

No. DSIR/MS/2022/10
Government of India
Ministry of Science & Technology
Department of Scientific & Industrial Research
MONTHLY SUMMARY FOR THE CABINET
(For the month of **October, 2022**
(Part-I Unclassified)

Major achievements during the month of October, 2022:

Council of Scientific & Industrial Research (CSIR)

New Technologies/Process Development/Transferred

- **CSIR-CEERI**
 - First prototype of white and blue LED bulbs (2-4.5W) were developed and demonstrated with indigenous developed GaN LED chips at CSIR-CEERI, Pilani.
 - Know How for “IoT enabled, Smartphone based Colposcope for Cervical Cancer Examination” was licensed to M/s Divine Meditech Pvt. Ltd., Uttar Pradesh.
- **CSIR-CFTRI**
 - Technology for Virgin Coconut Oil was transferred to M/s Kareeda Agroforedlings LLP CPP, Kannur; M/s Premier Coco Products, Coimbatore.
 - Technology for Tamarind Juice Concentrate was transferred to M/s Kakaria Exim India Ltd., Umbergoan, Dist Valsad, Gujarat.
- **CSIR-CSMCRI**
 - A process for the preparation of Zeolite-X was developed.
 - Process for Production of Sap from *Kappaphycus alvarezii* and its application was transferred to M/s Marinelexirs, Tuticorin.
- **CSIR-IICT**
 - A scaled up Hydrazine Hydrate (HH) plant based on CSIR-IICT’s technology for production of 10,000 tonnes per year of Hydrazine Hydrate was developed for Gujarat Alkalies and Chemicals Ltd (GACL), Gujarat. The developed HH plant was inaugurated by Hon’ble Prime Minister, Shri Narendra Modi on October 10, 2022. The joint collaboration of CSIR-IICT and GACL led the process development from laboratory scale to pilot scale, and then to a commercial scale.
- **CSIR-IIP**
 - Desulfurization of light cycle gas oil, kight gas oil, heavy gas oil and crude oil of API-26 was carried out. The product of desulfurization process used in upgradation of lowest grade bitumen, SSP 0092: A

new formulation, was developed for sweetening catalyst application and is being trailed at KRL currently.

- Synthesis of the functionalized conducting polymers (CP), and CP composites as coating materials for metal corrosion protection applications such as against mineral acids, oxygen, water, halides, salts, and gases was performed. Characterization was completed using NMR spectroscopic techniques for studying chemical structure. These CP and CP composites will be evaluated for the anticorrosion behavior on metal surfaces using various corrosion monitoring techniques.
- Technology know-how on CSIR-IIP's "Improved Jaggery Making Plant" was transferred to Smt. Urmilla Tyagi, Village- Panchi, Meerut, Uttar Pradesh.
- **CSIR-NIIST**
 - Technology for Manufacturing biodegradable tableware from agro waste was transferred to M/s. B M Impex, Ananda Nilaya, Saligame road, Hassan, Karnataka.

Collaborations/Agreements/MoUs Signed (National)

- **CSIR-CDRI**
 - MoA executed between CSIR-CDRI and DBT, New Delhi on October 3, 2022 w.r.t. "Exploring DNA transactions and genome maintenance in the malaria parasite".
- **CSIR-CFTRI**
 - MoU was signed with Karnataka Health Promotion Trust (KHPT), Bengaluru on 3 October 2022 to work towards addressing malnutrition in the Country and implement flour fortification programs in Government and non-Government sectors by using the expertise of CFTRI.
 - MoU was signed with Development Consortium (DC), New Delhi on 10 October 2022 to implement the project Fortify Health which aims to reduce iron deficiency at the population scale in India through wheat flour fortification.
- **CSIR-IHBT** following MoU was signed to collaborate for Research activities with:
 - Mody University of Science and Technology, Lakshamangarh, Rajasthan on 01 October 2022.
 - Government Post Graduate College, Ambala Cantt, Haryana on 25 October 2022.
 - Graphic Era (Deemed to be) University, Dehradun, Uttarakhand.
- **CSIR-IICT**
 - Designed the technology for High rate biomethanation for the generation of biogas & bio-manure from food waste & market vegetable waste for 250 kg/day capacity using AGR Technology for Ellision Oil Field Services Private Limited (ESPL), Ahmedabad.

- Developed a process for vinylidene fluoride (24937-79-9) for Navin Fluorine International Limited, Mumbai.
- Process feasibility for Synthesis of Trichloroacetyl Chloride (TCAC) and further development of the process by selected ROS for Laxmi Organics Limited, Mumbai was developed.
- Assessing the effect of test compounds in Stelic mice model (STAM) samples using gene expression, western-blot and IHC techniques for Sun Pharma, Mumbai was performed.
- Assessing the effect of test compounds in Thioacetamide induced liver fibrosis model samples using gene expression, western-blot and IHC techniques for Sun Pharma was performed.
- Developed the process for alkaline ionized water unit and installation of membrane-based water treatment plants for Aqua Tech RO systems, Pune.
- Process for Clay-catalyzed Thermal Polymerization of Soya Fatty Acids to Dimer acids for Biopharma Labs, Hyderabad was developed.
- Exploratory studies for the enrichment of fatty acid content and reduction of unsap in fatty acid distillates of Soybean Oil for Biopharma Labs, Hyderabad was performed.
- MoU signed with Pondicherry University on 19 October 2022, on Teaching, Research and Training in selected and advanced thrust area of Biotransformations & Marine Biotechnology.
- **CSIR-NAL**
 - MoU signed with M/s NewSpace Research & Technologies Pvt. Ltd, Noida, UP for Joint development of low RCS, allied electromagnetic technologies for UAV on 18 October 2022.
- **CSIR-NIIST**
 - Technology for the early detection of cancer from blood sample using SERS (surface enhanced Raman spectroscopy) and artificial intelligence - a novel technique transferred to Tata Elxsi Limited, Karnataka.
 - Installing a sustainable bioenergy-based model effluent treatment plant for desiccated coconut industries transferred to M/s Galaxy Environ, Ernakulam.
 - Testing and validation of composites & prototypes -Reliance Industries Limited, Mumbai.
 - Outsourcing of Indigenous Development of Aluminum Silicon carbide Metal matrix Composites to M/s.Aeronautical Development Establishment, Bangalore.
- **CSIR-NIO**
 - MoU signed with BITS Pilani KK Birla Campus, Goa for Long-Term collaboration in the areas of Education, Teaching and Research (11 October 2022)

- **CSIR-SERC**

- An MoU was signed with Garden Reach Shipbuilders and Engineers (GRSE) Ltd, Kolkata, on 20 October 2022, for "Analysis, Design Checking and Testing of Modular/Girder/Permanent Steel Bridges and Health Monitoring of Bridges" at the DefExpo 2022 held at Ahmedabad.

Collaborations/Agreements/MoUs Signed (International)

- **CSIR-NIO**

- MoU signed with University of Dubrovnik, Croatia for Cooperation in research and development in marine ecology and marine instrumentation (03-10-2022)

Patents Filed		Patents Granted		Patent Prosecutions	
India	Abroad*	India	Abroad*	India	Abroad*
10	07	12	06	23	153

* Data reported to IPU the said period and may increase later during national phase entries

High impact S&T services offered

- **CSIR-CDRI**

- Laboratory Animal Facility:
 - The CPCSEA (Committee for the Purchase of Control and Supervision of Experimental Animals) approved experimental animals (total no. 152) were supplied to outside research organizations for research purpose.
- Common Research and Technology Development Hub (CRTDH):
 - Provided analytical services, technology assessment services, or consultancy/assistance in regulatory filings [New Drug Applications (NDAs)/Investigational New Drug (IND) Applications) in India and the European Union to three MSMEs in the Pharmaceuticals sector: Mediclin Clinical Service, Lucknow, Helixion Biosciences, Hyderabad and G Praxen & Co., Lucknow.
- Sophisticated Analytical Instrument Facility:
 - Provided service for analysis of sample by IR (Infra-Red), Mass, NMR (Nuclear Magnetic Resonance) and EM (Electron Microscopy)

- **CSIR-CMERI**

- Material Testing to ascertain the cause of failure of broken shaft for Jharkhand Tourism Development Corp Ltd, Jharkhand was performed.
- Structural audit of Headgear of MME for Indian Metals & Ferro Alloy Limited, Odisha was performed.

- **CSIR-CRRI**

- Mix design on M-10, M-25 & M-30 Concrete for Central Public Works Department (CPWD), Goa was developed.

- Investigation to assess Rutting in the pavements to determine cause and suggest remedial measures for the Aligarh Kanpur section pkg-II for PNC Aligarh Highways Pvt. Ltd., Agra.
- Customized Training Programme on "Pavement Design, Construction, Evaluation and New Technologies for Rural Roads", for the officers of MPRRDA at Bhopal was conducted.
- Evaluation of various roads (eleven roads, total length 7.44 km.) through Benkelman beam deflection test under SRD project division-II for Public Works Department (PWD), Delhi was performed.
- Study distress of 2.25km Phullanwala Jn to Jain Mandir Road under Greater Ludhiana Area Development Authority was investigated.
- Quality Audit of Six Laning Shamlaji to Motachiloda section, NH-8 Ahmedabad, Gujarat for NHAI, Gujarat was performed.
- **CSIR-CSMCRI**
 - Initiated pre-feasibility studies on seaweed cultivation in Dona Paula, Goa coastal region and Andaman & Nicobar Islands.
 - Scientist of CSMCRI acted as an International Expert Reviewer for project submitted for the 2022 Regular FONDECYT National Projects Competition of National Research and Development Agency, Ministry of S&T, Knowledge and Innovation of Chile.
- **CSIR-IIP**
 - Zero TI tar was prepared for making Petroleum-Coal Tar Hybrid Pitch under project sponsored by Tata Steel Limited.
 - Completed sponsored project on "Evaluation of Friction and wear of friction wedge material for Railway application" by Raneka Industries, Pitampure.
- **CSIR-IITR**
 - Air Quality Survey in Lucknow city during Diwali days (i.e., pre-Diwali days, on-Diwali day and post-Diwali days) was carried out to find particulate & gaseous pollutants and monitor noise level at four sites covering residential, commercial and industrial areas in Lucknow.
- **CSIR-IMMT**
 - Regular S&T services through analytical CSIR
- **CSIR-NGRI**
 - Initiated Controlled Source Audio-frequency Magnetotelluric (CSAMT) and Audio Magnetotelluric (AMT) studies under the GSI sponsored project, for Deep-seated Mineral Prognosis by Geophysical Techniques Lithospheric Structure and Relationship with Kimberlite Clusters of Kalyandurg-Timmasamudram-Chigicherla, Anantapur District, Andhra Pradesh."
- **CSIR-NML**
 - Upscaling (to 10 tonne/day) of Red Mud Containing Geopolymer Paving Block Process developed at CSIR-NML

- **CSIR-SERC**
 - Condition Assessment by carrying out NDT of RCC walls & corbels of FM Vault of RB 3&4 including a detailed inspection of the structural steel beam Structure at EL 115.5 m of RB-3 at Kakrapar Atomic Power Project (KAPP) 3&4 was performed.
 - Detailed NDT assessment of structural steel framing FM vault (north and south) in RB-3 at NPCIL, Kakrapar was performed.
- **CSIR-URDIP** Provided input in the:
 - Task Force meeting of ATLAS mission held on 14 Oct-2022.
 - Monitoring Committee meeting of ATLAS mission held on 17 Oct-2022.

Outreach Activities (Jigyasa, Skill Development, and others)

- **CSIR-CDRI**
 - Student -Scientist Connect program was organized for:
 - Students of Maharshi University of Information and Technology, Lucknow on 18th October, 2022. More than 35 students participated in the program and were sensitized to various research activities ongoing in the institute.
 - Students of Kendriya Vidyalaya, AFS, Memaura, Lucknow on 19th October, 2022. More than 50 students participated in the program and were sensitized to pursue career in Science.
 - As a part of GATI (Gender Advancement for Transforming Institutions), an innovative Pilot Project launched by the Department of Science and Technology (DST), a two days Corporate Exposure and Gender Workshop for girls was organized in association with Sarthak Foundation. About 175 girls from more than 15 colleges of Lucknow participated in the program.
- **CSIR-CECRI**
 - one-week Skill Development Training Programme was organized on:
 - Foundation Course on Solar Energy Materials - Fundamentals to Device Fabrication between 10-14 October 2022. (43 participants).
 - Corrosion Protection Technologies for Construction of Buildings and Structures between 17-21 October 2022. (23 participants).
 - Teachers workshop in association with TNSCST and skill development group of CSIR-CECRI on “Foundation Course on Solar Energy Materials: Fundamentals to Device Fabrication” held on 10-11 October 2022. 17 Teachers participated.
 - Lab@school programme - 7 scientists and 9 AcSIR students visited the following 4 schools
 - Government Boys Higher Secondary School, Alangudi, Pudukkottai
 - Muthiah Alagappa Matriculation School, Kottaiyur,
 - Government Girls Higher Secondary School, Subramaniapuram, Pudukkottai,

- Government Higher Secondary School, Cauvery Nagar, Pudukkottai held on 12 October 2022.
 - Teachers workshop in collaboration with RSC and skill development group of CSIR-CECRI on “Foundation Course on Solar Energy Materials: Fundamentals to Device Fabrication” held on 13-14 October 2022 (9 Teachers participated).
- **CSIR-CEERI**
 - Organised *Mein Bhi Banu Kalam* workshop under JIGYASA Mission on 19 October, 2022. Total 200 students participated in the event.
- **CSIR-CFTRI**
 - Under the Jigyasa program, an outreach and student-scientist connect program was organized for the students of Atomic Energy Central School, Yelwala, Mysuru on 19th October 2022 in which 110 students and 6 teachers participated.
- **CSIR-CMERI**
 - One day outreach programme for Showcasing of technologies of CSIR-CMERI followed by interactive session at Army Public School, Panagarh was organized on Oct 18, 2022.
 - Jigyasa Programme on “Infusing Intelligence to Machines” was organised for the students of KV (CRPF) Durgapur on Oct 27, 2022.
 - Jigyasa Programme on “Welcome to the world of AI” was organised for the students of KV (CRPF) Durgapur on Oct 28, 2022.
- **CSIR-CRRI**
 - Conducted MoRTH approved 15-day Certification Course on “Road Safety Audit and Other Road Safety Related Aspects” for the officials nominated by NHAI, Govt. of India, during 07-21 October, 2022. The programme was attended by 40 participants nominated by NHAI.
- **CSIR-CSMCRI**
 - Two phases of CSIR Skill initiative training programme on “Seaweed cultivation and its processing technology” organized at CSIR-CSMCRI-MARS, Mandapam during 12-14 October 2022 and 18-20 October 2022 respectively. Totally 40 participants from colleges, govt officials, fishermen and industries participated
- **CSIR-IHBT**
 - A capacity building program “Hands on training in the area of recombinant DNA technology” was organized on 10-11 October 2022 under CSIR-Integrated Skill Initiative (Phase II) Program B.Sc. Biotechnology students (24 Nos.) along with faculty members from Pandit Sant Ram Govt. College, Baijnath, Distt. Kangra participated in this program.
 - Awareness and training programme was held during 10-14 October 2022 in different villages of Tandi, Gaushal, Muling, Shansha and Keylong Gram Panchayats of Lahaul and Spiti districts. The programme was focused on creating awareness of the newly designed dry bio toilet

(ComSan-DT) that is proposed to be installed at different locations of Lahaul valley under the Fast Track Commercialization project funded by CSIR under 4th tranche E3OW theme.

- Training to farmers onsite aromatic marigold (*Tagetes minuta* L.) cluster at village Matt, Distt. Kangra, (H.P.) on 12 October 2022. Farmers were trained for harvest and post-harvest management of aromatic marigold to get higher yield and quality essential oil.
- One-day awareness cum training programme on cultivation and processing of aromatic crops at CSIR-IHBT on 19 October 2022.
- 41 students accompanied by 05 teachers (representing classes IX to XII) of Government Senior Secondary School, Keylong, Lahaul and Spiti, (H.P.) visited to CeHAB-IHBT, Keylong on 21 October 2022 under CSIR Jigyasa Programme for awareness on Himalayan biodiversity, local bioresources and climate change impacts, as well as exposure on research work being undertaken at CeHAB.
- 67 students and 11 teachers from 06 different Govt. and Public schools of (H.P.) visited CSIR-IHBT, Palampur under “Jigyasa” programme during 17-18 October 2022.
- Under "Skill Vigyan Program" sponsored by DBT-HIMCOSTE, assessments (online theory and viva) were conducted for two courses: Quality Control Biologist (15 No.) and Lab Technician/ Assistant (09 No.) on 11 October 2022.
- One Project “Hands on Training Program on Development of Nutraceutical Based Formulations and their Characterization” under Karyashala Scheme of SERB has been approved.
- **CSIR-IICT**
 - Two-week course “Analytical Skills Development Course-Asia” for 10 international participants from 10 Asian Countries (Nepal, Cambodia, Sri Lanka, Maldives, Saudi Arabia, Bangladesh, Iraq, State of Palestine, Philippines and Malaysia) was initiated on 10th October 2022 and successfully completed on 21st October 2022 at CSIR-IICT under CSIR-Integrated Skill Initiative. This course was sponsored by The Organization for Prohibition of Chemical Weapons (OPCW), The Netherlands.
 - A Skill Development Training on Water Purification & Analysis was commenced on 12th September 2022 for one month to Chemical Engineering Students at CSIR - IICT Under CSIR Integrated Skill Initiative.
- **CSIR-IIIM**
 - 20 students of class 12th and 1 teacher of Heritage school, Jammu visited various research labs of CSIR-IIIM on 12 October 2022 and interacted with scientists and research scholars. The visit aimed to enhance the scientific knowledge of the students and learn basic experiments.

- 143 students & 17 teachers from various schools of J&K visited Startup Expo on 1st October 2022, organized by CSIR-IIIM and interacted with scientists and entrepreneurs.
- In order to create awareness of Jigyasa program, different schools of District Doda, Jammu & Kashmir were visited and briefed about various programs organized time to time under Jigyasa program.
- **CSIR-IIP**
 - Basic Skill Development Training on 'Testing of Petroleum Products' conducted during October 10-27, 2022.
 - A team of 77 Students of Grades XI & XII from Sant Kabeer Academy, Dehradun along with 4 Faculty Members visited CSIR-IIP on 14 October, 2022
- **CSIR-IITR**
 - In collaboration with Regional Ayurveda Research Institute (RARI), Lucknow a one-day health check-up camp was organized on 12 October 2022. In this program, more than 100 scholars and staff of the Institute were provided with one-to-one Ayurvedic consultations, diagnostic tests, and medicines were distributed. This endeavor was done as a part of the nationwide series of events being done to commemorate "Ayurveda@2047".
 - The Central Council for Research in Ayurvedic Sciences (CCRAS) in collaboration with CSIR-TKDL, New Delhi have been jointly organizing activities related to the upcoming Ayurveda Day (23 October 2022), the theme of which is "Har Din Har Ghar Ayurveda".
- **CSIR-NAL**
 - Jigyasa 2.0 – Student Visiting Programme was organized from 03-11 October 2022.
 - As part of Ayurveda Day Celebration – free Medical Checkup and Plantation on 17-10-2022.
- **CSIR-NGRI**
 - Under CSIR Integrated Skill Initiative Program "Groundwater Exploration Techniques" training program was conducted during 10.10.2022 to 21.10.2022. In this program 15 Doctoral and Post-Doctoral students participated from various Universities across India.
- **CSIR-NIIST**
 - The valedictory session of first batch of the skill development course on 'IPR, Patent drafting and Practice' conducted by the CSIR-NIIST and completed on 10th October 2022. Shri Unnat Pandit, Controller-General of Patents, Designs and Trademarks, interacted online with the students during the valedictory session.
- **CSIR-NML**
 - Organized following one day programmes through Virtual Lab Integration for:

- Students of UMS School visit Tangrain, Potka on 13 Oct., 2022 and 45 students participated.
- Visit of BPM +2 High School Burmines and Popular Lecture Series on 3D Printing delivered on 18 Oct., 2022, 48 students participated.
- **CSIR-SERC**
 - Two-day, CSIR JIGYASA ATL workshop was organized on 18-19 October 2022, exclusively for the students of the adopted schools in Tiruppur Districts of Tamil Nadu. Six scientists of CSIR-SERC and CSIR Madras Complex visited the schools and delivered lectures on topics related to basic science, the latest scientific advancements, battery experimental workshops, etc., and also witnessed the facility created under the ATL program. More than 500 students and 40 teachers participated in the workshop.

Major Conferences, Seminar/Webinars, Workshops organized

- **CSIR-Hqtrs**
 - CSIR Society Meeting was held on 15 Oct., 2022. The Meeting was chaired by Hon'ble Prime Minister of India and President CSIR, Shri Narendra Modi. The meeting was attended by Hon'ble Union Minister of State (I/C) S&T, Dr Jitendra Singh, who is the Vice President of CSIR and Hon'ble Union Minister of Commerce and Industry, Shri Piyush Goyal, along with other CSIR Society members who include eminent scientists, industrialists and Secretaries of scientific and other ministries in the Government.
 - CSIR Directors Conference was held on 28 & 29 Oct., 2022 at CSIR-IHBT, Palampur. The conference was chaired by Dr. N. Kalaiselvi, DG CSIR & Secretary CSIR. The conference was attended by Directors of CSIR Labs and the Heads of CSIR Hqrs Directorates & CSIR Units.
 - CSIR participated and showcased its technologies at Vibrant India 2022, New Delhi from 14-16 October, 2022. Labs participated were CSIR-IIP, CSIR-CRRI and CSIR-CIMAP.
 - CSIR participated in DefExpo organized at Gandhinagar, Gujarat from 18-22 October, 2022 and showcased its technologies and exhibits. Labs participated were CSIR-IIP, CSIR-NAL, CSIR-NPL, CSIR-CEERI, CSIR-CGCRI, CSIR-CSIO and CSIR-NPL.
- **CSIR-CBRI**
 - Celebrated CSIR Foundation day on October 1, 2022, in the institute. Dr. Sudhir Kumar, Director, National Institute of Hydrology, Roorkee, Uttarakhand, India, graced the occasion as Chief Guest and delivered the foundation day address.
 - Seventh National Ayurveda Day was celebrated in the CSIR-CBRI on the theme "har din har ghar Ayurveda" on October 18, 2022. Professor S K Joshi, Vice Chancellor of Ayurveda University, Dehradun, Prof. D. Singh, Rishikul College, Haridwar, Prof. P Tiwari, Gurukul Kangri

University, Vaidya Tek Vallabh, Roorkee, Dr Anjali Tiwari and Dr Gajendra Rao, Regional Ayurveda Research Institute, Ranikhet were present on the occasion. They shared their experiences and gave many important information regarding Ayurveda. About 110 patients were examined in the OPD by two Ayurveda experts and free Ayurvedic medicines were distributed to about 70 patients.

- **CSIR-CIMFR**
 - On the occasion of Celebration of 7th “Ayurveda Day” on 18.10.2022 at CSIR-CIMFR, Dhanbad: A lecture on the topic of “Ayurveda in life is the need of today and the security of the future” delivered by Dr. Vimal Tewary, Research Officer, Regional Ayurveda Research Institute, Patna followed by a Video film on “Sustained Development of Ayurveda”.
- **CSIR-CSMCRI**
 - One-day workshop comprising two lectures on topics of Stores & Purchase by Shri Srideb Nanda, Controller of S&P, CSIR HQ, New Delhi was organized on 17.10.2022 at CSMCRI
 - CSIR-CSMCRI celebrated the 81st CSIR Foundation Day on 13th Oct 2022. Prof. Aniruddha Bhalchandra Pandit, Vice Chancellor, UGC Professor, ICT - Mumbai was the Chief Guest in this function. He has delivered the guest lecture on "Environmental Management to Address Sustainability"
 - Dr Parth Dave, Research Officer, The Central Council for Research in Ayurvedic Sciences (CCRAS), Ministry of Ayush has delivered an expert talk on 'Initiatives of Ministry of Ayush for COVID-19 & Prophylaxis and Management of COVID-19 through Ayurveda interventions: Best practices and evidence-based approach; and Holistic Health with Ayurveda' at CSIR-CSMCRI on 18th Oct. 2022 as a part of “Ayurveda Day 2022” Celebration.
 - Under Special Campaign 2.0 Swachh Bharat Mission, CSIR-CSMCRI has carried out the renovation of a dump yard to a live stage, where CSIR-CSMCRI celebrate 81st CSIR Foundation Day in this week
- **CSIR-HRDC**
 - Orientation Training Programme for newly promoted Section Officers from 12-14 Oct 2022 was organized.
- **CSIR-IHBT**
 - CSIR-IHBT organized the CSIR Directors’ Conference at Palampur, HP during 28-29 October, 2022.
- **CSIR-IICT**
 - 7th Ayurveda Day 2022 was jointly organized by CCRAS- National Institute of Indian Medical Heritage, Hyderabad & CSIR- IICT, Hyderabad on 13th October 2022.
 - Dr. (Smt.) Tamilisai Soundararajan Hon'ble Governor of Telangana and Hon'ble Lt. Governor of Puducherry, graced “Woman Scientists

Conclave: Self Reliance” at Swami Vivekananda Auditorium, CSIR-IICT jointly organized by National Academy of Sciences, India (NASI) Hyderabad Chapter and Academy of Science, Technology & Communication (ASTC) on 10 October 2022.

- **CSIR-IIIM**

- 6 days training program on “Current Trend in R&D, Modern Scientific Advances & Technology for Scientific Understanding” was organized from 10th–15th October 2022 for AYUSH professionals; working as teachers, doctors, scientists and researchers. 30 selected trainees from different parts of country attended this training program.
- The two days Startup Expo was organized by CSIR as part of *Āzadi Ka Amrit Mahotsav* from 30-09-2022 to 01-10-2022. The mega event, first of its kind in Jammu, was inaugurated by the Dr. Jitendra Singh, Union Minister of State (I/C) for S&T. the Expo attracted a huge crowd of entrepreneurs, investors, industry, students and young professionals.

- **CSIR-IITR**

- Two-day program on "World Food Day 2022" on Oct 14-15, 2022. Delivering the World Food Day Lecture, “Food: Atma Nirbhar@75”, Padma Shri Professor Subbanna Ayyappan, Former Secretary, Department of Agricultural Research and Education (DARE) & Director General, Indian Council of Agricultural Research (ICAR) and currently Chancellor, Central Agricultural University Imphal spoke at length about the increasing role of agripreneurs in ensuring food security.

- **CSIR-NGRI**

- Women Scientists Conclave: Self Reliance at IICT Auditorium was held on 10.10.2022, which is jointly conducted by IICT, CCMB, NGRI
- 7th Ayurveda Day 2022 activities jointly organized by CSIR-NGRI, Hyderabad and CCRAS- National Institute of Indian Medical Heritage, Hyderabad to commemorate Ayurveda @ 2047 under *Azadi ka Amrit Kaal* with the theme “हरदिनहरघरआयुर्वेद”. Under this program expert talk on ‘An overview of Ayurveda Day Activities ’ was delivered by Chief Guest Dr. G. P. Prasad, Assistant Director In-charge, CCRAS-NIIMH, Hyderabad.

- **CSIR-NIIST**

- One Day Workshop on Women's Health: The Ayurvedic way on 19th October 2022 organised at CSIR-NIIST to commemorate Ayurveda @ 2047 under *Azadi ka Amrit Kaal* on 7th Ayurveda Day.

- **CSIR-NML**

- To Commemorate the 7th Ayurveda Day an Ayurvedic Medical Camp and free distribution of medicines was held on 14 October 2022. The speaker of the lecture was Dr. Balaji Potbhare, R.O(Ay), Nodal Officer and the topic was "Ayurveda for mental wellbeing".

Visit of high-level dignitaries to the Institute/Laboratory

- **CSIR-CDRI**
 - Shri. Prakash Bindu, Special Secretary, Department of Science & Technology,UP, Mr. Anil Yadav, Director, Council of Science & Technology,UP and Dr. Huma Mustafa, Joint Director (Biotechnology), Council of Science & Technology, UP visited the major facilities of Institute and interacted with scientists to discuss the possible collaborative efforts for development of the State in the area of S&T.
- **CSIR-CEERI**
 - Sh. Alkesh Kumar Sharma, MeitY Secretary, visited CSIR-CEERI, Chennai Centre for launching Leather grade System on 20 October, 2022
 - Dr. Arvind C Ranade, Executive Director, Indian National Science Academy (INSA), visited CSIR-CEERI on the occasion of JIGYASA *Mein Bhi Banu Kalam* workshop on 19 Oct 2022
- **CSIR-CFTRI**
 - Padma Bhushan Dr. T. Ramasami, Former Secretary, Department of Science & Technology, Govt. of India visited the Institute as the Chief Guest of the CSIR-CFTRI Foundation Day which was held on 21 October 2022.
- **CSIR-HRDC**
 - Joint Secretary Admin CSIR has visited CSIR-HRDC on 12 October 2022
- **CSIR-IHBT**
 - Prof S. K. Sopory, Former Vice Chancellor, JNU, New Delhi visited the tissue culture laboratory on 12 October 2022 and interacted with lab students about their ongoing research activities.
 - Mr. R. S. Patial, Director, (H.P.)SFDC (North), Dharmshala, (H.P.), visited the Institute on 15 October 2022 and discussed about ongoing research interventions related to forest crops.
- **CSIR-IITR**
 - On the occasion of World Food Day, Padma Shri Professor Subbanna Ayyappan, Former Secretary, DARE & DG, ICAR and Chancellor, Central Agricultural University, Imphal delivered the World Food Day Lecture “Food: Atma Nirbhar@75” on 14 October, 2022, at 10:00 AM at CSIR-IITR, Lucknow.
- **CSIR-NGRI**
 - CSIR Foundation Day Lecture was delivered by Prof. B.S Murty, Director IIT, Hyderabad as a Chief Guest, on 03 October 2022.

COVID related developments/research

- **CSIR-IHBT**
 - COVID-19 samples testing for Kangra district of (H.P.) continued.

- **CSIR-IIP**
 - 473 samples tested.
 - Out of the total 108 nos. of PVSA MO2 plants deployed at various govt. hospitals across India based on CSIR-IIP's PVSA technology, retrofitting of additional air compressor, vacuum pump, auto change over system and voltage stabilizers have been completed to over 70 plants through CSIR-IIP's designated vendors under the PMCARES funding through DRDO.

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

- **CSIR-CBRI**
 - Celebrated fit India freedom run 3.0 as a part of *Azadi ka Amrit Mahotsav* during October 2-31, 2022. The Plog run was conducted on October 2, 2022 and October 8, 2022.
- **CSIR-CECRI**
 - In commemoration of our Nation's 75th Year of Independence, *Azadi Ka Amrit Mahotsav* and CSIR-CECRI@75, CSIR-CECRI in association with SAEST is organizing a monthly Lecture Series on 'Electrochemical Science and Technologies: A Path Forward to Sustainable Society'.
 - Dr. Kartik Kumar, Deputy Director, Saint-Gobain Research India Private Limited, Chennai delivered a Lecture on "Charged surface modulated applications" on 13th October, 2022.
 - Dr. K. A. Venkatesan, Head, Process Radiochemistry Reprocessing Research and Development Division, Reprocessing Group, Indira Gandhi Centre for Atomic Research, Kalpakkam delivered a Lecture on "Nuclear Fuel Cycle" on 14th October, 2022.
- **CSIR-CGCRI**
 - Essay, Deshbhakti Geet and Lori Writing Competitions organized by CSIR-CGCRI under *Azadi Ka Amrit Mahotsav* to celebrate and commemorate 75 years of progressive India and the glorious history of India's people, culture and achievements.
- **CSIR-CRRI**
 - As part of the cleanliness campaign #SpecialCampaign2.0 & *Azadi ka Amrit Mahotsav*, Plantation of trees at CSIR-CRRI on 26.10.2022 by Director, CSIR-CRRI, Prof. Manoranjan Parida and other Senior Scientists.
- **CSIR-CSMCRI**
 - CSIR-CSMCRI carried out the coastal cleanup drive campaign "*Swachch Sagar, SurakshitSagar/Clean Coast Safe Sea*" (Initiative of Ministry of Earth Science, New Delhi) at Ariyaman beach situated in Sathakkonvalasai village, Ramanthapuram Taluka in Ramanathapuram District of Tamil Nadu, India.

- **CSIR-IHBT**
 - Plog run was organised on 02 October 2022 under Fit India Freedom Run Campaign.
 - Special Campaign 2.0 under *Swachh Bharat* Mission. Under the Mission following work was done:
 - Old file weeded.
 - Obsolete equipment's and tools disposal.
 - Cleanliness of campus area
- **CSIR-IICT**
 - Hindi Fortnight Closing Ceremony was organized in CSIR-IICT, Hyderabad on 03rd October 2022, in which the winners of various competitions organized during Hindi Fortnight were awarded by the Chief Guest Prof. Arun Kumar Tiwari, Ex-Scientist, DRDO and Author. Dr. D. Srinivasa Reddy, Director, IICT presided over the function.
- **CSIR-NIIST**
 - Fit India Freedom Run 3.0 organized at CSIR-NIIST on 15 October 2022 in the quest for better health and fitness.

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, Goods & Service Tax (GST) concessions and Weighted tax deductions on R&D by Industry (under section 35(2AB) of IT Act). This scheme helps in encouraging industrial R&D in the country.

Industrial R&D Promotion Programme

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

- 32 in-house R&D units of industries were granted renewal of recognition and 90 were granted renewal of registration certificates.

Scientific and Industrial Research Organisation (SIROs)

Recognition/ Registration and renewal of SIROs

- 33 SIROs were granted renewal of recognition and 22 were granted renewal of registration certificates.

Public Funded Research Institution (PFRIs)

Registration and Renewal of PFRIs

- 12 PFRIs were granted renewal of registration certificates.

DSIR Central Sector scheme 'Industrial Research and Development (IRD)' comprise of the four sub-schemes i.e (i) Promoting Innovations in Individuals, Start-ups and MSMEs (PRISM), wherein financial assistance is extended to independent innovators for converting innovative ideas into demonstrable working models / prototypes / processes that may take the form of new or improved products, processes, or services; and assist them to become incubatees / techno-entrepreneurs, (ii) Patent Acquisition and Collaborative Research and Technology Development (PACE), wherein support shall be provided to industries and institutions for development and demonstration of innovative technologies,(iii)Building Industrial R&D and Common Research Facilities (BIRD), wherein support shall be provided for creation of Common Research and Technology Development Hubs 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) :

One project was reviewed during October 2022.

Scheme CRTDH:

The 3rd Project Guidance cum Review Committee (PGRC) meeting conducted during October, 2022 to review the financial and technical progress of following CRTDHs:

- CSIR-Central Drug Research Institute (CDRI), Lucknow:
- CSIR-Indian Institute of Toxicology Research (IITR), Lucknow:

Scheme A2K+:

1. A2K+ Events:

- An event entitled "5th International Conference on Nutraceuticals & Chronic Diseases (INCD 2022) on the topic Pharmaceuticals & Nutraceuticals for Cancer & Other Chronic Diseases" was organized by Department of Zoology, University of Delhi, Delhi under the A2K+ Events Program in University of Delhi Campus from 7thOctober, 2022 to 9th October, 2022. Many stakeholders like Scientists, Academicians, Nutritionists, Allopathic, Homeopathic, Ayurvedic, Unani, Siddha & Traditional Medical Practitioners, Industry Representatives, Students, Researchers, Delegates from various Nutraceuticals & Pharmaceutical Industries and Research Students, MSME's/ Start-up's participated in the conference from India & Abroad. The conference was attended by 300-350 participants.
- CSIR- Central Scientific and Instruments Organization (CSIO), Chandigarh has conducted an International Conference on "Emerging Materials for

Sustainable Development (EMSD)” at CSIR-CSIO, Chandigarh on 9th – 11th October, 2022. The conference was attended by 183 participants and addressed the issue on (i) creating awareness among young researchers about emerging materials role in sustainable development goals (SDGs), (ii) importance of networking amongst researchers for interdisciplinary research in materials for SDGs, (iii) necessity to understand and deliberate on materials scaling challenges for translation in reference to SDGs goals.

2. A2K+ Studies: Knowledge Dissemination Program:

Project Guidance cum Review Committee (PGRC) Meeting was conducted to assess the financial and technical progress and devise roadmap for ongoing projects.

3. A2K+Technology Development and Utilization Programme for Women (TDUPW):

- Two Project Review Committee (PRC) Meetings were conducted to review the financial and technical progress of two projects.
- 372 Women Beneficiaries have been trained under the various ongoing TDUPW projects aiming at women empowerment through technology deployment and dissemination.

PUBLIC SECTOR ENTERPRISES

Central Electronics Limited (CEL)

CEL is an enterprise under DSIR having an objective to commercially exploit the indigenous technologies developed by National Labs and R&D institutions in the country. CEL has developed a number of products for the first time in the country through its own R&D efforts and it continues to emphasize its leading role in the area of solar photovoltaic systems, electronic gadgets for Railway and other strategic electronic equipment/components among others.

- The company manufactured electronic components/systems/SPV products worth Rs.1783.50 Lakhs during October, 2022.
- Sale of items worth Rs.1089.71 Lakhs was realized during October, 2022.

National Research Development Corporation (NRDC)

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

- NRDC has been assigned technology on 'Saline Water Lantern' by National Institute of Ocean Technology (NIOT), Chennai and one technology on 'Process for extraction of Chitin/ moth scales of Mulberry silkworm (Bombyx mori L.) by submerged fermentation technology' by Central Sericultural Research & Training Institute (CSR& TI), Mysore during October 2022.
- NRDC has collected royalty of Rs.0.15 Lakhs from respective technologies during October, 2022.
