

No. Misc.1/20/2018-CDN (Vol-II)
Government of India
Ministry of Science and Technology
Department of Science & Technology
(CDN Section)

Technology Bhawan,
New Mehrauli Road,
New Delhi – 110 016

Dated: 14.11.2019

OFFICE MEMORANDUM

Subject: Monthly Summary to the Cabinet for the month of October, 2019.

The undersigned is directed to enclose a copy of the Monthly Summary of Important policy decisions taken and major achievements of the Department of Science & Technology for the month ending 31.10.2019 for information.

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



(Balram Goel)

Under Secretary to the Govt. of India

To,

All Members of the Council of Ministers

Copy with enclosures, forwarded to:-

1. The Principal Scientific Adviser to the Government of India
2. Secretary to the President of India
3. Secretary to the Vice-President of India
4. The Principal Secretary to the Prime Minister, Prime Minister Office, South Block, New Delhi – 110 011.
5. Chairman, NITI Aayog, NITI Bhawan, New Delhi.
6. Vice Chairman, NITI Aayog, NITI Bhawan, New Delhi.
7. Chief Executive Officer, NITI Aayog, NITI Bhawan, New Delhi.
8. All Members of NITI Aayog, NITI Bhawan, New Delhi.
9. The Chairman, Union Public Service Commission
10. Secretaries to the Government of India (as per list)
11. The Principal Director General, Press Information Bureau, Ministry of Information & Broadcasting
12. The Director, Cabinet Secretariat, New Delhi - 4.
13. Shri Sanjay Kumar Mishra, Sc. 'G', DST for uploading the monthly summary on DST's website.
14. Sr. PPS to Secretary, DST.

Department of Science & Technology
Monthly Report
October, 2019

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

A. Science for Society perusal

1. The inaugural program of **Socializing the micro solar dome for empowering Marginalized Rural SC,ST and Tribal communities** has taken place on 30 Sept 2019 . The program is being implemented across 10 states by consortium led by IIT, Kharagpur, West Bengal.
2. DST has participated in workshop on Hydrogen Technology covering hydrogen generation, storage and utilization under the theme **“Hydrogen and Fuel cells for sustainable future”** on 18th October, 2019 at Chennai.
3. A review **meeting on Technology Acceleration Platform for Rural Innovation and Social Entrepreneurship (TAP-RISE)** Design Phase project being jointly implemented by Development Alternatives (DA) and Vigyan Ashram held at the DA Headquarters Building, New Delhi on 22nd October. TAP-RISE is a design phase project for upscaling of technologies developed by Core Groups from better business perspective for rural growth.
4. A regional workshop and inauguration of the first demonstration building at *Bagi* Village in Uttarkashi was held on 31st October, 2019 under TIME-LEARN program to deliver the **Eco-Friendly Multi-Hazard Resistant Construction Technologies and Habitat Solutions** for Mountain States of Uttarakhand.
5. A meeting of the "Committee of Experts" met at DST, New Delhi on 24th October, 2019 to consider the proposals received from IIT Kanpur, IIIT Hyderabad, NISCAIR-CSIR & C-DAC, NOIDA for **development and uploading of scientific content in Hindi on Wikipedia website.**
6. The 5th meeting of Programme Advisory and Monitoring Committee (PAMC) for **S&T Communication programmes on Science behind Miracles, Science Communication through Folk Media, Low-Cost Teaching Aids**, etc. and National Science Day & National Mathematics Day through State S&T Councils was held on 23rd & 24th October, 2019 at Haryana Institute of Public Administration (HIPA), Gurugram, Haryana to evaluate and to recommend proposals received under the programme.

7. **Perfect Health Mela** was organized by Heart Care Foundation of India on 16-20th October 2019. NCSTC participated and activity corners were put up.

B. National Technology Mission

1. The first National Consultative Meeting for DPR formulation of National Mission on Quantum Technologies and Applications (NM-QTA) was held on 1st October 2019 at IISER, Pune on the **status of Quantum Sensors and metrology in the country and abroad**. A roadmap was created for the Entire mission from the standpoint of the theme on Quantum Sensors and metrology.
2. A meeting of Standing Finance Committee (SFC) was held under the Chairmanship of Secretary, DST to consider the **“Technology Fusion and Application Research (TFAR)” programme** on 14/10/2019 at Department of Science & Technology (DST), Technology Bhawan, New Delhi and recommended that the ICPS R&D Programme will stand replaced by TFAR.

C. Technology Development

1. An **ultracapacitor based energy storage system for recuperation and reuse of energy in elevators for high rise buildings** in smart cities has been developed by company based at Bhopal, Madhya Pradesh.
2. DST has organised a meeting with Bharat Heavy Electricals Limited (BHEL), Hyderabad on 1st October 2019 at DST for the project entitled **“Design, Development and Demonstration of high ash Indian Coal to Methanol (0.25 TPD) Technology”** to discuss about the Status & Action plan for ongoing methanol project.
3. DST has organised a meeting with IIT Bombay on 18th October 2019 at DST to assess the status of following ongoing Building Energy Efficiency and Smart grid projects.
 - i) Smart Energy Management in Buildings
 - ii) SMART Planning and Operations of Grids with Renewables and Storage (SPOReS)
4. DST has organised a meeting with IIT Delhi on 18th October 2019 at DST to assess the status of following ongoing Building Energy Efficiency and Smart grid projects.
 - i) Energy Efficient Buildings: Technology with Intelligence

- ii) Research and development of smart, secure, scalable, resilient and adaptive cyber-physical power system (S3RA-CPPS).
5. A meeting was held with Indian Institute of Chemical Technology Hyderabad on 24 October 2019 at Hyderabad for the project **entitled “Development of a process for 2,3,3,3- Tetrafluoropopene (HFO-1234yf)”** to discuss about Status & Action plan for the ongoing Building Energy Efficiency project.
6. A discussion meeting was held with Bharat Heavy Electricals Limited (BHEL) Hyderabad on 25 October 2019 at Hyderabad regarding the ongoing methanol project **entitled "Design, Development and Demonstration of high ash Indian Coal to Methanol (0.25 TPD) Technology.**

D. International Cooperation

1. 25th edition of Technology Summit was organised by the Department of Science and Technology & the Confederation of Indian Industry (CII) at New Delhi in partnership with the Netherlands on 15-16 October 2019. **Summit was inaugurated by H.M. Mr Willem-Alexander, King of the Netherlands and Dr Harsh Vardhan, Hon'ble Minister for Science & Technology, Health and Earth Sciences.** Summit focussed on water, agriculture and health involving all stakeholders-government, academia, industry, start-ups, etc. In the two days programme, 40 MoUs were signed between Indian & Dutch companies and Institutes, 511 business to business meetings were held, around 25 Indo-Dutch collaborative projects showcased. Digital exposition by 60+ organisations in agriculture, health care, water and hi-tech areas was also shown. More than 250 speakers and over 1400 delegates participated.
2. The Embassy of Mexico in India co-organized an **India-Mexico Dialogue on Innovation and Social Development** with the Department of Science and Technology and IIT, Delhi on October 9, 2019. The target of this workshop was to bring together business, academic and government leaders to exchange perspectives on how technology and innovation can improve the lives of citizens and explore opportunities for collaboration in areas such as innovation and social development, integrating SMEs into high-value global productive networks, and entrepreneurship with social inclusion.
3. India and Uzbekistan signed Programme of Cooperation (PoC) in Science, Technology and Innovation for next 3 years on 11th October 2019. Both countries agreed to work in areas such as (i) Agriculture and Food Science and Technology; (ii) Engineering Sciences; (iii) Information and Communication Technology, Applied Mathematics and Data Science and Technology; (iv) Health and Medical Technology;

(v) Materials Sciences; (vi) Life Sciences and Biotechnology; (vii) Physics and Astrophysics; and (viii) Energy, water, climate and natural resources. Both sides also agreed to launch a call for joint research proposals. Further it was agreed to organise joint workshops and training courses in each other country.

4. An event co-organised by Department of Science & Technology (DST) and European Union held on 31st October 2019 at IIT Delhi on **Awareness Raising and Networking events on the India-EU Joint Call on Smart and Integrated Local Energy Systems.**

E. Human Capacity Building

1. Under Thirty Meter Telescope (TMT) project, India-TMT organized a Science and Instrumentation Workshop at ARIES, Nainital during October 17-19, 2019.
2. The second Programme Advisory Committee Meeting of NSTMIS programme to consider new proposals was held during 18-19th October, 2019 at Dronacharya College of Engineering, Gurugram.
3. An expert review meeting of select ongoing NSTMIS proposals was held on 31.10.2019 at Vardhman College of Engineering, Hyderabad.
4. The ICPS Division, DST has launched Call for Proposals (CFP) on 25.10.2019 for conducting training programmes, workshops, conferences and Advanced/emerging technologies awareness programme at school level students under Schedule Caste Sub-Plan (SCSP)/Tribal Sub-Plan (TSP) on the following broad thematic areas:
 - Data Science, Big Data Analytics and Predictive Analytics
 - Machine Learning, Deep Learning, Artificial Intelligence, Advanced Communication Systems
 - Internet of Things, Sensor Networks, Robotics
 - Cyber Security and Block Chain Technology
5. **INSPIRE Internship:** One meeting of the Expert Committee for considering the INSPIRE Internship Proposals under the INSPIRE Program was organized. In these meetings, Committee considered 35 INSPIRE Internship proposals for organizing the INSPIRE Internship camps from all across the country. Out of 35 proposals, only 20 proposals covering 4850 INSPIRE interns were recommended for support.

6. Scholarship For Higher Education (SHE): 4076 SHE scholars received their scholarship for pursuing B.Sc./M.Sc. Degree course in basic and natural sciences.

7. INSPIRE Fellowship:

- 30 INSPIRE Fellows received their fellowship for pursuing their doctoral degree program.
- One INSPIRE Fellowship Review meeting was organized at SMVD Gurukul, Katra in which 50 INSPIRE Fellows research progress was monitored by the respective subject experts.

8. INSPIRE Faculty Fellowship:

- One INSPIRE Faculty Fellowship Review meeting was organized at Andhra University, Vishakhapatnam in which 241 INSPIRE Faculty Fellows research progress was monitored by the domain experts.

F. Scientific Infrastructure Building

1. The design and development of in-kind items for Facility for Antiproton and Ion Research (FAIR) and Thirty Meter Telescope (TMT) projects is in progress. **For TMT project, 20 Actuators sent to Project Office, TMT at USA continued undergoing life tests at Jet Propulsion Laboratory, USA.**
2. “Presentation Meeting in Mathematical Sciences under “Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST)” was held in October 2019. The Subject Expert Committee evaluated the presentations given by the department and recommended few proposals for support under FIST for Scientific Infrastructure Building.
3. R&D-Infrastructure division represented in the Joint Meeting on Scientific Equipment Databases organised by NSTMIS Division, DST held in October 2019. There was detailed discussion about preparation of a separate dashboard for the R & D Infrastructure Programs (FIST, SAIF, PURSE & SATHI) in the Indian Science Technology and Engineering Facilities Map (ISTEM).