in)
- xi. The Director, Cabinet Secretariat, New Delhi. (cabinet@nic.in)
- xii. Dr. Rabindra Kumar Panigrahy, Sc. 'E', DST for uploading the Monthly Summary on DST's website. (rabindra.p@gov.in)
- xiii. PSO to Secretary, DST. (anuj.tripathi@nic.in)
- xiv. AD (OL), DST for Hindi Translation (kn.singh65@gov.in)

Department of Science & Technology
Monthly Report
May, 2022

I. Important policy decisions taken and major achievements during the month:

A. Science for society

1. Technology Development Board (TDB) celebrated National Technology Day 2022 on 11th May, 2022 at The Ashok Hotel, New Delhi under the theme 'PRAGATI- Promoting Avenues for Growth through Technological Innovations.' TDB sought applications for National Awards under three categories and total 10 winners were selected after a stringent two-tier evaluation process with panelist being eminent scientists and technologists.
2. Two Grassroots Innovators supported by National Innovation Foundation (NIF)-India, have emerged as winners in the Amazon Smbhav Entrepreneurship Challenge 2022. Shri Subhash Ola's enterprise "Geniusenergy Critical Innovation Private Limited" have won "Start-up of the Year award" and Shri Arvind Bhai Patel's enterprise Notion Technocrats India has won "Most Promising Grassroots Innovation Start-up" award. This accomplishment is significant as Shri Ola was one amongst, close to 2000 entrepreneurs of our country contesting for the Start-up of the Year award, representing 240 cities across the length and breadth of the country and all major sectors be it Healthcare, Fintech, E-commerce, Blockchain, EdTech, Consumer Products, Emerging Tech (AI, ML, etc.) and others.
3. National Innovation Foundation (NIF), Ahmedabad facilitated granting of 10 patents to its grass root innovators on: Brick making machine and method of making thereof; Sleep aiding device for babies; Efficient portable stove; A herbal medication to cure bloat in animals; A herbal formulation to enhance poultry immunity; A herbal formulation to treat coccidiosis; Herbal compositions for management of liver disorders and methods thereof; Herbal compositions for treatment or prevention of diabetes and Novel synergistic herbal extract composition for use in treating malaria.
4. TIFAC in association with Institute for Sustainable Communities (ISC), organized two workshops in the MSME clusters of Textiles at Tirupur, Tamil Nadu and Gandhinagar, Gujarat towards launching of Clean Tech Steering Alliance (CTSA) focusing on "Accelerating Clean Equitable (ACE) Manufacturing".
5. Scientific Social Responsibility (SSR) guidelines launched by Hon'ble Minister in the National Technology Day event on 11.05.2022 and the copy of the same is available at <https://dst.gov.in/documents/guidelines>.

B. Technology Development

ARCI's indigenously developed Lithium Ion Battery (LIB) pack (60V, 25 Ah) was demonstrated by M/s Leep-e-Drive, Hosur in its electric two-wheeler, at the Renewable Energy Expo held at Chennai.

C. International Cooperation

1. Participation of the Hon'ble Union Minister of State (Independent Charge) Science & Technology in Inter Governmental Consultations (IGC) in Germany

Dr Jitendra Singh, Hon'ble Minister of State for Science & Technology and Earth Sciences (Independent Charge) visited Germany during 1-3 May 2022 to participate in Inter-Governmental Consultations (IGC) between two governments. Two delegations were led by the Prime Minister of India and Chancellor of Germany, respectively.

A joint meeting of experts in Artificial Intelligence was organized which helped in mapping mutual strength in this area and to shape up bilateral cooperation. A mention was also made of Indo-German Science & Technology Centre, a unique platform established by two governments. The Centre has launched three programs on Human Capacity Development. This includes (a) Women in Science, Education and Research (WISER) to facilitate lateral entry of women researchers in ongoing bilateral scientific projects; (b) Paired Fellowships to encourage networking amongst young scientists and develop their own pair from another country to take up collaborative research and (c) Industrial Fellowships to provide exposure to Indian researchers in German industrial ecosystems.

During the meeting with Minister Ms Bettina Stark-Watzinger, German Minister for Education & Research, two sides agreed to work together on Artificial Intelligence research and its application in Sustainability and Health care.

2. **India-Canada Joint S&T Cooperation Committee:** The 7th India-Canada Joint S&T Cooperation Committee Meeting was held on 19th May, 2022 in Ottawa, Canada. A new call between DST, DBT and NSERC was announced for FY 2022-2023 in the areas of health care, water, food security and Agritech. The MoU between DST, DBT and NSERC for Academic R&D between the two countries was signed digitally in the second week of May 2022.

D. Human Capacity Building

1. Organized a Five-Day Training course for GLP Inspectors at New Delhi during May 23-27, 2022. The details of the Training Course are as under:
 - i. It was the fifth Basic Training Course for GLP Inspectors conducted by the National GLP Compliance Monitoring Authority (NGCMA).
 - ii. It aimed to train experts in the country as "GLP Inspectors", so as increase the pool of trained GLP inspectors in the country and to create a more equitable ecosystem on GLP.
 - iii. The Training was attended by 35 participants from various Government Departments, public funded institutions, Government R&D labs, Government Universities etc.

- iv. It included 12 faculty from the leading Government institutes, Regulatory Authorities, CSIR labs, ICMR labs, Contract Research Organizations etc. Senior GLP inspectors of NGCMA were also invited as faculty.
 - v. The Training course agenda included extensive training on OECD Principles of GLP and Mutual Acceptance of Data, regulatory requirements for registration of various types of chemicals in India, Planning and Conducting GLP Inspections, Attributes of an Inspector & Inspection skills etc.
 - vi. A number of interactive sessions and Workshops were conducted as a part of the training course to discuss Real-time scenarios/ challenges faced during GLP Inspections.
 - vii. The most exciting part of the Training course was a visit to one of the GLP certified Test facilities of NGCMA, i.e. Dabur Research Foundation, Sahibabad, Uttar Pradesh. The visit gave a practical in-sight of a GLP test facility, its systems, procedures and processes (including Standard Operating Procedures), so as to understand the functioning and conduct of GLP studies therein.
 - viii. The participants of the training course were subjected to an extensive evaluation process during the training, including evaluation during the interactive sessions, participation during the lectures & workshops as well as Written examinations taken on each day of the training course.
2. Under the “**Vigyan Ustav**” programme, 22 State/UT Science & Technology Councils organized the programmes on the theme “**Future Technologies**”. The programmes reached out to 38,000 stakeholders through various platforms.
 3. **Vigyan Jyoti:**
 - JNV Mahendragarh launched Ernst and Young (EY) STEM App on 17th May, 2022. The App is introduced to engage the students fruitfully during the summer break and promote their creativity and exploration. The App have around 450 activities focusing on STEM, Social and emotional learning and Helping others.
 - Knowledge Centre Khurda conducted KP visit to National Institute of Science Education and Research (NISER), Bhubneswar for students of class X and XII on 13th May, 2022.
 4. **Innovation in Science Pursuit for Inspired Research (INSPIRE) Scheme**

INSPIRE Awards - Million Minds Augmenting National Aspirations and Knowledge (Manak)

List of Mentorship Workshops

Sr. No.	State Name	Date	Institute Name & Place
1	Uttarakhand	4-5 May, 2022	CSIR-IIP, Dehradun
2	Haryana / Chandigarh /	5-6 May, 2022	CSIR-CSIO Chandigarh

	Punjab		
3	Sikkim	9 th May, 2022	Vigyan Bhawan, Gangtok
4	Andhra Pradesh	12-13 May, 2022	IIT Hyderabad
5.	UP, Delhi	26-27 May, 2022	IIT Delhi

INSPIRE Fellowship:

- On 18th May 2022, **INSPIRE Programme Division, DST and ARCI Hyderabad** signed **MoU** online for continuation of **INSPIRE - Program Management Unit (PMU) for five years (2022-2027)**.
- On 20th May 2022, **INSPIRE Fellowship Level 1 Evaluation Committee Meeting** was organised at ARCI, Gurugaon to screen **912 INSPIRE Fellowship Applications**.

E. Scientific Research

1. One patent on “Polymer coated fluorescent semiconductor nanocrystals” was granted to MACS-Agharkar Research Institute (ARI), Pune.
2. The Asian summer monsoon is a major regional phenomenon that drives and regulates precipitation over the Asian subcontinent. To get a better understanding of monsoon behaviour and associated physical processes, as well as their dynamics at annual scales a comprehensive study at several sites with multiple proxies at various spatiotemporal scales is required. In this context, the Birbal Sahni Institute of Palaeosciences in Lucknow, Uttar Pradesh, has started a multi-proxy project for Quaternary Monsoon/Climate reconstruction from the Core Monsoon Zone; the database generated through the use of multi-proxy in this project will address these aspects more thoroughly, and will serve as a data base for climate modelling.
3. Wadia Institute of Himalayan Geology (WIHG), Dehradun has established that 12 July 2021 flash flood in McLeod Ganj area of Dharamshala township was not due to cloud burst but due to rain fall that could not flow naturally due to constriction of drainage by anthropogenic intervention.
4. An international team of researchers led by scientists of Aryabhata Research Institute of Observational Sciences (ARIES), Nainital have studied the evolution of a peculiar type Ibn supernova SN 2019wep and found that it simultaneously showed features of Hydrogen and Helium residual from the supernova, suggesting that the progenitor star may be a Luminous Blue Variable (LBV) star transitioning to the Wolf-Rayet phase.

F. Scientific Infrastructure Building

1. 650 TF [peak value is 833 TF] (PARAM PORUL) Supercomputer installation at NIT-Trichy was completed and inaugurated by NITT Chairman of Board of Directors on 25th May 2022.

2. 650 TF machine [peak value is 833 TF] (PARAM ANANTA) supercomputer installed at IIT Gandhinagar on 30 May 2022
3. Scientific Research Infrastructure Sharing Maintenance and Networks (SRIMAN) guidelines launched by Hon'ble Minister in the National Technology Day event on 11.05.2022 and the copy of the same is available at <https://dst.gov.in/documents/guidelines>
4. **Synergistic Training program Utilizing the Scientific and Technological Infrastructure (STUTI):** Thirteen STUTI PMUs have identified several Department/Institutes which have conducted more than 25 training programs across the country that imparted training to around 800 researchers.
