Department of Science & Technology
Monthly Report
August, 2024

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

- On August 24, 2024, the Union Cabinet approved continuation of the three umbrella schemes, merged into a unified central sector scheme namely 'Vigyan Dhara' of Department of Science and Technology (DST). The scheme has three broad components, namely, Science and Technology (S&T) Institutional and Human Capacity Building; Research and Development and Innovation, Technology Development and Deployment. The merger of the schemes into a single scheme would enhance efficiency in fund utilization and establish synchronization among the sub-schemes/programs. The primary objective of the 'Vigyan Dhara' scheme is to promote S&T capacity building as well as research, innovation and technology development towards strengthening the Science, Technology and Innovation ecosystem in the country. Implementation of the scheme will strengthen the S&T infrastructure of the country by fostering well-equipped R&D labs in the Academic Institutions.

A. Technology Development

- Researchers at Centre for Nano and Soft Matter Sciences (CeNS) have developed zinc-ion electrochromic batteries (ECBs) integrating energy storage with optical modulation technologies. Utilizing tungsten trioxide (WO3), the study focuses on enhancing performance through advanced coating techniques and hybrid ion electrolytes. Ethanol-based spray coating improves film uniformity via Marangoni flow, surpassing deionized water methods. Hybrid Zn-K electrolytes boost ΔT modulation (50%) and cyclic stability, validated by theoretical analysis supporting K+ ion interaction with WO3. Prototype ECBs demonstrate robust cyclic stability (3000 cycles), fast self-charging, and reversible optical modulation, promising sustainable energy solutions for smart electronics.
- Scientists of CeNS in collaboration with Aligarh Muslim University have demonstrated a biofabricated nanomaterial derived from Sansevieria trifasciata root extract. The nanomaterial comprises pristine ZnO nanoparticles (ZnO NPs) and a 1% Ag-doped ZnO nanocomposite (Ag@ZnO NC), synthesized through a green-assisted sol–gel auto combustion method. The material shows potential applications in solar cells, optoelectronics, spintronics, wastewater treatment, and high-performance asymmetric supercapacitors. Electrochemical tests demonstrate remarkable super capacitive behavior with a 94% capacitance retention after 10,000 cycles, highlighting its promise as advanced asymmetric supercapacitors.
- A Memorandum of Understanding (MoU) was signed between SCTIMST and World Health Organization (WHO). An announcement of signing of this MoU was made on 9th August 2024 at Indian National Science Academy (INSA), New Delhi in presence of Hon'ble Minister of State (Independent Charge) of Science & Technology. As a result of

this MoU, medical technologies developed by SCTIMST will be available for other countries also through the Health technology access pool (HTAP), which is an excellent initiative by WHO as it gives access to successful health technologies to various countries. This MoU allows SCTIMST and DST to enter into a partnership with global entrepreneurs, licensing the technologies and creating revenue generation through royalty.

B. Science for Society

- The 7th INAE-NAEK Workshop on "Current Status and Cooperation Plan of the Satellites for Observing the Earth," was held online from August 19-20, 2024. During this workshop leading experts from India and South Korea gathered to discuss the latest advancements in satellite technology and explore avenues for international collaboration. Experts deliberated on various aspects of satellite technology, such as the commercialization of earth observation data, the role of public satellite missions, and the development of cloud-based platforms for processing environmental data. The sessions underscored the critical role that satellite technology plays in fields like climate monitoring, agriculture, and urban planning.
- North East Centre for Technology Application and Reach (NECTAR), in collaboration with AIC - IPR Plasmatech Innovation Foundation, IPR, Gandhinagar, National Institute of Technology (NIT), Meghalaya and Cotton University, Guwahati, conducted a one-day awareness programme on "Plasma Technologies for Entrepreneurship". The event aimed to introduce students and startups to the potential of plasma technologies as a tool for entrepreneurship, fostering innovation and business opportunities. 80 participants, including students, faculty members, and entrepreneurs, actively took part in the programme. The sessions provided insights into the applications of plasma technology across various industries, how startups can leverage these technologies for business development, and the support available through incubation centres like AIC-IPR Plasmatech. The event successfully raised awareness and sparked interest in plasma-based entrepreneurship among participants.
- NECTAR and Regional Council of Organic and Natural Farming, Imphal, jointly conducted a two-day training program on the Participatory Guarantee System of India (PGS-India) Certification at the BRDC (Bio-Resources Development Centre), Upper Shillong, Meghalaya. The training aimed to educate and empower participants on the principles, procedures, and benefits of PGS-India certification, which is vital for promoting organic farming practices. The sessions provided in-depth knowledge about the certification process, documentation, and compliance with organic standards. Participants also gained insights into how PGS-India promotes sustainability, community involvement, and natural farming techniques.
- A comprehensive 5-day training program on Carpenter Trade, aligned with the FFS/Q2203 qualification pack, was conducted by NECTAR from 12th August to 18th August 2024, excluding the Zero Day and Assessment Day. This training was specifically organized under the PM Viswakarma Program, with the aim of enhancing the skills of 22 participants in the carpentry trade. Throughout the program, the candidates received hands-on training

on various carpentry techniques and tools, with a focus on practical applications and adherence to industry standards. The training sessions were designed to ensure participants developed both foundational and advanced skills, preparing them for future employment or entrepreneurial opportunities in the carpentry field.

- National Innovation Foundation (NIF) organized an Interactive session with students at Department of Agriculture and Rural Development, Ramakrishna Mission, Vivekananda Educational & Research Institute, Narendrapur, West Bengal on August 6th, 2024 so as to give them exposure to Scouting and Documentation activities of grassroots innovations and involving them subsequently for a greater exposure of the region. NIF also organized an Interactive session with polytechnic students of Coochbehar Polytechnic College through a programme titled "Problems Leading to Ideas" at their campus on August 9, 2024 where 200 students participated.

- A National Research Workshop on “Mastering the Art of Science Research Proposal Writing: Expert Insights for Securing Funding” was organized on 27 July, 2024 at Sacred Heart College, Thevara Kochi by Indian National Science Academy (INSA). The workshop provided tips on effectively communicating with funding agencies and responding to reviewers’ comments. Another event “Significance of Science and Technology Projects in Rural Areas for Empowering the Tribal Community of India” was also organized on 14th August, 2024 at Govt. Hr. Sec. School, Athanavur, Yelagiri Hills. This helped students to understand the role of S&T based projects in their personal growth and future opportunities.

- Department of Science and Technology (DST) & ISHRAE organised a joint session on Indian Cooling INnovation Goal (ICING) at ISHRAE Cool Conclave during August 1-3, 2024 at Jaipur.
- DST Chaired and moderated the session on ‘Potential for Furthering R&D areas on CCUS collaboration with US’ during the Worksop organized by NITI Aayog & Department of Energy (DoE) USA on 22nd – 23rd August 2024.
- The first-ever BRICS Geographer's Day was celebrated at the Russian Geographical Society Headquarters in Moscow, on 18th August 2024, marking a significant step in fostering cooperation in geographical sciences, conservation, and sustainable development among BRICS nations. Department of Science and Technology, represented India at the event and participated in a week-long nature reserve management program in Siberia, where DST exchanged valuable insights with experts from Russia and other BRICS countries.
- A workshop on IP policy and GIs was held in Guwahati from August 12-13, 2024. During the workshop, deliberations focused on framing state IP policies in alignment with the National IP policy. Additionally, the role of S&T Councils in promoting and effectively facilitating GIs was discussed and the Councils showcased the impact of GIs in their respective states.
- An Expert Committee (EC) meeting was held on 28-30th August 2024 at CMFRI, Kochi to review the projects sanctioned under Scheduled Caste Sub Plan (SCSP) and Tribal Sub Plan (TSP) of DST.

- Under SEED-SSTP Programme, CSIR-NML, Jamshedpur created waste management training facilities and developed a Common Facilitation Center for Women's training and empowerment; NIAMT, Ranchi with the help of the Software Technology Park of India, Ranchi developed the Incubation Center and Innovation and Entrepreneurship Development Centre; CSIR-IHBT, Palampur published a manuscript titled "Importance/ use/ Agrotechnology/ post-harvest products for both Artemisia brevifolia and Melissa officinalis"; DRI, Chitrkot published a paper on "Standardization of Traditional Herbal Formulation (Kajal), Used for Eye Care in Chitrakoot region, Madhya Pradesh".
- System of Wheat Intensification (SWI), System of Maize Intensification (SMI), Turmeric Processing technologies deployed by VIKSAT, Ahmadabad has impacted 35 villages, 17 Individual entrepreneurs from 15 villages, 06 SHGs of 70 members from 05 villages and created a SAFE - FPO's of 254 members.
- VIB, Nimpith developed three packages for paddy growth in Coastal Saline, Red & Laterite and Vindhyan Alluvial zones and evaluated them for techno-economic viability. On an average, this will result in estimated increment of farm income - Rs 10869 / ha (35.92%), with decrease in fertilizer cost - Rs 523 /ha (5.42%) and pesticide cost - Rs 3106 /ha (51.87%).

C. Human Capacity Building

- Under Vigyan Jyoti Programme, an Orientation session for 300 JNVs, 75 Career Counselling sessions, 5 C-STEM sessions, 174 Role Model interactions, 52 Knowledge Partners (KPs) visits, 46 Tinkering workshops, 49 Science camps, and 2374 Subject Specific lectures were conducted for Vigyan Jyoti scholars.
- Under Vigyan Jyoti, 3 Regional Conclaves at PM SHRI JNV Mana Camp, Raipur and MNIT, Jaipur were organised during August, 2024. These Conclaves enabled Vigyan Jyoti Scholars to interact with Eminent Scientists and Academicians from ISRO and NIT. The girls also participated in experiential learning workshop on drone technology, LED bulb making and Science exhibition conducted during the conclaves.
- DST organized a workshop on the topic of "Career opportunities for women and girls in Science" and a panel discussion on "Role of Institutions for Women in Science and Technology" at IIT Bombay during August 08-09, 2024.
- A Programme Advisory Committee (PAC) meeting was conducted during August 09-10, 2024 at Telangana Mahila Vishwavidyalayam, Hyderabad, to review ongoing projects supported under CURIE-PG Programme. Principal Investigators (PIs) from 24 Women Post-Graduate Colleges presented detailed updates on their ongoing projects. The screening of proposals received in response to the CURIE-PG Call 2024 was also conducted by the PAC.
- Under 'WISE (Women In Science and Engineering) - Fellowship for Ph.D. (WISE-PhD), 2nd meeting of Subject Expert Committee (SEC) on Life Sciences was conducted at Panjab University, Chandigarh to evaluate 123 new proposals.
- Under INSPIRE–MANAK (Innovation in Science Pursuit for Inspired Research - Million Minds Augmenting National Aspiration and Knowledge) Scheme, (i) Mentoring

Workshop was organized for selected students of Manipur; (ii) District Nodal Officers meeting for Manipur, Sikkim, Rajasthan, Uttar Pradesh and Chhattisgarh were organized where more than 155 District Nodal Officers participated; 32 Teachers' Workshops were organized in Himachal Pradesh, Karnataka, Bihar, Uttar Pradesh and Chhattisgarh to improve the quality of ideas/ innovations of the students where more than Thirteen Thousand (13000) Teachers participated; (iii) 10-day Intensive Workshop of Teachers Development Strand under iRISE program was organized at IIT Roorkee, Uttarakhand from August 21-30, 2024 which was attended by 50 selected Teachers from Uttarakhand; (iv) A new program "Exposure visit of Japanese School Students to India" was initiated under INSPIRE-MANAK scheme. Under this program, 10 Japanese school students and 2 supervisors visited India during 27-31 August, 2024. During the stay, the students were exposed to India's Science and Technology advancements through visiting India's academic and research institutes, Industry and cultural sites.

- Under INSPIRE Scholarship, ₹ 16,18,20,000/- was released towards Scholarships for 3286 ongoing students (Direct Mode); ₹ 1,07,40,000/- was released towards Scholarships for 179 ongoing students in (Institutional Mode); ₹ 13,12,000/- was released towards Scholarships for 14 ongoing students in (KVPY); National Education Policy 2020 (NEP 2020) provisions under INSPIRE-SHE (Scholarship for Higher Education) were incorporated and disbursement method of Scholarship was finalized; and Advertisement for inviting applications under INSPIRE Scholarship SHE-2024 (which has been opened on 1st September 2024) was drafted and finalized. Guidelines, FAQ, Endorsement Form for B.Sc. and Enrolment Form for M.Sc. were also revised.

- Under INSPIRE Fellowship, ₹ 6,47,000/- was released towards Fellowships for 11 ongoing INSPIRE Fellows. 43 INSPIRE Fellows have been converted from JRF to SRF.

- The Second meeting of the sub-committee constituted for preparation of Guidance document for GLP certification scope of the National GLP Compliance Monitoring Authority (NGCMA) was organized in DST on August 7, 2024. The draft Guidance document was deliberated upon and based on the inputs of the members/experts the Guidance document for GLP certification scope of NGCMA was prepared/finalized.

- As part of the Indian delegation, officials of DST attended the Fourteenth Session of UN-GGIM at the United Nations Headquarters in New York from 5th to 9th August, 2024. Several side events and meetings relating to the Committee of Experts' substantive work took place from 5th to 7th August, 2024, as part of the session (UNGGIM Asia-Pacific Meeting; Geospatial information for sustainable development and Climate resilience (05 Aug, 2024 etc.). In the side event on UNGGIM Asia-Pacific meeting, preparedness for the Thirteenth plenary AP meeting and regional seminar on Global Geodetic Reference Frame to be hosted by India in New Delhi from 25-29 November, 2024 was presented. The tentative programme schedule was discussed in detail and inputs and feedback were obtained from the representatives of Member States. This annual meeting brought together various country's representatives and senior executives from national geospatial information authorities, along with experts from international organizations, the UN system, and relevant stakeholders, aiming to enhance global collaboration, coordination, and coherence in geospatial information management. The session focused on addressing

global challenges related to geospatial information creation, availability, and application, with particular emphasis on development agendas and policymaking.

- Detailed analysis of the total 280 proposals received under recently closed call for proposals (closed on 5th August 2024) in the area of Geospatial Technology and Solutions focusing on 8 different sectors is being carried out, which will be essential to understand the trends of metadata and quality of the proposals ultimately for the screening of the proposals.
- A meeting to discuss the various issues pertaining to standardization of Geospatial course curriculum and Geospatial Capacity building etc was held under the Chairmanship of AS (Geospatial). In the meeting, the possibility of integrating various geospatial modules of dst-iget portal with Government's iGoT portal for its wider dissemination and usage along with consideration of the inclusion of geospatial-related subjects in the National Eligibility Test (NET) were discussed.
- A presentation to UGC was made during an online meeting for requesting the provision of equivalence of DST's geospatial capacity-building programs to UGC's orientation, refresher and other such courses. UGC has recommended minor modifications to the course structure for resubmission.
- Scientist of DST delivered online lectures during two Geo Innovation Challenge programms on the topic "Geo-Innovate for Public healthcare" held by Punjab Engineering College (PEC), Chandigarh and on "Intervention of Geospatial Technology for Water Resources" held by National Institute of Hydrology (NIH), Roorkee, respectively.

D. Scientific Research

- Researchers at Centre for Nano and Soft Matter Sciences (CeNS) developed a scalable method for synthesizing nitrogen-doped carbon-supported platinum nanoparticles utilizing Fusarium oxysporum as a reducing and stabilizing agent. It was also shown that N-doped C/Pt NPs possess high specific capacitance, 482.77F/g at 2.0 A/g, retaining 94 % capacitance even under 20 A/g after 10,000 cycles.
- The formation of NiOOH on the catalyst surface is widely considered to be the active species in electrochemical urea oxidation reactions (UOR). Though in situ-formed NiOOH species are reported to be more active than the synthesized ones, the mechanistic study of the actual active species remains a daunting task due to the possibility of different phases and instability of surface-formed NiOOH. Scientists of Centre for Nano and Soft Matter Sciences (CeNS) in collaboration with Jadavpur University and Mizoram University investigated mechanistic UOR aspects of electrochemical activated metallic $Ni_{60}Nb_{40}$ nanoglass showing stability toward the γ-NiOOH phase, probed via in situ Raman spectroscopy, supported by electron microscopy analysis and Xray photoelectron spectroscopy in contrast with the γ-NiOOH formation favored on Ni foil.
- Biologically active natural products offered promising scaffolds for the development of new drug candidates. The discovery of natural products and their underlying synthetic design principles have resulted in more than 40% of today's prescription drugs alongside chemotherapeutics for terminal disease like cancer. A study made by scientists of Indian

Association for the Cultivation of Science (IACS), Kolkata was conceptualized in this direction, where the chemical synthesis of moderately toxic marine natural product bacilotetrin C formed the basis for the structure guided design of a number of analogues which showed a differential anticancer activity in human breast, prostate & liver carcinoma cell lines. Remarkably, several potent analogues were discovered, among which the most promising analogue exhibited a ~37-fold enhancement in cytotoxicity compared to the parent molecule in triple-negative breast cancer (MDA-MB-231) cell line at sub-micromolar dose. The study further revealed that some designed analogues induced autophagy in cancer cells to the point of their demise at much lower doses than the known autophagy-inducing peptide molecules.

- Scientists at Raman Research Institute (RRI) modelled the phenomena of emission from a galaxy hosting a low-luminosity active galactic Nuclei and provided estimates on several parameters of the radio and high energy emitting component.

- Wadia Institute of Himalayan Geology (WIHG) conducted the following research activities: Analysis of seismic attenuation in the NW Himalaya using a dataset of 2716 earthquakes recorded between 2008 and 2015, with Qc, Qα, and Qβ relationships determined for different lapse time windows. It is observed that attenuation levels varied across tectonic blocks, with the Tethys Himalaya showing the highest attenuation due to its sedimentary composition and the Higher Himalaya the lowest. The study also examined frequency-dependent coda wave attenuation in the Delhi NCR using data from 909 earthquakes recorded between 2000 and 2022; It is observed that the folding of the mountain front in the Tanakpur area is a result of transverse tectonics related to the neotectonic transverse Kasganj–Tanakpur Spur bounded by active faults, which propagate below the Himalayan mountain front; Foraminifera fossils from the Surma Group of Indo-Myanmar range and larger foraminifera from the Zanskar Himalaya were recovered ; A study showed that the glacial lake area in the Bhilangna River Basin has expanded significantly from 1968 to 2024, following an exponential growth pattern. This rapid increase is primarily driven by climate change, particularly the rising temperatures in the Himalaya, which have accelerated glacial melting and the formation of new lakes. Satellite observations and remote sensing data consistently show this upward trend, with more pronounced growth in recent decades.

- North East Centre for Technology Application and Reach (NECTAR) provided support for the development of a Bamboo Composite Shallow Water Boat and its 1st phase of testing was successful. This innovative boat utilizes sustainable bamboo composite materials, making it an eco-friendly alternative. The initiative promotes the use of local resources, advances sustainable development, and supports the livelihoods of communities dependent on water-based transportation and fishing.

- Agharkar Research Institute (ARI) published 04 research papers, Aryabhatta Research Institute of Observational Sciences (ARIES) published 09 research papers, Centre for Nano and Soft Matter Sciences (CeNS) published 06 research articles, Institute of Advanced Study in Science and Technology (IASST) published 10 research papers, Indian Institute of Geomagnetism (IIG) published 06 research papers, Sree Chitra Tirunal Institute of Medical Sciences and Technology (SCTIMST) published 10 research papers in various reputed national and international journals. International Advanced Research Centre of

Powder Metallurgy and New Materials (ARCI) reported that one Indian patent was granted. Indian Academy of Sciences (IASc) reported that 90 articles were published in their 11 different journals across various disciplines of science and engineering. National Innovation Foundation (NIF) reported that they facilitated in granting 05 patents.

E. International Cooperation

- A meeting was held on 18th August 2024 at IIIT Hyderabad to review the progress of the project titled "Residential building energy demand reduction in India (RESIDE)" supported under Building Energy Efficiency programme.
- A meeting was held on 22nd August 2024 at SRKR Engineering College, Bhimavaram to review the progress of the project titled "Demonstration of grid supportive EV charger and charging Infrastructure at LT level (D-EVCI)" supported under Smartgrids programme.
- India-UK Co-lead meeting was held on 6th, 12th & 28th August 2024 regarding discussion on joint Clean Energy Ministerial (CEM) / Mission Innovation (MI) workstream and side event at MI-9 ministerial at Brazil.
- Bilateral Indo Dutch project was approved under Water Disaster Management call for providing support to IIT Madras & Indo Dutch Delft University of Technology, Netherland for the feasibility and effectiveness of implementing a digital twin in water disaster management systems to enhance urban resilience against floods.

F. National Technology Mission

National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS)

- The National Mission on Interdisciplinary Cyber-Physical Systems (NM-ICPS) has been extended for a period by 4 years, i.e., from January, 2024 till December, 2027, for continuing the Mission activities in their present form and subsequent scale-up, without any additional financial implication.
- A Third Party Evaluation (TPE) Committee of the Technology Innovation Hubs (TIHs) established under NM-ICPS, has been constituted to evaluate and assess the performance progress of all the TIHs under NM-ICPS under the four major categories i.e. 1. Technology Development 2. Entrepreneurship Development 3. Human Resource Development 4. International Collaborations.
- The 1st meeting of TPE was held on 28th August 2024 at Technology Bhawan with an agenda for devising process for evaluation of TIHs; selecting focus areas for the Mission; constituting teams and finalizing schedule for evaluation of TIHs.
- The Quarterly Bulletin (July, 2024 edition) on the activities undertaken by 23 Technology Innovation Hubs (TIHs) indicating theme-wise highlights of their achievements was brought out and published.

- An Event on “Research Excellence for Entrepreneurial Leadership (REEL)” was organized by TIH:BITS BioCYTiH Foundation, BITS Pilani under NM-ICPS on 30th August 2024 at New Delhi.

National Quantum Mission (NQM)

- The Second Mission Technology Research Council (MTRC) Meeting was held on August 01, 2024 in Hybrid mode for consideration of Technical Groups under Four Thematic Hubs (Quantum Computing, Quantum Communication, Quantum Sensing & Metrology, Quantum Materials and Devices) of National Quantum Mission.
- The 4th Mission Governing Board (MGB) meeting under National Quantum mission was held on August 12, 2024 in Hybrid Mode for approval of Technical Groups under Four Thematic Hubs of National Quantum Mission.

G. Scientific Infrastructure Building

- The R&D project titled "Impact assessment of climate change on the agriculture in Kashmir Himalaya" implemented by Sher-e Kashmir University of Agricultural Sciences and Technology, Kashmir aims to determine growth, yield and quality response of existing pear varieties at various altitudes; determine growth response and screening of climate resilient varieties of maize and kharif pulses of Kashmir and assess the spatial distribution of agriculture and horticulture crop resources of Kashmir valley. As a result of this project, 905 manpower were trained, 3 Research Papers were Published, 2 Reports/monographs/Internal Publications were made; 21 Field Trainings were conducted and one Awareness programme was organised were 115 participated. In all 790 people benefited due this project.

- Under the Technology Needs Assessments (TNA) project, supported by the NMSKCC the finance, technology, and capacity building needs and support chapter of BUR 4 was completed and submitted to the MOEF&CC. In addition, a Technology Prioritization workshop for the agriculture and allied sectors was held on 19th-20th August, 2024 at the ICAR - Central Research Institute for Jute and Allied Fibres (CRIJAF), Barrackpore, with participation from approximately 50 representatives from various ICAR institutes.

- Under Fund for Improvement of S&T Infrastructure in Universities and Higher Educational Institutions (FIST), a meeting of FIST Subject Expert Committee (SEC) for PG Colleges was held on 29th & 30th Aug 2024. 51 PG Colleges from all over India participated in this meeting and presented their proposal. The presentation of the Departments was focused on the details of procured Equipment, Utilization of grants in various heads, potential usage of Equipment, Academic/Research achievements, publication records, outcomes of the project etc. and same was graded by the Committee accordingly.

- Screening meeting of FIST Subject Expert Committee (SEC) on Chemical Sciences was conducted on 02nd Aug 2024 in which 77 proposals were screened based on the Academic merit, Research profile, achievements, extra-mural research grants received, thrust/focuses of future research plans, publication records, requirement of funds and expected outcomes etc.
- Under Promotion of University Research and Scientific Excellence (PURSE), the 20th Meeting of the Program Management Board (PMB) was held at IIT Delhi on August 27th and 28th, 2024. During the meeting, eighteen universities presented their proposals for support, with nine universities ultimately shortlisted for further support under DST PURSE. The PMB emphasized the importance of the proposed research themes being both relevant and integrative, highlighting the need for projects that span multiple Science and Engineering departments within the universities. This approach aims to foster interdisciplinary research and enhance collaborative efforts across various STEM fields for research.
- A video story on the PURSE Scheme highlighting the substantial benefits of the program to the University of Kashmir, Srinagar Kashmir was released in DSTs social media in August 2024. The University is now tackling pressing regional issues such as cancer biology, climate change, and water pollution that are highly relevant to the Kashmir valley. The support from PURSE has greatly impacted not only the university's students and faculty but also other regional institutions. The quality of research papers has notably improved, leading to publications in high-impact journals that were previously out of reach. Additionally, there has been a rise in the number of R&D projects submitted.
- After review of Sophisticated Analytical Instrumentation Facilities (SAIF) Program by the Expert Committee, Award Letters were issued to 12 SAIF centres recommending support of Rs. 30.80 Cr. for strengthening of research facilities.
- An In-Situ and Correlative Microscopy (CISCoM) facility supported under Sophisticated Analytical & Technical Help Institutes (SATHI) program was commissioned at IIT Hyderabad in August, 2024. This type of facility is first of its kind in India and only the sixth such installation globally. The centre would be the first of its kind in the country to enable real-time characterisation across multiple length scales for fundamental and industrial R&D purposes.

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