

No. DSIR/MS/2024/02
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 February 2024)

Major achievements during the month of February 2024

COUNCIL OF SCIENTIFIC & INDUSTRIAL RESEARCH (CSIR)

New Technologies/Processes Developed/Transferred

- **CSIR-CDRI**
 - Technology on "Diazenylaniline-based Fluorescence Quenchers with flexible functional modifications for biomedical applications" licensed to M/s Esscee Biotech (India) Pvt. Ltd., Lucknow on 17/02/2024.
 - Technology on "Phosphoramidite-based Fluorescence Quenchers with flexible functional modifications for biomedical applications" transferred to M/s Esscee Biotech (India) Pvt. Ltd., Lucknow during 21-28/02/2024.
 - Technology on "Ophthalmic formulation of Amphotericin B" transferred to M/s CIPLA Limited, Mumbai during 26-28/02/2024.
- **CSIR-CFTRI**
 - Developed ready to use Multi-grain Idli and Dosa Batter in Retail Packs.
 - Instant Coffee cubes transferred to M/s DDR Ventures LLP, 170/B, Vigneshwara Nilaya, Vibhuthipura mutt Road, Bangalore.
 - Process for production of millet and multimillet semolina licensed to M/s Naga Limited Consumer Division- Research & Development Centre
- **CSIR-CIMAP**
 - CIM-Sugandha (skin care and nutrition based aromatic soap) was released on 28/02/2024
- **CSIR-CIMFR**
 - Improved Soft Coke Making Technology transferred to M/s. SB Urja Private Limited, Thana, Bihar
- **CSIR-CLRI**
 - Technology has been transferred on "Co-digestion of Organic Fraction of Leftover Food Waste, Vegetable Peels and Fruit Peels for Biogas Generation" to B. S. Abdur Rahman Crescent Institute of Science & Technology (BSACIS), Vandalur, Chennai, on 19/02/2024
- **CSIR-IHBT**
 - Developed process for stabilization of carotenoids (lutein)
- **CSIR-IICT**
 - Demonstration of the Process Know-how for Calcium cyanamide (CaCN₂) from Calcium carbide, to M/s Granules India Limited.
- **CSIR-IIP**
 - Developed integrated CO₂ reduction coupled with the thiol oxidation using CO₂ under visible light

- **CSIR-NIIST**
 - Technology transferred for setting up a processing unit of agro-waste and manufacture of single-use biodegradable tableware including plates, bowls, and tumblers to M/s The East Corridor Consultants India Pvt Ltd, Lucknow, Uttar Pradesh.
 - Technology transferred for system and a method for onsite wastewater treatment and resource recovery (NOWA) to M/s Two degree Climate Control Pvt Ltd, Ernakulum.
- **CSIR-NIO**
 - Launch of Cbot.
- **CSIR-SERC**
 - New Technologies Developed:
 - FlexiHeatFire
 - Engineered cement-based composite systems for expansion joint-free bridges (Jt-Free)
 - Development of Paver block using slag cement and recycled concrete aggregate
 - 3D-Printable Ultra High-Performance Concrete (Concrete - 3D)

Collaborations/Agreements/MoUs Signed (International)

- **CSIR-CBRI**
 - An MoU signed with S. R. University, Warangal Telengana-506371, on dated 10/02/2024 for Academic and Research interaction.
- **CSIR-CDRI**
 - MoU signed with:
 - Zydus Lifesciences Limited, Ahmedabad on 16/02/2024 to conduct collaborative research programs in areas of mutual interest.
 - Indian Institute of Science Education and Research, Kolkata on 17/02/2024 to promote institutional linkage between and to explore avenues for possible collaboration in areas of mutual interest.
 - Birla Institute of Technology and Science, Pilani on 17/02/2024 to promote institutional linkage and to explore avenues for possible collaboration in areas of mutual interest.
 - MoA signed with:
 - DBT, New Delhi on 13/02/2024 w.r.t. "In vivo validation and dose optimisation of the standardised fraction of Desmodium gangeticum for chronic kidney disease-induced osteoporosis"
 - MoA signed with DBT, New Delhi on 01/02/2024 w.r.t. "Preclinical development of a natural molecule (N-012-0006) from Crotalaria juncea for the management of diabetic nephropathy Preclinical development of a natural molecule (N-012-0006) from Crotalaria juncea for the management of diabetic nephropathy"
 - A Sponsored Agreement with Drugs for Neglected Diseases initiative India Foundation, New Delhi on 13/02/2024 to evaluate the Anti-filarial efficacy of Oxfendazole against human filarial nematode Brugia malayi."
 - A Licensing Agreement executed with M/s Esscee Biotech (India) Pvt. Ltd., Lucknow on 17/02/2024 w.r.t. "Diazenylaniline-based Fluorescence Quenchers with flexible functional modifications for biomedical applications."
 - A Collaborative Research Agreement signed with CIPLA Limited, Mumbai on 12/02/2024 w.r.t "Ophthalmic formulation of Amphotericin B"
- **CSIR-CLRI**
 - A Technical Service Agreement has been signed between CSIR-CLRI and M/s. Vishnu Chemicals Limited, Hyderabad on 01 February 2024 towards evaluation of Basic Chromium Sulphate in Tanning.
 - A Consultancy Agreement has been signed between CSIR-CLRI and M/s. Allansons Private Limited, Navi Mumbai on 02 February 2024 towards Value Addition in Hide Processing & Pollution Attenuation

- A Consultancy Agreement has been signed between CSIR-CLRI and M/s. Sant Rohidas Leather Industries Development Corporation of Maharashtra (LIDCOM), Mumbai, on 26 February 2024 towards Preparation of Roadmap for the Development of Leather Value Chain in Maharashtra.
- **CSIR-CRRI**
 - MoU signed with:
 - Indian Institute of Information Technology Bhopal, Madhya Pradesh (IIIT-Bhopal) for Academic and research collaboration in the areas of mutual interest on 10 /02/2024.
 - National Institute of Technology, Calicut, Kerala (NIT-Calicut) for Academic and research collaboration in the areas of mutual interest on 12/02/2024.
 - Motilal Nehru National Institute of Technology Allahabad, Uttar Pradesh (MNNIT) for Academic and research collaboration in the areas of mutual interest on 23/02/2024.
 - National Institute of Technology, Raipur, Chhatisgarh (NIT-Raipur) for Academic and research collaboration in the areas of mutual interest on 27/02/2024.
 - National Institute of Technology, Warangal, Telangana (NIT-Warangal) for Academic and research collaboration in the areas of mutual interest on 28/02/2024.
 - A Project Based Agreement (PBA) signed with ISRO Telemetry Tracking and Command Network, Bengaluru, Karnataka (ISTRAC) for Design & drawings of pier, pier foundation, foundation of circular dome as well as PEB structure for Installation of Telescope at Hanle, Ladakh on 14/02/2024.
- **CSIR-CSMCRI**
 - Agreement for:
 - Consultation for installation of Decentralized Multistage Constructed Wetland (DMCW) for sewage/grey water treatment & use (Capacity: 50 m³/day) with Ramakrishna Math, Ahmedabad
 - Upstream and Downstream Process development for microbial synthesis of xylitol and bioplastics (polyhydroxyalkanoates and polylactic acid) utilizing cellulose & hemicellulose from lignocellulosic biomass as substrate with Chemprocess Systems Private Limited, Ahmedabad
 - Understanding physicochemical properties of various Cathode Active Materials employing sophisticated analytical tools with PowerStorm Technology Pvt. Ltd, Rajkot, Gujarat
- **CSIR-IHBT**
 - MoU signed with
 - Khalsa College of Veterinary and Animal Sciences, Amritsar for collaboration in research work in areas of mutual interest on 05/02/2024.
 - Indian Institute of Science Education and Research Mohali (IISER) to collaborate for research and teaching in discipline of mutual interest on 06/02/2024.
 - Aerodyne India Ventures Pvt. Ltd., New Delhi for R&D cooperation in the area of Drone and Ground Based Multispectral and Hyperspectral Technologies for Crop Growth Estimations on 28/02/2024.
 - Technology Transfer Agreement (ToT) signed with:
 - Kirat Biotech, Guwahati Assam - 781006 through National Institute of Science Communication Policy and Research (NIScPR) to take the technology on cultivation of Shiitake mushroom for its implementation at a large scale as per technical knowhow of CSIR-IHBT on 09/02/2024.
 - Four Technology transferred signed with M/s Unised Research Consultants Pvt. Ltd., Kanpur through National Research Development Corporation (NRDC) on 28/02/2024.
 - Tri-party agreement signed with M/s Derck Schipper Bloombollen export B.V at Stede Broecweg 10, 1611 HV Bovenkarspel, Netherlands and M/S Red Mirchi Associates, Jind, Haryana - 126102 to collaborate in floriculture activities pertaining to economic upliftment, environmental stewardship and sustainable development in hilly regions on 02/02/2024.

- **CSIR-IICT**

- Executed extension MoU with Scient Institute of Pharmacy [in continuation of previous MoU June 2018], Hyderabad in the area of medicinal chemistry, Pharmaceuticals on 06/02/2024.
- Executed MoU with IISER Bhopal on 12/02/2024, to promote cooperative research and to facilitate the exchange of ideas, the development of new knowledge, and enhance high-quality research acumen.
- Agreement with M/s BEIL Research & Consultancy Pvt. Ltd. for "Design of High rate biomethanation technology for the generation of biogas & bio-manure from organic waste using AGR Technology"

- **CSIR-IIP**

- MoU signed with:
 - ICAR-Indian Institute of Millets Research, Hyderabad for Promotion of millets based biofuels and bio based products.
 - 6D Varsity, Hyderabad for Promotion of Skill Development and employment generation in Hydrocarbon sector.

- **CSIR-NBRI**

- MoU signed with:
 - Flora Fauna Science Foundation, Scientific platform society on 08/02/2024 for research and collaboration particularly in floriculture area.
 - M/sEmamiLmited, Kolkata on 22/02/2024 for Research co-operation in the field of Ayurveda.
- A Tripartite MoA signed with, Ministry of Textiles, Govt. of India, Udyog Bhawan, New Delhi on 28/02/2024 for collaborative research project entitled as Development of Genetic markers for cotton testing.

- **CSIR-NIIST**

- MoU signed with M/s Embedite Private Limited, Thiruvananthapuram for Strengthening new developments in the PROJECTS which has the potential to be developed to commercial products integrating NIIST made indoor light harvesting dye-sensitized solar cells/modules.
- Technology transferred to:
 - M/s The East Corridor Consultants India Pvt Ltd, Lucknow, Uttar Pradesh for setting up a processing unit of agro-waste (field crop waste such as rice and wheat waste) and manufacture of single-use biodegradable tableware including plates, bowls, and tumblers.

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*
21	12	21	35	10	10	33	155

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

High impact S&T services offered

- **CSIR-CDRI**

- Common Research and Technology Development Hub (CRTDH): Provided analytical services to one MSME and consultancy for new drug product development to one MSME in the Pharmaceuticals sector.

- Animal Facility Laboratory: The CPCSEA (Committee for the Purchase of Control and Supervision of Experimental Animals) approved that experimental animals (total no. 342) were supplied to outside research organizations, including 204 Rats and 138 Mice.
- Sophisticated Analytical Instrument Facility: Provided service for analysis of samples by IR Spectroscopy, Elemental Analysis, Liquid Chromatography–Mass Spectrometry (LC-MS), NMR Spectroscopy-Bruker AvIII HD-300 [FT NMR], NMR Spectroscopy-Bruker Advance400/AvIII HD-300 [FT NMR], Electrospray Ionization Mass Spectrometry (ESI-MS), and High-Performance Liquid Chromatography (HPLC). In February 2024, a total of 249 external samples of 55 users were analyzed.
- **CSIR-CRRI**
 - Validation of Executed Flexible Pavement Crust thickness as per design to suggest remedial measures on approaches of two flyovers (length 2.488Km) at Junction of NH 28 and NH 28B at Khusinagar and another Flyover at GopalgarhTiraha on NH-28 in UP for National Highway Authority of India (NHAI).
 - Safety Assessment on jai Prakash (JP) Ganga Path near A1-P1 span of J.P. Rail Bridge for Bihar State Road Development Corporation Ltd(BSRDC).
 - Use of CGBM as Surface Course on Specified section (2km) as trial section of 4 Laining of Jorabat Shillong Expressway Ltd for Jorabat Shillong Expressway Limited.
- **CSIR-IHBT**
 - Process optimization for extraction and stabilization of carotenoids (lutein)
 - Process formulation for lip balm and foot cream
 - Isolation of bio actives from Swertiaciliata as reference standards
- **CSIR-IIP**
 - S&T support to others group sponsored and in house projects IIP Dehradun as more than 75 samples analysis for multiple physicochemical parameters via ASD, RPPM & BD.
 - Participated in NABL PT Programme for ATF/Lube oil/Diesel samples as followed by the BPCL for NABL.
 - Testing and evaluation of PLANTOFLUX SE 46 sample for Fire Resistance Characteristics submitted by M/s FUCHS Lubricants (India) Pvt. Ltd.
 - Testing of HC HFDU 68 Synthetic ester based, Resistant Hydraulic oil as per IS 10532.
 - Compatibility studies of lubricating greases.
- **CSIR-IITR**
 - Invivo Toxicity testing of formulated product sponsored by Centre for Aromatic Plants, Dehradun.
- **CSIR-SERC**
 - Fatigue Life Evaluation of 60 kg 1175 HT Grade Alumino-thermit Welded Rail Joints to M/s. Ora India Private Limited, Kanpur is using alumino-thermit technique for welding of various profiles of rails used in the Indian railway tracks

Outreach Activities (Jigyasa, Skill Development, and others)

- **CSIR-CBRI**
 - One day Institutional Visit for the Civil Engg. Students of Phonics Group of Institutions, Roorkee on 28/02/2024, 40 of Students participated.
- **CSIR-CDRI**
 - Skill Development Program (SDP):
 - Training/Dissertation for students pursuing Postgraduate courses: 35 Participants
 - Advance Training Program for the research scholars and R&D Institutions/Univ employees. / Industry etc.: 02 Participant
 - Summer training: 02 Participants
 - Jigyasa program: Student Scientist connect programs organized for:
 - Govt. Girls High School, Adaura, Auras, Unnao, UP on 02/02/2024, 80 participants.
 - K.C. Collage, Church Gate, Mumbai (Maharashtra) on 14/02/2024, 80 participants.
 - KendriyaVidyalaya No.2, J.L.A., Bareilly Cantt. (U.P.) on 20/02/2024, 76 participants.

- Visual & practical Learning on 16/02/2024, 60 Educators /teachers participated.
 - Organized visit for Scientists, Technical Staff and Research Scholars to Zilla Parishad High school, Pasnoor Village, Nalgonda on the occasion of National Science Day (28/02/2024) inculcate scientific temper to students.
- **CSIR-IIP**
 - Participated in the 18th Uttarakhand State Science & Technology Congress (18th USSTC) during 8-9/02/2024 at Uttarakhand Open University (UoU) Haldwani.
 - Organised visit for Diaspora youths of Indian origin from different countries under Know India Programme (KIP) of the Government of India, on 19/02/2024, 40 participants.
 - Participated in the Viksit Bharat Sankalp 2024 at Haridwar, during 21-23/02/2024 to showcase its technologies and products.
 - Organised visit for:
 - JBIT College, Dehradun on 22/02/2024, 32 participants.
 - Welham Boys, Dehradun on the occasion of Science Day (28/02/2024), 40 participants.
- **CSIR-IITR**
 - Organised EPIC Programme – Empowering Pupil Innovation and Creativity, a think tank platform under the Jigyasa campaign that encourages students from APS Academy, Greenland Public School, and, Red Rose School to develop innovative ideas on the occasion of National Science Day-2024.
- **CSIR-NBRI**
 - Jigyasa Programme:
 - Organised an interactive session at PM SHRI Kendriya Vidyalaya Ballia on 02/02/2024. 75 participants.
 - Organised visit for PM Shri Kendriya Vidyalaya, Shivgarh, Raebareilly on 06/02/2024, 60 participants.
 - Organised “open day” for public and schools on the occasion of National Science day (28/02/2024), 150 participants.
 - Skill Development Programme under CSIR integrated Skill Initiatives:
 - Organized a Training program for Assistant Directors (Horticulture)/Deputy Directors (Horticulture) of CPWD (Central Public Works Department) during 14-16/02/2024, 22 participants.
 - Organized a Training program for on Isolation, Fractionation, and Purification & Chemical Profiling of Essential Oil from Aromatic Plants during 26/02/2024 to 01/03/2024, 20 participants.
- **CSIR-NIIST**
 - Organised a skill training program on Analytical Chemistry and Instrumentation Techniques during 03/02/2024 to 07/02/2024.
 - Organized a capacity building program for the officers of Kerala Rural Water Supply & Sanitation Agency (KRWSSA) on grey water treatment and management on 15-16/02/2024, 70 participants.
 - Organized a Higher Secondary School Teachers Transformation Program with Department of General Education, Govt. of Kerala for Chemistry Teachers during 12-21/02/2024, 40 participants.
- **CSIR-NML**
 - Organised one-day visit for Atomic Energy Central School (Narwapahar), Gyan Ganga Public School (Dimn), PM SHRI Jawahar Navodaya Vidyalaya (West Singhbhum) and Ramkrishna Mission (Chakulia).
 - Jigyasa Programme: Virtual Lab Integration Popular Lecture Series on A Predictive Look into Futuristic Living.
 - KAMP's 5th Continuous Professional Development (CPD) program on Office Management and Entrepreneurship Skill Women's of Rural Area.
- **CSIR-SERC**
 - Advanced Course on:

- Wind Loads and Effects on Structures organised during 07-09/02/2024, 14 participants.
- Structural Integrity Assessment, Failure Analysis and Retrofitting of Transmission, Communication and Broadcasting Towers organised during 22-23/02/2024, 26 Participants.
- JIGYASA
 - Organized workshop for the students of the adopted schools in Tiruchirappalli districts of Tamilnadu during 22-23/02/2024. Eight scientists of CSIR-SERC and CSIR-CMC visited the schools and delivered lectures on topics related to basic science, the latest scientific advancements and battery experimental, smart building and bridges, etc, 530 participants.

Major Conferences, Seminar/Webinars, Workshops organized

- **CSIR Headquarters**
 - CSIR participated in 2nd Edition India International Horti Expo, held India Expo Centre & Mart, Greater Noida during 22-24/02/2024.
 - CSIR participated in Bharat Tex 2024, held at Bharat Mandapam, Pragati Maidan, New Delhi during 26-29/02/2024.
- **CSIR-CDRI**
 - Workshop on Emerging Trends in computer-aided drug design on 26/02/2024.
- **CSIR-CLRI**
 - Organised 2nd Joint CSIR-BCSIR (CSIR, India and Bangladesh CSIR) Symposium on Advancements in Material Characterization during 14-16/02/2024. The symposium hosted an array of technical sessions under the titles - Materials for Energy Applications, Advanced Composite Materials, Biomaterials and Materials for Sustainable Lifestyle Applications.
 - Organised Global Lecture Series supported by European Molecular Biology Organization (EMBO).
- **CSIR-CSMCRI**
 - International Conference on Advances in Salt and Marine Chemicals: Brine Mining, Purification and Resource Recovery (ICASMC 2024) 22-23/02/2024.
- **CSIR-HRDC**
 - Workshop on How to Write a Winning Research Proposal under CSIR Integrated Skill Initiative on 09/02/2024.
 - Refresher Training Course for Drawing & Disbursing Officers (DDOs) during 26/02/2024 to 28/02/2024.
- **CSIR-IHBT**
 - A workshop on "Academic Integrity and Regulatory Compliance" at DBT-inStem, Bangalore attended by Dr. Damanpreet Singh on 12-13/02/2024.
 - Abstracts published for work presented at a 6th International Conference on Nutraceuticals & Chronic Diseases and 10th Meeting of Society for Translational Cancer Research at Panjab University, Chandigarh by Dr. Damanpreet Singh on 22-24 February, 2024;
 - Fagopyrum tataricum (L.) Gaertn prevents neurotoxicity via interacting glycogen synthase kinase-3 β signalling in Zebrafish model" (PP89, PP No. 158), Presented by Shubham N. Rahmatkar.
 - Development of a simple and rapid Zebrafish larva model of Aluminium-induced neurotoxicity" (PP88, PP no. 157). Presented by Rajneesh Kumar.
- **CSIR-IICB**
 - Organised a rolling DBT sponsored workshop for Bioinformatics Centre and National Networking Project on Genome Informatics from 29/01/2024 to 09/02/2024.
 - Organised a Workshop on Gender Sensitization and Provisions of POSH Act during 22-23/02/2024.

- **CSIR-IICT**
 - Organised "IICT- Interdepartmental Conference" by BDRM department on 09/02/2024 for all the R&D staff of the institute.
- **CSIR-IIIM**
 - Organised International conference on Traditional Medicine and Phyto- Pharmaceuticals during 16-18/02/2024.
- **CSIR-IIP**
 - Organised "AAGAZ-2" a Science Fest for Ph.D. students, project assistants, and trainees on the occasion of National Science Day on 28/02/2024.
- **CSIR-IITR**
 - Organised Entrepreneurship and Skill Development Training Program on Applications of Computational and Statistical Tools for Impact Assessment of Atmospheric Air and Water Pollution during 12-16/02/24, 20 participants.
 - Organised Workshop on DNA Isolation and PCR Techniques during 19-20/02/2024, 22 participants.
 - Organised Workshop on Quality Management System ISO/IEC 17025: 2017 Acquaintance to Requirements for Chemical and Biological Laboratories on 28-29/02/2024, 36 participated.
- **CSIR-NBRI**
 - Organised training course on Classical & Modern Methods in Plant Taxonomy & Biosystematics during 21-27/02/2024, 31 participants.
- **CSIR-NIIST**
 - Organised Industry Connect Meet on Recent Advances in Fats and Edible Oil Processing on 27/02/2024.
- **CSIR-NIO**
 - Participated in Viksit Bharat Viksit Goa Expo at Goa during 06/02/2024.
- **CSIR-SERC**
 - Organised webinars on:
 - Characterisation Techniques for Cementitious Materials on 09/02/2024, 60 participants.
 - Concrete Durability - Importance of Durability Performance Specification on 22/02/2024, 80 Participants.

Visit of high-level dignitaries to the Institute/Laboratory

- **CSIR-CIMFR**
 - Prof. A. S. K. Sinha, Director, Rajiv Gandhi Institute of Petroleum Technology graced the National Science Day-2024 as the Chief Guest.
- **CSIR-CSMCRI**
 - Dr. Daniel McKorley, Executive Chairman McDan Group Ghana [2] Sheik Abdulaziz Al Qahtani, Board of Directors, Abdulhadi A. Al Qahtani Sons Group Holding Co., Kingdom of Saudi Arabia [3] Dr. Franz Goetzfried, Salt Research Consultant, Germany.
- **CSIR-IICB**
 - Prof. Akhilesh K. Verma, Senior Professor, Dept. of Chemistry, Delhi University, delivered a research colloquium on A Journey from Benzotriazole to Alkynes 15/02/2024.
 - Prof. Vijay Pal Singh Rawat, Associate Professor, JNU, New Delhi, delivered a Research Colloquium Talk, on Translational Lessons from Patients to Functional Models for Blood Cancer Research & Drug Development on 16/02/2024.
 - Dr. Kapil Maithal, President-Vaccines & Diagnostics, Zydus Lifesciences Limited, delivered a special lecture on the occasion of the 'National Science Day' celebration on 28/02/2024.
- **CSIR-IIP**
 - Shri Anant Kumar Hegde, MP, Karnataka visited on 12/02/2024.

- Air Marshal Shri A K Arora visited on 23/02/2024.
- **CSIR-IITR**
 - Shri Shashikumar Thimmaiah, Managing Director, APIT Group, Bengaluru visited On the occasion of National Science Day-2024 as a Chief guest.
- **CSIR-NIIST**
 - Shri. Pinarayi Vijayan, CM inaugurated the function and honoured the Bhatnagar award winners of Kerala on 05/02/2024.
- **CSIR-NML**
 - Dr. V. K. Saraswat, Member, NitiAayog visited to inaugurate battery recycling plant.

Details of events celebrated to mark India@75 or Azadi Ki AmritMahotsav / 75 Years of Indian Independence

- **CSIR-CIMAP**
 - Organised National Science Day -2024 celebrations on 28/02/2024, 350 participants.
- **CSIR-CRRI**
 - Organised National Science Day -2024 celebrations on 28/02/2024. Prof. BidyadharSubudhi, Director NIT, Warangal dilevered lecture on Indigenous Technologies for Viksit Bharat and Signed MOU between CSIR-CRRI & NIT Warangal.
 - A Hindi seminar was organized in the institute on 21/02/2024. Technical presentations on various topics were given by the scientists of the institute
- **CSIR-IICT**
 - Organised National Science Day -2024 celebrations on 28/02/2024. DrJitendra Sharma, Managing Director & CEO of Andhra Pradesh MedTech Zone delivered the talk on Role of Medtech in Atma Nirbhar Bharat on 28/02/2024.
 - Dr. Murali Ramachandra, CEO, Aurigene Oncology, Bangalore delivered a lecture on Discovery and development of a first-in-class macrophage checkpoint inhibitor for cancer therapy on 23/02/2024.
- **CSIR-NBRI**
 - Organised 'Open Day' on the occasion of National Science Day 2024, 500 students participated.

DEPARTMENTAL ACTIVITIES

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

Industrial R&D Promotion Programme (IRDPP)

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

- 21 in-house R&D units of industries were granted fresh Recognition and 21 were granted fresh Registration certificates.
- 8 in-house R&D units of industries were granted Renewal of Recognition and 8 were granted renewal of Registration certificates.

Scientific and Industrial Organization (SIRO)

- 2 SIROs were granted fresh Recognition and 1 was granted fresh Registration Certificates.

Public Funded Research Institutes(PFRI)

- 7 PFRI's were granted renewal of Registration certificates.

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

- 2 in-house R&D units of industries were granted Approval and 4 in-house R&D units of industries were granted Extension of Approval in Form 3 CM u/s 35(2AB) of IT Act 1961.
- 14 Reports in Form 3 CL certifying R&D expenditures of Rs 641.24 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.e (i) Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM), wherein financial assistance is extended to independent innovators for converting innovative ideas into demonstrable working models / prototypes / processes that may take the form of new or improved products, processes, or services; and assist them to become incubatees / techno-entrepreneurs, (ii) Patent Acquisition and Collaborative Research and Technology Development (PACE), wherein support shall be provided to industries and institutions for development and demonstration of innovative technologies, (iii) Building Industrial R&D and Common Research Facilities (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)

Six innovation projects namely Development of Copper Coated Multifunctional Cotton Fabrics; Cost effective device to predict and measure earthquakes; Development of IoT based structural health monitoring unit, Development of Smart Water Logging Detection Device; To Demonstrate & establish Physical Stability of Orthopaedic Implant Coating"; Development of Point of Care Biosensor for Chronic Kidney Disease Diagnosis were reviewed during the period. Two projects namely "Development of Vertical Quadripilator Lathe" and "Affordable Prosthetic Hand for Transradial Amputees with Adaptive Grasp and Pinch Capabilities" was successfully completed during the period.

A2K+ Events:

- A proposal from Noida Institute of Engineering & Technology (NIET), Greater Noida for organizing 'International Conference on AI for 5G Applications' to be organised from 26/04/2024 to 27/04/2024 has been supported under A2K+Event program.

A2K+ Studies:

- As a part of stakeholder engagement of A2K+ Study- Enabling access to knowledge on advanced building materials and design towards energy efficient buildings by TERI, New Delhi; a Thematic Track on "Sustainable Skylines: Enabling Tomorrow's Architecture with a Web-Based Knowledge Hub on Advanced Building Materials and Energy-Efficient Design", under World Sustainable Development Summit (WSDS) 2024 was held on Thursday, 8th February 2024 at India Habitat Centre, Lodhi Road, New Delhi where a **portal on Advanced Building Materials and Design for energy-efficient buildings was demonstrated**. The portal is being developed as a part of a study funded under A2K+ Studies program of DSIR. The portal, comprising research papers, journals, and case studies, aims to engage all stakeholders in the built environment, offering a forum for user queries answered by industry experts.

A2K+ TDUPW:

122 Women beneficiaries have been trained under the various ongoing TDUPW projects aiming women empowerment through technology deployment and dissemination.

PUBLIC SECTOR ENTERPRISES

Central Electronics Limited (CEL)

CEL is an Enterprise under DSIR having an objective to commercially exploit the indigenous technologies developed by national labs and R&D institutions in the country. CEL has developed a number of products 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.4699.23 lakhs during the month of February.
- Sale of electronic components/systems/SPV products worth Rs.5292.73 lakhs was realized during the month of February.

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.

- During the period, the cooperation licensed eight technologies to various industries for commercialization. The technology namely Vijetha Supplement Powder Technology and Sampoorna-A Phytoecdysteroid for Synchronized Maturation of Silkworms were licensed to M/s Nuecare Arovet Pvt. Ltd. The technology on Osmo-Air Dried Fruits was licensed to M/s Sri Gayatri Prasad Foods and Manufacturers. The remaining five technologies namely Iron & Zinc Enriched Spirulina Bars, Multigrain High Protein Mix, Protein & Fiber Enriched Cereal and Millet Bars, Iron Enriched Fruit Bars, and Instant Finger Millet Khichdi Mix technologies were licensed to M/s Unised Research Consultants Pvt Ltd.
- During the period the corporation signed 1 MoA with SHUATS, Prayagraj, U.P. for Technology transfer and providing IPR assistance.
- Participated in Bharat Startup & MSME Summit at the Dr. Ambedkar International Centre, New Delhi hosted by the PhD Chamber of Commerce and Industry. A lecture was also delivered on "pivotal role of NRDC in innovation management"
- The Corporation received ASSOCHAM IP Excellence Award for its outstanding contribution in IP during the 3rd IP Excellence Awards and Global Conclave on Envisioning India's IP – Innovation Ecosystem for Viksit Bharat

The corporation collected a premium of Rs 26.35 Lakhs towards licensing of technologies to industries during the month.
