

No. DSIR/MS/2024/10
Government of India
Ministry of Science & Technology
Department of Science & Industrial Research

(Part-I Unclassified)

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

Major achievements during the month of October 2024

Council of Scientific & Industrial Research (CSIR)

New Products/Processes/ Technologies developed

- **CSIR-CLRI**
 - Struvite Composites from the combined waste streams of Tannery, RO reject /sea water and slaughterhouse wastes/anaerobic digestate
- **CSIR-CRRI**
 - Ready to Use Pothole Mix using Iron and Steel Slag Aggregates
- **CSIR-IGIB**
 - Impedance-based Liquid Biopsy System and Method for Detecting and Screening Cancer.
- **CSIR-IIP**
 - CO₂ reduction to CH₄ coupled with the oxidation of alcohols to aldehydes using a copper MOF catalyst under light
- **CSIR-NEIST**
 - Discovered New plant species Begonia Neisti in Dibang Valley, Arunachal Pradesh
- **CSIR-NIIST**
 - Cardanol polyol modified PU dispersions.
 - Polyurethane polyols from Cardanol
 - Extraction of critical materials through solvent extraction and nano filtration techniques from Titanium industry spent acids
 - Vegan butter
 - Dehydrated fruit rolls and bites
 - Instant vegan tea
 - Vegan cheese (cheddar, mozzarella, and feta cheese)
 - Ashgourd based products as functional foods: instant drink powder and instant soup mix

Technologies licensed/transferred

- **CSIR-CECRI**
 - Technology for Cement Polymer Composite Coatings (CPCC) transferred to M/s. Protect Anti Corrosive, Mumbai on 09/10/24.
- **CSIR-CFTRI**
 - Technology for Instant gravy mixes (dehydrated) transferred to - M/s Omkara Traders, Tamil Nadu
 - Technology for Multigrain Pizza Base transferred to M/s Millet Pizza Treat Food Co, Erode

- **CSIR-CLRI**
 - Technology for blended yarns from leather waste along with natural and man-made fibers transferred to M/s. KH Exports India Private Limited, Chennai, on 08/10/24.
- **CSIR-CMERI**
 - Technology for Fluoride Removal, Arsenic Removal & Iron Removal to Harambh Chemicals (P) Ltd., Varanasi, UP on 28/10/24.
- **CSIR-CRRI**
 - Technology for Ready to Use Pot Hole Repair Bituminous Mix for Quick Repair of Pot Holes using Iron and Steel Slag transferred to M/s Ramuka Global Services LLP, Surat, Gujarat on 18/10/24.
- **CSIR-IHBT**
 - Technology for Brahmi and Jatamansi production under aeroponics system transferred to Satvik Agritech Private Limited, Surat Gujraton 17/10/24.
 - CSIR-NIIST
 - Technology for manufacturing Leather alternative (Vegan Leather) from paddy straw transferred to M/s Vivartan Bio Leathers Bahadurgarh, Haryana.
 - Technology for manufacturing Leather alternative (Vegan Leather) from ground nut shell and corn husk transferred to M/s Leafy Leather Private Limited, Surat, Gujarat.
 - Technology for manufacturing single-use biodegradable tableware from Rice husk transferred to M/s Ecosure Pulp molding Technologies Ltd, Gr. Noida, UP.
 - Peanut Shell by Elika Suhrd Cutlery LLP. Porbandar, Gujarat.
 - Technology for wastewater treatment facility (NOWA) transferred to Enadu cooperative society & Foabs solutions Pvt Ltd.
- **CSIR-NML**
 - Technology for Magneto impedance based array sensing device for detection of carburization & defective welds-MagRays transferred to Accelor Microsystems, Mohali.

Number of New Projects initiated (01/10/24-31/10/24)

Lab/Institute	CSIR	Ministry/Govt./PSU	Industry/sponsored/ Pvt
CSIR-CDRI	Nil	Nil	06
CSIR-CECRI	Nil	Nil	02
CSIR-CEERI	Nil	01	Nil
CSIR-CFTRI	11	01	02
CSIR- CIMFR	Nil	01	07
CSIR- CLRI	Nil	02	03
CSIR- CMERI	Nil	03	Nil
CSIR-CRRI	Nil	09	04
CSIR- IHBT	Nil	02	Nil
CSIR- IICB	Nil	01	Nil
CSIR- IICT	Nil	Nil	07
CSIR- IIIM	01	Nil	Nil
CSIR- IIP	Nil	Nil	01
CSIR-IITR	Nil	Nil	04
CSIR- IMMT	07	Nil	Nil
CSIR-NAL	Nil	Nil	02
CSIR- NEERI	Nil	02	01

CSIR- NGRI	Nil	01	Nil
CSIR- NIIIST	Nil	Nil	02
CSIR- NIO	Nil	21	19
CSIR- NML	03	03	01
CSIR- SERC	Nil	04	07

Number of Ph.D. scholars joined/ completed (01/10/24-31/10/24)

Lab/Institute	Completed
CSIR-CDRI	01
CSIR-CECRI	02
CSIR-CEERI	01
CSIR-CFTRI	04
CSIR-CGCRI	01
CSIR- CMERI	01
CSIR- IGIB	01
CSIR- IICB	05
CSIR-IICT	02
CSIR-IIIM	03
CSIR- IITR	03
CSIR-NEERI	03
CSIR-NEIST	03
CSIR-NGRI	01
CSIR-NIIIST	04
CSIR-NPL	03

National Collaborations/Agreements/MoUs Signed

- **CSIR-CBRI**
 - MoA signed with M/s Pranav Plastic Product, Vadodara, Gujarat for Performance of Termi Pore reticulate pipe system to install for pre and post anti termite treatment in buildings on 11/10/24.
 - MoUs signed with
 - Ministry of Rural Development to digitize region based housing typologies across India on 29/10/24.
 - Indo Tibetan Border Police, Delhi (Ministry of Home Affairs) for collaborative works under the area of Climate Resilient Building construction on 24/10/2024.
- **CSIR-CDRI**
 - MoU signed with International Centre for Genetic Engineering and Biotechnology, New Delhi to explore other avenues for possible collaboration on 24/10/2024.

- **CSIR-CECRI**
 - Signed Agreements with M/s. Protect Anti Corrosive, Mumbai for Cement Polymer Composite Coatings (CPCC)
 - CSIR-CEERI
 - MoU signed with ICAR-CIAH (Central Institute for Arid Horticulture), Bikaner, Rajasthan for Institutional Collaboration on 27/10/24.
- **CSIR-CFTRI**
 - MoUs signed with
 - Koneru Lakshmaiah Deemed to be University, Vaddeswaram, Guntur Distt, Andhra Pradesh for collaborations between both institutions in meeting emerging scientific and technological challenges of the society on 03/10/2024.
 - All India Institute of Ayurveda, New Delhi to establish co-operation between both the institutes on 15/10/24.
 - Nestle R & D Centre India Pvt. Ltd. for promoting industry- academia linkage on 22/10/24.
- **CSIR-CIMFR**
 - MoA signed with Department of Biotechnology, New Delhi for Graphene-reinforced silk protein based bioplastics for sustainable packaging applications on 10/10/2024.
- **CSIR-CMERI**
 - MoUs signed with
 - Shoranur Agricultural Implements Consortium, & Jawaharlal College of Engineering and Technology, for Technical assistance towards up-gradation or value addition in the manufacturing set-up/ layout in various production stages of SAICO on 04/10/24.
 - M/s PK Thakur & Co. Pvt. Ltd., Paschim Bardhaman on for General Layout drawing, installation, operation and maintenance for 15 TPD Pilot Plant at Coke Dust Pellet Plant at IISCO Steel Plant, Burnpur on 05/10/24.
- **CSIR-CRRI**
 - MoUs signed with
 - Indian Institute of Technology (Indian School of Mines), Dhanbad & Anna University, Chennai (AUC) for academic and research collaboration in the areas of mutual interest on 03/10/24 & 28/10/24 respectively.
 - Construction Industry Development Council (CIDC), New Delhi for technical collaboration in the areas of mutual interest on 17/10/2024.
- **CSIR-IHBT**
 - MoUs signed with
 - Deen Dayal Upadhyay University Gorakhpur Institute of Natural (INR) Resources, Meghalaya for R&D and academic collaboration on 17/10/24.
 - Parteek True Herbals Ajitwal, Moga, Punjab for strategic partnership in the field of electro homeopathy for the purpose of the welfare of the society on 28/10/24.
 - CSIR-IICB
 - MoU signed with IISER Bhopal for R&D and academic collaboration on 29/10/24.
 - CSIR-IICT
 - MoU signed with Andhra Loyola College, Vijayawada for R&D and academic collaboration on 03/10/24.
 - CSIR-IIIM
 - MoU signed with HAPICO industries to foster product development.
 - CSIR-IIP
 - MoUs signed with

- National Institute of Technology Hamirpur for academic collaboration.
 - Bharat Petroleum Corporation Limited, Mumbai for Pilot Plant facility for Hydro processing of diesel oil.
 - Madan Mohan Malaviya Engineering College, Gorakhpur academic collaboration.
- **CSIR-IITR**
 - MoA signed with M/s Humany Eco Innovations Pvt. Ltd. Lucknow U.P. & M/s Biotox Solution Private Limited, Kanpur for jointly perform R&D activities on 07/10/24.
 - **CSIR-NAL**
 - MoU signed with Bharat Electronics Limited (BEL), Bengaluru to establish Strategic Co-operation.
 - **CSIR-NCL**
 - MoAs signed with
 - BAIF Development Research Foundation for Development of Biocher Based Biodegradable Hydrogel for Water Saving and Soil Health Improvement.
 - Arvind Vithal Gandhi Foundation to develop approaches for Decarbonization of Indian Chemical Industry.
 - Asian Paints Limited for Stimuli Responsive Polymers for Surface Coating Applications
 - Azeocryst Organics Private Limited for continuous Flow Grignard Reagent Synthesis
 - NTPC for direct sea-water electrolysis by Electrolyte Engineering
 - MoU signed with Punyashlok Ahilyadevi Holkar Solapur University, Solapur (PAHSUS) for collaborative R&D activities.
 - CSIR-NEERI
 - MoU signed with Chandrapur Forest Academy of Administration and Management for collaborative R&D activities.
 - MoA signed with Kochi Municipal Corporation (KMC) for Technical Audit of Legacy wastes Processing operations and Characterization of samples at Brahmapuram dumpsite.
 - CSIR-NEIST
 - MoU signed with Indian Institute of Geomagnetism, Mumbai for research academic collaboration on 18/10/24.
 - **CSIR-NIIST**
 - MoUs signed with
 - M/s Karunya Institute of Technology (KITS), Coimbatore for mutual research and academic collaboration.
 - Vikram Sarabhai Space Centre (VSSC), Thiruvananthapuram for the development of ultra low thermal conducting ceramic composite tiles.
 - Sree Chitra Tirunal Institute for Medical Sciences and Technology (SCTIMST), Thiruvananthapuram for collaborative research.
 - M/s Bio Vastum Solutions Pvt. Ltd, Ernakulam for Biomedical waste conversion rig and recyclable biomedical waste rig.
 - Science and Technology Park, University of Pune, to undertake scientific and technical research.
 - Agreement signed with M/s PA Footwear Private Limited, Chennai to for sponsored research on project, Development of hard composites from leather industry scoring dust
 - CSIR-NPL
 - MoU signed with Central Manufacturing Technology Institute, Bangalore, for jointly work on R&D on 18/10/24.

International Collaborations/Agreements/MoUs Signed

- **CSIR-CEERI**

- MoU signed withwith ACST GmbH, Josef-Bautz-StraBe 15, Germanyfor Institutional Collaboration for Terahertz Technologies on 05/10/24.

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*
15	15	19	05	04	04	09	74
Number of Copyright Applications filed						01	
Number of Design Applications filed						Nil	
Number of Trademark Applications filed						04	

* Data reported to IPU during October 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-CDRI**

- Provided 146 experimental to outside research organizations for research purposes.
- Provided service for analysis of 441 samples by IR (Infrared), Mass, NMR (Nuclear Magnetic Resonance) and EM (Electron Microscopy)

- **CSIR-CRRI**

- Investigation Design and Guidance of Remedial Measures of RE walls along Six Lane Carriageway near Rau Circle at KM 12+600, Indore, MP for NHAI, Madhya Pradesh
- Evaluation of Gurgaon-Kotputli Jaipur Section of NH-48 from Km 42.700 to Km 107.100 (RHS) in the state of Haryana for NHAI, Haryana
- Axle Load Survey for Varanasi Ring Road (Phase-II, PKG-1), design chainage km 0.0 to km 16.40 in the state of Uttar Pradesh under NHDP Phase-VII on EPC mode for NHAI, Varanasi
- Structural safety Audit of
- 110 M span T- beam Bridge over river Kailash at old NH-125 Sitraganj, Sisaikheda marg for PWD, Uttarakhand
- Elevated Portion of the Six lane Access Controlled Expressway Starting from Delhi/UP Border to EPE Junction *ch. 14.750 to ch.31.600) in the State of Uttar Pradesh/NCR being developed on EPC mode under Economic Corridor in Pahse-1 of Bharatmala Pariyojana for NHAI
- Intersections, minor bridges and underpasses at different locations of Yamuna Expressway (from Greater Noida to Agra, 170 Km approx.) in Uttar Pradesh for Jaypee Infratech Ltd.
- Structural Evaluation of
- Airfield Pavement Network of Aizawl Airport using Heavy Weight Deflectometer for PWD, Mizoram

- LCR/MIF Value of CTMPG504 biaxial geogrid for CTM Technical Textiles Ltd.
- Characteristic Analysis of different properties of concrete by using Crystalline Waterproofing Admixture "Sika control-200 WTPIN" used as Bridge deck waterproofing for Sika India Pvt. Ltd.
- Bituminous concrete mix design using RAP for Anandapuram- Visakhapatnam- ANKAPALLI section from Km 689 + 980 to 741 + 256 and Ranasthalam Town Protian from Km 360+120 to 634+120 of NH-16 in the State of Andhra Pradesh for NHAI, Visakhapatnam
- Proof checking of Design of 3- cell PSC box girder superstructure for AJAY Engi. Infrastructure Pvt. Ltd. Gujarat
- CSIR-IIP
- Deoiling Experiments under various operating conditions on New feeds from CPCL Chennai Refinery Wax Plant, for Engineers India Limited New Delhi
- CSIR-IITR
- Toxicity studies of HP Spray oil for HPCL, Chandigarh.
- **CSIR-NAL**
 - Testing and generation of design data for compact heat exchangers using VCRS test facility for AMCA (08/335) – ADA, DRDO
 - Certification of indigenous PREPREG for 175-degree cure toughened EPOXY/UD carbon fiber, Funding Agency- ADA, DRDO
- **CSIR-NEERI**
 - Inspection of 207 Grossly Polluting Industries (GPIs) in River Ganga and Yamuna Basin
- **CSIR-NML**
 - Up-scaling of process for production of Electrolytic Mn Metal from MOIL MnSO₄ solution for MOIL Ltd.
 - Metallurgical Failure analysis of SS sheet used in 2.8 MW Permanent Magnet Synchronous Wind Mill Turbine Generator for M/s. Rajaguru Spinning Mills P Ltd.\
 - CSIR-SERC
 - Compliance audit for ash disposal at Mettur Thermal power station.
 - Static & fatigue studies on precast plinth used in railway track system for M/s L & T construction Ltd. Faridabad.

Outreach Activities

- **CSIR Hqrs**
 - Organised Training Program on Ethics in Governance and Cyber Hygiene, 17-18/10/24.
- **CSIR-4PI**
 - Conducted a Python Programming Workshop during 04-10/10/24; 38 participants.
- **CSIR-CBRI**
 - Organised Skill Development Training Programme on IoT and Data Processing during 09-11/10/24.
 - Organized lab visit for National Institute of Technology (NIT) Delhi on 15/10/24; 24 participants.
- **CSIR-CDRI**
 - Organised lab visit for PM Shree Kendriya Vidyalaya, AMC, Lucknow on 05/10/24; 260 participants.
 - Organised Student Scientist connect program for
 - Jawahar Navodaya Vidyalaya, Gouriganj, Amethi (U.P.) on 15/10/24; 73 participants.

- Bappa Sri Narayan Vocational Post Graduate College (KKV), Lucknow (U.P.) on 24/10/24; 32 participants.
- BRD Post Graduation College, Deoria (U.P.) On 23/10/24; 46 participants
- Shri Shankar Mumukshu Vidyapeeth, Mumukshu Ashram, Shahjahanpur (U.P.) on 25/10/24; 57 participants.
- Axis Collage of Pharmacy, Kanpur (U.P.) on 29/10/24; 158 participants.
- Organised Vigyan Jyoti Program for Jawahar Navodaya Vidyalaya, Khairabad, Sitapur (U.P.) on 18/10/24; 51 participants.
- Organised Vigilance Awareness Program at Primary & Upper Primary School, Indaorabag, BKT, Lucknow on 22/10/24; 158 participants.
- Organised Skill Development Training Programme on Advanced Spectroscopic (NMR, HPLC, LC-MS, UV/IR) Techniques; 16 participants.
- **CSIR-CECRI**
 - Organised Skill Development Training Programme on
 - Electro-analytical techniques for (Electro) catalytic and (Bio) sensing applications during 14-18/10/24; 39 Participants.
 - Protective Coatings: Fundamentals, Inspection and Maintenance during 21-25/10/24; 33 Participants.
- **CSIR-CEERI**
 - Organised lab visit for PM SHRI JNV Pallu, Hanumangarh (Raj.); JNV Kajra, Jhunjhunu (Raj.) and JNV Kareera, Mahendergarh (Haryana) on 22 & 24/10/24; 229 participants.
 - Organised hands-on training programme for Nirma University, Ahmedabad, Gujarat on SHILP (Semiconductor High Impact Learning Program) on 25/10/24.
- **CSIR-CFTRI**
 - Organised Student Scientist connect program for school students from Mahabodhi and CFTRI High Schools; 120 participants.
 - Organised Skill Development Training Programme on
 - Cereals and Grain Processing during 28-30/10/24; 20 participants.
 - Hands on training in Fruits and vegetables during 24-27/10/24; 20 participants.
- **CSIR-CGCRI**
 - Organised Skill Development Training Programme on
 - Ceramic Membrane, Drinking Water, Wastewater and Water Analysis during 30/09/24-01/10/24; 22 participants.
 - Instrumental Methods for Chemical Characterization of Ceramic Materials & Testing & Calibration Techniques Related to Temperature Measurement and Control 28-30/10/24; 28 participants.
- **CSIR-CIMFR**
 - Organised a "One Health" campaign on vital links between human, animal, and environmental health at PM SHRI School Jawahar Navodaya Vidyalaya, Dhanbad, on 07/10/2024; 40 participants.
 - Organised Quiz competition at Utkramit Uchh Vidyalaya, Kashiyatand for promoting cleanliness and hygiene on 16/10/24; 102 participants.
- **CSIR-CLRI**
 - Organised lab visit for
 - National Institute of Fashion Technology, Ahmedabad on 14/10/2024.
 - Galileo Science Club from Udumalpet, Coimbatore on 24/10/2024; 104 participants.

- **CSIR-CRRI**
 - Organised training program on
 - Road Asset Management (RAM) during 14-19/10/24; 26 participants.
 - Design of Bridge Structure and Foundation during 21-25/10/24; 16 participants.
- **CSIR-CSMCRI**
 - Organised Skill Development Training Programme on Seaweed Cultivation and Processing Technology during 18-20/10/24; 37 participants
- **CSIR-IGIB**
 - 2ND Indo-Vietnam (Hands-On Training during 20-26/10/24.
- **CSIR-IHBT**
 - Organised lab visit for JNV Una, JNV Kathua J&K, RD Khosla Model School, Batala, Punjab, JNV Bilaspur, DAV Public School Palampur, GSSS Bara, Distt. Hamirpur, GSSS Khundian, GAV Public School, Kangra and KV Bangana, Distt. Una (H.P.); 583 participants.
- **CSIR-IICB**
 - Organised lab visit for Kaswara Yeasin Mondal Sikshaniketan, Hooghly on 03/10/24.
- **CSIR-IICT**
 - Organised lab visit for students during 17-18/10/24; 100 participants.
- **CSIR-IIIM**
 - Organised lab visit for SRRAU university, Rajasthan & school student On 24/10/24; 222 participants.
- **CSIR-IIP**
 - Organised Skill Development Training Programme on Testing of Key parameters of Gasoline for SGRR University Dehradun during 30/09/24-04/10/24.
- **CSIR-IITR**
 - Organised lab visit for students on World Food Day; 690 participants.
- **CSIR-IMMT**
 - Organised Training Programmes on
 - Documentation and conservation techniques of medicinal plants for CV Raman Global University, Bhubaneswar & XIM University, Bhubaneswar on 03/10/24 & 22/10/24 ; 40 & 60 participants respectively.
 - Polymetallic Nodules (PMN) and Polymetallic Sulphides (PMS) on 13-26/10/24.
- **CSIR-NAL**
 - Organised Visit for Engineering College students & Army Officers on 16/10/24.
 - Organised student-scientist connect program during 07-11/10/24.
- **CSIR-NEERI**
 - Organized a 'Micro Research Project Competition' for school students; 102 participants.
 - Organised Skill Development Training Programme on
 - Development of Capacity on Climate Change in Water Sector during 03-04/10/24.
 - GHG Inventory Preparation for the India's Contribution to Climate Change Studies on 22/10/24.
- **CSIR-NEIST**
 - Organised student-scientist connect program for JNV Tinsukia & Brahmaputra Valley School Sivsagar on 04 & 28/10/24; 144 participants.
- **CSIR-NGRI**
 - Organised lab visit for students of Birudhnagar, Tamil Nadu during 18-19/10/24.

- **CSIR-NIIST**
 - Organised lab visit for students of Kerala on occasion of Foundation day on 07/10/24.
- **CSIR-NML**
 - Organised Skill Development Training Programme on
 - Assistant Manual Metal Arc Welding/ Shielded Metal Welding Welder during 24/10/24-20/12/24; 21 participants.
 - Materials and Metallurgical Engineering during 28/10/24-08/11/24; 15 participants.
 - Animation, Video Making, IOT during 04/09/24-05/11/24 & 01/10/24-30/11/24; 54 & 77 participants respectively.
 - Organised lab visit for Kasidih High School, Jamshedpur on 04/10/24; 56 participants.
- **CSIR-NPL**
 - Organised workshop for Government Higher Secondary School, Kadukkaivalasai and Pottagavayal, Ramanathapuram on 08-09/10/24; 530 participants.
 - Organised Training Programme on Geo-technical Investigation & Analysis of Data for Military Engineer Services, Civilian Gazetted Officers during 14-18/0/24; 23 participants.

Conferences, Workshops, Major Events

- **CSIR Headquarters**
 - Hon'ble Minister S&T, Dr Jitendra Singh launched the website for India International Science Festival (IISF) 2024 during the Curtain Raiser event of 10th Edition IISF at National Media Centre, New Delhi on 04/10/24.
 - CSIR participated in
 - The Sashakat Rajasthan at District Sirohi Rajasthan during 16-18/10/24.
 - The Rise in Jammu Kashmir at Jammu during 03-05/10/24.
 - The Bharat Pride National Science and technology Innovation & industry at Hyderabad during 18-20/10/24
 - The MET 10th Vibrant India 2024 at Dilli Haat, Pitampura, New Delhi during 25-27/10/24.
 - The 14 National Exhibition 2024 at Zila School Campus, Muzaffarpur, Bihar during 26-28/10/24.
 - The Empowering India 2024 at Panjim Convention, Center, Panaji Goa during 25-27/10/24.
 - Organised AMRIT Series Lecture on 60 Years of Science at IISc by Vigyan Ratna, Prof. G Padmanabhan on 25/10/24.
 - CSIR and its Institutes organised "Ek Ped Maa ke Naam" campaign as a part of Swachhata hi Sewa 2024 during the month.
- **CSIR-4PI**
 - Organised a lecture on theme "Ayurveda Innovation for Global Health" on Ayurveda Day on 28/10/2024.
 - Organised a scientific talk on "Nature's fury and the Rising Threat of Climate Extremes over India" by Prof Rajeev Bhatla, Department of Geophysics, Banaras Hindu University on 23/10/24.
- **CSIR-CDRI**
 - Organised workshop on Sexual Harassment at workplace (Prevention, prohibition and redressal act (POSH Act) on 23/10/24.
 - Organised lectures on
 - "Unlocking new chemical space via selective catalysis" by Prof. Debabrata Maiti from IIT Bombay on 25/10/24.
 - "Understanding the art and science of Ayurveda" on occasion of Ayurveda Day celebration by Dr. Sanjeev K. Ojha, Senior Principal Scientist on 29/10/24.

- **CSIR-CEERI**
 - Participated in the 'Shashakt Rajasthan' Exhibition 2024 at Hotel Happy Day, Mount Abu, Rajasthan during 16-18/10/24.
- **CSIR-CIMFR**
 - Organised Talk on Ayurveda Innovation for Global Health by Dr. Ashok Kumar Sinha, Research Officer (Ayurveda), Regional Ayurveda Research Institute, Patna on 29/10/24.
- **CSIR-CLRI**
 - Organised Santappa-Raghavan Memorial Lecture by Prof. A. S. Abhiraman, Former Professor, Georgia Institute of Technology during 83rd CSIR Foundation Day Celebrations on 08/10/24.
 - Organised Workshop on "Preventive Vigilance Measures" by Shri A K Aggarwal, Retd. during Vigilance Awareness Week (VAW), from 28/10/24-03/11/24
- **CSIR-CRRI**
 - Organised seminar on Valorization of Industrial & Mine Wastes in Highway Construction on 03/10/24; 70 participants.
 - Organised workshop on State Roads Maintenance and Rehabilitation (M&R): Challenges & Best Practices on 07/10/24.
- **CSIR-CSIO**
 - Organised workshop on IoT and its applications on 09-10/10/24; 81 participants.
 - Organised workshop on Deep learning based object detection: UAV perspective on 21-22/10/24.
 - Organised International conference on advances in optics and photonics instrumentation.
- **CSIR-CSMCRI**
 - Organised workshop on Sexual Harassment at workplace (Prevention, prohibition and redressal act (POSH Act) on 16/10/24
- **CSIR-IGIB**
 - Organised Sensitization Workshop on GLP on 10/10/24.
 - Organised Vigilance Awareness Week -2024 from 28/10/24 onwards.
- **CSIR-IHBT**
 - Organised workshop on Sustaining Horticultural Production under the Climate Change Scenario in the Himalayas on 17-18/10/24.
 - Organised workshop on sustaining horticultural production under the climate change scenario in the Himalayas on 17/10/24.
 - Organised lecture on Sustaining Ayurveda Innovations for Global Health by Dr. Vijay Chaudhary, Principal cum Dean, RG Govt. PG Ayurvedic College, Paprola on Ayurveda Day (29/10/24).
- **CSIR-IICB**
 - Organised Workshop on Ethics in Research on 03/10/24.
 - Organised a Curtain Raiser Event of the 10th edition of the IISF 2024 on 29/10/24.
- **CSIR-IICT**
 - Organised a Curtain Raiser Event of the 10th edition of the IISF 2024 & celebrated the 9th Ayurveda Day on 29/10/24
- **CSIR-IIIM**
 - Organised 21st UT Level Vigyan, Ganit, and Computer Mela 2024 during 16-18/10/24; 260 participants.
- **CSIR-IIP**
 - Participated Vibrant Uttarakhand 2024 Expo during 04-06/10/24.
 - Celebrated the 83rd Foundation Day of the CSIR on 07/10/24 ,

- Organised Talk on Old Pharmacophore with New Prospect: Successful Phase-I Human Clinical Trial for Parkinson Treatment by Prof Diwan Singh Rawat, FNASc., FRSC and Vice Chancellor Kumaun University on 22/10/24.
- **CSIR-IITR**
 - Organised workshops on
 - Histopathological Techniques and Procedures for Preclinical Studies during 25-27/10/24; 21 participants.
 - The Principles and Application of Liquid Chromatography-Tandem Mass Spectrometry (LC-MS/MS) Emerging Contaminants Analysis during 07-09/10/24; 14 participants.
- **CSIR-NAL**
 - Organised webinar on Preventive Hygiene for Swachchata Pakhwada 01/10/24.
 - Celebrated Ayurveda Day on 21/10/24.
 - Organised Hansa-3(NG) networking meet for Business Opportunities on 29/10/24.
- **CSIR-NEERI**
 - Organised a Curtain Raiser Event of the 10th edition of the IISF 2024.
- **CSIR-NEIST**
 - Organised awareness programmes at Kendriya Vidyalaya, Air Force Station & Charingia High School, Jorhat for National Ayurveda Day 2024 on 29/10/24.
- **CSIR-NGRI**
 - Participated in the Bharat Pride Expo 2024 at Hyderabad during 18-20/10/24.
 - Organised lecture on scientific advancements of ancient India and highlighting CSIR's key innovations, including the development of indelible ink, dry milk, and its pivotal role in managing the COVID-19 pandemic by Prof. Shekhar C. Mande, former DG of CSIR & Distinguished Professor at the Bioinformatics Centre, Savitribai Phule Pune University on 83rd CSIR Foundation Day (01/10/24).
- **CSIR-NIIST**
 - Organised Conclave on "Ayurveda for today and tomorrow: Bridging Tradition and Innovation" on 17/10/24.

Visit of high level dignitaries

- **CSIR-CDRI**
 - Deputy Chief Minister of UP, Shri Brajesh Pathak visited the Prime Minister's initiative at inauguration of Centre of Excellence in Ayurveda on 29/10/24.
- **CSIR-CSMCRI**
 - Smt. R. Gajalakshmi, IAS, Director of Fisheries (DOF), Government of Tamil Nadu visited CSMCRI-MARS, Mandapam to know the seedlings production facilities for commercially important seaweeds.
- **CSIR-IHBT**
 - Dr. Rajendra S. Paroda (Padma Bhushan), Chairman, TAAS & Former Secretary, DARE & DG, ICAR visited as the Chief Guest, and Dr. Anil P Joshi (Padma Bhushan & Padma Shri), Founder, Himalayan Environmental Studies and Conservation Organization (HESCO), Dehradun, Uttarakhand visited on 17/10/24.

- **CSIR-IICT**

- Shri N. Rajashekara, IPS (DIG/Director), Central Detective Training Institute visited to deliver an awareness talk on "Culture of Integrity on Nation's Prosperity" as a part of Vigilance Awareness Week on 28/10/24.
- Dr Eric Lacombe - Attaché for Academic and Scientific Cooperation, Dr Oindrila De - Scientific Affairs Officer (Deputy to the Attaché) & Ms Gabrielle Chotin - Academic and Scientific Cooperation Officer as Delegation from French Embassy visited to participate in meeting for discussing existing collaboration activities and sharing about new opportunities for strengthening Indo-French cooperation linkages on 24/10/24.

- **CSIR-NGRI**

- Padma Shri Prof. Sailesh Nayak, Chairman of the Research Council visited to lay the foundation stone for the construction of a new LISO facility on 03/10/24.

- **CSIR-NIIST**

- Hon'ble Minister of Science & Technology, Dr. Jitendra Singh visited to inaugurate exhibition area on 23/10/24.

Honours/ Awards

- **CSIR-4PI**

- Dr. M. Sithartha Muthu Vijayan, Sr. Scientist, honoured with the Distinguished Alumni Award 2024 by Gandhigram Rural Institute (Deemed to be University), Ministry of Education, Govt. of India, Tamilnadu on 02/10/24.

- **CSIR-CDRI**

- Dr. Srikanta Kumar Rath, Chief Scientist, awarded the title of Fellow of the Society of Toxicology (FST) at the 43rd Annual Meeting of Society of Toxicology, India (STOX 2024).

- **CSIR-IHBT**

- Dr. Amit Kumar, Senior Principal Scientist, CSIR-IHBT, Palampur received the prestigious "FICCI Drone Award" for his work on "high-resolution Next Gen remote sensing on 09/10/24

- **CSIR-CEERI**

- Dr. (Ms.) A. Thirumalaiselvi, Senior Scientist, received "IEI Young Engineers Award 2024-2025" in Civil Engineering discipline by The Institution of Engineers, India (IEI).

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

- 5 in-house R&D units of industries were granted Recognition and 5 were granted Registration certificates
- 59 in-house R&D units of industries were granted renewal of Recognition and 59 were granted renewal of Registration certificates.

Scientific and Industrial Organizations (SIRO)

- 2 SIROs were granted Recognition and 1 was granted Registration Certificate
- 75 SIROs were granted Renewal of Recognition and 51 were granted Renewal of Registration Certificates

Public Funded Research Institutions (PFRI)

- 13 PFRI 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).

A2K+ Studies:

A Stakeholder's meeting under one of the on-going study entitled "Indigenous Development of Membranes for Hospital Wastewater Treatment in India to Promote its Recycle & Reuse" supported under A2K+ Studies program was held at SRM University, Delhi-NCR, Sonapat. The experts from MSMEs, Academic research institutes and Officers from DSIR attended the meeting.

A2K+ Events:

The 26th meeting of the Technical Advisory Committee (TAC) of A2K+ Events was held online through a virtual platform. 23 proposals were discussed by the TAC and 12 proposals were recommended for financial support.

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

Three on-going TDUPW Projects were reviewed by Project Review Committee (PRC) during the period:

- "Women Empowerment through Silkworm Culture in Tribal Dominated Mayurbhanj District of Odisha" undertaken by Mayurbhanj Biological Research (MBR), Baripada Odisha". A total of 55 Tribal Women Beneficiaries from Shyamakunta Block were trained for quality mulberry foliage cultivation through advanced Raise Bed Technology acquired from CSRTI, Berhampur.
- "Empowerment of Rural Women through Capacity Building Training in Food Processing Sector" undertaken by The Gandhigram Rural Institute (Deemed to be University), Gandhigram. A total of 285 women from different blocks of Dindigul district, TN were skill trained in food processing sector (Preparation of Dehydrated green leafy vegetables, Carrot, beans, ginger candy, banana fig, banana flower powder etc.) and women entrepreneurs have successfully established their own enterprise, *Sembaruthi Food Products*, Chinnalapatti and have obtained their FSSAI certification for general manufacturing at a home scale level, under project guidance.

- “Mechanized System for Making Hawaijar- a traditional fermented food of North-East India” undertaken by ICAR- Central Institute of Post-Harvest Engineering and Technology, Ludhiana. A prototype for mechanized system of Hawaijar preparation has been developed under the project. Capacity building program was conducted in three phases in different districts of Manipur viz. Imphal East, Imphal West, Thoubal, Kakching, Chandel and Churachandpur for 500 women beneficiaries.

226 Women Beneficiaries were trained during the month of October 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.

Other Activities of the Department

Special Campaign 4.0 in the Department of Scientific & Industrial Research (DSIR)

Department of Scientific and Industrial Research (DSIR) along with its Autonomous Body, Council for Scientific & Industrial Research (CSIR) and two PSUs i.e. National Research Development Corporation (NRDC) & Central Electronics Ltd. (CEL), successfully conducted Special Campaign 4.0 from 2nd October 2024 to 31st October 2024.

During the Special Campaign, focus was given to reduce pendency of PGs and enhance the overall cleanliness in and around office premises as well as improving work environment in the Department and its organizations. DSIR has successfully achieved 100 per cent targets of disposing of the pendency of IMC references, public grievances, appeals and record management.

As a part of the campaign, 9,120 physical files were reviewed, 4488 physical files were weeded, 85 cleanliness campaigns were conducted, total of Rs.19,04,125/- revenue was generated from scrap disposal and total area of 39,230 Sq. ft. of space was freed by way of scrap disposal and weeding out of files by DSIR along with its autonomous body, CSIR and two PSUs i.e NRDC and CEL.

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. 1852.21 lakhs during the month.
- Sale of electronic components/systems/SPV products worth Rs. 2157.11 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:
 - Ankush to M/s Rainbow Agrovet Seri Tech
 - Potassium Humate to M/s E.I.D Parry
 - Tomato Products Preparation to M/s Softbio Pharma
 - Roshini - Saline Water Lantern to M/s Livelihood Alternatives Pvt Ltd
 - Autonomous Underwater Profiling Drifter for 2000m of Water depth (Agro Floats) technology to M/s. Data Patterns (India) Limited
- The Corporation signed MoA/MoU with Alliance industries – Nalanda Institute of Technology Foundation for Technology licensing and providing IPR assistance.
- The Corporation is nominated as Core Committee Member at WIPO Green.
- The corporation collected a premium of Rs 20.60 Lakhs towards licensing of technologies to industries during the month.
