

**No. DSIR/MS/2024/09**  
**Government of India**  
**Ministry of Science & Technology**  
**Department of Science & Industrial Research**

(Part-I Unclassified)

**Subject: MONTHLY SUMMARY FOR THE CABINET (For the month of September 2024)**

**Major achievements during the month of September 2024**

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

**New Products/Processes/ Technologies developed**

- **CSIR-CLRI**
  - Two Component Thermo insulating Handwear
  - Cellulose Based Leather Like Sheet
- **CSIR-CSMCRI**
  - Non-isocyanate based polyhydroxyurethane membrane
  - Sodium alginate-based immobilized bacterial consortium for removal of Polycyclic aromatic hydrocarbons (PAHs)
- **CSIR-IHBT**
  - Process technology for production of millet based value-added food products
- **CSIR-IIP**
  - Developed maleic and ohthalic anhydride derived polyesters for bitumen modification.
- **CSIR-NCL**
  - Developed Process for
    - Guanine (100 gm scale) (DST's Scheme for Key Starting Materials for import substitution in the Pharma industry)
    - Pt/C (Platinum on Carbon) catalyst for Fuel cell application was developed and reproduced multiple times at 10 gm scale. (DST's Fuel Cell program on component level indigenization)
- **CSIR-NML**
  - Development of Magneto impedance based array sensing device for detection of carburization and defective welds-MagRays

**Technologies licensed/transferred**

- **CSIR-CEERI**
  - Technology for AI-Enabled Ksheer Scanner" transferred to M/s KR Electronics Industries, Jaipur Rajasthan
  - Technology for Face Recognition Attendance System (FRAS) transferred to M/s Sushila Marbles (Laghu Udhog Bharti)
  - Technology for High-Intensity Light Source for Endoscopy Application transferred to M/s Divine Meditech Pvt Ltd, Uttar Pradesh.
- **CSIR-CFTRI**
  - Technology for Paan Flavoured Water transferred to M/s Brooklyn Beverages, 50, Andhra Pradesh
  - Technology for Instant Ravalldli Mix transferred to M/s Narasu's Saaraty Enterprises Private Limited, Salem
- **CSIR-CLRI**
  - Technology for Pseudo-corium, a leather like material transferred to M/s Avinya Leather Pvt Ltd, Gujarat

- Technology for Making cold resistant light weight leather transferred to M/s. Naser Tanning Company, Chennai
- Technology for Making extreme cold weather gloves transferred to M/s Naser Bali (Gloves) Pvt Ltd, Chennai
- **CSIR-CSIO**
  - Technology for UAV based Object Detection and Localization transferred to M/s L & T Ltd, Mumbai
- Technology for IoT enabled Air Quality Monitoring System (i-AQMS) transferred to M/s Global Lab and Consultancy Services LLP, Salem, Tamilnadu
- **CSIR-CSMCRI**
  - Technology for Hollow fiber ultra-filtration membranes for water purification and removal of pathogens transferred to Memtrix Technologies LLP, Ahmedabad
- **CSIR-IHBT**
  - Hydroponic Technology for plants (lettuce, spinach, kale, microgreens, basil, tomatoes) transferred to Himalayan Bliss, Palampur
  - Technology for making artifacts using dry flowers transferred to Pragati Social Development Initiative, Kolkata
- Technology on cold storage, grading, sorting, packaging and transportation of floriculture produce including Liliun and Tulip bulb production at large scale transferred to M/s Dhariti Agro Farms Pvt. Ltd. Uttarakhand
- **CSIR-IICT**
  - Technology for 2-Cl, 5-Cl-Methyl thiazole (CCMT) transferred to K KChempro India Private Limited, Mumbai
- **CSIR-NAL**
  - Technology for manufacturing and commercialization of Muticopter Drone transferred to M/s. KRR Aerospace Pvt Ltd, Chennai
- **CSIR-NBRI**
  - Technology for Shiv Bhabhut from temple used flowers transferred to M/s CHEMOL ORGANISYS, New Delhi
- **CSIR-CSMCRI**
  - Technology for Croma-3: Bioavailable Curcumin transferred to M/s Coromandel International Limited, Secunderabad
- **CSIR-NIIST**
  - Technology for manufacturing Leather alternative (Vegan Leather) from Vetiver and Napier Grass transferred to M/s Srivan Estates LLP, Nagpur.
  - Technology for manufacturing Leather alternative (Vegan Leather) from Wheat and rice waste transferred to M/s Greensapio Tech Pvt Ltd, Haryana
- **CSIR-NML**
  - Technology for self-healing coating and primer suitable for application on rusted steel transferred to M/s Asianol Biotech Pvt Ltd, Kolkata.

#### Number of New Projects initiated (01/09/24-30/09/24)

Lab/Institute	CSIR	Ministry/Govt./PSU	Industry/sponsored/ Pvt
CSIR-CDRI	Nil	01	Nil
CSIR-CECRI	01	01	01
CSIR-CFTRI	12	01	Nil
CSIR-CIMFR	01	07	15
CSIR- CLRI	Nil	04	01
CSIR- CMERI	Nil	02	Nil
CSIR- CRRRI	Nil	07	06
CSIR-CSIO	Nil	04	Nil
CSIR- IHBT	Nil	01	Nil

CSIR- IICB	01	Nil	Nil
CSIR- ICT	Nil	Nil	02
CSIR- IIIM	Nil	Nil	Nil
CSIR- IIP	Nil	Nil	05
CSIR-IITR	Nil	Nil	03
CSIR- NAL	Nil	04	Nil
CSIR-NBRI	Nil	02	Nil
CSIR- NEERI	Nil	Nil	01
CSIR- NEIST	Nil	01	Nil
CSIR- NGRI	Nil	Nil	03
CSIR-NIIST	Nil	02	02
CSIR-NIO	Nil	21	19
CSIR-NML	01	Nil	01

#### Number of Ph.D. scholars joined/ completed (01/09/24-30/09/24)

Lab/Institute	Completed
CSIR-CDRI	11
CSIR-CECRI	02
CSIR-CFTRI	02
CSIR-CLRI	01
CSIR-IGIB	02
CSIR- IHBT	02
CSIR- IICB	04
CSIR- ICT	07
CSIR-IITR	02
CSIR-NEERI	03
CSIR- NEIST	02
CSIR-NGRI	03
CSIR-NIO	01

#### National Collaborations/Agreements/MoUs Signed

- **CSIR-CDRI**
  - Sponsored Agreements signed with Arkn Enterprises Pvt Ltd, New Delhi for optimization and synthesis of Bis[3,4,6-trichloro-2-(pentyloxycarbonyl) phenyl] Oxalate (CPPO) and KSM-6: 3,4-Diamino-4-fluorobenzophenone
  - MoA signed with DBT, New Delhi for National Network Project of CSIR-CDRI
- Collaborative Research Agreement signed with Zydus Lifesciences Limited, Ahmedabad for Discovery and Development of Sclerostin-targeting molecules for disease-modifying Osteoporosis therapy
- **CSIR-CECRI**
  - Agreement signed with Vaighai Chemical Industries Limited, Karaikal for Consultation for optimization of fluid dynamics and other physical parameters in the self-lifting cells.
  - MoU signed with National Automotive Test Tracks, Madhya Pradesh for Research Collaboration in Battery Testing, Battery Chemistry
- **CSIR-CEERI**
  - MoU signed with M/s KH Exports India Pvt. Ltd., Chennai for Institutional Collaboration
- **CSIR-CFTRI**
  - MoU signed with Lapp India Private Limited, Bangalore to conduct a study and research on immune boosting food formulation for children and geriatric conditions

- **CSIR-CIMAP**
- A collaborate agreement signed with Centre for Cellular and Molecular Platform, Bangalore for botanical formulation from plant extracts and seed oil of *Triadicasebifera* (L.) small for the control of aphid, *Aphis craccivora* Kock
- **CSIR-CIMFR**
  - MoU signed with IIT, Hyderabad for R&D activities pertaining to mineral sector
- **CSIR-CLRI**
  - Signed Consortium agreement with Leather and Leather Products Industry Research and Development Centre (LLPIRC) towards collaboration in executing the project on "Green Tannery Initiative: Enzymatic Unhairing and Sustainable Solid Waste Utilization in Ethiopian Leather Sector".
- **CSIR-CMERI**
- MoU signed with Ranchi Municipal Corporation, Jharkhand for data collection, basis engineering etc.
- **CSIR-CRRI**
  - MoUs signed with
    - Indian Institute of Technology, Delhi (IIT-Delhi), Institute of Infrastructure Technology Research and Management (IITRAM), Ahmedabad, Maulana Azad National Institute of Technology (MANIT), Bhopal (M.P) & Indian Institute of Technology Patna, Bihar for Academic and research collaboration in the areas of mutual interest.
    - Urban Road Infrastructure Development Agency (URIDA), Uttar Pradesh to collaborate on the various fields of interest for knowledge-led development of Uttar Pradesh Urban infrastructure
    - A Project Based Agreement (PBA) signed with New Delhi Municipal Council (NDMC), New Delhi for Functional and Structural Evaluation of Roads, Construction Quality Supervision and Training of Engineers and Staff Members
- **CSIR-CSIO**
- MoU signed with IIT Bombay signed to cooperate among working groups on mutually agreed research problems
- **CSIR-CSMCRI**
  - MoUs signed with
    - Gujarat Life Sciences (P.) Ltd, Vadodara, Gujarat for BIRAC GAP.
    - Memtrix Technologies LLP, Ahmedabad for Hollow fiber ultra-filtration membranes for water purification and removal of pathogens.
- **CSIR-IHBT**
  - MoUs signed with
    - M/s Natural Biotech Products, Baggi, Mandi (H.P.) for joint collaboration in the areas of essential oils
    - Rural Technology and Development Centre Palampur (H.P.), for R&D Collaboration in the areas of medicinal and aromatic oils, essential oils, floriculture, tissue culture, food technology and other areas
- M/s Dhariti Agro Farms Pvt. Ltd. Uttarakhand to enhance the income of the farmers and crops transportation to the market place and minimum post-harvest losses with
- **CSIR-IICT**
  - MoUs signed with
    - ICMR-NIRT, Chennai to collaborate in Tuberculosis drug discovery from Synthetic and natural resources
    - IIT-BHU, Varanasi to establish a program of exchange and collaboration on related matters of mutual interest.
- **CSIR-IITR**
- MoU signed with KIIT Technology Business Incubator (KIIT TBI) Kalinga Institute of Industrial Technology (KIIT) University, Bhubaneswar for the development of a conducive ecosystem for promoting bio-entrepreneurship in Lucknow, Uttar Pradesh

- **CSIR-NEIST**
- MoU signed with Rabindra Nath Tagore University, Hojai for research academic collaboration
- **CSIR-NGRI**
  - MoU signed with NIGST (Survey of India) to explore collaboration in research and training in areas of mutual interest.
- MoA signed with Geological Survey of India (GSI) to carry out Ground Gravity and Magnetic studies in the parts of Kerala and Tamil Nadu regions for 2024-26
- **CSIR-NIIST**
  - Signed agreement with M/s East corridor consultants India pvt. ltd, Lucknow for Development of a technology for indigenous fibres based yarn for textile and sanitary wear application.

#### International Collaborations/Agreements/MoUs Signed

- **CSIR-CDRI**
  - MoU signed with IN COVID SUPPORT FZE LLC, United Arab Emirates for
    - Late pre-clinical development of anti malarial candidate S011-1793
    - Discovery and Development of novel small molecule Adiponectin Receptor Agonists as orally-available therapeutics against Skeletal Muscle Atrophy
- Identification of lead-optimized candidates for dengue
- **CSIR-NCL**
  - MOA signed with Pune Knowledge Cluster Foundation (PKCF) for Environmental surveillance for viral pathogens infecting dairy and poultry animals, supported by Bill and Melinda Gates Foundation

#### 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*
19	07	11	03	01	01	09	57
Number of Copyright Applications filed						03	
Number of Design Applications filed						01	
Number of Trademark Applications filed						03	

\* Data reported to IPU during September 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-CMERI**
  - RLA study of unit No1 MTPS, DVC
- **CSIR-CRRI**
  - Pavement Design of 130 m Road of Industrial Sector Ecotech-9 for GNIDA, U.P.
  - Mix Design of CGBM as wearing course & Technical advice on two roads of FDR executed on PMGSY roads in Kaushambi Uttar Pradesh for Rural Engineering Department U.P
  - Use of recycled plastic in DBM and BC mix design and technical advisory for implementation of waste plastic technology for Enviro Enables India Pvt. Ltd New- Delhi
  - Design of Job Mix for FDR for C&M of Tizit to Oting Road under PMGYS-III Batch-I for SK Nakhro & Sons

- Strengthening of main carriageway of 80 mm wide Road Kasana to Bhat Rotary for Greater Noida Industrial Development Authority U.P
- Investigation to assess causes of Rutting in some stretches (total length of approx. 60 km.) and to suggest remedial measures to improve riding of Bundelkhand Expressway for Uttar Pradesh Expressways Industrial Development Authority.
- Evaluation of 1Km of Service Road Constructed by using lignin as replacement of bitumen for Praj Industries Ltd., Pune
- Investigation to assess the causes of distress in Swaroopganj Pindwara Udaipur section of NH-27 from Km. 259 to Km. 264 and to suggest remedial measures for NHAI, Rajasthan.
- Structural Safety Audit of major Bridge over river Ganga River at Gegaso Village for Rae Bareilly-Banda Section of NH-232 at Km 194 +850 for NHAI, U.P.
- Performance Evaluation of Jaipur Bus Rapid Transport System (BRT) for Jaipur Development Authority.
- Development of Fiber Pellet for SMA Application for Ashita Renewables U.P.
- Technical/Quality Audit of Rigid Pavement in Package 2 of UER-II (NH-344M & NH-344N) and package 2 of Dwarka Expressway (NH-248BB) for NHAI, New-Delhi.
- **CSIR-IITR**
  - Testing and monitoring, preparation of environmental audit report for Parichha Thermal Power Project, Jhansi, Uttar Pradesh.
- **CSIR-NAL**
  - Bird material characterization study for high velocity impact – ADA
  - Static and dynamic characterization of AL BSL165, AL BSL168,GS249 & KEVLAR (08/333) - ADA
  - Aero elastic studies on a twin fin aircraft configuration using coupled CSD-CFD simulation - AR&DB
  - Experimental investigation and numerical simulation of warpage and spring in behaviour of hybrid carbon and glass epoxy composites - AR&DB
- **CSIR-NCL**
  - Supplied microbial strains and identification to industries and academia for R&D
- **CSIR-NEERI**
  - Assessment of EC Compliance for one projects, 11 projects of WCL namely Dhankasa UG, Nilljai OC, Penganga OC, Mungoli Nirguda extension Deep OC Bhatadi OC, Adasa UG to OC, Pauni II OC
- **CSIR-NGRI**
  - Preliminary geophysical surveys and examined Ratna Bhandar of Shree Jagannath temple, PURI Odisha with ASI
- **CSIR-NML**
  - Modelling and Simulation Analysis of Coking coal Washery under Coal India for CMPDI Ranchi

## Outreach Activities

- **CSIR-4PI**
  - Organised Open day on 26/09/2024.
- **CSIR-CECRI**
  - Organised Skill Development Training Programme on
    - Operation and Maintenance of Analytical Instruments during 02-06/09/2024; 40 Participants
    - Electroplating and Metal Finishing during 09-13/09/2024; 34 Participants
  - Organised Open day on 26/09/2024; 5258 participants.
- **CSIR-CEERI**
  - Organised lab visit PM Shri JNV Kajra, Jhunjhunu (Raj.) on 06,10,12-13/09/2024; 307 participants.

- Organised Open day on 26/09/2024; 420 participants.
- **CSIR-CFTRI**
  - Organised Quiz program on nutrition and nutraceutical on 03/09/2024; 60 participants
  - Organised Open day on 26/09/2024; 400 participants.
  - Organised Skill Development Training Programme on
    - Value addition to Banana during 02-04/09/2024; 20 participants.
    - Spices processing during 09-13/09/2024; 20 participants.
    - Grain process & products for health & wellness during 09-13/09/2024; 07 participants.
    - Hands on training in Microbial Analysis during 10-13/09/2024; 03 participants.
    - Extraction & Quality Assurance of Edible Fats and Oils during 18-20/09/2024; 23 participants.
    - Processing and value addition to tamarind during 23-25/09/2024; 44 participants.
- **CSIR-CGCRI**
  - Organised Skill Development Training Programme on
    - Terracotta processing during 12-13/09/2024; 36 participants.
    - Instrumental Methods of Characterization & Classical Analysis of Glass, Ceramics & Allied Samples 12-13/09/2024; 27 participants.
  - Organised workshop on chemical analysis of glass ceramics and water samples on 18/09/2024; 26 participants.
  - Organised student-scientist connect program on 26/09/2024; 153 participants.
- **CSIR-CIMAP**
  - Organised Skill Development Training Programme on
    - Utilization of Offered Flowers for Making Incense Sticks and Fragrant cones at KVK-II, Hardoi (UP) on 03/09/2024; 30 participants.
    - Preclinical development of Medicinal & Aromatic Plants based leads on 23-27/09/2024; 27 participants.
- **CSIR-CIMFR**
  - Organised a "One Health" campaign on vital links between human, animal, and environmental health at
    - Utkramit Uchh Vidyalaya, Dhanbad, on 23/09/2024; 56 participants.
    - Eklavaya Madhyamik Vidyalaya, Sohraj, Dhanbad, on 23/09/2024; 63 participants.
    - Kasturba Gandhi Balika Vidyalaya, Dhanbad, on 20/09/2024; 52 participants
  - Organised training program on Data Science, AI/ ML during 03-05/09/2024; 20 participants.
- **CSIR-CLRI**
  - Organised lab visit for
    - Kendriya Vidyalaya, CRPF Avadi, Chennai on 11/09/2024; 50 participants.
    - VIT Bhopal, Madhya Pradesh on 20/09/2024; 150 participants.
    - Theivanaiammal College for Women, and Lakshmi Bangaru Arts and Science College, Tamil Nadu on 23/09/2024; 183 participants.
    - Greenfield Chennai International School, D.K.M. College for Women, Hindu College, PERI College of Arts and Science, and As an Memorial College of Arts & Science on 24/09/2024; 309 participants.
  - Participated in the Chennai Science Festival on 24-26/09/2024 at B M Birla Planetarium, Chennai.
  - Organised Open day on 26/09/2024; 775 participants.
- **CSIR-CMERI**
  - Organised Skill Development Training Programme on
    - Scientific Instrument Usage for Performance Evaluation of Agricultural Machinery and Implements during 02-27/09/2024.
    - Design and Manufacturing of Small Wind Turbines for Empowering Rural India during 17-21/09/2024.

- Solar Energy & Its Application on 09,10,11&13/09/2024; 392, 468, 297 & 220 participants respectively.
  - Organised lab visit for
    - All India Council for Technical Education Training and Learning-Faculty Development Programme on 27/09/2024.
    - Army Public School Panagarh, West Bengal on 30/09/24; 100 participants.
- **CSIR-CRRI**
  - Organised lab visit for
    - Kendriya Vidyalayas on 06 & 30/09/2024; 513 participants.
    - Aravali College of Engineering & Management, Faridabad, and CSE Department, Raj Kumar Goel Institute of Technology, Ghaziabad; 120 participants.
- **CSIR-CSIO**
  - Organised Skill Development Training Programme on
    - Spectroscopy and Chromatography Techniques during 02-06/09/2024; 26 Participants.
    - Industrial Automation Techniques; 34 Participants.
    - Drone Technologies and Applications during 09-10/09/2024; 59 Participants.
    - Transitional Research in Medical 3-D Printing
- **CSIR-CSMCRI**
  - Organised School visit on 26/09/2024; 479 participants.
  - Organised trainings on seaweed cultivation during 11-13/09/2024 & 18-20/09/2024; 28 & 37 participants respectively.
- **CSIR-IHBT**
  - Organised training on agro and process technology of aromatic crops in association with the Institute of Natural Resources (INR), Shillong, Meghalaya during 03-04/09/2024; 40 participants.
  - Organised lab visit for DY Patil International School, Kangra (H.P.) on 17/09/2024; 28 participants.
  - Organised Skill Development Training Programme on Plant Tissue Culture Technician during 17/09/2024-11/11/2024, 02 participants
- **CSIR-IICB**
  - Organised Open day on 26/09/2024.
  - Organised Skill Development Training Programme on various specialized scientific techniques during 02-13/09/2024; 91 participants.
  - Organised training programme on POSH Awareness and Central Civil Service (Conduct) on 20-21/09/2024.
- **CSIR-IICT**
  - Organised Skill Development Course (ASDC)-2024, sponsored by the Organization for the Prohibition of Chemical Weapons (OPCW), Netherlands during 02-13/09/2024; 20 participants from different countries.
- **CSIR-IIP**
  - Organised lab visit for
    - The Sapience School, Herbertpur, Dehradun on 26/09/2024.
    - DIT, Dehradun on 05/03/2024; 20 participants.
  - Organised Skill Development Training Programme on Analysis using Chromatography and Mass-spectrometry during 17-27/09/2024.
  - Participated at the National Conference on “Catalysis for Energy, Environment & Sustainability (CEES-2024) held at IICT, Hyderabad during 18-20/09/2024.
  - Participated CSIR Thematic Exhibition NASC Convention Centre, Pusa, New Delhi on 26/09/2024 and National Science Centre, New Delhi on 27–29/09/2024
- **CSIR-IITR**
  - Organised programme on Hands-on science and innovation during 04-06/09/2024; 1700 participants.
- **CSIR-NBRI**



- Organised Open day on 26/09/2024; 1200 participants.
- Organised Skill Development Training Programme Organic Farming during 11-13/09/2024; 21 participants.
- **CSIR-NEERI**
  - Organised Skill Development Training Programme on
    - Energy, Environment & Resources: Monitoring, Control and Management Options during 03-04/09/2024.
    - Microbial Diversity Assessment through Amplicon Data Analysis during 10-12/09/2024.
    - Efficient Operation, Maintenance, Performance and Design of Waste Water Treatment Plants during 24-26/09/2024.
- **CSIR-NEIST**
  - Organised student-scientist connect program on 01/09/2024 & 20/09/2024; 80 & 24 participants respectively.
- **CSIR-NGRI**
  - Organised Open day on 26/09/2024; 1200 participants.
- **CSIR-NIIST**
  - Organised Skill Development Training Programme on
    - Remote Sensing and Geographic Information System Applications in Environmental Impact Assessment and Management during 23-27/09/2024.
    - Application of AI in Advanced Bio processing on 27/09/2024.
- **CSIR-NML**
  - Organised Skill Development Training Programme on
    - Mineral Characterization and Beneficiation during 06/08/2024-26/09/2024; 12 participants.
    - Materials Engineering during 26/08/2024-26/09/2024; 12 participants.
    - Metal Extraction & Recycling during 26/08/2024-26/09/2024; 13 participants.
    - Advance Material & Corrosion during 26/08/2024-26/09/2024; 12 participants.
    - Exposure training on Materials & Metallurgical process on 02-11/09/2024; 50 & 47 Participants respectively.
  - Organised lab visit for St. Mary's English High School on 26/09/2024; 151 participants.
- **CSIR-NIO**
  - Conducted Long Hydrography (Long 'H') Specialization Course for naval officers from Indian Ocean Countries during 17/09/2024-01/10/2024.

## Conferences, Workshops, Major Events

- **CSIR Headquarters**
  - CSIR participated in
    - The 8th India Water Week at Pragati Maidan, New Delhi during 17-20/09/2024.
    - The World Food India (WFI) 2024 at Bharat Mandapam, New Delhi during 19-22/09/2024.
    - The India Bio-Energy & Tech Expo at Yashobhoomi- India International Convention & Expo Centre, Dwarka, Delhi during 02-04/09/2024.
    - The MET & HTS international conferences & Exhibitions at Bombay Exhibition Centre, Mumbai during 04-06/09/2024.
    - The CSIR Thematic Exhibition at NASC Complex, Pusa Road, New Delhi on 26/09/2024.
    - The CSIR One Week One Theme Exhibition at National Science Centre, New Delhi on 27-09/09/2024.
    - Organised Lecture on Germs Gone Rogue: Understanding Anti-Microbial Resistance by Dr Vinay K. Nandicoori Director, CSIR-CCMB, Hyderabad at National Science Centre, Delhi on 27/09/2024.

- Organised Lecture on 'Cyber Security' & 'Data Protection & Data Privacy' by Shri R.S. Mani Distinguished Scientist (ICT), CSIR Hqrs on 18/09/2024 & 20/09/2024 respectively.
- **CSIR-4PI**
  - Organised 'Swachhata Hi Seva' Campaign during 14/09/2024-02/10/2024.
  - Organised webinar series on Seismic Sounds in the Sky: Detecting Earthquakes and Tsunamis via Ionospheric Anomalies on YouTube.
  - Organised Hindi Week 2024
- **CSIR-CEERI**
  - Organised an Industry Meet with Laghu Udyog Bharti & MSME Delegates on 17/09/2024.
- **CSIR-CIMFR**
  - Organised Hindi Week 2024 during 02-09/09/2024.
- **CSIR-CLRI**
  - Organised OWOT-CIE (Civil Infrastructure and Engineering) Theme campaign on 04/09/2024.
- **CSIR-CRRI**
  - Organised OWOT-CIE (Civil Infrastructure and Engineering) Theme campaign on 02-06/09/2024.
  - Organised workshop on Network Survey Vehicle Applications for Maintenance of Road Infrastructure (NSV-AMRI-2024) on 23/09/2024.
- **CSIR-CSMCRI**
  - Organised Webinar on Intellectual Property Rights: Overview and Importance on 20/09/2024
- **CSIR-IGIB**
  - Organised Open day on 30/09/2024.
  - Celebrated AcSIR-IGIB Science Festival on 20/09/2024.
  - Celebrated 83rdCSIRFoundation Day on 26/09/2024.
- **CSIR-IHBT**
  - Organised a one-day Farmer Orientation Workshop and Seed Distribution Program on 13/09/2024; 60 participants.
  - Organised Sustainable Aroma Farming: Industry, Farmer & Academia Meet; 100 participants.
  - Organised lecture on Sustaining the Himalayas: Innovations and Pathways for a Resilient Future by Dr. Lal Singh, Director, Himalayan Research Group (HRG), Shimla on Himalaya Day (09/09/2024).
  - Organised Webinar on Building ADR Reporting Culture for Patient Safety on National Pharma covigilance Week (18/09/2024).
  - Organised Tree Plantation drive named 'Ek Ped Maa Ke Naam' on 18/09/2024 & 'Swachhata Hi Seva' Campaign during 19/09/2024.
  - Organised Student Seminar Series on Science, Society, and Sustainability to celebrate Teacher's Day on 05/09/2024.
- **CSIR-IICB**
  - Organised Workshop on Genome Informatics and Annotation Workshop/Jamboree 2024 during 23-28/09/2024.
  - Celebrated 83rd CSIR Foundation Day on 30/09/2024
  - Organised colloquium research talk by Prof. S. Naarajan from IISC, Bangalore on 27/09/2024.
  - Organised Hindi Pakhwara during 24-27/09/2024.
  - Organised 'Swachhata Hi Seva' Campaign during 14/09/2024-01/10/2024.
- **CSIR-IICT**
  - Participated in OWOT-CLP (Chemicals (including leather) and Petrochemicals). at Gujarat Science City (GSC) on 28/09/2024.
- **CSIR-IITR**

- Organised workshop on Comet Assay 06/09/2024.
- **CSIR-NAL**
  - World Rabies Day on 26.9.2024
  - Celebrated 83rd CSIR Foundation Day on 30/09/2024.
- **CSIR-NEIST**
  - Organised Hindi Saptah during 14-23/09/2024.
  - Organised Tree Plantation drive named 'Ek Ped Maa Ke Naam' on 21/09/2024
- **CSIR-NIIST**
  - Organised Webinar on Application of Artificial Intelligence in Advanced Bio processing on 27/09/2024

### Visit of high level dignitaries

- **CSIR-CLRI**
  - Indo-German Science & Technology Centre (IGSTC) delegation led by Mr. R. Madhan, Director, IGSTC and Ms. Kathrin Meyer, Head of Division "Cooperation with Asia and Oceania", German Federal Ministry of Education and Research (BMBF) visited on 13/09/2024 to overview Global scenario and shaping up the Indian leather sector.
- **CSIR-CRRI**
  - Shri Dharmananda Sarangi, DG (RD) & SS, Ministry of Road Transport & Highways, Government of India, on 83rd CSIR Foundation Day function on 30/09/2024.
- **CSIR-IICT**
  - Ms. Indra Mallo, IAS Joint Secretary and Head of Department of the National Authority for Chemical Weapons Convention, New Delhi, & Shri Mukhmeet Singh Bhatia, IAS, Chairperson of the National Authority for Chemical Weapons Convention (NACWC) visited for the Analytical Skill Development Course (ASDC)-2024 course inaugural & Valedictory on 02/09/2024 & 13/09/2024 respectively, as the Chief Guest.
- **CSIR-IIP**
  - Hon'ble Vice-President of India, Shri Jagdeep Dhankhar, accompanied by his Spouse, Dr. (Smt) Sudesh Dhankhar and Hon'ble Governor Uttarakhand, Lt. General (Retd.) Gurmit Singh on 31/08/2024.
- **CSIR-IITR**
  - Padma Shri Dr Vidya Vindu Singh, Dr Ravi Kumar Singh, IFS, Conservator of Forest (Varanasi, Uttar Pradesh) visited on 27/09/2024.

### Honours/ Awards

- **CSIR-CECRI**
  - Awarded Citation in recognition of its outstanding innovation, dedication and contribution towards energy conservation and promoting energy efficiency amongst all CSIR Labs.
  - Dr. Rajasekaran received the N.M. Sampat Award for 2024.
  - Dr. Rakesh Barik received the Shri S.K. Seshadri Memorial Mascot National Award for 2024 by ECSI.
- **CSIR-CEERI**
  - Mr. Chirag Prakash chandra Mistry, Senior Scientist, CSIR-CEERI, Pilani, Rajasthan has been awarded the prestigious 'IEI Young Engineers Award 2024-25' 18/09/2024
- **CSIR-CSMCRI**
  - Awarded Citation in recognition of outstanding innovation, dedication, and contribution towards energy conservation and promoting energy efficiency amongst all CSIR Labs.
  - Awarded the Rajbhasha Kirti Puraskar for 2023-24 for the best implementation of the Official Language Policy. Director Dr. Kannan Srinivasan received the award at the Hindi Diwas program at Bharat Mandapam, New Delhi on 14/09/2024.
- **CSIR-IICT**

- Dr. Vineet Aniya, Senior Scientist, Chemical Engineering and Process Technology (CE&PT) Department, has been selected as an Indian National Academy of Engineering INAE Young Associate for the year 2024 in the Chemical Engineering field.
- **CSIR-NBRI**
  - Dr. Ajit Kumar Shasany, Director has been elected for INSA Fellowship (FNA)

## **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**

- 16 in-house R&D units of industries were granted Recognition and 16 were granted Registration certificates
- 57 in-house R&D units of industries were granted renewal of Recognition and 57 were granted renewal of Registration certificates.

#### **Public Funded Research Institutions (PFRI)**

- 32 PFRI's were granted Renewal of Registration Certificates

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

- 9 in-house R&D units of industries were granted Approval and 3 in-house R&D units of industries were granted Extension of Approval in Form 3 CM u/s 35(2AB) of IT Act 1961.
- 12 Reports in Form 3 CL certifying R&D expenditures of Rs 1867.94 Crores were issued to CCIT (E) for benefits u/s 35(2AB) of IT Act 1961.

**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 innovation projects on “Development of polymeric micro needle device for the targeted delivery of therapeutics to the posterior segment of eye” and “A pain-free affordable and self-use glucometer for accurate measurement of glucose from saliva used for testing blood glucose levels” were reviewed during the period.

#### **CRTDH Scheme:**

The on-going CRTDH Projects being undertaken by CSIR-National Chemical Laboratory, Pune, IIT-Bhilai, IIT-Kharagpur & NIPER-Mohali were reviewed during the month. The Implementing agencies are working on New Material /Chemical Process and Affordable Healthcare areas.

#### **A2K+ Studies Scheme:**

DSIR along with FITT, IIT Delhi organized a “A2K+ Knowledge Integration Meet’ on 19 September, 2024 at Research & Innovation Park, IIT Delhi. Four studies on "Techno-commercial assessment of TRL-6 and above technologies developed in India in academia, research labs, and industry" featuring over 500 TRL 6+ technologies across 4 technology domains- Food Processing and Agriculture; Materials and Manufacturing; Electronics, telecommunication and Manufacturing; Healthcare, Chemical and Pharmaceutical were unveiled during the event. These studies highlights the commercialization challenges, policy roadmap with actionable strategies to boost innovation and economic growth through technology commercialization.

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

The following three TDUPW Projects were reviewed during the month:

- i. “Promoting opportunities for Women Empowerment Rejoicing through Traditional Arts/Crafts for Women in Varanasi District” project undertaken by Sai Institute of Rural Development, Varanasi.
- ii. "Recycling for Conservation of Environment" project, undertaken by the Birla Institute of Technology and Science, Pilani.
- iii. "Skill Satellite Centre" project, undertaken by the PSGR Krishnammal College for Women Peelamedu, Coimbatore.

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

#### **Asia Pacific Centre for Technology Transfer (APCTT)**

DSIR and APCTT jointly organized the “Technology and Innovation Conclave 1.0” from 24<sup>th</sup> to 26<sup>th</sup> September 2024 in National Agricultural Science Complex (NASC), New Delhi. The Conclave envisaged in-depth discussion of potential & innovative technologies related to energy storage and green hydrogen in the Asia-Pacific region and shared knowledge, good practices and lessons on

the developments, challenges and opportunities for the countries. It also provided a platform for start-ups and young innovators from Member States in the Asia-Pacific region including India to showcase their innovative technologies in the field of energy storage and green hydrogen with an objective to foster cross-border innovations, technology cooperation and transfer.

The themes of the conclave were aligned with the vision of our Hon'ble Prime Minister and Government of India's policy on Energy storage and Green Hydrogen production. The conclave created an opportunity to share knowledge and innovation developed in the Asia- Pacific region.

The Conclave was inaugurated Dr. N. Kalaiselvi, Secretary, DSIR and DG, CSIR and keynote address was given by Dr. Himanshu Pathak, Secretary, DARE and DG, ICAR.

The conclave was attended by 20 international participants from about 10 countries, which comprised of one policymaker and one innovator from each participating country. The innovators from 10 countries and India showcased their innovations in the Exhibition.

### **Swachhta Hi Seva Campaign**

To take on the Government of India vision of Swachh Bharat, DSIR along with CSIR, NRDC and CEL launched Swachhta Hi Seva Campaign 2024 from 17<sup>th</sup> September, 2024 to 2<sup>nd</sup> October, 2024. The Campaign activities included organizing "Safai Mitra Suraksha Shivar", lectures at joining school/colleges, campus cleanliness, awareness campaign in community-swacchta samvad and plantation in and out office premises.

### **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. 2117.30 lakhs during the month of September.
- Sale of electronic components/systems/SPV products worth Rs. 2446.76 lakhs was realized during the month of September.

#### **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 technology on “ Engineered FnCas 9 for modifying genetic material (CRISPER) to two companies namely M/s East Ocyon Bio Pvt. Ltd. and M/s Crisprbits Pvt. Ltd.
- The Corporation signed MoA/MoUs with following agencies for Technology licensing and providing IPR assistance:
  - Odisha Assembly of Small and Medium Enterprises (OASME)
  - BSPL for PM AwasYojna
  - National Cooperative Consumer Federation of India
  - Sant Longowal Institute of Engineering and Technology
  - Clean Green Bio Systems
  - Innaumation Medical Devices Pvt. Ltd
  - SMPS Electric Control Pvt Ltd, Odisha
- NRDC received the Shield Award for the scientific journal “Awishkar” in the 13th Half Yearly Meeting and Award Distribution Program organized by the Department of Official Language, Ministry of Home Affairs.
- The corporation collected a premium of Rs 40 Lakhs towards licensing of technologies to industries during the month.

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