

No. DSIR/MS/2024/11
Government of India
Ministry of Science & Technology
Department of Science & Industrial Research

(Part-I Unclassified)

Subject: MONTHLY SUMMARY (For the month of November 2024)

Major achievements during the month of November 2024

Council of Scientific & Industrial Research (CSIR)

New Products/Processes/ Technologies developed

- **CSIR-CLRI**
 - Developed process for Bio-Mechatronic Orthotic Device with Virtual Intelligence
- **CSIR-IHBT**
 - Developed process for
 - Micropropagation of *Ajugaparviflora* (Neelkanthi)
 - In vitro flower induction in *Chlorophytum comosum* (Thunb.) Jacques var. *comosum*
- **CSIR-NCL**
 - Developed for Elliot's alcohol, a key intermediate for resmethrin (pyrethroid insecticide).
- **CSIR-NIIST**
 - Development of Textile yarn from natural fibres like pseudo banana and pineapple leaves.

Technologies licensed/transferred

- **CSIR-CECRI**
 - Technology for
 - Epoxy and Polyurethane paints for Coating of Concrete Structures transferred to M/s. Kansai Nerolac Paints Limited, Mumbai 01/11/2024.
 - Cylindrical Supercapacitor Using Water-based Binder transferred to M/s. Super Electro Green Technology Pvt. Ltd., Haryana 09/11/24.
- **CSIR-CEERI**
 - Technology for High-Intensity Light Source for Endoscopy transferred to M/s Divine Meditech Pvt. Ltd., Noida on 27/11/24.
- **CSIR-CFTRI**
 - Technology for
 - Gongura Leaf Powder transferred to M/s Asal Herbal Foods, Tamil Nadu
 - Spray dried refined Papain transferred to M/s S.I. Biozyme, Maharashtra
- **CSIR-CMERI**
 - Technology for Community Level Improved Iron Removal Plant transferred to M/s Macrotech, M/s Hygiene Waterwave India Pvt.Ltd., M/s Dew Pure Engineering (Kolkata) & M/s Infinite Aqua Pvt.Ltd., Delhi on 04, 07 & 18/11/24 respectively.
- **CSIR-IHBT**
 - Technology for
 - Artifacts making using Dry Flowers Technology transferred to Shiv Shakti Self Help Group, Kangra on 05/11/24.
 - Millet panjeeri (03 variants) transferred to Tashvika India Food Pvt. Ltd, New Delhi on 05/11/24.
 - Herbal incense cones and sticks transferred to Ucch Shikhariya Utpaad Mahila Samuh Jahalman, Udaipur, Lahaul & Spiti on 20/11/24.

- **CSIR-IIP**
 - Technology for Improved jaggery-making plant transferred to M/s Shakti Udhog, U.P on 30/10/24.
- **CSIR-NAL**
 - Technology for NAL's JALDOST (weed clearing system) transferred to M/s. Shrivari Engineering Pvt Ltd on 20/11/24.
- **CSIR-NCL**
 - Technology for AEM Water Electrolyser test station transferred to Hyhydrozen Technologies Pvt Ltd.
- **CSIR-NIIST**
 - Technology for Jaivam- bacterial consortium for aerobic composting transferred to M/s AgsoAgrosoldier Private Limited, Alappuzha.
- **CSIR-NML**
 - Technology for the extraction of Cu, Al and Au as metals/salts from waste Printed Circuit Boards transferred to M/s Novesensa Pvt Ltd, New Delhi 21/11/24.
- **CSIR-SERC**
 - Technology for Laced Steel-Concrete Composite system (LSCC) transferred to M/s. Modern Prefab Systems Private Limited, Delhi, on 28/11/24.

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Number of New Projects initiated (01/11/24-30/11/24)

Lab/Institute	CSIR	Ministry/Govt./PSU	Industry/sponsored/ Pvt
CSIR-4PI	Nil	01	Nil
CSIR-CCMB	Nil	01	Nil
CSIR-CDRI	Nil	03	Nil
CSIR-CECRI	Nil	01	04
CSIR-CEERI	Nil	01	Nil
CSIR-CFTRI	Nil	Nil	01
CSIR-CGCRI	Nil	Nil	02
CSIR- CIMFR	16	03	13
CSIR- CLRI	Nil	Nil	02
CSIR- CMERI	Nil	03	Nil
CSIR-CRRI	Nil	02	02
CSIR- CSMCRI	Nil	01	Nil
CSIR- IHBT	Nil	01	01
CSIR- IICB	Nil	01	Nil
CSIR- IICT	Nil	01	03
CSIR- IIP	Nil	01	Nil
CSIR-IITR	Nil	Nil	02
CSIR- IMMT	Nil	03	04
CSIR- NAL	Nil	02	Nil
CSIR- NEERI	Nil	05	03
CSIR- NIIST	01	01	03
CSIR-NIO	Nil	23	28
CSIR-SERC	Nil	03	06

Number of Ph.D. scholars joined/ completed (01/11/24-30/11/24)

Lab/Institute	Joined	Completed
CSIR-4PI	Nil	03
CSIR-CCMB	Nil	01
CSIR- CDRI	Nil	05
CSIR- CECRI	Nil	02
CSIR- CFTRI	Nil	02
CSIR-CGCRI	Nil	01
CSIR-CMERI	Nil	01
CSIR-CSMCRI	Nil	02
CSIR-IGIB	Nil	03
CSIR-IHBT	Nil	04
CSIR-IICB	01	01
CSIR- IICT	Nil	09
CSIR- IIP	Nil	02
CSIR-IITR	Nil	07
CSIR-IMMT	04	02
CSIR-NEERI	Nil	03
CSIR-NGRI	Nil	01
CSIR-NIIST	Nil	03
CSIR-NIO	02	02
CSIR-NIScPR	Nil	04

National Collaborations/Agreements/MoUs Signed

- **CSIR-CBRI**
 - MoU signed with
 - M/s. Construction Industry Development Council (CIDC), Delhi, India, on 05/11/24.
 - M/s. S. N. D. College of Engineering & Research Center, Maharashtra, for the Academic and Research interaction on 06/11/24.
 - M/s. Bal Raksha Bharat for Disaster-Resilient Housing Infrastructure & Knowledge Sharing.
- **CSIR-CCMB**
 - MoU signed with
 - Pt. Deendayal Upadhyay Memorial Health Sciences and Ayush University (DDUMHS & AU) Raipur, Chhattisgarh for working together.
 - Directorate of Medical Education (DME) Raipur, Chhattisgarh for working together.
- **CSIR-CEERI**
 - MoU signed with the National Institute of Technical Teachers Training and Research (NITTTR), Bhopal for Institutional Collaboration on 26/12/24.
- **CSIR-CLRI**
 - MoU signed with Government College of Engineering and Leather Technology (GCELT), Kolkata for Collaborative R&D, Academic Activities and Human Resource Development on 12/11/24.
- **CSIR-CSMCRI**
 - Signed Agreement with M/s Grasim Industries Limited at Khambhat, Dist. Anand for development of Solar Salt Works for the salt production.

- **CSIR-IICT**
 - MoU signed with M/s Aurigene Pharmaceutical Services Pvt Ltd for Skill Development Training on Advanced Synthetic Organic Chemistry on 19/11/24.
- **CSIR-IIP**
 - Signed agreement Droft-Ketal Chemicals (India) Pvt. Ltd. Mumbai for Manufacturing SAF Catalyst and SAF Catalyst sulfidation path using Dorf Ketal SULSAFE technology.
- **CSIR-IITR**
 - MoU signed with
 - Vignan's Foundation for Science, Technology & Research (VFSTR), Andhra Pradesh for foster collaborative research programmes on 04/11/24.
 - AMITY UNIVERSITY, Lucknow for Academic & research collaboration on 04/11/24
 - Saraswati Dental College & Hospital (SDC&H) Lucknow for foster collaborative research programmes on 04/11/24.
 - Lovely Professional University (LPU) Jalandhar for foster collaborative research programmes on 27/11/24.
- **CSIR-IMMT**
 - XIM University & TRIDENT Institutions (Bhubaneswar) for academic & research collaborations On 19/11/24.
- **CSIR-NEERI**
 - MoA signed with Greater Hyderabad Municipal Corporation for Assessment of water and sediment quality and preparation of remediation plan for 11 lakes of Hyderabad city.
- **CSIR-NIIST**
 - Agreement signed with M/s MRF Ltd, Chennai for sponsored research on nanogenerators integrated smart tyre for kinetic energy harvesting and self-powered tyre condition monitoring applications.
 - MoU with Kerala Maritime Board (KMB), Thiruvananthapuram for the environmental impact assessment study for capital dredging of beypore port and disposal of dredged material.

International Collaborations/Agreements/MoUs Signed

- **CSIR-IGIB**
 - MoU signed with EMORY University, USA for collaborative research on Molecular Prediction & Type 2 Diabetes Phenotypes in South Asians on 11/11/24.

Patents Update

Patents Filed			Patents Granted			Patent Prosecutions	
India	Abroad* (Unique Patent Application)	Abroad (Multiple Countries) *	India	Abroad* (Unique Patent Application)	Abroad (Multiple Countries) *	India	Abroad*
16	18	22	05	07	10	12	126
Number of Copyright Applications filed					07		
Number of Trademark Applications filed					02		

* Data reported to IPU during November 2024 and may change later during national phase entries. The unique filed/ granted patent may appear in the next months also if its corresponding application is filed/ granted in the respective months.

High impact S&T services

- **CSIR-CCMB**
 - Provided molecular diagnostic services for 142 families comprising 173 samples.
- **CSIR-CDRI**
 - Provided service for analysis of sample by IR (Infrared), Mass, NMR (Nuclear Magnetic Resonance) and EM (Electron Microscopy); 409 samples.
- **CSIR-CIMAP**
 - Sample Analysis on High end Equipment: HPLC, FT-IR, NMR, HRMS, LC-MS/MS, GC, GC-MS&GC-MS/MS, Total samples analysed: 2413.
- **CSIR-CMERI**
 - Structural Assessment of 100 TPH Crushing and Screening Plant for Indian Metal and Ferro Alloys Limited, Odisha.
 - DPR Preparation with Consultancy support for construction, installation and commissioning of iMSWDS plant for Urban Development and Housing Department, Jharkhand, Govt of Ranchi.
 - Metallurgical failure analysis of STUD for L&T Ltd., Degaul Avenue, Khoirasol, Durgapur, West Bengal.
- **CSIR-CRRI**
 - Failure investigation of Sector Recreational Green-V Road (60-meter-wide) for providing the remedial measures for Greater Noida Industrial Development Authority.
 - Study for Rehabilitation measures for distressed pavement from Bandarpada to Malimunda Stadium road Jarsuguda Odisha for PWD, Odisha.
 - Review of Designs and Drawings of Reinforced Soil Structure (RSS) for the Rehabilitation and Upgradation of existing Bihpur section of NH-106 from Km 106+000 to Km 136+000 for Afcons Infrastructure Ltd., Bihar.
 - Assessment and Evaluation of COP-44 of HSRP for M/s FTA HSRP Solutions Pvt. Ltd. for FTA HSRP Solutions Pvt. Ltd., Gujarat.
- **CSIR-IHBT**
 - Evaluation of projects and presentations for Integrated Ecodevelopment Research Programme, GBPNIHE, MoEF&CC.
- **CSIR-IIP**
 - Performance evaluation of new engine lubricants formulated for motorcycles for Shell India Markets Private Ltd.
 - Testing and evaluation of "HOUGHTOSAFE 620 EP" sample for Fire Resistance Characteristics for M/s Quaker Chemicals (India) Pvt. Ltd.
- **CSIR-IITR**
 - Metal analysis in blood & serum samples for Chief Medical Officer (CMO) office, Kanpur Dehat.
- **CSIR-NAL**
 - Development and processing low thermal hysteresis NITIHf AND NITIHfCu high temperature shape memory alloy wire/ROD- DFTM, DRDO
 - Study of fluid structure interaction characteristics in a bio inspired flexible propulsor and its performance optimisation using AI - Anusandhan National Research Foundation
- **CSIR-NCL**
 - Supplied microbial strains and microbial identification services to industries and academia.
- **CSIR-NEERI**
 - Comprehensive (Environmental, Ecological, Anthropogenic and others) Risk Assessment Data for Heritage Sites and Development of Smart Heritage Management Systems
 - Assessment of Comprehensive Environmental Pollution Index (CEPI) in the 10 KM Study Area around Bandhaura Thermal Power Plant of Mahan Energen Ltd. at Singrauli, M.P.

- **CSIR-NML**
 - Metallurgical Investigation to explore the root cause of U1 Boiler SH Tube Failure for M/s. NTPC Limited.
- **CSIR-SERC**
 - Residual Stress Measurement in Aluminium Military Bridging System for Larsen and Toubro (Defence), Talegaon, Pune.
 - Cyclic Tension and Compression Tests on Full Grout Couplers for M/s. Leviat India Pvt. Ltd., Thane.

Outreach Activities

- **CSIR-4PI**
 - Organised Lab visit for New Horizon Engineering College, Bengaluru on 05/11/24; 55 participants.
 - Organised Scientist-Student connect program for Delhi Public School, Whitefield on 27/11/24; 29 participants.
 - Organised outreach program during IISF 2024 curtain raiser event on 05/11/24.
 - Organised Lab visit for KPS Narsapura, Kolar on occasion of Janjatiya Gaurav Divas celebrations on 25/11/24; 50 participants
- **CSIR-CBRI**
 - Organised Scientist-Student connect program PM Shree Kendriya Vidyalaya, Punjab Lines, Meerut on 07/11/24; 372 participants.
 - Organised Lab visit for Sheffield School, Piran Kaliyar, and Government Secondary Schools, Muzaffarnagar on occasion of Janjatiya Gaurav Divas celebrations during 15-26/11/24; 100 participants.
- **CSIR-CCMB**
 - Organised Skill Development training Programmes on Muscling Through Species to Treating Diseases from and Advanced Biophysical Tools for Protein-DNA/Bimolecular Interactions during 04-07/11/24 & 18-22/11/24 respectively; 20 participants.
 - Organised outreach program during IISF 2024 curtain raiser event on 19/11/24; 100 participants.
- **CSIR-CDRI**
 - Organised Scientist-Student connect programs for:
 - College students during 13/11/24 & 14/11/24; 220 & 80 participants respectively.
 - PM Shree Jawahar Navodaya Vidyalaya, Bhinga, Shrawsati (U.P.) & Himanyan Institute of Pharmacy & Research, Bakshi Ka Talab, Lucknow (U.P.) on 25/11/24 & 27/11/24; 59 & 58 participants respectively.
- **CSIR-CECRI**
 - Organised training on Cross Country Pipelines-Cathodic Protection & Survey Methods for BPCL Engineers [Pipelines & Aviation] during 18-22/11/24; 22 participants.
 - Organised outreach program during IISF 2024 curtain raiser event on 09/11/24.
 - Organised Skill Development training Programmes on:
 - Electrochemical Power Systems: Lead-acid battery - Care and Maintenance during 04-08/11/24; 29 participants.
 - Artificial Intelligence using by Microcontrollers during 18-22/11/24; 38 participants.
- **CSIR-CEERI**
 - Organised training for Assistant Section Officers of CSIR (Gen./F&A/S&P) during 25/11/24-20/12/24.
 - Organised Lab visit for PM Shri KV Churu, KV Paluwas, KV Sirsa Rajasthan, and Bennett University, Noida, in November 2024; 530 participants.
- **CSIR-CFTRI**
 - Organised outreach program during IISF 2024 curtain raiser event on 06/11/24.

- **CSIR-CGCRI**
 - Organised Skill Development training Programmes on:
 - Ceramic Membrane and Water technology on 08/11/24 & 25-26/11/24; 25 & 26 participants respectively.
 - Terracotta Processing during 13-14/11/24; 39 participants.
 - Organised outreach program during IISF 2024 curtain raiser event on 06/11/24; 144 participants.
- **CSIR-CIMAP**
 - Organised training Programmes on
 - Cultivation, processing and marketing of MAPs suitable for Rohtas District of Bihar & Pasighat, Arunanchal Pradesh during 12-14/11/24 & 13/11/24; 40 & 60 participants respectively.
 - Utilization of Offered Flowers for Making Incense Sticks on 06/11/24; 40 participants.
 - Improved cultivation practices with special reference to distillation of aromatic crops during 26-28/11/24; 175 participants.
- **CSIR-CIMFR**
 - Organised Skill Development training Programmes on Foundational Skills to Meet the Demands of Modern Scientific Research during 12-14/11/24; 28 participants.
 - Organised outreach program during IISF 2024 curtain raiser event on 11/11/24; 162 participants.
- **CSIR-CLRI**
 - Organised Lab visit for Sri Govindaraja Swamy Arts College Tirumala Tirupati Devasthanams, Andhra Pradesh on 18/11/24; 30 participants.
- **CSIR-CMERI**
 - Organised outreach program on
 - IISF 2024 curtain raiser event on 14/11/24; 82 participants.
 - Solar Energy & Application on 12/11/24 & 11/11/24; 130 & 125 participants.
- **CSIR-CRRI**
 - Organised Skill Development training Programmes on
 - Road Safety Audit and Other Road Safety Related Aspects during 18/11/24-03/12/24; 70 participants.
 - Diploma (Computer Science) on 18/11/24; 72 participants.
- **CSIR-CSIO**
 - Organised Lab visit for KV Fatehgarh Sahib on 27/11/24; 191 participants.
 - Organised outreach program during IISF 2024 curtain raiser event on 18/11/24; 140 participants.
- **CSIR-CSMCRI**
 - Organised outreach program during IISF 2024 curtain raiser event.
 - Organised Skill Development training Programmes for:
 - Janjatiya Gaurav Divas on 26/11/24; 41 participants.
 - PM SHRI Jawahar Navodaya Vidyalaya, Amreli during 27-28/11/24.
- **CSIR-IGIB**
 - Organised training on Genomics and Molecular Technologies; 12 participants.
- **CSIR-IHBT**
 - Organised outreach program during IISF 2024 curtain raiser event on 08/11/24.
 - Organised Lab visit for
 - PM SHRI Jawahar Navodaya Vidyalaya, Paprola, Govt. Sr. Sec. School Paprola, Baijnath, and Averi during 19-21/11/24; 52 participants.
 - Kulehar Public School, Balh, Distt. Una (H.P.) & Govt. Sr. Sec. School, Dhaloon, Dist. Kangra (H.P.) on 14/11/24 & 22/11/24; 53 & 23 participants respectively.
 - Central University of Jammu (Jammu & Kashmir) on 07/11/24; 55 participants.
 - Saraswati Ayurved Hospital & Medical College, Mohali, on 18/11/24; 34 participants.
 - SLN Agros Association, Mumbai, Maharashtra on 21/11/24.

- **CSIR-IICB**
 - Organised outreach program during OWOT event on 12/11/24.
- **CSIR-IICT**
 - Organised Lab visits for
 - Telangana Model & Junior college, at Nednur on 05/11/24; 700 participants.
 - St. Joseph's, Junior college, Lalbazar on 25/11/24; 65 participants.
 - Organised Skill Development training Programmes for:
 - GSBTM, Gujrat on Animal Cell Culture Techniques during 11-16/11/24; 19 participants.
 - Department of Oils, Lipid Science & Technology on Conventional, Chromatographic and Spectral Analysis of Oils & Fats on 12/11/24; 20participants.
- **CSIR-IIP**
 - Organised road showwith St. Kabeer Academy on 08/11/24.
 - Organised outreach program during IISF 2024 curtain raiser event on 08/11/24.
 - Organised Lab visit for Govt. Inter College Bhagdwarihal, Dehradun on 19/11/24; 100 participants.
- **CSIR-IITR**
 - Organised outreach program during IISF 2024 curtain raiser event on 05/11/24; 800 participants.
- **CSIR-IMMT**
 - Organised outreach program during IISF 2024 curtain raiser event on 19/11/24.
 - OrganisedSkill Coordinators Conclave during 21-22/11/24.
- **CSIR-NAL**
 - Organised outreach program during IISF 2024 curtain raiser event on 09/11/24.
 - Drone Demonstration to MGM College, Udupi during 29/11/24-02/12/24.
- **CSIR-NEERI**
 - Organised Skill Development training Programmes on 'Urban Air Quality Management and Control Strategies' & 'Biological and Microbiological Analysis of Water Resources' during 12-14/11/24 & 19/11/24 respectively.
- **CSIR-NIIST**
 - Organised Skill Development training Programmes on Herbal Drug Development in the month of November, 24.
 - Organised outreach program during IISF 2024 curtain raiser event on 05/11/24.
- **CSIR-NIO**
 - Organised outreach program during IISF 2024 curtain raiser event on 27/11/24.
- **CSIR-NML**
 - Organised outreach program during IISF 2024 curtain raiser event on 11/11/24.
- **CSIR-SERC**
 - Organised training Programmes for Government Higher Secondary School, Villiseri and Government Higher Secondary School, Sekkarakudi, Tuticorin District during 13-14/11/24; 277 participants.
 - Organised outreach program during IISF 2024 curtain raiser event on 07/11/24.

Conferences, Workshops, Major Events

- **CSIR Headquarters**
 - CSIR organised India International Science Festival (IISF 2024) at IIT, Guwahati during 30/11/24-03/12/24.
- **CSIR-4PI**
 - Participated in Bangalore Tech Summit 2024.
 - Participated in KrishiMela 2024 at Bengaluru.
 - Celebrated Vigilance Awareness Week-2024 during 28/10/24-03/11/24.
 - Celebrated 83rd CSIR Foundation Day on 11/11/24.
 - Organized "One Week One Theme" (OWOT) event on 07/11/24.

- **CSIR-CBRI**
 - Organized workshop on 'Towards Developing a National Plan for Climate Change Impacts on Avalanches, GLOFs and Landslides' at Indian Habitat Centre, New Delhi on 27/11/24.
 - Organized lecture on 'Room Fluid Dynamics, Airborne Disease Transmission, Risk, and Mitigation' by Prof. Eldad Avital from Queen Mary University of London on 26/11/24.
 - Organized Indo- Swiss Workshop on 'Modelling Rock-ice Avalanches, Rock falls and Debris flows' during 20-22/11/24.
- **CSIR-CCMB**
 - Celebrated 37th Foundation Day on 26/11/24.
 - Organized workshop on
 - Muscling through Species to treating diseases during 04-07/11/24.
 - Laboratory leadership for Group leaders during 11-21/11/24.
- **CSIR-CDRI**
 - Organized workshop on Practical Aspects of Drug Discovery during 03-08/11/24.
 - Organized Conclaves on
 - India's R&D Priorities for Affordable Healthcare' during 13-14/11/24.
 - Good Manufacturing Practices: Opportunities and Challenges on 23/11/24.
- **CSIR-CEERI**
 - Organized Conference on Emerging Trends in Vacuum Electron Devices & Applications VEDA 2024 during 18-20/11/24.
- **CSIR-CFTRI**
 - Organized OWOT- Agri, Nutrition & Biotech event & talk on Dietary fibre and gut microbiota dysbiosis in liver cancer on 11/11/24.
- **CSIR-CIMAP**
 - Participated in the Janjati Bhagidari Utsav at Gomti Nagar, Lucknow during 15-20/11/24.
 - Participated in the Krishi Bharat Expo at Lucknow during 15-18/11/24.
- **CSIR-CIMFR**
 - Celebrated 78th Foundation Day on 17/11/24.
 - Organised Vigilance Awareness Campaign, 2024 on 14/11/24.
- **CSIR-CLRI**
 - Organised CSIR Technology Showcase for the Laghu Udyog Bharati (LUB) team on 22/11/24.
 - Organised LERIG Conclave 2024 during 06-07/11/24.
- **CSIR-CMERI**
 - Organised Lecture by Prof. Kaushik Ghosh, Scientist-F, Institute of Nano Science & Technology, Mohali have delivered lectures on 19/11/24.
- **CSIR-CRRI**
 - Participated in the exhibition of the 83rd Annual Session of Indian Roads Congress at Raipur, Chhattisgarh on 08/11/24.
 - Celebrated "4th Janjatiya Gaurav Divas(JJGD)-2024" during 15-26/11/24.
- **CSIR-CSMCRI**
 - Organised Vigilance Awareness Campaign, 2024 on 14/11/24.
 - Celebrated "4th Janjatiya Gaurav Divas(JJGD)-2024" on 28/11/24.
- **CSIR-HRDC**
 - Organised Annual Conclave 2024 of Officers of CSIR Stores and Purchase Cadre, 11-12/11/24.
 - Organised CSIR Skill Coordinators' Conclave & Brainstorming on Future Skills, 21-22/11/24.
- **CSIR-IHBT**
 - Organised OWOT - Agri, Nutrition & Biotech event on 05/11/24; 197 participants
 - Celebrated "4th Janjatiya Gaurav Divas(JJGD)-2024" on 28/11/24.
 - Organised Nukkad Naatak on the theme 'Culture of Integrity for Nation's Prosperity' on 11/11/24.

- Participated in 1st International Conference on 'Molecules to Materials: Chemistry for Sustainable Future' at NIT, Hamirpur (H.P.) during 21-22/11/24.
- **CSIR-IICB**
 - Organised One Week One Theme (OWOT)–Healthcare event in November, 2024
 - Celebrated 'Janjatiya Gaurav Divas(JJGD)-2024" on 22 & 26/11/24.
- **CSIR-IIP**
 - Participated in 5th Dehradun International Science and Technology Festival (DISTF-2024)at VMSB Uttarakhand.
- **CSIR-IITR**
 - Organised International Conference on Emerging Approaches in Risk Analysis and Translational Aspects of Health and Environment (EARTH-2024)
- **CSIR-IMMT**
 - Organised CRTDH Conclave during 13-14/11/24.
- **CSIR-NAL**
 - Participated in Bengaluru Tech Summit 2024 at Bengaluru Palace, Bengaluru during 19-21/11/24.
 - Organised National Kannada Science Conference on 28/11/24.
- **CSIR-NCL**
 - Organised International Conference on Integrated Omics Approaches for Decoding Biological Research during 21-23/11/24.
- **CSIR-NGRI**
 - Organised lecture by Dr. Ignacio Gongalez, Scientist from CSIRO, Australia.
 - Organised talk on The Hidden Physics and Neuropsychology in the 2024 Physics Nobel Prize by Dr.Vipin Srivastava, Former Professor of Physics & Pro-Vice Chancellor, University of Hyderabad on 22/11/24.
- **CSIR-NIIST**
 - Organised Vigilance Awareness Campaign, 2024.
- **CSIR-NIO**
 - Organised 9th International SOLAS (Surface Ocean – Lower Atmosphere Study) Open Science Conference (OSC) during 10-14/11/24.
- **CSIR-NIScPR**
 - Organised International Conference on "Communication and Dissemination of Traditional Knowledge (CDTK-2024) jointly with Gurugram University at Gurugram University, Gurugram and organised a vibrant exhibition during the conference on 13-14/11/24; 445 participants.
 - Organised a hands on workshop on traditional knowledge communication by team SVASTIK during November 2024.
- **CSIR-NML**
 - Celebrated Platinum Jubilee Foundation Day on 26/11/24.

Visit of high level dignitaries

- **CSIR-CDRI**
 - Sri ParthaSarthi Sen Sharma, Principal Secretary, Medical Health and Family welfare, Uttar Pradesh, Participated as chief guest in OWOT program on 13/11/24.
- **CSIR-4PI**
 - Dr. V. K. Saraswat, Member, NITI Aayog, New Delhi visited on 11.11.2024.
- **CSIR-CECRI**
 - Shri. S. Krishnan, IAS, Secretary, MeitY, Government of India, visited for the Curtain Raiser Event of IISF-2024 on 09/11/24.
- **CSIR-CGCRI**
 - Hon'ble S&T Union Minister,Dr.Jitendra Singh visited on 11/11/24.

- **CSIR-CMERI**
 - Prof. Takahiro Maruyama, Meijo University, Japan a visited to deliver lecture on 19/11/24.
- **CSIR-IICB**
 - Hon'ble Shri Bhubaneswar Kalita, Member of Parliament, Rajya Sabha visited with Parliamentary Standing Committee on Science and Technology, Environment, Forests and Climate Change on 21/11/24.
- **CSIR-IICT**
 - Ms. Nivedita Shukla Verma, IAS, Secretary to the Government of India, Department of Chemicals & Petrochemicals, Ministry of Chemicals & Fertilizers visited on 06/11/24.
- **CSIR-IIP**
 - Ms. Eliette PINEL, Mr. Pedro Martins Ferrera, Ms. Vrushali and Mr Bhupender Tribology Specialists from TotalEnergies R&D Centre France and India visited on 25/11/24 to explore the possibilities of collaborations.
- **CSIR-IITR**
 - Dr. Ashok K. Mittal, Honourable Member of Parliament – Rajya Sabha visited as chief guest for the International conference EARTH-2024 on 27/11/24.
- **CSIR-NAL**
 - Dr. S. Somanath, Chairman ISRO & RC Chairman and Dr K Rajalakshmi Menon, DG-Aero on 08/11/24.
 - Lt. Gen. Navneet Singh Sarna, AVSM, SM, VSM, Commandant, School of Artillery on 12/11/24.
- **CSIR-NGRI**
 - Ms. Brahmadatha Maya Reghurajan, Technology and Innovation Adviser, British Deputy High Commission, Hyderabad visited on 27/11/24 to discuss ongoing Indo-UK collaborations and future research on critical minerals.
- **CSIR-NIIST**
 - Smt. LayaMaddur IAS, Hon'ble Secretary for Science, Technology and Climate Change, Government of Assam visited the newly created Showcase and major R&D facilities.

Honours/ Awards

- **CSIR-CDRI**
 - CSIR-CDRI received CII Awards on Excellence for Women in STEM 2024.
 - Received the Research Excellence Recognition in the Best Extramural Institute at the DHR-ICMR Health Research Excellence Summit 2024.
 - Dr. AamirNazir, Senior Principal Scientist, has been awarded with Fellow of Indian Academy of Neurosciences
 - Dr. Madhav N Mugale, has been declared as Diplomat of American Board of Toxicology (DABT-2024).
- **CSIR-CRRI**
 - Indian Roads Congress "Prof. B.B. Pandey Memorial Award for Best Paper on Pavement Engineering" awarded to Dr. PankajGoel&Dr. Rakesh Kumar, at Raipur IRC Annual Session 2024.
- **CSIR-IHBT**
 - Dr. Dharam Singh, Principal Scientist, was awarded the Agathiyar Chemical Biology award by the Society of Chemical and Synthetic Biology for the year 2024.
 - Dr. Bhavya Bhargava, Senior Scientist, received the "Fellow of the Society Award" for his work on Ornamental Horticulture R&D and Education by Indian Society of Ornamental Horticulture.

- **CSIR-IIP**
 - Dr Sunil Kumar Suman, Principal Scientist, received Best Paper Award at the 65th Annual International Conference & Conclave 2024.
- **CSIR-NAL**
 - CSIR-NAL Received CII Awards on Excellence for Women in STEM 2024.
- **CSIR-NIIST**
 - Dr. E. Bhoje Gowd, Sr. Principal Scientist, MSTD selected for the 13th Polymer Foundation Award.
 - Dr. C. Anandharamakrishnan has been bestowed with the prestigious Tata Transformation Prize 2024 instituted by New York Academy of Sciences and Tata Sons.
- **CSIR-NML**
 - Dr. Biraj Kumar Sahoo, Senior Scientist received Young Metallurgist Award (Metal Science), 2023
- **CSIR-SERC**
 - Dr. K. Lakshmi, Principal Scientist, awarded "Outstanding Woman Structural Engineer 2023", by the Indian association of Structural Engineers.
 - CSIR-SERC Received CII Awards on Excellence for Women in STEM 2024.

DEPARTMENTAL ACTIVITIES

DSIR is the nodal department for granting recognition to in-house R&D units established by corporate companies, Scientific and Industrial Research Organizations (SIROs) and registration to Public funded research Institutions like universities, IIT's, IISc, Regional Engineering College (RECs) other than hospitals. R&D units recognized by DSIR are eligible for customs duty and weighted tax deductions on R&D expenditures by Industry.

Industrial R&D Promotion Programme (IRDPP)

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

- 18 in-house R&D units of industries were granted Recognition and 18 were granted Registration certificates
- 54 in-house R&D units of industries were granted renewal of Recognition and 54 were granted renewal of Registration certificates.

Scientific and Industrial Organizations (SIRO)

- 7 SIROs were granted Recognition and 3 were granted Registration Certificate

Public Funded Research Institutions (PFRI)

- 5 PFRIs were granted Registration Certificates
- 7 PFRIs were granted Renewal of Registration Certificates

DSIR Central Sector scheme 'Industrial Research and Development (IRD)' comprises of the four sub-schemes (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 (BIRD), 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)

Two new innovation projects on “Eyeshift: Eye Care and Posture Control Device with an Intuitive User Interface” and “Development of Hybrid Powertrain Systems for Increased Safety and Enhanced Capacity In Drone Propulsion” were sanctioned during the period.

PACE Program:

The Department signed two Agreements/ MoUs on 20.11.2024 for new PACE Projects sanctioned:

- M/s. Devashish Polymers Private Ltd. (DPPL), Mumbai for project on “Development of high performance synthetic Elastomeric compounds for use in LPG and allied industry.” The project aims to develop compounded elastomers and evaluate their performance for diverse applications under this project
- M/s GPS Renewables Pvt Ltd., Bangalore in collaboration with Maharashtra Association for the Cultivation of Science (MACS)- Agharkar Research Institute (ARI), Pune for project on “Unlocking Sustainable Energy: Scaling Up and Pilot Trial of Enhanced Microbial Methane Production from Agricultural residue using anaerobic fungi.” The project aims to scale up and conduct pilot trials for enhanced microbial methane production from agricultural residues using anaerobic fungi.

CRTDH Program:

DSIR organized two days DSIR-CRTDH Conclave 2024 on 13th& 14th November 2024 at CSIR-Institute of Minerals & Materials Technology (CSIR-IMMT), Bhubaneswar wherein the supported CRTDHs had participated and showcased their achievements. The inaugural session proceeded with the live video address by Guest of Honor, Secretary, DSIR & Director General, CSIR. Four technical sessions were held during two days’ event.

A2K+ Studies:

- A new Study- on the current status of the Indian automotive standards on the emission & approval norms for hybrid electric vehicles and suggestions for future automotive standards complying with net zero emissions has been awarded to IIT, Mandi.

A2K+ Events:

The Department supported the following two events:

- The IEEE Second International Conference on Advancements and Key Challenges in Green Energy and Computing (AKGEC2024), organized by Department of Electrical & Electronics Engineering, Ajay Kumar Garg Engineering College, Ghaziabad from 21st to 23rd November, 2024.
- International Conference on Innovations in Biotechnology for Sustainability, organized by Jawaharlal Nehru University (JNU), Delhi from 23rd – 25th November at Convention center of JNU New Delhi.

Technology Development and Utilization Program for Women - TDUPW /A2K+:

The TDUPW Project entitled “Training of Progressive Technologies and Capacity Building for Himalayan Community” awarded to Himalayan Environmental Studies and Conservation

Organization (HESCO), Dehradun was reviewed on 29.11.2024. Around 1213 women and 10 SHGs have been trained in processing of Dhoopagarbati, herbal gulal and turmeric capsules (in collaboration with CIMAP and NBRI) in Dehradun valley and nearby villages. A total of 31 women have started their own enterprises with an income ranging from Rs. 36,000 to Rs. 1.2 lakh annually. An oil distillation plant is being established in the village of Chibow, Chakrata under the project.

Around 190 Women Beneficiaries were trained during the month of November in the field of Sericulture, Aquaculture, food fortification and processing, Ready to Eat food preparation & packaging, paper recycling, handicraft/handloom, agri-technology under the various on-going projects supported under TDUPW/A2K+ sub-scheme of IRD Program of DSIR.

Asian and Pacific Center for Transfer of Technology (APCTT):

- An International Conference on Technologies for Climate-resilient Infrastructure was jointly organized by Iranian Research Organization of Science and Technology (IROST) and APCTT on 26th November 2024. Prof. Pradeep Kumar Ramancharla, Director, CSIR-CBRI, Roorkee attended the International Conference as a DSIR nominee and delivered a talk on 'Technologies for enhancing Urban Resilience in Buildings'.
- The 20th Session of APCTT's Governing Council (GC) was held during 27th – 28th November 2024. APCTT presented activities carried out during the period from December 2023 to November 2024 and proposed programme of work for 2025. DSIR presented the Country's Statement during the Governing Council meeting. It was proposed to organise Technology Innovation Conclave 2.0 during the year 2025 to be organized jointly by APCTT and DSIR.

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 through its own R&D efforts and 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.2857.77 lakhs during the month.
- Sale of electronic components/systems/SPV products worth Rs.3272.50 lakhs was realized during the month.

National Research Development Corporation (NRDC)

The Corporation continued to lay emphasis on broadening and strengthening the technology resource base by nurturing long-term relationships with R&D institutions, Universities as well as industry.

- The Corporation Licensed following technologies for commercialization:
 - Development & Validation of protocol for computerised Zari Testing to Titan Industries
 - Potassium Humate to EID Parry India Ltd
 - Wave Powered Navigational Buoy to KTP Energy Projects Private Limited
 - ROISHINI to KTP Energy Projects Private Limited

- The Corporation signed following MoA/MoU for Technology licensing and providing IPR assistance:
 - Supplementary Agreement signed with M/s Track Pack
 - Chandigarh University
 - Biju Patnaik University of Technology Rourkela Odisha
- NRDC in partnership with the U.S. Consulate Hyderabad successfully completed the second cohort of the Academy for Women Entrepreneurs (AWE) Program in Andhra Pradesh. Over 30 aspiring women entrepreneurs were empowered with the skills and resources needed to succeed in today's business world.
