

Foundation Day Special

CSIR Celebrates its 82nd Foundation Day

CSIR Foundation Day - 2023

CSIR Decadal Achievements (2014-2023) Exhibition

26-27 September, 2023, Pragati Maidan, New Delhi



CSIR celebrated its 82nd Foundation Day on 26-27 September 2023 at Pragati Maidan, New Delhi. The celebrations included various events such as Foundation Day Lecture, Technical Sessions, Presentation of the Shanti Swarup Bhatnagar (SSB) Prizes, Mega Expo, the culmination of “One Week, One Lab” initiative, etc.

Dr Jitendra Singh, Hon'ble Minister of State for Science and Technology & Vice President, CSIR, graced the celebrations as Chief Guest on 26 September 2023. Mr S Somanath, Secretary, Department of Space & Chairman, ISRO, delivered the Foundation

Day Lecture. Besides, the mega expo on "CSIR Decadal Achievements: 2014-2023" was also organised where CSIR labs showcased their products, technologies and R&D through attractive posters and exhibits. Dr VK Saraswat, Member (Science) Niti Aayog & Prof. Ajay Sood, Principal Scientific Advisor to GoI, inaugurated the exhibition and the “CSIR Industry Meet: Technical session”.

The Plenary Session was conducted at Bharat Mandapam, Pragati Maidan. During the session, Hon'ble Prime Minister Shri Narendra Modi extended his heartfelt congratulations to all the SSB awardees



Image credit: PIB

Mentioning CSIR's Mega Exhibition showcasing technological advancements of the last decade, the Hon'ble Prime Minister Shri Narendra Modi said that the exhibition will be inspiring and informative for everyone.

via a message. He also conveyed his greetings and best wishes to everyone associated with CSIR for the success of the 82nd CSIR Foundation Day. He highlighted the significance of the 82nd Foundation Day for CSIR, especially after the successful Chandrayaan-3 mission, for which CSIR was one of the organisations that made significant contributions. He added that the efforts of our space and science ecosystem have demonstrated that we can achieve anything we set our minds to.

The Prime Minister also emphasised that the government supports scientists by providing adequate resources and creating a favourable research ecosystem to facilitate scientific advancement. He also acknowledged the nation's scientific temper and unlimited potential to work for the global good, especially during the pandemic. Mentioning CSIR's Mega Exhibition showcasing technological advancements of the last decade, the Hon'ble Prime Minister added that the exhibition

will be inspiring and informative for everyone.

The Hon'ble Minister, Dr Jitendra Singh, praised CSIR for pioneering initiatives such as the Carbon Capture, Utilisation and Storage (CCUS) Mission, Hydrogen Technology Mission, and the Mission-mode project on Sickle Cell Anaemia. He also appreciated newer initiatives like the Phytopharmaceutical Mission, the Antiviral Mission, and the Mission for Recycling Li-Ion batteries.

Dr Jitendra Singh emphasised the importance of the "One Week, One Lab" initiative, which gave the general public a glimpse into the capabilities of the CSIR labs. This initiative helped create awareness about the labs' latest technological advancements and innovative work. It benefitted various stakeholders, including industries, government departments, small businesses, startups, researchers, students, and teachers. By showcasing these labs' work, more people learned about their contributions in the country's scientific progress and development.

Addressing the gathering, Dr N Kalaiselvi, DG, CSIR said, “Without enlarging the canvas of the vision of any organisation, one cannot paint the big picture of Bharat in the global arena. Therefore, we are fully getting geared up to enlarge the canvas of our vision, and we will be coming up with a big plan in the name of CSIR, which is nothing but CSIR celebrating its 100th year of establishment in 2042.”

In his address, Prof. Ajay Kumar Sood said that CSIR is on the path to the next phase. Talking about the rationalisation of the Shanti Swarup Bhatnagar Awards and other Science Awards, he informed

that from next year, we will have Vigyan Yuva Shanti Swarup Bhatnagar Awards, Vigyan Shri Awards, Ratna Awards and Vigyan Team Awards. All awards will be national-level awards, he added.

Mr S Somanath delivered a lecture on “Technologies for Societal & Industrial Application – ISRO Case Studies” and thanked CSIR for providing excellent support.

The prestigious Shanti Swarup Bhatnagar Awards were also presented to the winners during the programme.

Concluding the event, Dr Geetha Vani Rayasam, Head, CSIR-HRDG, proposed the vote of thanks.

The Hon'ble Minister, Dr Jitendra Singh emphasised the importance of the "One Week, One Lab" initiative, which gave the general public a glimpse into the capabilities of the CSIR labs.

Shanti Swarup Bhatnagar Prize (SSB) for Science & Technology 2022

Shanti Swarup Bhatnagar Prize for Science and Technology was instituted in the year 1957, in the memory of late Dr (Sir) Shanti Swarup Bhatnagar, FRS, the founder director of the Council of Scientific & Industrial Research (CSIR). The SSB Prize is awarded each year on the basis of conspicuously important and outstanding contributions to human knowledge and progress, made through work done primarily in India during the five years, preceding the year of the prize.

Any citizen of India engaged in research in any field of science and technology up to the age of 45 years is eligible to be nominated. Overseas Citizen of India (OCI) and Persons of Indian Origin (PIO) working in India are also eligible.

The SSB Prize, comprising a citation, a cash award of Rupees five lakh and a plaque, is given to each person selected for the award in the following disciplines:

- **Biological Sciences**
- **Chemical Sciences**
- **Earth, Atmosphere, Ocean and Planetary Sciences**
- **Mathematical Sciences**
- **Medical Sciences**
- **Physical Sciences**
- **Engineering Sciences**





The recipients of the Shanti Swarup Bhatnagar Prize 2022 for Science and Technology are:

Biological Sciences

Dr Ashwani Kumar

Molecular Mycobacteriology Laboratory
CSIR-Institute of Microbial Technology
Chandigarh – 160036
ashwanik@imtech.res.in

Dr Maddika Subba Reddy

Laboratory of Cell Death and Cell Survival
Centre for DNA Fingerprinting Diagnostics
Hyderabad – 500039
msreddy@cdfd.org.in

Chemical Sciences

Dr Akkattu T Biju

Department of Organic Chemistry
Indian Institute of Science
Bengaluru – 560 012
atbiju@iisc.ac.in

Dr Debabrata Maiti

Department of Chemistry
Indian Institute of Technology Bombay
Mumbai – 400 076
dmaiti@chem.iitb.ac.in

Earth, Atmosphere, Ocean and Planetary Sciences

Dr Vimal Mishra

Water and Climate Laboratory
Indian Institute of Technology
Gandhinagar 382 355
vmishra@iitgn.ac.in

Engineering Sciences

Dr Dipti Ranjan Sahoo

Department of Civil Engineering
Indian Institute of Technology
New Delhi – 110 016
drsahoo@civil.iitd.ac.in

Dr Rajnish Kumar

Department of Chemical Engineering
Indian Institute of Technology Madras
Chennai – 600 036
rajnish.ncl@gmail.com

Mathematical Sciences

Dr Apoorva Khare

Department of Mathematics
Indian Institute of Science
Bengaluru – 560 012
khare@iisc.ac.in

Dr Neeraj Kayal

Department of Mathematics and Computing
Microsoft Research Lab India
Bengaluru – 560 001
neeraka@microsoft.com

Medical Sciences

Dr Dipyaman Ganguli

Translational Research Unit
CSIR- Indian Institute of Chemical Biology
Kolkata – 700032
dipyaman@iicb.res.in

Physical Sciences

Dr Anindya Das

Department of Physics
Indian Institute of Science
Bengaluru – 560 012
anindya@iisc.ac.in

Dr Basudeb Dasgupta

Department of Theoretical Physics
Tata Institute of Fundamental Research
Mumbai – 400 005
bdasgupta@theory.tifr.res.in

CSIR-NIScPR Celebrates 82nd CSIR Foundation Day



CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), New Delhi, celebrated the 82nd Foundation Day of CSIR on 10 October 2023 at the CSIR-NIScPR campus. On this occasion, Prof. Chetan Singh Solanki, Founder of the Energy Swaraj Movement and Professor at IIT Bombay, who is also known as the Solar Man of India, was the Chief Guest.

Welcoming the gathering, Prof. Ranjana Aggarwal, Director, NIScPR set the tone of the programme and gave an overview of the CSIR Foundation Day. She said that this year's Foundation Day was unique as all the CSIR laboratories came together on a single platform and showcased their achievements collectively. She further highlighted the role played by CSIR laboratories in the technological progress of the country and how they are contributing to an *Atma Nirbhar Bharat*.

This was followed by the Foundation Day lecture by the Chief Guest,

Prof. Chetan Singh Solanki on “Six-Points Understanding of Climate Change and Corrective Actions”. Prof. Solanki shared his invaluable wisdom on energy conservation with the CSIR-NIScPR family and said that the wrong way of using and consuming energy leads to problems like Climate Change. He also gave his mantra of using power judiciously, which he calls the AMG (Avoid, Minimise and Generate) approach. Avoid one-third of the power which we consume unnecessarily or can easily avoid in our homes, minimise power wastage by using energy-efficient appliances



Chief Guest Prof. Chetan Singh Solanki giving CSIR Foundation Day lecture

Prof. Ranjana Aggarwal, Director, NIScPR, said that this year's Foundation Day was unique as all the CSIR laboratories came together on a single platform and showcased their achievements collectively.



Winners with their Prizes

Chief Guest Prof. Chetan Singh Solanki shared his invaluable wisdom on energy conservation with the CSIR-NIScPR family and said that the wrong way of using and consuming energy leads to problems like Climate Change.

and lastly, generate one-third of the energy. This way, we can save energy and hence tackle the big problems like Climate Change. The Chief Guest stressed upon the critical role we played as individuals in the whole schema of energy conservation.

During the programme, the first *Biennial Report* (2021-2023) of CSIR-NIScPR featuring the institute's achievements and contributions to science communication and science policy was released jointly by the Chief Guest and the Director, NIScPR. In addition, another CSIR-NIScPR publication titled, '*Animal Journey: The magic of migration*' by Dr Sukanya Dutta was also released on the occasion.

The programme was also marked by the felicitation of NIScPR's retired employees, who have been the cornerstone of its success over the years and those who have completed 25 years of service.

Later, a delightful cultural programme featuring performances by the talented students and staff of CSIR-NIScPR captivated the audience with music, dance, and other artistic expressions by students and staff of CSIR-NIScPR.

During the event, students and staff of CSIR-NIScPR performed a cultural programme that included music, dance, and other artistic expressions.

CSIR-IMTech Celebrates 82nd CSIR Foundation Day



Prof. Rudra Pratap, Vice Chancellor, Plaksha University delivering 82nd CSIR Foundation Day Oration

The 82nd Foundation Day of CSIR was celebrated at the CSIR-Institute of Microbial Technology (CSIR-IMTech) with a prestigious Foundation Day lecture delivered by Prof. Rudra Pratap, Vice Chancellor, Plaksha University, Mohali, on "Education and Research in the Age of AI" that called for preparedness for radical changes in education and research in the face of enormous possibilities due to Artificial Intelligence (AI).

Prof. Pratap, in his talk, made some important reflections on how the first two decades of the 21st century have ushered in tectonic shifts in how the world operates through rapid changes brought by digital technologies. In his address, he outlined that breakthrough technologies of AI shall power the coming decade and be a dominant force in all aspects of research.

Dr Ashwani Kumar, Senior Principal Scientist, CSIR-IMTech, who has been recently conferred the prestigious Shanti Swarup Bhatnagar award for the year 2022, in the field of Biological Sciences, also delivered a talk on his research findings. This award has been given for his significant contributions to TB pathophysiology, especially the role of biofilm-induced infections.

Dr Sanjeev Khosla, Director, IMTech, while welcoming the guests and faculty to CSIR's Foundation Day, apprised the audience of CSIR's service to



Dr Sanjeev Khosla, Director IMTech felicitating Dr Ashwani Kumar, Senior Principal Scientist and Shanti Swarup Bhatnagar Awardee for the year 2022

the nation in the last eight decades and how scientific and technological interventions from CSIR have helped society. In his welcome address, he highlighted the synergistic partnerships that have strengthened the CSIR system through inter-lab collaborations and helped promote interdisciplinary research.

As part of the celebrations, CSIR-IMTech also felicitated its retirees and employees who have completed 25 years of service. The institute also awarded mementoes to wards of its staff for their outstanding performances in various sporting events held at the state and national levels.

Prof. Rudra Pratap, VC, Plaksha University, outlined that breakthrough technologies of AI shall power the coming decade and be a dominant force in all aspects of research.

CSIR-IIIM Celebrates 82nd CSIR Foundation Day

At the CSIR-Indian Institute of Integrative Medicine (CSIR-IIIM), Jammu, the 82nd Foundation Day of the CSIR was celebrated on 9 October 2023. Padam Shri Professor Vinod K Singh, Chair Professor, IIT Kanpur, was the Chief Guest and delivered the CSIR foundation day lecture, "Towards Excellence in Science & Technology".

While addressing the audience, he lucidly dealt with the various opportunities, challenges and the

way forward to achieve quality and excellence in science and technology. Complimenting the work of CSIR through the last more than eight decades in various domains & specialities, Prof. Singh underscored the importance of good governance and the role of management, heads of institutions, and young professionals. On this occasion, the Chief Guest also presented the mementoes and "Samman Patra" to ex-employees



Chief Guest, Padam Shri, Prof. Vinod K Singh, during his address lucidly dealt with the various opportunities, challenges and the way forward to achieve quality and excellence in science and technology.

who superannuated during the last year and completed 25 years of service in CSIR.

Earlier, Dr Zabeer Ahmed, Director of CSIR-IIIM, giving details of the day-long Foundation Day programme, informed that an exhibition-cum-poster presentation session for scholars and startups was organised besides a competition on Artificial Intelligence Model Preparation under Jigyasa by various school children. The event was also marked as an Open Day for all the school and college students. More than 500 students from KV

Sunjawan, KV-1 Jammu, Jawahar Navodaya Vidyalaya, Bhartiya Vidhya Mandir, Army Public School, Jammu Cantt. Army Public School, Akhnoor, and others visited the institute.

Further, around 350 students from colleges associated with Cluster University Jammu, Jammu University, and SMVD University, Katra, visited the exhibitions and different labs of the institute. The students also interacted with scientists and got to know about research methodologies.

CSIR-CCMB's Open Day Gets 7000 Visitors

CSIR-Centre for Cellular and Molecular Biology (CSIR-CCMB), Hyderabad, organised its annual Open Day on 26 September 2023 on the occasion of its parent body CSIR's 82nd Foundation Day celebrations. The programme attracts thousands of visitors to the research institute every year. This year, CCMB had more than 7000 visitors on the day, mostly school and college students and educators.

The CCMB research groups had put up fun and engaging exhibits explaining their scientific work. There were interactive exhibits and an art corner to understand



Live experiments at CCMB Open Day

genetic and infectious diseases better. In addition, there were live experiments for the visitors to cover some of the basic molecular biology techniques. This was especially designed for college students whose curriculum prescribes these experiments, and yet most colleges are unable to conduct these in their setups.

“It makes us immensely proud to see the interest that the city shows in our work. Year after year,

we see a continued interest, in the education community especially, to come for CCMB’s Open Day. This year, the Open Day comes less than two months after our “One Week, One Lab” celebrations, where the campus was open to visitors for almost a week. The sustained numbers only remind us there needs to be more such avenues for discussing science in the city,” said Dr Vinay K Nandicoori, Director, CCMB.

CSIR’s One Week, One Lab

CSIR-NBRI’s “One Week, One Lab” Programme



Hon’ble Union Minister Dr Jitendra Singh, during the launch of ‘Lotus Mission’

CSIR-National Botanical Research Institute (CSIR-NBRI), Lucknow, organised “One Week, One Lab” programme during 14-19 August 2023. CSIR-NBRI designed the celebration in such a way that each R&D area of the Institute showcased their respective R&D achievements during the week-long celebrations. The campaign also included events for scientist-student connect, panel discussions

on various emerging issues, popular talks by eminent experts, R&D Exhibitions, and industry meets.

The week-long programme was inaugurated on 14 August 2023 by Dr N Kalaiselvi, DG, CSIR, New Delhi and Shri Mahendra Kumar Gupta, Joint Secretary, CSIR. They also released/launched various R&D outcomes of CSIR-NBRI viz. New Variety of Lotus ‘NBRI Namoh

“It makes us immensely proud to see the interest that the city shows in our work. Year after year, we see a continued interest, in the education community especially, to come for CCMB’s Open Day” said Dr Vinay K Nandicoori, Director, CCMB.

*Dr N Kalaiselvi
inaugurated a
beautification drive
initiated by CSIR-
NBRI at Laxman
Chowk, Lucknow
Airport under CSIR
Floriculture Mission.*



Shri SP Shahi, Hon'ble Cabinet Minister, UP, inaugurating the exhibition on 'Climate Change, Microbial & Environmental Technologies'

108'; New Variety of Aloe vera 'NBRI-Nihar'; apparels made from lotus fibre and Perfume 'Frotus' developed from Lotus plants in collaboration with FFDC, Kannauj; herbal products 'Herbal Cold Drops' & Herbal Anti Dandruff Shampoo; a database of 500 Raw Drug Repository developed as per Indian Pharmacopoeia Standards; Virtual Herbarium; herbal colours from temple offered flowers for various applications; and a book on Rose in CSIR-NBRI Garden. An MoU was also exchanged with M/s Nucleome Informatic, Hyderabad, for collaborative research on cotton. Dr N Kalaiselvi also inaugurated a beautification drive initiated by CSIR-NBRI at Laxman Chowk, Lucknow Airport under CSIR Floriculture Mission. The day ended with a panel discussion on Emerging Opportunities in Gardening & Floriculture.

Day 2 started with the 77th Independence Day Celebrations. Dr AK Shasany, Director, CSIR-CBRI, hoisted the National Flag at KN Kaul Block as well as

Distant Research Centre, Banthra. A plantation drive of 'Miyawaki Forest' and 'Mother Blocks of Roses' was also organised at Distant Research Centre, Banthra. Under the beautification drive, ornamental plants were planted on the divider of the road near the KN Kaul Block of the institute.

On Day 3, the thematic exhibition on Plant Diversity, Systematics & Herbarium was inaugurated by Shri Durga Shankar Mishra, Chief Secretary, Govt of UP, in the presence of Dr M Sanjappa, Former Director, BSI; Dr PV Sane, Former Director, CSIR-NBRI & Dr Ramanuj Narayan, Director, CSIR-IMMT, Bhubaneswar. The display of the Linnean Trail showcasing some plants named by the father of taxonomy Carolus Linnaeus and a selfie point featuring State Flowers of India were the key attraction among the general public. *E-Flora of Uttar Pradesh*, a book on plant resources of Uttar Pradesh and a brochure on '*CSIR-NBRI Herbarium*' were also released on the occasion. The day

ended with a panel discussion on 'Plant Taxonomy and Biodiversity: Cross-sectoral Linkages & Impacts on Conservation and Sustainable Development'.

Day 4 marked the thematic exhibition on "Climate Change, Microbial & Environmental Technologies" inaugurated by Shri Surya Pratap Shahi, Hon'ble Cabinet Minister, Agriculture & Dr Arun Kumar Saxena, Hon'ble Minister of State (Independent Charge), Environment & Forest, Government of UP. Three MoUs were exchanged by the Institute with the Agriculture Department, UP Government; M/s Agrifort Technologies & Forest Department, Uttar Pradesh, respectively on the occasion. The day concluded with a Panel Discussion on Technological leads with reference to the present challenges in the environment and agriculture sectors of India and a Stakeholder Connect Meet programme.

Day 5 started with the Thematic Exhibition on 'Plant Molecular Biology & Genetic Improvement' inaugurated by Dr Rakesh Tuli, Former Director, CSIR-NBRI and Dr Arvind Kumar, DDG (Research) ICRISAT, Hyderabad. An MoU was exchanged with M/s Ankur Seeds, Nagpur, for collaborative research on the development of cotton seeds. A NASI Debate competition was organised for students. The day concluded with a Panel Discussion on 'Agri-biotechnology Innovation & Technology Adoption: Bridging the Gap between Research & Implementation' and a poster competition in which more than 50 research scholars presented their research work.

The final day of the programme started with Thematic Exhibition on 'Pharmacognosy, Phytochemistry & Pharmacology' inaugurated by Prof. Rabinarayan Acharya, DG, CCRAS, New Delhi; Dr CS Nautiyal, Former Director, CSIR-NBRI & Dr Sanjay Kumar, Chairman, ASRB, New Delhi. The day also marked with a unique workshop on Traditional Recipes (Millets) for Health Benefits where more than 25 selected participants presented their recipes. A Panel Discussion on Challenges & Opportunities in Herbal Drug Development was also organised.

The concluding day witnessed a special session under the chairmanship of Dr Jitendra Singh, Hon'ble Union Minister (Science & Technology), Government of India & Vice-President, CSIR, New Delhi, who also visited the R&D Pavilion of the "One Week, One Lab" and appreciated the efforts of CSIR-NBRI in the field on floriculture, plant diversity, molecular biology areas. He also released/launched various R&D outcomes of CSIR-NBRI including dedication of Lotus Variety 'Namoh-108' & Lotus

Dr Jitendra Singh, Hon'ble Union Minister (Science & Technology), visited the R&D Pavilion of the "One Week, One Lab" and appreciated the efforts of CSIR-NBRI in the field on floriculture, plant diversity, molecular biology areas.



CSIR-CSIO released its annual report for 2021-22 and inspiring videos on new technologies. It also introduced the ACS-CSIO international student chapter's website to foster global collaborations.

Based Products to the Nation; Lotus Mission; Herbal Products (NBRI-Gout out & NBRI-Phyto-V) & Microbial Products (Bio Arsenic Guard, BIO PAL-1, BACI-GUARD & BIOAGENT PBE8); Certified Reference Materials (Eucalyptol, Andographoide, Curcumin).

The weeklong "One Week, One Lab" festival was concluded on 19 August 2023 with a valedictory function at CSIR-NBRI. Shri Brajesh

Pathak, Hon'ble Deputy Chief Minister, Govt of UP was the Chief Guest whereas Shri Awanish Kumar Awasthi, Administrative Advisor to Hon'ble CM, Government of UP and Prof. Rabinarayan Acharya, DG, CCRAS, New Delhi, graced the occasion as Guests of Honour. The dignitaries also felicitated the winners of various competitions such as poster and debate competitions.

CSIR-CSIO Celebrates "One Week, One Lab" Programme

In a CSIR-Central Scientific Instruments Organisation (CSIR-CSIO), Chandigarh, launched the "One Week, One Lab" campaign on 24 June 2023, with Dr N Kalaiselvi, Director General of CSIR, inaugurating key facilities and an exhibition of their groundbreaking technologies. The event showcased CSIR-CSIO's commitment to scientific excellence and innovation.

CSIR-CSIO released its annual report for 2021-22 and inspiring videos on new technologies.

It also introduced the ACS-CSIO international student chapter's website to foster global collaborations. The week-long campaign featured workshops, events, and discussions, uniting experts from diverse fields in a celebration of scientific brilliance and technological advancement.

On 26 June 2023, CSIR-CSIO continued its "One Week, One Lab" campaign with diverse events. The Industry/Innovator/MSME/Academia Meet facilitated collaboration and innovation. Concurrently, the Stakeholders Meet focused on the Jal Jeevan Mission, aiming to enhance safe drinking water provision through technology and research. The Roadmap to Defence Technologies and Manufacturing session gathered defence leaders to strengthen India's defence capabilities. A panel discussion explored innovation within CRIKC (Chandigarh Region Innovation & Knowledge Cluster) Institutions. Municipal Commissioner Anandita Mitra visited CSIO's waste



processing facilities, expressing interest in collaboration.

The two exceptional events held on 27 June 2023 brought together industry experts, researchers, students, and innovators, creating a platform for collaboration and knowledge exchange. The National Conference on Avionic Technologies & Display Systems-2023 (NCAD-2023) served as a crucial platform for stakeholders in design and development agencies, R&D establishments, academic institutions, production agencies, and end-users from defence, airforce, PSU, and civilian establishments to engage in dialogue and deliberations on avionics technologies and display systems. The conference aimed to showcase the latest technologies, capabilities, and infrastructure in the field of avionics, bridging the gap between laboratory research and practical implementation. It also provided opportunities for collaboration, empowering young researchers, students, developers, and startups to contribute to the futuristic requirements of our country. The participation of MSMEs, startups, and defence PSUs further enriched the conference, fostering innovation and potential collaborations in the avionics sector.

Simultaneously, the IETE Institutional Student Forum (ISF) Congress in association with CSIO-ISTC-ISF was organised. The one-day Congress, focused on "Electronic Hardware Skill Intervention", was jointly organised by the IETE (ISF) at Indo Swiss



Training Centre (ISTC) of CSIO and the Institution of Electronics and Telecommunication Engineers (IETE). The event aimed to foster skill development and innovation in electronic hardware by engaging teams of students from different engineering colleges/institutions. These teams showcased their expertise through competitions such as electronics hardware skill competition, science fiction idea presentation competition, and project expo. The event was inaugurated by the esteemed Chief Guest, Prof. (Dr) V Guna Sekhar Reddy, President of IETE. Cash prizes were awarded to the best-performing teams, encouraging and recognising their talent.

On 28 June 2023, the institute conducted two significant events. The Seminar on "Road Map for Medical Devices towards Atmanirbhar Bharat", inaugurated by Dr Rajesh S Gokhale, Secretary, DBT, aimed to achieve self-reliance in medical devices. Eminent speakers and stakeholders discussed India's potential in biomedical engineering, and MoUs for research collaborations were signed. The seminar featured

The National Conference on Avionic Technologies & Display Systems-2023 (NCAD-2023) aimed to showcase the latest technologies, capabilities, and infrastructure in the field of avionics, bridging the gap between laboratory research and practical implementation.

IETE Institutional Student Forum (ISF) Congress in association with CSIO-ISTC-ISF was organised and the event was inaugurated by the esteemed Chief Guest, Prof. (Dr) V Gunasekhar Reddy, President of IETE.

a panel discussion, plenary talks, and a poster presentation competition, "Advancement in Healthcare Technologies (AiHT 2023)" showcasing research ideas. Concurrently, another event focused on innovations in materials for energy and environmental technologies, uniting experts, researchers, and industry leaders for advancements in critical sectors.

CSIR-CSIO, INST Mohali, and ACS-CSIO International Student Chapter jointly organised the 2nd Bilateral Meet, "Innovations in Materials for Energy and Environmental Technologies (i-MEET 2023)". The event, held at the CII Auditorium, Chandigarh, focused on advanced materials in photonics, electronics, biomedical sciences, and more. Distinguished guests delivered keynote lectures, and young researchers presented their work, fostering collaboration between academia, scientists, and industries for innovative product development in energy, environment, and sustainable technologies.

CSIR-CSIO in collaboration with the ACS CSIO International Student Chapter, organised a two-day collaborative workshop on "Instruments for Environment and Food Quality Assurance" on 29 & 30 June 2023, at CSIR-CSIO. The workshop aimed to provide training and nurture young researchers, bachelor's/master's students, and industry professionals in advanced scientific instrumentation used for assessing the quality of food and the environment.

On 30 June, CSIR-CSIO hosted a conference themed "The growing steps of Science and Technology" to promote scientific and technological advancement. The event brought together scientists, researchers, scholars, and industry experts to share experiences and ideas, fostering progress. Prof. S Anantha Ramakrishna, CSIR-CSIO Director, introduced the Chief Guest, Professor Harish Chandra Verma, a renowned physicist. Prof. Verma delivered a lecture on enhancing scientific temperament in India, emphasising the use of Hindi. Mr Ajay Shrivastava, Director General of Indian Software Technology Parks of India, Mohali, discussed the evolution of information technology in the country, making it a significant gathering to drive science and tech development.

CSIR-CSIO organised a joint lecture series in collaboration with the Indian Radio Science Society (InRaSS), New Delhi. The International Union of Radio Science (URSI) is the custodian for radio science worldwide. The



two delegates from InRaSS namely Prof. Amitava Sengupta, General Secretary and Prof. Janardhan Padmanabhan, Councillor shared their research experience in the

field of development of Atomic Clock and Coronal Mass Ejections respectively. The event concluded with the valedictory session.

CSIR-CGCRI Celebrates “One Week, One Lab” Programme

CSIR-Central Glass and Ceramic Research Institute (CSIR-CGCRI), Kolkata, conducted the “One Week, One Lab” programme during 22-26 August 2023. The Curtain Raiser event was held on 22 August 2023 in the institute. Dr Ranjan Sen, Director of Indian Association for the Cultivation of Science (IACS), Kolkata, was the Chief Guest and was accompanied as Guest of Honour by Dr Debashish Bhattacharjee, Vice President, Technology and R&D of Tata Steel; Dr Ranjana Aggarwal, Director of CSIR-National Institute of Science Communication and Policy Research; and Dr HS Maiti, Former Director of CSIR-CGCRI. The programme was also associated with exhibitions of the technology portfolio of the institute.

On 22 August 2023, an Industry Meet was organised at CSIR-CGCRI

in which around 20 industries from various sectors joined the programme in person while around 13 joined online. Dr Debashish Bhattacharjee, Vice President, Technology and R&D of Tata Steel was the Chief Guest during the interaction. The meet was followed by a visit to selected laboratories and interaction with scientists to explore R&D collaboration.

On 23 August, CSIR-CGCRI organised a college/university connect programme entitled “Connecting and Creating Future Leaders”. It was attended by around 127 students, the interaction aimed at creating scientific temper among youngsters to transform them to future S&T leaders. Prof. Parthasarathi Chakrabarti, Director IEST, Shibpur, graced the occasion as Chief Guest and Prof. AK Mishra, Director CSIR-CIMFR

*CSIR-CGCRI
organised a college/
university connect
programme entitled
“Connecting and
Creating Future
Leaders”*



Lighting of the lamp and dignitaries on the dais during the Curtain Raiser programme

An Open Day and Skill Development event was organised on 24 August 2023 with the aim of creating awareness in S&T among common people and artisans.

was present as the Guest of Honour. Sessions included were the history of CSIR and CSIR-CGCRI; highlights of technological achievements of the institute; and demonstration of products/technologies through lab visits.

An Open Day and Skill Development event was organised on 24 August 2023 with the aim of creating awareness in S&T among common people and artisans. Dr Suman Kumari Mishra, Director, CSIR-CGCRI welcomed the participants, Dr Ramanuj Narayan, Director, CSIR-Institute of Minerals and Materials Technology, graced the occasion as Chief Guest and delivered a lecture highlighting the connection between science and society. Around 100 participants from rural and urban areas participated in the programme and underwent skill development/demonstration on making terracotta potteries. CSIR-CGCRI products and technologies were also showcased during the event.

As a part of the programme, the CSIR-CGCRI Outreach Centres at Naroda (Gujarat) and Khurja (Uttar Pradesh) organised programmes on 24 August 2023 during which more than 65 participants attended including students and faculty from institutions such as NID, GU, etc. Shri Rupeshbhai Shah of Sonya Group graced the occasion as Chief Guest and Shri GG Trivedi from Vidres India was the Distinguished Guest. Director CSIR-CGCRI, Dr Suman Kumari Mishra welcomed the participants. The interaction was followed by a guided lab visit.

At the Khurja Centre, a similar programme was graced by Shri Kuldeep Meena, Chief Development Officer of Bulandshahr as Chief Guest; and Shri R Ranna, President of KPMA as Special Guest. A large number of students and artisans participated in the programme.

Under the campaign, CSIR-CGCRI conducted a school connect programme on 25 August 2023. It was intended to promote scientific temper among school students and encourage them to pursue research in different scientific domains. The Chief Guest Dr KJ Sreeram, Director of CSIR-Central Leather Research Institute, highlighted the role of CSIR in nation-building activities, and the Guest of Honour Dr Arun Bandyopadhyay, Director of CSIR-Indian Institute of Chemical Biology inspired the students to pursue science for the best interest of the nation. This event was attended by around 295 students and 28 teachers from seven schools. Participant schools included Kendriya Vidyalaya, Dumdum, St Xaviers Institution, Laxmipat Singhania School, Silver Point School, Mukul Bose Memorial School, Jadavpur High School and The Summit School.

The school participants in this programme enjoyed different scientific activities, including popular lectures, live interactive sessions, different product demonstrations of CSIR-CGCRI, scientific quizzes, virtual lab platforms, and many more. Scientists working in different fields showcased CGCRI's various advanced technologies.

The “One Week, One Lab” programme of CSIR-CGCRI concluded with the 73rd Institute Foundation Day celebration on 26 August 2023. This occasion was marked with the 20th Atma Ram Memorial Lecture delivered by Dr (Mrs) N Kalaiselvi, Secretary DSIR and Director General, CSIR, who was the Chief Guest. She spoke on “SDGs and S&T Opportunities”, wherein she touched upon the alignment of CSIR themes with the SDGs vis-a-vis national mission programmes; the challenges in their implementation and the road ahead for achieving the same.

The programme also felicitated institute staff members for their performance. The Director CSIR-CGCRI welcomed the



participants while Dr Debashish Bhattacharjee, Vice President (Technology and R&D) of Tata Steel was present as Guest of Honour besides other dignitaries. Dr Kalaiselvi also opened the Atma Ram Memorial Museum & Archives to the public. The museum envisages tracing the technological evolution of ceramics from the historic period; and the journey of CSIR and CSIR-CGCRI since inception.

CSIR-CCMB Celebrates “One Week, One Lab” Programme

The Centre for Cellular & Molecular Biology (CSIR-CCMB), Hyderabad, celebrated the “One Week, One Lab” campaign from 1 to 5 August 2023. The programme was inaugurated on 1 August 2023 by Dr N Kalaiselvi, Director General, CSIR wherein she said, “Sustainability is the call of the nation today, and it requires different labs, scientists, entrepreneurs and industry to collaborate together. COVID-19 brought many of these stakeholders together, and it is now important to maintain the momentum and solve the many problems in our society.”

The event was also addressed by Dr Madhusudhana Rao, CEO, Atal Incubation Centre-CCMB,

emphasising the importance of bridging the gap between academia and entrepreneurship. This was followed by a brainstorming session between scientists and policymakers on how wastewater surveillance can be used effectively in Indian cities to track and curb infectious diseases.

“During the week-long celebration, CCMB scientists will discuss how the cutting-edge tools in lifesciences help us in not only understanding living systems but also address problems in infectious diseases, wildlife conservation, agriculture, to name a few,” said Dr Vinay Nandicoori, Director, CSIR-CCMB. “We are looking forward to interacting with various

Dr N Kalaiselvi, Secretary DSIR and Director General, CSIR, who was the Chief Guest spoke on “SDGs and S&T Opportunities”, wherein she touched upon the alignment of CSIR themes with the SDGs vis-a-vis national mission programmes.

Last day, CSIR-CCMB organised a one-day consultative meeting on "Collaborative strategies for managing aquatic biological invasions", at the LaCONES-CCMB.



stakeholders on these different aspects," he added.

The institute was open to college students, educators, industry, farmers, wildlife officials and policymakers from 1-5 August 2023, as a part of the celebrations.

On 2 August 2023, the programme included PhD students sharing their research stories. In parallel, a "Workshop with High School Teachers to popularise the educational kits developed at CCMB" was also organised during which teachers were trained in the educational kits developed by CCMB. The kits were commercialised to Thinktac.

An awareness programme for FPOs and farmers regarding improved rice varieties developed at CCMB was conducted on 3 August 2023 during which students in research talks & booths and also the farmers and farmer produce organisations learned about the improved rice varieties developed by the institute.

On 4 August 2023 a public lecture on "Status of Wildlife Crimes in India" by Dr M Kirupasankar, IFS, RDD (SR), WCCB, India, was also organised as part of the programme.

On the last day of the "One Week, One Lab" programme, CSIR-CCMB organised a one-day consultative meeting on "Collaborative

strategies for managing aquatic biological invasions", on 5 August 2023 at the Laboratory for the Conservation of Endangered Species (LaCONES-CCMB). The purpose of the consultative meeting was to bring together experts, researchers, policymakers, and other stakeholders from India to exchange knowledge, discuss challenges, and explore effective strategies for managing and mitigating the impacts of aquatic invasive species.

Dr Umapathy, Senior Principal Scientist, CSIR-CCMB, and the key organiser of the meeting commented, "Studies say that invasive species have cost the Indian economy at least 120-180 billion Indian rupees. Our own studies show the widespread nature of some of the catfish species in India. But there is no comprehensive study bringing together data on aquatic invasive species in India."

Dr Rajat Kumar, IAS, Special Chief Secretary to Govt of Telangana, Irrigation and Environment and Science and Technology & Chairman of Telangana Biodiversity Board was the Chief Guest, along with Dr L Narasimha Murthy, ARS, Chief Executive In-charge, National Fisheries Development Board, Govt of India, who was the Guest

of Honour. Dr Kumar said, “The documentation of invasive species, the mechanism of their spread, their impact on the environment, food security and health are lacking today. It is very timely to bring out this information.”

During the sessions, experts highlighted the various aspects of aquatic biological invasions. This included the aquatic biodiversity of Telangana, aquatic invasive species of India, the role of the aquarium pet industry in invasions, ecological impacts, aquatic invasions in islands and marine ecosystems, tools and techniques to combat aquatic invasions and carbon sequestration of invasive species. There were also brainstorming sessions addressing the research gaps in biological invasions, ecological and economic impacts of aquatic species, and policies and regulatory frameworks for effective management of aquatic invasions.

A total of around 60 people including officials from the Fisheries and Forest Departments,

Telangana Biodiversity Board, NGOs working towards environmental issues, World Wildlife Fund, senior research scholars, post-doctoral fellows and scientists from various institutes such as University of Kerala, Kerala University of Fisheries and Ocean Studies, Wildlife Institute of India Dehradun, National Institute of Oceanography Goa, ATREE Bengaluru, SACON Coimbatore, Osmania University Hyderabad.

Dr Vinay Nandicoori, Director, CSIR-CCMB said, “This meeting has helped us to bring collective thoughts on the issues, management solutions, ground-level interventions to monitor and eradicate aquatic invasive species, and also to protect the native biodiversity, safeguard the rural economy and improve sustainable aquaculture practices. In addition, this meeting has aided in forming a network of stakeholders from various sectors who are committed towards mitigating one of the biggest biodiversity threats.”

Awards & Honours

CSIR-NIScPR Scientist Wins Award for Excellence in Science Communication among Children

Dr Manish Mohan Gore, Scientist, CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), New Delhi, has been awarded the prestigious ‘Jagapati Chaturvedi Bal Vigyan Lekhan Samman’ for the year 2022 by Uttar Pradesh Hindi Sansthan (Lucknow), Govt

of Uttar Pradesh. Uttar Pradesh Hindi Sansthan announced this award on 4 October 2023. Dr Gore was selected for the award for his significant contributions in the field of popular science writing for the young generation. The award consists of a medal, a citation and award money of Rs 51,000.

Dr Manish Mohan Gore, Scientist, CSIR-NIScPR selected for the award for his significant contributions in the field of popular science writing for the young generation.



Dr Gore is a botany doctorate holder, specialised in plant pathology. He is a Scientist at the CSIR-NIScPR where he is associated with the Popular Science Division. He is the editor of two well-known publications, the popular science magazine “*Vigyan Pragati*” and a research journal “*Bharatiya Vaigyanik evam Audyogik Anusandhan Patrika*”. Dr Gore is also the project investigator of the Science Media Communication Cell at NIScPR.

Dr Gore has had a passion for popularising science since his

childhood. He has authored about 10 books and over 500 articles covering a range of S&T topics. He has been active on radio and TV as well. He has coordinated over 100 national science conferences, workshops, seminars, webinars, and book publications. He is a recognised expert in the fields of science communication and science fiction with more than 50 invited lectures on various scientific topics. Dr Gore aims to inculcate scientific temper in society through his writings and is also a prominent science fiction. Some of his famous science fiction works include *325 Saal Ka Adami*, *Prithviputra*, *Nirahari Manav* and *Platform Number 10*.

In 2012, he was awarded the prestigious “Rajiv Gandhi Rashtriya Gyan Vigyan Award” of the Department of Official Language, Ministry of Home Affairs, presented by former Indian President Shri Pranab Mukherjee. His accolades include the “Shiksha Puraskar” (2015) and the “Rajbhasha Gaurav Award” (2021).

Printed and Published by

Mukesh Ambadas Pund on behalf of CSIR-National Institute of Science Communication and Policy Research

Dr KS Krishnan Marg, New Delhi-110 012

Editor: Hasan Jawaid Khan; **Associate Editor:** Sonali Nagar

Design: Abhinav Raj; **Production:** Ashwani Kumar Brahmi

Phone: 25848702; **Fax:** 25847062

E-mail: hjk@niscpr.res.in, sonalinagar@niscpr.res.in

Website: <https://niscpr.res.in>

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Phone: 25843359

Annual Subscription: ₹750; **Single Copy:** ₹75.00

RN 4512/57