

**No. DSIR/MS/2023/05**  
**Government of India**  
**Ministry of Science & Technology**  
**Department of Science & Industrial Research**  
**MONTHLY SUMMARY FOR THE CABINET**  
**(For the monthly of May 2023)**  
**(Part-I Unclassified)**

**Major achievements during the month of May 2023**

**Council of Scientific & Industrial Research (CSIR)**

**New Technologies/Processes Developed/Transferred**

- **CSIR-AMPRI**
  - Transferred Bamboo Composites technology for Modern Housing Structures to Ecological Fibre Composites Private Limited, Jabalpur, Madhya Pradesh.
- **CSIR-CCMB**
  - Low GI ISM Rice Technology transferred to Magstik Pvt. Limited, India.
- **CSIR-CBRI**
  - Transferred a technology on “Retrofitting Emission Control Device (RECD) for diesel generators to control the air pollution” to M/s. Upcharge Energy Solutions, Delhi on May 22, 2023.
- **CSIR-CEERI**
  - Know-how of IoT enabled Smart Watch for Vital Health Parameters was licensed to Mediminers India Pvt. Ltd., Hyderabad on 15-05-2023
- **CSIR-CFTRI**
  - Developed the following process:
    - Fruits & vegetables dehydration: Grapes, Banana and transferred to Mr. Marturi Ramakoteswararao, Secunderabad.
    - Paan flavoured water and transferred to Purple Green Industries Pvt. Ltd., Kerala.
- **CSIR-CIMAP**
  - Developed Three technologies i.e. Herbal Cough Syrup, Relaxomap-pain relieving oil & CIM-Phalse and transferred to M/s Desvari Global Pharmaceuticals LLP, Mohali.
- **CSIR-CLRI**
  - Developed technology on "Making mango-based leather like material in making consumer products" and licensed to Aamati Green Private Limited, Mumbai.
  - "Know-how of Manufacturing of Value-added Products from Process Solid Wastes" has been transferred to Pallavaram Tanners Industrial Effluent Treatment Company Limited, Chromepet, Chennai.
  - Waterless Chrome Tanning Technology was licensed to the following two tanneries at Calcutta Leather Complex, Bantala, as part of CSIR-CLRI's Scientific Social Responsibility (SSR) towards environmental sustainability.

- Sadia International,
    - Vinit Gloves Manufacturing Pvt Ltd
  - Waterless Chrome Tanning Technology has been licensed to Ahmed Elshafei's Sons Tannery, Alexandria, Egypt.
- **CSIR-CMERI**
  - Three technologies of Mob Control Vehicle namely (i) Vehicle Mounted Tear Smoke System for MCV, (ii) All Round Irritant Spray System for MCV, (iii) Positive Pressurization System for MCV were licensed to M/s Himatsingka Agencies Pvt.Ltd., Jharkhand on 24/05/2023 on non-exclusive basis for a period of 5 years.
- **CSIR-CSMCRI**
  - Metallo-interpenetrating polymer network hollow fiber membrane for mitigation of arsenic and fluoride from water and its preparation thereof
  - Sodium ZEOLITE - 13X for oxygen grade application has been synthesised and Financial approval for upscaling studies has been received from NALCO Orissa.
  - Developed the following technologies:
    - Kappaphycusalvarezii Sap, its method of production from seaweed as basic raw material, and its application and transferred to Microplex India, Wardha, Maharashtra.
    - Process for preparation of Liquid Seaweed Plant Bio-stimulant (LSPB) from brown algae – Sargassum and transferred to Agastya Biologics, Rajkot
  - Developed following process for Menthol Allied Products Ltd, Ghaziabad:
    - Longifolene to Isolongifolene
    - Pinene to Pinene oxide
    - Styrene to styrene epoxide process
- **CSIR-IICT**
  - Method Development and validation for characterization of Uridine triphosphate (UTP), N1-Methyl pseudouridine-5'-triphosphate and N1-Methyl pseudouridine
  - Evaluation of the safety, oral bioavailability and anti-diabetic activity of test compounds using relevant animals models
  - Development of Novel and Nano-Crystallized Hierarchical Solid Acid Catalysts for Isomerization of Long-Chain Paraffin's
  - Process know-how for L-Glufosinate
- **CSIR-IIIM**
  - IIIM-152 moved forward from Category-2 IND candidate to Category-1.
  - Oxandrolone metabolite, OxM2 has been synthesized and dispatched to NDTL
- **CSIR-NEIST**
  - The technology for Lemongrass variety, Jor Lab L-8 was transferred to Shri Raju Tayeng Roing, Arunachal Pradesh, on 11 May 2023.

#### **Collaborations/Agreements/MoUs Signed (National)**

- **CSIR-4PI**
  - Signed MoU with National Institute of Ocean Technology (NIOT) on 26 May 2023 for collaborative scientific research related to the Green House Gas measurement, identification of carbon sources /sinks and Data Sciences.

- **CSIR-AMPRI**
  - Collaborated for close linkage in terms of research and academic activities with:
    - Vikram University, Ujjain
    - Madhya Pradesh Bhoj Open University, Bhopal
- **CSIR-CCMB**
  - Signed MoU with Indian Air Force to Analyzing DNA barcodes of forensic samples of bird/bat blood smears/ flesh/ feathers so that the bird/ bat involved in wildlife Strike (bird/bat) are identified in order to minimize bird/bat strikes to the aircrafts.
  - Signed MoU with Dharmavana Nature Ark Association for Jointly work & impart education, sensitization, and training on biodiversity conservation projects with a focus on areas of mutual interest.
- **CSIR-CDRI**
  - Executed an Memorandum of Collaboration with DRDO - Defence Institute of Physiology and Allied Sciences (DRDO-DIPAS) on 18-05-2023 w.r.t. “Scaled-up synthesis, purification and assessment of chimeric Hydrogen sulfide donor compounds for potential application in hypobaric hypoxia.”
  - Signed an MoU with Aten Porus Lifesciences Pvt. Ltd., Bangalore on 03-05-2023 to explore for possible collaborative research programs in specific fields of interest.
  - Signed an MoU with ICMR-National JALMA Institute for Leprosy and Other Mycobacterial Diseases, Agra on 28-04-2023 to promote institutional linkage between CSIR-CDRI and ICMR-NJIL&OMD and to explore other avenues for possible collaboration.
  - Signed Clinical Trial Agreement w.r.t. “A Phase III, multicenter, randomized, double-blind, placebo-controlled, interventional study on efficacy and safety of Standardized fraction of Picrorhizakurroa Royal Ex Benth (Picroliv®) for 24 weeks in the Management of Non-Alcoholic Fatty Liver Disease (NAFLD).” Executed with:
    - GSMC and KEM Hospital, Mumbai on 27-04-2023
    - Institute of Liver and Biliary Sciences (ILBS), New Delhi on 05-05-2023
    - All India Institute of Medical Sciences, New Delhi on 16-05-2023
- **CSIR-CECRI**
  - 3D Printable Filament Fabrication by Melt Extrusion & Graphene coated polymer material and transferred to M/s. Monotech Systems Limited, Chennai
- **CSIR-CEERI**
  - Signed Following MoU with:
    - Mizoram University for Academic and R&D Collaboration on 10-05-2023.
    - Panacea Medical Technologies Pvt. Ltd., Bangalore for Research and Development in Electronics and Allied Technologies on 15-05-2023.
    - VK Industries, Pilani for Collaborative R&D in Electronics and Allied Technologies on 15-05-2023.
    - Swami Keshvanand Institute of Technology, Jaipur for Academic and R&D Collaboration on 15-05-2023.
    - Manipal Academy of Higher Education, Manipal for Academic and R&D Collaboration on 19-05-2023.
- **CSIR-CGCRI**
  - Signed MoU with Saint Gobain India Pvt. Ltd. (SGIPL) on:

- Development of hydrophobic coating on flat glass
  - Development and corrosion study of refractory pot for SLS glass melting
- **CSIR-CIMAP**
  - An MoU was signed with ICAR Indian Veterinary Research Institute, Izatnagar Uttar Pradesh on 1 May, 2023 for Collaborating Centre for smooth functioning of the project outreach programme on Ethnoveterinary Medicine.
  - An MoU was signed with National Institute of Pharmaceutical Education and Research, Raebareli, Uttar Pradesh on 15 May, 2023 for providing short term training to students, researchers and faculty members and intellectual property rights on the outcome of research work will be equally shared by research groups for both institutions
  - An agreement was signed with Kavela Cares Pvt. Ltd., Agra. Uttar Pradesh on 8 May, 2023 for market seeding of CSIR-CIMAP research based herbal products/formulations (CIM-Kesh, Pain Balm, Hrbichew, Relaxomap and Acne preventive Facewash)
  - An agreement was signed with Pragya Yog., Varanasi, Uttar Pradesh on 10 May, 2023 for market seeding of CSIR-CIMAP research based herbal products/formulations Relaxomap-pain relieving oil
- **CSIR-CLRI**
  - A technology transfer agreement was signed with Aamati Green Private Limited, Mumbai towards the transfer of technology on Making mango-based leather like material in making consumer products.
  - A technology transfer agreement was signed Pallavaram Tanners Industrial Effluent Treatment Company Limited, Chromepet, Chennai towards transfer of know-how of Manufacturing of Value-added Products from Process Solid Wastes.
  - Two Technology Transfer agreements were signed with the following tanneries at Calcutta Leather Complex, Bantala, towards demonstration and implementation of Waterless Chrome Tanning Technology (WCTT) in their processing units during May 2023
    - Sadia International,
    - Vinit Gloves Manufacturing Pvt Ltd
  - A consultancy agreement was signed with Pallavaram Tanners Industrial Effluent Treatment Company Limited, Chromepet, Chennai towards Preparation of DPR for Manufacturing of Value-added Products from Process Solid Wastes.
- **CSIR-CSMCRI**
  - Signed MOU with G.H. Rasoni University, Saikheda, MP for development of biocontrol agents and biostimulants and similar research areas.
  - Consultancy to Public Health Engineering Directorate, Govt. of West Bengal for design, development, and commissioning of a 10,000 LPH desalination plant with Public Health Engineering Directorate, Govt. of West Bengal, Kolkata.
- **CSIR-IGIB**
  - Signed MoU with MAX Hospital, Haryana for Collaborative Research on 05 May 2023.

- **CSIR-IHBT**
  - Signed MoU for joint collaboration in the area of essential oils with PHI, 77-Nauchandi Ground Meerut on 16.05.2023
- **CSIR-IIP**
  - MoU signed with NMAM Institute of Technology, Nitte, Karkala, Udupi for Academic and Joint Research Programs
  - MoU signed with ONGC Energy Centre Trust, New Delhi for Thermo-chemical Hydrogen Generation through Partially Open-Loop I-S Process Involving H<sub>2</sub>S Incineration
- **CSIR-IITR**
  - Signed MoA with Executive Officer, Khadi and Village Industries Commission (KVIC), Lucknow on May 02, 2023 for safety assessment of Diethyl Phthalate (DEP) an important ingredient in incense stick (agarbatti) under the exposure of UVR.
- **CSIR-NEIST**
  - Signed MoU with State Institute of Rural Development (SIRD), Meghalaya Nongsder, Ri-Bhoi District, Meghalaya on 15 May 2023 for propagating Biofertilizer technology of CSIR-NEIST by establishing a Bioreactor (only) for Biofertilizer production, providing training/ demonstration, develop farmer clusters and create entrepreneurship in the Meghalaya state.
  - Signed MoU with M/s Chayi Trails Pvt Ltd, Guwahati, Kamrup(Metro), Assam on 4 May 2023 for availing Bio NEST bioincubator facilities of CSIR-NEIST, Jorhat.
  - Signed MoU with Mr Sayed Zahid Mustabin, Golaghat, Assam, on 4 May 2023 for availing Bio NEST bioincubator facilities of CSIR-NEIST, Jorhat.
- **CSIR-NIIST**
  - Collaborated with:
    - Indian Institute of Technology, Hyderabad for Environmental exposure and its health effects, physiological based pharmacokinetic modelling and simulation (PBPK models), risk assessment models and skill development program.
    - The Dale View College of Pharmacy and Research Centre, Thiruvananthapuram for Joint research and development involving detailed scientific analysis of different compounds isolated from medicinal plants and development of pharmaceutical formulations for health and treatment of various ailments and further value addition on their products.
    - Indian Rare Earths Technology Development Council (IREL), Odisha for processing of Cerium sulphide Red Pigment from Cerrous Carbonate Precursor Produced.
    - Indian Rare Earths Technology Development Council, Odisha for Technology for Rare-Earth added Aluminum Alloys and Products for Aerospace, Marine, Energy and Automotive Applications

#### **Collaborations/Agreements/MoUs Signed (International)**

- **CSIR-Hqrs**
  - CSIR Signed MoU with Directorate of Defence Research and Development (DDR&D), Israel on 2<sup>nd</sup> May 2023. The alliance seeks to enable combined industry R&D projects in a variety of high-tech disciplines, including artificial intelligence,

quantum and semiconductors, synthetic biology, healthcare, aerospace, sustainable energy and agriculture, among others.

- **CSIR-CLRI**
  - A Technology Transfer agreement was signed with Ahmed Elshafei's Sons Tannery, Alexandria, Egypt on 08 May 2023 towards demonstration and implementation of Waterless Chrome Tanning Technology (WCTT) in their processing unit at Egypt
- **CSIR-IICT**
  - Under the ambit of recently executed umbrella MoU between the Council of Scientific and Industrial Research (CSIR) and the Directorate of Defence Research and Development (DDR&D) of the State of Israel, CSIR-Indian Institute of Chemical Technology (CSIR-IICT) has entered in to an agreement with 101 therapeutics Ltd., Israel under healthcare for conducting clinical trials of a novel COVID-19 drug having enormous therapeutic potential on 7th May 2023.
- **CSIR-CRRI**
  - Signed MoU with Russian Road Research Institute (ROSDORNII), for cooperation of the field of road transport Industry on 25th May 2023.

### Patents Update

Patents Filed		Patents Granted		Patent Prosecutions	
India	Abroad*	India	Abroad*	India	Abroad*
11	06	11	04	16	115

\* Data reported to IPU during May 2023 and may change later during national phase entries

### High impact S&T services offered

- **CSIR-CCMB**
  - Provide Molecular Diagnostics Services for 270 families comprising 288 samples
- **CSIR-CEERI**
  - Delivered prototypes of IoT enabled Colposcope for cervical Cancer Screening and USB Hardware Locks to Divine Meditech Pvt. Ltd., Noida on 15-05-2023.
- **CSIR-CDRI**
  - Common Research and Technology Development Hub (CRTDH): Provided analytical services to two MSME, and consultancy for new drug product development to one Medium-Sized Enterprise in the Pharmaceuticals sector.
  - Animal Facility Laboratory: The CPCSEA (Committee for the Purchase of Control and Supervision of Experimental Animals) approved experimental animals (total no. 125) were supplied to outside research organizations for research purpose. In that, 64 were rat, 40 were Gerbil Mongolian and 21 were mice.
  - Sophisticated Analytical Instrument Facility: Provided service for analysis of sample by IR (Infrared), Mass, NMR (Nuclear Magnetic Resonance) and EM (Electron Microscopy). In the month of April, total 187 external samples have been analyzed for 37 users.
- **CSIR-IHBT**
  - Cytotoxicity analysis of six samples on two different cell lines for NIT, Hamirpur.



- **CSIR-IIP**
  - Determination of calorific value of sample "Ethanol blended gasoline" of M/s AVL Technology Center Pvt. Ltd., Gurgaon, Haryana.
  - Testing and evaluation of Fire-Resistant Characteristics of sample "Quintex D 68" of Quaker Chemicals Pvt. Ltd., Kolkata, West Bengal. Testing services offered under various ongoing projects of the institute, industrial clients and AcSIR activities. These tests include gaseous fuels (ASTM D7833, D5504), liquids fuels (D6730, UOP744, D5623, D4815, D6584 and IP 391), engine oils (ASTM D3524, D3525), lubricating oils (ASTM D7419), waxes (ASTM D5442), GC-MS and HRMS of petroleum fuels and general chemicals.
- **CSIR-IITR**
  - Monitoring environmental parameters at Anpara Thermal Power station, Anpara.
- **CSIR-NEERI**
  - Performance Assessment of Air Quality Improvement Projects & Reforms for Nagpur City including Wadi Municipal Council
  - Use of Artificial Intelligence (AI)/Machine Learning (ML) tool for vehicle counting by uploading the CCTV footage on Cloud Platform.
  - Management, Handling Utilization & Disposal of Phosphogypsum Generated from phosphoric acid plant at Birla Copper, Dahej, Gujarat.
  - Identification of Air Pollution Hotspots in Mumbai Metropolitan Region Airshed
- **CSIR-NEIST**
  - Received 90 samples of water, coal, building materials, etc., for testing/analysis from 53 parties and issued 34 nos. of testing/analysis report to 34 different agencies.
- **CSIR-CRRI**
  - Advising the department in adopting Full depth reclamation (FDR) technology for the suitable roads and giving Mix Design and Pavement design for selected R & B roads (Total length 400km) in Andhra Pradesh Phase II
  - Structural design of three-lane bridge at RD 3565 of Gurgaon Canal Feeder, Meethapur, Delhi
  - Utilization of Biomass Incinerator ashes in road works
  - Quality Control Manuals (Handbook, Testing, Construction and maintenance procedure) of Road Works for MP, PWD
  - Structural safety Audit of Steel Truss Bridge on upstream of Basaidarapur Bridge under Civil Division-I: I& FC Department, Basaidarapur, New Delhi
  - Structural Safety Audit of Bridges at KM 12, KM 14, and KM 16 located on Jauligrant-Thano-Raipur Motor Road, Dehradun, in the State of Uttarakhand
  - Impact of Speed Limit on Road Capacity and Safety
- **CSIR-NGRI**
  - Technical Report on GPR investigation of crack-fissure developed on Joshimath-Marwari road (NH-7) submitted to Boarder Roads Organization (Govt. of India).
- **CSIR-SERC**
  - Detailed investigation of vibration on the TG Foundation/ supporting structures including condition assessment in all four (4) units, at Kameng Hydro Power Project, Arunachal Pradesh

## **Outreach Activities (Jigyasa, Skill Development, and others)**

- **CSIR-4PI**
  - JIGYASA presents VismayaVigyana YOU-TUBE webinars: " modabittaneyonduvyagnikaprayoga" (cloud seeding) webinar on 3rd & 4th May 2023. The video has garnered 200 views until now.
- **CSIR-CBRI**
  - Five days' skill development training programme was conducted on "Repair & Retrofitting of Buildings" during 08-12 May, 2023. 32 Engineers participated from Himachal Pradesh.
- **CSIR-CCMB**
  - Launch of Gene-Health Connect, a mobile science exhibition for young adults by Hon'ble Governor of Telangana and Lt Governor of Puducherry, Dr Tamilsai Soundararajan on 8th May, 2023.
  - Skill Development Programme-Medical Students Research training Programme (MedSRT -1) was conducted from 1st to 19th May 2023, and 20 students pursuing 4th year MBBS from Osmania Medical College Hyderabad, participated.
- **CSIR-CEERI**
  - 2 Weeks SDP on Semiconductor High Impact Learning Program (SHILP) conducted. 15 participated.
  - ~300 school students visited the Lab for Technology Demonstration during One Week One Lab.
- **CSIR-CDRI**
  - Student Scientist connect program was organized on:
    - 1st May 2023 for the students of School of Pharmaceutical Sciences, CSJM University, Kanpur, UP. Total 38 number of students and faculty participated.
    - 2nd May 2023 for the students of Awadh College of Pharmacy, Barabanki, UP. Total 55 number of students and faculty participated.
    - 18th May 2023 for the students of Signa College of Pharmacy, Kanpur, UP. Total 105 number of students and faculty participated.
    - 17th May 2023 for the students of Department of Life Sciences & Department of Biotechnology, C.S.J.M. university, Kanpur, UP. Total 67 number of students and faculty participated.
    - 25th May 2023 for the students of Chandra shekhar singh College of Pharmacy, Prayagraj, UP. Total 48 number of students and faculty participated.
  - Science outreach program for the participants of DST SERB Sponsored Karyashala at CSIR IITR was organized on 26th may 2023. 25 participants and 3 faculty visited.
- **CSIR-CECRI**
  - Conducted the following Training Programme:
    - Five-days (08-12 May, 2023) Skill Development Training Program on "Lead-acid Battery [ECPS]:Care and Maintenance". 54 participated.
    - Five-day (15-19 May, 2023) Industry Oriented Refresher Course is conducted on "Lithium-ion battery: Materials to manufacturing". 10 participated
  - Participated and demonstrated following technologies in SUBCON 2023 organized by CODISSIA, Coimbatore during 10-12 May 2023.
    - The technology of Redox Flow Battery.



- Super capacitor.
  - The technology of Extraction of metal values from waste.
  - The technology of Zinc- Nickel Electro deposition on stainless steel.
  - The technology of Electrosynthesis of p- aminophenol.
- VigyanaVindhai:
  - Delivered talk to Alagappa University Community Radio under VigyanaVindhainprogramme. The following are the details about May 2023 talks.
    - Senior Principal Scientist, delivered talk on “Intellectual Property Rights” on 09.05.2023.
    - Senior Scientist delivered talk on ‘The story of Glucose sensors: 50 years of transformations’ on 11.05.2023.
    - Project Associate-I, delivered talk on "Black hole" on 15.05.2023.
    - Project Associate-I delivered talk on "Electroplating" on 30.05.2023.
- Conducted following Online Quiz:
  - International Year of Millets 2023.
  - National Technology Day - 11.05.2023.
  - International day of light - 16.05.2023.
  - World telecommunication and information society day - 17.05.2023.
  - International museum day - 18.05.2023.
  - World bee day - 20.05.2023.
  - International Bio-diversity day - 22.05.2023.
- Visit of college and school students:
  - 75 Students and three Faculty members from NIT, Trichy visited our institute on 16.05.2023.
  - 279 students and 14 faculty members from the following colleges visited our institute under the Naan mudhalvan scheme on 15, 17 and 19 May 2023.
- **CSIR-CFTRI**
  - Conducted Training programme on Analytical Approaches to Current Food Safety Issues to Food Industry from 17-19, May 2023. 5 participated.
- **CSIR-CGCRI**
  - Conducted Skill Development programme on “Ceramic Whitewares Processing” at CSIR CGCRI Khurja Centre, Uttar Pradesh during May, 24-27 and 29, 2023.
- **CSIR-CIMAP**
  - Awareness programme was organized on production, primary processing and marketing aspects of economically important aromatic plants at Mizoram Central University during 15-16 May, 2023. 40& 41 participated respectively.
  - Conducted Training programme on making of agarbatti and cones from offered flower on 9 May, 2023.
- **CSIR-CIMFR**
  - Three days Refresher course cum Upskilling program on “Coal Quality Up-gradation, Sampling, and Preparation for Industrial Application” [CMP-2023] conducted on 02/05/2023 at Digwadih Campus. The course is being attended by 8 officers of Hindalco Industries Ltd.

- **CSIR-CLRI**
  - Conducted one-week executive skill training programme on "Cleaner Technology and Pollution Reduction" under SIDBI- MSME Cluster Intervention Programme for the Chennai leather cluster during 23-27 May 2023. The first day of the programme was organized on the topic "Awareness of Sustainability in the Leather Sector" exclusively for 22 CEO/MDs of the tanneries under Pallavaram Tanners Association (PTA). The next four days of the programme was conducted for 23 mid-level managers from Pallavaram Tanners Association.
  - In collaboration with GRIMCO conducted a new skill upgradation program in Leather & Rexine Goods on 23 May 2023 at Mahisagar, Lunawada, Gujarat for the upliftment of rural artisans from the Scheduled Castes community. 25 female trainees had been trained.
- **CSIR-CMERI**
  - Analytical Techniques and Instrumentation for Water Quality Assessment; May 08-10, 2023
  - One day lab visit was organized for students of Durgapur project boys High school on:
    - 11.05.2023 and demonstration was given on Water parameters and its effect on health and also on Mining Robot. 24 students and 3 teachers participated.
    - 16.05.2023 and demonstration was given on SMART VILLAGE site for demonstration Water parameters and its effect on health and also on Internet of thing (IoT) and its Applications. 18 students and 3 teachers participated.
    - 18.05.2023 and demonstration was given on Solar energy and its Applications; Demonstration of Application of solar energy using solar Photo Voltaic cell; Water parameters and its effect on health. 26 students and 3 teachers participated.
  - Students of Durgapur Iswar Chandra Vidyasagar (DICV)PUBLIC HIGH SCHOOL visited on 23& 25, May 2023 and demonstration was given on the topic Solid Waste Management; Demonstration of Application of solar energy using solar Photo Voltaic cell; Water parameters and its effect on health. 46 students and 1 teacher participated.
  - Students of Jemua Bhadubala Bidyapith (High School), Durgapur visited on 26.05.2023 and demonstration was given on the topic Renewable Energy Systems also visited to the site of Cold storage System in CMERI Colony. 28 students and 3 teachers participated.
- **CSIR-CSIO**
  - Celebrated National Technology Day on 24<sup>th</sup> May, 2023. Two popular science lectures were presented by eminent scientists & quiz competition/prize distribution was conducted. 150 students of class X & 4 teachers have participated.
- **CSIR-CSMCRI**
  - Organized a Skill Development Training Program on Theory and practical aspects of household solar thermal gadgets. The program took place at Cotton University in Guwahati, Assam, with the aimed to benefiting farmers, NGOs, students and faculties. 80 participated.

- **CSIR-IGIB**
  - 250 students from 6 different schools in Delhi NCR visited the Mathura Road campus and witnessed the various aspects of genomics research on 04 May,2023,
  - Organized Bioinformatics Workshop at Rabea Girls Public School, Chandni Chowk during 24-26 May 2023
- **CSIR-IHBT**
  - On the occasion of “National Technology Day” 65 students and 04 students from two schools (Govt. Model Sr. Sec. School Rajpur and Neugal Public School Bindraban) of Distt. Kangra, H.P. visited institute on 11.05.2023. They also visited Pilot Plant Facility, GIS & Remote Sensing Lab, Herbarium, Plant Tissue Culture Lab, Food Technology Lab & Processing Unit, other facilities and bamboo museum of the Institute.
  - 31 students of M.Sc. Zoology and their 03 faculty members from NSCBM Govt. College, Hamirpur (HP) visited on 23.05.2023.
  - Course on Plant Tissue Culture Technician has been successfully started for eight students from 22.05.2023 to 22.07.2023.
  - 08 students of M.Sc. Botany and 01 faculty member from Sardar Patel University, Mandi (H.P.) underwent 2 days exposure visit and capacity building programme on Microbiology techniques on 23rd and 24th May, 2023.
  - 30 trainees undergoing deputy ranger/forester training course at FTI, Pinjore, Haryana visited on 24.05.2023. They visited various R&D facilities of the institute such tissue culture facility, hi-tech bamboo germplasm, bamboo museum, herbarium and remote sensing facilities.
  - 49 Forest Range Officers representing from Gujarat and Jammu Kashmir visited on 19.05.2023 as a part of ‘North India Study Tour’ under their induction training programme conducted by Telangana State Forest Academy, Hyderabad. The team visited various R&D facilities of the institute such as tissue culture facility, hi-tech bamboo germplasm, bamboo museum, herbarium and next-generation remote sensing facilities.
  - 140 students, and teaching staff visited PLP Herbarium and they were apprised about the role and function of the Herbarium.
  - 65 students and 04 teachers from two schools (Govt. Model Sr. Sec. School Rajpur and Neugal Public Sr. Sec. School Bindraban) of Distt. Kangra, H.P. visited Food Processing Facility at CSIR-IHBT, Palampur on 11.05.2023.
- **CSIR-IICT**
  - Organized a Digital Workshop on Scientific & Patent Writing from 1st May to 5th May 2023 for PG &Ph.D students as well as young researchers in association with Merck Innovation Lab, Bangalore. 2500 participants registered from different institutes/ universities across the country.
  - Conducting a Skill Development Training program on Water Purification & Water Analysis for a period of one month from 15th May 2023 to 15th June 2023. The training is being attended by Chemical Engineering graduates from various engineering colleges.

- An internship was organized for about 30 students of IICT - ZM school at CSIR-IICT in third week of May 2023, who have participated in live experiments held at various departments of the institute.
- **CSIR-IIIM**
  - CSIR URDIP & CSIR IPU team visited CSIR-IIIM and conducted two-day deliberations from 25th-26th May 2023 to discuss Patent filings & inventions that enhance the organization's Intellectual Property Rights (IPR) strategy.
- **CSIR-IITR**
  - Celebrated International Biodiversity Day on May 22, 2023. Over 50 undergraduate science students and faculty members from Isabella Thoburn College, Lucknow, visited the institute.
- **CSIR-NAL**
  - Organized student visiting programme summer session at CSIR-NAL from 2-12, May 2023 from different K V School. 41 students participated.
  - CSIR-NAL alongwith ToT Partner M/s. Scinetch participated in National Technology Week held at New Delhi during 11th -14th May 2023
  - Aerospace Safety and Accident Investigation (AS&A) course at CSIR-NAL on 15th May 2023. 88 Officers participated from Institute of Aerospace Safety.
  - Ab-initio Trainee Officers from Aeronautical Engineering (AFTC, IAF) visited during 16th -18th May 2023
- **CSIR-NEIST**
  - A Beekeeping training and Honey bee distribution program was conducted under CSIR-Floriculture Mission at Nangwar village of Meghalaya, where 30 nos of bee colonies with bee boxes, honey extraction machine and other accessories have been distributed among the farmers. Farmers from three Villages i.g. Nongwar, Laitkynsew and Umwai were attended the program.
  - A bioreactor for OP-12 biofertilizer production unit has been commissioned at SIRD, Meghalaya, Nongsder, Ri Bhoi District on 15 May 2023 under the DBT sponsored project. Training on operation, application-cum-awareness program has been organized. In this program Director, CSIR- NEIST and Director, SIRD, Meghalaya graced the occasion and MOU has been signed for the transfer and propagation of the technology. Anti-arthritis cream developed by CSIR-NEIST was distributed to the participants.
  - Training cum Inauguration programme on Aswangadha campaign was conducted at village Umtsor Mawdkhar, Dist Ri-Bhoi, Meghalaya on 15th May 2023.
  - Scientists and Staff members of NEIST conducted a one-day school visit program at Sohra, Meghalaya on 16 May 2023. 310 students, 85 students of St. Peter and Paul HS School and 225 students of Cherra Presbyterian HS School, were benefitted by the program.
  - Jigyasa Programme at Nagaland: Dr G. Narahari Sastry, Director with a team from CSIR-NEIST visited two Schools of Phek District of Nagaland. Morning, the group visited Government Higher Secondary School of Pfutsero where Director has addressed about 700 students and teachers of the School on 20th May, 2023.
  - Organized a Citizen Science Program on 23 May 2023 for the students of Dohotia High Secondary School, Jorhat, Assam. Sr Principal Scientist and PI of NEIST,

welcome the participants and briefed about the Citizen Science programme and delivered talks on different areas of biological Science. Participants were assigned a project on the theme, Medicinal Plants available in your locality and their traditional uses and submitted their completed projects in the meeting. 19 students participated.

- **CSIR-NIIST**

- Inauguration of the prestigious Thacker Memorial Lawn Tennis Tournament 2023 was held at NIIST on 19th May 2023. Nishanthini IPS, DIG, Kerala Police was the Chief Guest and MS Krishna Kumar, Indian Tennis team captain (Senior 40+) was the guest of honour. TMLTT 2023 Souvenir was released during the function. 13 CSIR teams across the country participated in the tournament.
- Skill development Course on Remote sensing and GIS application in environmental impact assessment(EIA) and management

- **CSIR-URDIP**

- IP filing activity discussions for 2022-2023 and new invention disclosure filings was held with CSIR-IIP during a two-day meeting (May 22-23, 2023). CSIR-URDIP team provided inputs on the whole process of a patentability assessment, basics of patentability requirements, co-ordinations required by CSIR-IIP coordinators as well as IIP scientists. The importance of conducting TCE, FTO search were also highlighted during the visit.
- One to one discussion with CSIR-IIIM scientists was conducted on May 25-26, 2023 regarding the IP filing strategies.

## **Major Conferences, Seminar/Webinars, Workshops organized**

- **CSIR-Hqrs.**

- CSIR and its labs participated in the National Technology Week 2023 celebrations held during 11-14 May 2023 at Pragati Maidan on the theme 'School to Start-ups - igniting young minds to innovate', New Delhi. The event was inaugurated by Hon'ble PM, Shri Narendra Modi and was concluded by the valedictory remarks by Hon'ble Minister Dr Jitendra Singh, S&T (I/C).
- CSIR Launched the AMRIT Lecture Series on 17 May 2023. The Inaugural Lecture on "Doing & Leading Science in India: Lessons from Personal Journey" was delivered by Padma Vibhushan Dr. R.A. Mashelkar, FRS, Former DG-CSIR.
- CSIR-Central Leather Research Institute (CLRI), Chennai organized One Week One Lab (OWOL) campaign from 2-6 May 2023; The following CSIR Labs also organized their OWOL campaign during the month - CSIR- Advanced Materials and Process Research Institute (AMPRI), Bhopal, from 14-18 May 2023; CSIR- Central Electronics Engineering Research Institute (CEERI), Pilani from 15-19 May 2023; CSIR - National Chemical Laboratory (NCL), Pune from 22-27 May 2023.
- CSIR and its labs participated in:
  - Vibrant North East at Veterinary College Playground, Khananpara, Guwahati during 16-18 May, 2023. Labs participated were CSIR-IICB, CSIR-NEIST, CSIR-CMER.
  - Rising Madhya Pradesh at Exhibition Hall, Govindpura Industrial Area, Bhopal(MP) during 26-28 May, 2023. Labs participated were CSIR-AMPRI

- 13th National Exhibition & Conference on Science-Technology/Health/Agri-Dairy-Fisheries/Energy and Industry – 2023 at RDS College Campus, Muzaffarpur, Bihar during 27-29 May, 2023. Labs participated were CSIR-CIMFR
  - 14th Krishi Fair-2023 at Saradhabali Ground, Grand Road, Puri Odisha during 30 May to 3<sup>rd</sup> June, 2023. Labs participated were CSIR-IMMT, CSIR-NBRI
- **CSIR-AMPRI**
  - Organized One Week One Lab campaign from 14-18, May 2023. Total of 215 students and 40 teachers were present during the programme. Model Exhibitions, Quiz Competition, and Science play were organized to showcase students talent. Lecture was delivered by Senior Scientist, on Opportunities in Science and Technology. Deputy Commissioners from KVS, NVS were also present during the programme. Certificates for achievers were also distributed during the programme. Following events were organized during one week one lab programme
    - Industry Meet and Expo on Entrepreneurship Opportunity for Sustainable Economy for Technology Demonstration and Dissemination on 15<sup>th</sup> May 2023.
    - R&D and Academia Meet and Young Researcher’s Conclave on 16<sup>th</sup> May 2023.
    - Jigyasa & Awareness Programme and Open Day on 17<sup>th</sup> May 2023.
    - Skill Development and Tribal Welfare Program on 18<sup>th</sup> May 2023.
  - Awareness Programme on Sexual Harassment of Women at Workplace: Prevention, Prohibition and Redressal on 18<sup>th</sup> April, 2023
- **CSIR-CDRI**
  - Symposium on Patient engagement-benchmark in clinical trials, on the eve of international clinical trial day was organized on 19<sup>th</sup> May 2023. Director DNDi South Asia delivered a lecture on DNDi and patient engagement: Wins, walls and wisdom. This was followed by Head, Division of Psychiatry, Hind Institute of Medical Sciences, Lucknow, delivered a talk on “Patient centric approach for clinical trials: New trends and approaches”. Founder CEO, APAR Health, joined the symposium online and delivered a talk on “Patient engagement: Putting patients first”.
- **CSIR-CIMAP**
  - National Seminar on Value Addition and Marketing of Horticultural Crops, Medicinal and Aromatic Plants: Opportunity and Challenges & Training on Suitable Aromatic Corps for Mizoram under Aroma Mission-III was jointly organized with Department of Horticulture, Aromatic and Medicinal Plants, (HAMP), Mizoram University during 15-16, 2023 at Mizoram University, Aizawl.
  - The State Level Kharif Productivity Seminar-2023 was organized by Director of Agriculture, Uttar Pradesh in the auditorium of Directorate, Lucknow. The stall was set up by CSIR-CIMAP and whereas Shri Surya Pratap Shahi, Hon'ble Cabinet Minister, Agriculture, Agricultural Education and Agricultural Research, Govt. of UP visited CSIR-CIMAP Stall.
- **CSIR-CLRI**
  - Organized One Week One Lab (OWOL) programme from 2-6 May, 2023, 56<sup>th</sup> edition of LERIG Conclave 2023 was organized at Indian Leather Products Association (ILPA) Hall, Calcutta Leather Complex (CLC), Kolkata on 02 May 2023.



The theme was “Science, Research, Innovation System for High Trade benefits to India (SRISHTI). The Presidential address was delivered by Shri Sanjay Leekha, the chairman of Council for Leather Exports (CLE). The Guests of honour were Shri Habib Hussain, Chairman, Research Council, CSIR-CLRI, Shri Mukhtarul Amin, Chairman and MD, Super house Ltd., Shri R Selvam, IAS, Executive Director, CLE, Shri Ramesh Kumar Juneja, Regional Chairman (East)-CLE, Shri Ajay Kumar Tarway, President, ILPA, Shri Arnab Jha, President, Indian Leather Technologists Association.

- A workshop on Safety in Leather and Leather Products’ Industry by Mr G Swaminathan, Retd. Scientist, CSIR-CLRI was organized on 03 May 2023 at ILPA Hall, CLC, Kolkata for the benefit of the industry and about 40 industry members benefitted from the workshop.
- Entrepreneurship Workshop and Interaction Meet with Government officials at Kargil, Ladakh from 2-4 May 2023: As part of OWOL, Awareness cum Product demonstration training program for self-help groups, entrepreneurs and graduates was organized at Leh, Ladakh during 2-4 May 2023 at Kargil, Ladakh during 6-7 May 2023 in collaboration with the Dept of Industries & Commerce, UT Ladakh. About 44 women in Leh and 57 women in Kargil underwent training under this program.
- National Technology Day 2023 was celebrated on 10 May 2023. Dr. N. Madhusudhana Rao, Chief Executive Officer, Atal Incubation Centre, CSIR-CCMB, Hyderabad delivered the Technology Day lecture on "Technology Entrepreneurship - How to get there".
- **CSIR-CMERI**
  - Celebrated National Technology Day on 19th May, 2023. Prof Gautam Biswas, Former Director of @CSIR\_CMERI & @IITGuwahati will grace the occasion as Chief Guest. National Technology Day Celebration.
  - Participated in National Technology Week, 11th-14th May, 2023 at Pragati Maidan, New Delhi. Programme was inaugurated by Hon'ble PM of India in presence of Shri Rajnath Singh, Hon'ble Defence Minister & Dr. Jitendra Singh, Hon'ble Minister of S&T.
- **CSIR-HRDC**
  - Awareness Programme on Gender Sensitization and Sexual Harassment of Women at Workplace: Prevention, Redressal and Procedures", 3-4 May, 2023
  - Induction Programme for Newly Recruited Scientists, 30th May to 8th June 2023
- **CSIR-IICT**
  - As part of Swachhata Pakhwada activity, Shramdaan and Mass rally was conducted on 4th May 2023. The programme was volunteered by all the staff and students of IICT. The rally was flagged off from IICT campus followed by the cleaning in the entire IICT colony and its premises.
- **CSIR-IGIB**
  - Organized two days IGIB-ACTREC conference on 23rd & 24th May, 2023
- **CSIR-IIIM**
  - High level joint inter-institutional meeting of all the Vice Chancellors, Directors and Heads of different scientific as well as academic institutions in Jammu was organized on 18th May to pave the way for collaborative research, teaching and joint Startups.

This meeting was chaired by Dr. Jitendra Singh, Hon'ble Minister of Science & Technology. The meeting was attended by Principal Scientific Advisor, GOI, Dr. (Mrs.) N. Kalaiselvi, DG CSIR & Secretary, DSIR and other dignitaries.

- Hackathon 2.0 was organized at GDC (Boys), Udhampur, on 12.05.2023 to celebrate National Technology Day 2023
- **CSIR-IIP**
  - National Technology Day was celebrated at CSIR-IIP, on 11th May 2023. Dr R K Sharma, Head Sustainability and Vice President India Glycols & Young Entrepreneur Sh. Rajat Jain, Founder Sunfox Technologies graced the event as Chief Guest and Guest of Honour respectively.
- **CSIR-IITR**
  - DST SERB Sponsored High-End Workshop - KARYASHALA titled "Hands-on Training Course on Toxicology and Pathological Tools and Techniques for Pre-clinical Regulatory Toxicity Studies in Laboratory Animals" was inaugurated at the Dr C.R. Krishnamurti Campus of CSIR-IITR on 23 May 2023. The week-long program under the Accelate Vigyan Scheme of DST-SERB aims to improve the research productivity of promising PG and Ph.D. students in pre-clinical safety testing, emphasizing toxicology and pathology.
- **CSIR-NEERI**
  - Organized Training Program for IFS Officers on Environment Management: Science & Technology on May 09-13,2023
- **CSIR-NEIST**
  - CSIR-NEIST Branch Laboratory Itanagar organized one day workshop on Different aspect of soil analysis and Mushroom Cultivation Technology on 19 May, 2023. 50 participated from M Sc and B Sc students of Dept of Agriculture, Himalayan University, Jullamg along with their teachers.
  - One day Workshop on Prototype, product design & development with special emphasis on Design & Development of essential oil distillation unit for locally available High value plants materials organized on 10 May 2023 in collaboration with Institute Innovation Cell-Jorhat Institute of Science and Technology under project GPP0376. 125 participated
- **CSIR-NGRI**
  - Training programme conducted on Water Pollution Monitoring and Modeling using Software Applications from 15-17, May 2023 for Central Pollution Control Board (CPCB)at CSIR-NGRI, Hyderabad.
- **CSIR-SERC**
  - Participated in National Technology Week during 11-14 May 2023 at Pragati Maidan, New Delhi. The technologies and state-of-the-art facilities of CSIR-SERC were showcased in the exhibition.

#### **Visit of high-level dignitaries to the Institute/Laboratory**

- **CSIR-4PI**
  - Samir K. Brahmachari Former Director General of the Council of Scientific & Industrial Research, visited CSIR-4PI on 19th May 2023.

- **CSIR-AMPRI**
  - Following Dignitaries visited CSIR-AMPRI, Bhopal from 14 to 18th May 2023 during One Week One Lab Program.
    - Shri Deependra Singh, Chairman and Managing Director, Indian Rare Earths Ltd. 12th May 2023.
    - Shri Mangubhai Patel, Hon'ble Governor of Madhya Pradesh on 14<sup>th</sup> May 2023.
    - Dr. Lalhmingmawia Pachuau, Additional Director of Horticulture, Department of Horticulture, Govt of Mizoram, on 14<sup>th</sup> May 2023.
    - Shri Parikipandla Narahari, IAS, Secretary, MSME & Industries Commissioner, Government of Madhya Pradesh on 15th May 2022.
    - Shri Ashok Kumar Chauhan, IFS, Additional Secretary, Department of Forests, Govt. of Madhya Pradesh on 15th May 2022
    - Shri Ramesh Kumar Gupta, IFS Principal Chief Conservator of Forest, Department of Forests, Govt. of MP. 15th May 2023.
- **CSIR-CGCRI**
  - Visit of Padma Shri Dr. Swaminathan Sivaram, (Chairman of Monitoring Committee of H2T mission, Honorary Professor Emeritus and INSA Emeritus Scientist, Indian Institute of Science Education and Research) on May 10, 2023. He delivered a lecture on Materials Criticality in Low Carbon Energy Technologies: Emerging Challenges to Sustainability.
  - Prof.V.K.Tewari, Director, IIT-Kharagpur visited on the occasion of National Technology Day 2023 and delivered lecture on Technological developments towards Atmanirbhar Bharat in 2047 on May 11, 2023.
- **CSIR-CIMFR**
  - Prof. Indranil Manna, VC, BIT Mesra, Ranchi graced the occasion as the Chief Guest and Dr. N.P. Shukla, Member Technical, Commission for Air Quality Management as Guest of Honour and Shri Sreepasad from Vigyan Bharti as guest on the occasion of National Technology Day.
- **CSIR-CLRI**
  - Dr. Jitendra Singh, Union Minister of State (Independent Charge) for the Ministry of Science and Technology and Minister of State for Prime Minister's Office, Personnel, Public Grievances & Pensions, Dept of Atomic Energy and Dept of Space visited on 29 May 2023.
- **CSIR-CRRI**
  - Visit of Dr. Narayan Chandra Pal, Engineer in Chief, Public Works Department, Odisha.
  - Visit of Dr. Samson Mathew, Director, KSCSTE-National Transportation Planning & Research Centre (NATPAC, Thiruvananthapuram, Kerala).
- **CSIR-IICT**
  - National Technology Day was celebrated on 11th May 2023. Dr. Rajeev Singh Raghuvanshi, Drugs Controller General of India was the chief guest, who delivered special lecture on this occasion.

- **CSIR-IITR**
  - Dr. K.S. Rao, Subject Matter Expert (SME) - Safety Assessment, Adgyl Lifesciences Pvt. Ltd and Dr. Shekar Chelur, Senior Director Aurigene Oncology Pvt Ltd visited CRK campus, CSIR-IITR to deliver their lecture in DST SERB Sponsored High-End Workshop - KARYASHALA on Hands-on Training Course on Toxicology and Pathological Tools and Techniques for Pre-clinical Regulatory Toxicity Studies in Laboratory Animals on 23 May 20223.
- **CSIR-NEIST**
  - Padmashri, Padmabhusan and Padma Vibhushan Dr Raghunath A. Mashelkar visited CSIR-NEIST on the occasion of 25th National Technology Day on 11 May 2023.
- **CSIR-NIIST**
  - Director and team of Rubber Research Institute India visited the campus to explore the collaboration opportunities between CSIR-NIIST and Rubber Research Institute for the benefit of rubber industry
  - Dr. T Ramasami, Former Secretary, Department of Science and Technology visited and had an interaction with the Director and senior scientists of the institute

#### **COVID related developments/research**

- **CSIR-4PI**
  - Meeting of the COVID CARE NETWORK Committee on CSIR HPC cloud resource hosted at CSIR-4PI for COVID-19 research support for Indian researchers on 19th May 2023.
- **CSIR-CCMB**
  - Sequenced total no: samples 1168, comprising 960 Clinical samples and 208 Waste water samples.

#### **Details of events celebrated to mark India@75 or Azadi Ki Amrit Mahotsav / 75 Years of Indian Independence**

- **CSIR-CBRI**
  - Organized Swachhata Pakhwada from 1-15 May 2023 with great enthusiasm. Throughout this period, a dedicated cleanliness campaign was conducted, accompanied by the diligent review, recording, and disposal of outdated physical files by the employees. In order to maintain a tidy and organized office environment, the identification of obsolete items was carried out, alongside the thorough cleaning of electrical switchboards, fans, and air-conditioning units in all office rooms. Furthermore, various activities were organized to raise awareness about the significance of cleanliness in one's life. These included the administration of the Swachhata Pledge to promote personal commitment, as well as engaging in drawing competitions and slogan writing contests to encourage creative expression in support of cleanliness.
- **CSIR-CDRI**
  - National Technology Day was celebrated on 15th May 2022. The event was preceded by Director Dr. Radha Rangarajan. Dr. Dhananjaya Dendukuri, Chief Executive Officer & Co-Founder of Achira Labs, a Bangalore-based start-up, delivered national technology day lecture entitled, Rapid advances in point-of-care testing through

microfluidic technologies, in a post COVID world. Dr. Manjiri Bhakre, founder and CEO of OncoStem Diagnostics Pvt Ltd, guest of the event delivered a talk entitled, “Does every breast cancer patient need chemotherapy- Role of Made in India innovative tests in decision making”

- Swachhta Pakhwada was initiated on 1st May 2023. The 15 days of Clean drive includes; swachhta pledge, clean campus drive, cleaning & development of new lawn with tree plantation, awareness campaign for campus residents, shramdaan day, weeding out of old records, obsolete equipment, colour code waste bin distribution to all labs as well as offices, mass awareness rally, lecture by experts, group discussion, cleaning of water coolers/purifiers/water tanks, cleaning of HVAC plant air filters, exchange of fresh water between units/pumps/fire hydrants, cleaning of building, checking of water accumulation in the premises, fogging etc.,
- **CSIR-CECRI**
  - SwachhataPakhwada–2023 on 2 May, 2023 a Shramdaan event was organized on 13.05.2023 (Saturday) to clean the Institute premises. Staff members, research scholars, project associates & B.Tech. students had actively participated in the event.
  - Celebrated National Technology Day - 2023 on 19 May, 2023. Dr. Shankar Venugopal, Vice-President, Mahindra & Mahindra, Mahindra Research Valley, Chennai was the Chief Guest and delivered the National Technology Day Lecture on Electric Mobility Ecosystem - how sustainability, supply chain and technology convergence are shaping the future of eMobility.
- **CSIR-CFTRI**
  - National Technology Day was celebrated on 11th May 2023. Shri D. Sudhanva, Co-founder & CEO, Excel soft Technologies Pvt. Ltd., Mysore was the Chief Guest.
- **CSIR-CIMFR**
  - Organized a “Swachhata Pakhwada” from 01.05.2023 to 15.05.2023.
  - National Technology Day was celebrated on 11th May, 2023 and delivered following lectures:
    - Prof. Indranil Manna on Science Engineering Technology Synergy necessary for Atma Nirbhar Bharat.
    - Dr. N.P. Shukla on Developments in Biotechnology for Human Welfare on the occasion of National Technology Day 2023.
- **CSIR-CLRI**
  - Swachhata Pakhwada 2023 was conducted with an orientation program on solid waste management for KV-CLRI students. About 46 students from KV-CLRI were enrolled in the Swachhata Pakhwada award program where they received training on solid waste segregation. After assessments were conducted, the students carried out a door-to-door campaign to create awareness of the segregation of solid waste at source in various blocks in the CLRI residential quarters.
- **CSIR-CRRI**
  - Organized Swachhta Pakhwada from 01-15, May 2023, the action plan for Swachhta Pakhwada was undertaken by the Scientists and Staff members and the goals were achieved enthusiastically. A Swachhta Pledge taking ceremony on the celebration of the Swachhta Pakhwada was held on May 01, 2023 at CSIR-CRRI campus and it was attended by scientists and staff members of the Institute.

- An Intern Learning Centre (ILC) was newly established in CSIR-CRRI for students who joined the Institute from various colleges / universities for their Internships. This centre was inaugurated by Prof. Manoranjan Parida, Director, CSIR-CRRI on May 29, 2023 and it will facilitate the students in carrying out various activities /works related to their Internships.
- **CSIR-IICT**
  - National Seminar on "Traditional Knowledge, Influence of Science for Sustainable Society" was held on 13th May, 2023 in the institute. There was a special Address by Chief Guest Dr. Christina Z. Chongthu, IAS Secretary, Tribal Welfare Department, Govt. of Telangana.
- **CSIR-IIP**
  - Swachhata Pakhwada was celebrated during 01.05.2023 to 15.05.2023.
- **CSIR-IITR**
  - National Technology Day-2023 celebrations with the theme "School to Startup-igniting young minds to innovate." CSIR-IITR opened its doors to over 100 eager students from various schools and colleges. The event was a platform for budding scientists and young minds to connect with outstanding researchers and gain insights into the critical field of toxicology. The Jigyasa Summer Workshop for school students was also inaugurated on the same day.
- **CSIR-NEIST**
  - Celebrated 25th National Technology Day today on 11 May 2023. Dr G. Narahari Sastry, Director, CSIR-NEIST welcome the Chief Guest Padmashri, Padmabhusan and Padma Vibhushan Dr Raghunath A. Mashelkar, FRS.
  - The institute participated in the Vibrant North East-2023 held at Guwahati during 16-18 May 2023. A team comprising of Dr. DipulKalita, Mr. Partha Paul, Hrishikesh Sarma and Ankur Dip Boruah went there as experts and organized the CSIR-NEIST exhibition stall and demonstrated the NEIST technologies to the visitors.
- **CSIR-NML**
  - Celebrated National Technology Day. Mr. Ujjal Chakraborty, Managing Director, Jamshedpur Continuous Annealing & Processing Co. Private Limited (JCAPCL) graced as chief guest.
  - Celebration of Swachhata Pakhwada 2023. A number of events cleanliness drive at all campuses of the laboratory, Essay Quiz and Extempore Competition for the staff and Sit and Draw Competitions for the staff children were organized during the Pakhwada.
- **CSIR-SERC**
  - "Swachhata Pakhwada 2023" was observed in CSIR-SERC and CMC from 01.05.2023 to 15.05.2023. As a part of Cleanliness Programme, the "Swachhata Shapath" (Pledge) was taken on 01st May 2023.
  - The 25th National Technology Day was celebrated with great enthusiasm on 11 May 2023, by CSIR-SERC and CMC. The function was presided over by Dr. N. Anandavalli, Director, CSIR-SERC and Coordinating Director, CMC. Dr. V. Thiruppugazh, Chairman, Advisory Committee on Mitigation and Management of Floods in Chennai Metro; Former Additional Secretary (Policy and Plan), National Disaster Management Authority (NDMA) was the Chief Guest of the function.



## **DEPARTMENTAL ACTIVITIES**

DSIR's mandate is to promote Industrial Research and Development besides technology promotion, development and utilization. In order to promote and nurture Research and Development in the country, Industrial R&D Promotion Programme of the department gives recognition and registration to in-house R&D units of industries, not for profit Scientific and Industrial Research Organizations (SIROs), Public Funded Research Institutions (PFRIs) and periodically renews these recognition / registration under the respective Government Notifications (as amended from time to time), by virtue of which these organizations are able to obtain Customs duty exemptions and Weighted tax deductions on R&D by Industry (under section 35(2AB) of IT Act). This scheme helps in encouraging industrial R&D in the country.

### **Industrial R&D Promotion Programme (IRDPP)**

#### **Recognition/ Registration and renewal of In-house R&D in Industry**

- 52 in-house R&D units of industries were granted Renewal of Recognition and 59 were granted renewal of Registration certificates.

#### **Fiscal Incentives for Scientific Research u/s 35(2AB) of IT Act 1961**

An online stakeholder's brainstorming meeting on Fiscal Incentives (FI) with Pharma sector was organized successfully in DSIR on 3 May, 2023. The meeting was addressed by renowned scientific experts from CSIR, representatives from Department of Pharma, Industry associations – IDMA, IPA and others.

**DSIR Central Sector scheme 'Industrial Research and Development (IRD)'** comprise of the four sub-schemes i.e (i) Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM), wherein financial assistance is extended to independent innovators for converting innovative ideas into demonstrable working models / prototypes / processes that may take the form of new or improved products, processes, or services; and assist them to become incubatees / techno-entrepreneurs, (ii) Patent Acquisition and Collaborative Research and Technology Development (PACE), wherein support shall be provided to industries and institutions for development and demonstration of innovative technologies,(iii)Building Industrial R&D and Common Research Facilities (BIRDF), wherein support shall be provided for creation of Common Research and Technology Development Hubs (CRTDH) for use by entrepreneurs and industries and (iv) Access to Knowledge for Technology Development and Dissemination (A2K+) wherein studies and conferences in up-coming areas of industrial research shall be taken up besides undertaking a Technology Development and Utilization Programme for Women (TDUPW).

#### **Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM):**

2 new innovation projects were sanctioned and 1 project was successfully completed during the period.

#### **Patent Acquisition and Collaborative Research and Technology Development (PACE) Scheme:**

DSIR supported PACE project on "Development and standardization of manufacturing process for large scale production of valuable secondary metabolites from callus-derived cells of vascular cambial

explants of selected woody plants species” was reviewed for successful completion.. The project demonstrated an alternative mechanism to produce secondary metabolites from plant explants.

### **Common Research and Technology Development Hubs (CRTDH) Scheme:**

#### **CRTDH - NIPER, SAS Nagar, Mohali (NIPER-M):**

First PGRC meeting to review the financial and technical progress of CRTDH supported to NIPER-M was held on 16<sup>th</sup> May 2023. PGRC was chaired by the Scientist ‘G’ & Head-CRTDH (DSIR) and attended by Director-NIPER-M, DSIR officials and external members from other government agencies and team members of CRTDH from NIPER-M. PGRC deliberated on the progress of CRTDH-NIPER-M in detail and noted that the institute has allocated building space for CRTDH in the campus and has started the process of appointing consultant/agency for the commissioning of cGMP facility. PGRC appreciated the engagement of two MSEs in CRTDH at NIPER-M.

#### **CRTDH-Indian Institute of Technology (IIT) Gandhinagar (GN), Gandhinagar:**

The final PGRC meeting of CRTDH established at IIT-GN Gandhinagar was held on 18<sup>th</sup> May, 2023. The meeting was attended by Director IIT-GN, Dean Research IIT-GN and program division members. The final outcome of the CRTDH established was presented during the meeting. Based on the deliberations during PGRC meeting the Committee recommended successful completion of the project.

#### **A2K+: Events**

20<sup>th</sup> meeting of Technical Advisory Committee (TAC) was organized online on 9<sup>th</sup> May 2023 to discuss 5 new proposals for DSIR support. Two proposals namely (i) National conference of Gau-Vigyan in modern life and medical science submitted by Indian Institute of Technology Guwahati and (ii) Smart and Innovative Development in Science, Engineering & Technology submitted by Bhilai Institute of Technology, Durg, Chhattisgarh were recommended by TAC for DSIR support.

An event entitled “National Conference of Gau-Vigyan in Modern life and Medical Science” supported to Indian Institute of Technology, Guwahati was held on 20.05.2023 to 21.05.2023 at Indian Institute of Technology, Guwahati .

#### **Technology Development and Utilization Program for Women (TDUPW):**

**177 Women Beneficiaries** have been trained under the various ongoing TDUPW projects aiming women empowerment through technology deployment and dissemination.

### **PUBLIC SECTOR ENTERPRISES**

#### **Central Electronics Limited (CEL)**

CEL is an enterprise under DSIR having an objective to commercially exploit the indigenous technologies developed by National Labs and R&D institutions in the country. CEL has developed a

number of products for the first time in the country through its own R&D efforts and it continues to emphasize its leading role in the area of solar photovoltaic systems, electronic gadgets for Railway and other strategic electronic equipment/components among others.

- The company manufactured electronic components/systems/SPV products worth Rs. 800.09 lakhs during May 2023.
- Sale of items worth Rs. 770.40 lakhs was realized during May 2023.

### **National Research Development Corporation (NRDC)**

NRDC continues to lay emphasis on broadening and strengthening the technology resource base by nurturing long-term relationships with R&D institutions as well as universities, technical organizations, industries and individual inventors.

- National Research Development Corporation (NRDC) has licensed 3 technologies on LSM Tasar Rakshak to M/s Biosafe Hygenie; Seaweed extract fertilizer to M/s Lyfim Organics; Vijetha supplement powder technology to M/s. Anil Industries.
- NRDC has collected premia of Rs. 3.0 lakh from respective technologies during May 2023.