

Department of Science & Technology

Monthly Report

November, 2018

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

- i.** Launch of Global Cooling Prize was done on November 12, 2018 by Hon'ble Union Minister for Science, Technology, Earth Sciences & Environment Forest and Climate Change. The Global Cooling Prize is an innovation challenge that aims to spur development of a residential cooling solution that has at least five times (5x) less climate impact than today's standard products. The prize is supported by Mission Innovation, the Government of India through the Department of Science and Technology and its partner organizations namely Ministry of Power, Bureau of Energy Efficiency, and Ministry of Environment, Forests and Climate Change and will be administered by a coalition of leading research institutes—Rocky Mountain Institute (RMI), Conservation X Labs, the Alliance for an Energy Efficient Economy (AEEE), and CEPT University. This technology could prevent up to 100 gigatons (GT) of CO₂-equivalent emissions by 2050. Over US\$3 million will be awarded in prize money after the 2-year competition.



- ii.** Under the aegis of Association of South East Asian Nations (ASEAN)-India Science, Technology and Innovation Cooperation Program, the 1st ASEAN-India InnoTech Summit was hosted by India in New Delhi during 29-30 November 2018. The Summit was inaugurated by Dr Harsh Vardhan, Hon'ble Minister of Science & Technology on 29th November. Prof Ashutosh Sharma, Secretary DST delivered the theme address during the inaugural session of the event.

The main objective of the InnoTech Summit was to exhibit and build networks between Indian and ASEAN researchers, scientists, Innovators, Technocrats, private companies and Start-ups etc to facilitate building an ASEAN-India Innovation and

Technology Databank for sharing among India and ASEAN country stakeholders. About 250 delegates from India and about 65 delegates from ASEAN Member States representing Government, Universities, R&D Laboratories and Institutes, private companies, Start-ups participated in the event. About 50 technologies and Innovations were displayed and B2B meetings held to facilitate technology / Innovations transfers and commercialization.

- iii.** Stakeholder consultation meeting under the Banner of DST's Swachhata Action Plan 2018-19 for the thrust area "Industrial Hazardous & Non Hazardous Waste Management" was organized at PSG College of Technology, Coimbatore, TN during 26th and 27th Nov., 2018. More than 100 Researchers, Professors and Scientists from various parts of the country including Jammu & Kashmir had participated in the two day program.
- iv.** The 6th India-Netherlands Joint Working Committee was held on November 28, 2018 in New Delhi under the co-Chairmanship of Shri Sanjeev K Varshney, Advisor & Head, IBCD, DST and Prof. Wim van den Doel – Member Executive Board, NWO. DBT, MeiT, MEA and CII also participated from Indian side. In the meeting, six major decisions were taken. They were (i) making of a comprehensive strategic agenda for the next 5 years, (ii) developing a concrete bilateral programme in PPP in innovation, (iii) mission driven projects on water and agri food, (iv) integrated review of bilateral projects on water by all partners, (v) mapping of post graduate/early career exchange and (vi) Technology Summit 2019 with partner country Netherlands.
- v.** India-UK Round Table on 'Artificial Intelligence' was organized at New Delhi on November 2, 2018 under the India UK programme of Cooperation in S&T. Prof. Uday B. Desai, Director, IIIT Hyderabad chaired the expert meeting from India. The objective of Round table was to identify themes/areas where both the countries could work together and think about possible sources of funding.
- vi.** 4th Meeting of the BRICS Working Group on Astronomy- an area identified as Priority area of cooperation amongst BRICS countries, was hosted by South Africa during October 30- Nov 2, 2018 in Durban, South Africa. Dr Jayant Murthy, Acting Director, Indian Institute of Astrophysics, Bangalore represented India in the meeting.

- vii.** The Ramanujan Prize of US\$ 15000, floated by the International Center for Theoretical Physics, Italy for outstanding contributions by Young Mathematician Scientists from the developing countries, is being funded by Govt. of India (DST) for a period of five years from 2014 onwards. The 2018 Ramanujan Prize was awarded to Dr. Ritabarta Munshi, Mathematician from Tata Institute of Fundamental Research, Mumbai, India, in recognition of his contribution to Number Theory, in a ceremony held on November 9th, 2018 at the International Center for Theoretical Physics (ICTP), Trieste, Italy.

- viii.** An Inter-Ministerial / Departmental meeting was held on 6 November 2018 in Technology Bhawan under the Chairmanship of Prof. Ashutosh Sharma, Secretary, Department of Science & Technology (DST) to discuss harmonization of guidelines on emoluments and other service conditions of research personnel (JRF/SRF/RA) in R&D programmes of Central Government Departments and Agencies. The Inter-Ministerial Group recommended upward revision of fellowship with certain modification in the eligibility criterion.

- ix.** CHORD/NSTMIS Division of Department of Science & Technology (DST) has framed a Draft Policy Document: Scientific Research Infrastructure and Maintenance Networks (SRIMAN) in the S&T sector. First Steering Committee meeting towards finalization of Draft SRIMAN Policy Document was held on 14th November, 2018 in New Delhi to be followed by series of workshops with stakeholders across the S&T sector. The inputs of the stakeholders' workshops will be incorporated towards finalization of the Policy Document.

- x.** The first meeting of the re-constituted Oversight Committee of the Science and Engineering Research Board (SERB) was held under the Chairmanship of Dr. Vijay P Bhatkar on 20 November 2018 in CSIR Science Centre, New Delhi. The Committee felt that the fields like Quantum Frontiers, Artificial Intelligence, Advanced Manufacturing etc. need high level of intervention to be relevant in the global context.

- xi.** The 3rd 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 held on 30th November & 1st December, 2018 at Jaipur, Rajasthan.

- xii.** Interaction was held with 40 prospective Community Radio Stations (CRS) in 'Community Radio Awareness Workshop' during November 21-23, 2018 at Goa and CRS sensitized about the funding opportunities available with Department of Science and Technology (DST).
- xiii.** Mobile Science exhibition Bus was launched by Kisan Sewa Sansthan, Basti, UP, aiming to reach the unreached with the message of effective Science Communication and for developing scientific temper among the society, especially students. The activities on-board the bus include science model exhibition besides supplementary & complementary activities like regular sky gazing camps through telescope, scientific explanation to miracles, etc.
- xiv.** Regional Eco Next Connect & Eco Media Lab were organized on 28th& 29th November 2018 in Bhuj, Gujarat with KSKV Kachchh University with an aim to promote Science Communication studies related to Kuchchh eco region for reconstructing the relationships between past societies and the environments they lived in and current challenges. It was hugely successful in terms of hands on science & eco media activities and drew strong regional participation with invited and local resource persons.
- xv.** New Projects supported (Theme wise):
- Science Motivation/ Awareness/ exhibition/fair - 12 Nos
 - State Level Children's Science Congress - 03Nos
 - S&T Communication Training in Folk Media - 01 Nos
 - Mission Eco Next - 06 Nos
- xvi.** A “4th MI IC1 Smart Grids Innovation Workshop” was held on 21-23 November in Rome, Italy. In *IC1 Industry Workshop*, the *Smart Grids Innovation Accelerator (SGIA) Platform* was launched which would serve as a suitable tool to enable knowledge sharing of technical results and best practices, thus removing barriers and providing insights to boost smart grids market uptake. IC1 members released the *Rome declaration* clearly stating the IC1 members continuing commitment to strongly support the ongoing fruitful collaboration within the Innovation Challenge 1 and recalling major accomplishments and agreed near future engagements.



- xvii.** An expert panel meeting for consideration of proposals under Technology Stream MES 2018 & HFC 2018 was held on 15th November, 2018 at IIT Delhi, 12 Principal Investigators presented their proposed work under HFC and MES 2018. Out of 12 presented proposals, 08 have been recommended for support under the calls.
- xviii.** The 4th meeting of Expert Group Committee on State S&T Programme (T2SC on SSTP) scheduled was held during 15th -16th, November, 2018 (Thursday and Friday) at Bangalore to be organized by Karnataka State Council for Science and Technology (KSCST), Indian Institute of Science Campus, Bengaluru - 560012, Karnataka. Around 65 new proposals and 10 ongoing/completed projects were reviewed in the meeting.
- xix.** Organizing 5th Meeting of Expert Advisory Group for Biomedical Device and Technology Development (BDTD) Programme to consider shortlisted new proposals & revised proposal under the programme of BDTD of TDT Division of DST during 19th-20thNovember, 2018 at Indian Institute of Technology Delhi, HauzKhas, New Delhi-110 016.
- xx.** On-the-spot assessment of the two projects supported under Technology Intervention for Mountain Ecosystem: Livelihood Enhancement through Action Research & Networking (TIME-LEARN) was conducted on 18-21 November 2018. Following projects were evaluated:
- a) “Eco-friendly Multi-hazard Resistant Construction Technologies and Habitat Solutions” being implemented in Kamad, Uttarakashi, Uttarakhand. Construction of disaster resistant demonstration building is under progress at Kamad village.

b) "Bio prospecting of essential oils" being implemented in Forest Research Institute, Dehradun.

- xxi.** A team of Experts conducted onsite visit to the Rural Women Technology Park (RWTP), Sri Padmavati Mahila Visvavidyalayam, Tirupati (SPMV) during November 27-28, 2018. Officers from NABARD and District Industries Centre gave valuable inputs regarding creation of Self Help Group (SHG) and establishing forward linkages.
- xxii.** Meeting of Programme Assessment and Monitoring (PAMC) committee on National Network Programme on Coastal Vulnerability was held on 13th November, 2018 at JNU, New Delhi to review 10 projects supported under the programme. As a part of the meeting a panel discussion was held on "*Climate Change Impact on Ocean & Coastal Vulnerability: Current Status and Way Forward*" where in more than 75 experts participated from different ministries/ departments and academic institutions.
- xxiii.** Expert Committee Meeting of CCP-SPLICE Division was held on 19-20th November, 2018 at DST New Delhi. In this meeting total 27 new project proposals were recommended to support.
- xxiv. Innovation of Science Pursuit for Inspired Research (INSPIRE)**
- a) **INSPIRE Scholarship**
- Monthly data for all DBT applicable schemes of DST were uploaded on DBT Bharat portal.
 - In November, the scholarship releases were made to 1766 scholars.
 - The documents of ongoing and fresh scholars for continuation of scholarship received online were evaluated with the help from back end at ARCI, Gurgaon. Subsequently, scholarship release files were processed for financial approval of scholars of 2013, 2014, 2015, 2016 and 2017 batches.
 - BSc 1st year documents of 9043 provisionally selected scholars of 2017 batch (result announced in May 2018) were evaluated and still in progress.
 - Technical, scientific and administrative queries of scholars were addressed on every Monday. In November 2018, queries were addressed and solutions were provided for 90 scholars who visited DST.
- b) **INSPIRE Internship:** One meeting of the Expert Committee for considering the INSPIRE Internship Proposals under the INSPIRE Program was organized in

November 2018. In this meeting, Committee considered 25 INSPIRE Internship proposals for organizing the INSPIRE Internship camps from all across the country. 14 proposals covering 2600 INSPIRE interns were recommended for support.

c) **INSPIRE Fellowship**

Ongoing support was provided to 101 INSPIRE Fellows in November, 2018.

d) **INSPIRE Faculty Award**

The interviews for the selection of INSPIRE Faculty Fellows from the July 2018 session applicants have been held in Nov 2018 for various subjects.

xxv. Prof. Brajesh Chandra Choudhary, India-CMS Spokesperson was nominated as one of the Advisor to the CMS Spokesperson and hence to the CMS Management Board. CMS is an important experiment at the Large Hadron Collider at CERN, Geneva.
