

In The News

CSIR-ISRO Space Meet 2025 to Strengthen India's Preparedness for Human Spaceflight Programme



The Council of Scientific and Industrial Research (CSIR) and the Indian Space Research Organisation (ISRO) jointly organised the CSIR-ISRO Space Meet 2025 at Bengaluru on 17 November 2025 to align multidisciplinary research, technology development and institutional collaboration

for India's human spaceflight mission requirements. The programme was hosted by CSIR-National Aerospace Laboratories (CSIR-NAL), Bengaluru, the nodal organising institute.

Dr N Kalaiselvi, Secretary, DSIR & Director General, CSIR, in her welcome

Dr V Narayanan, Secretary, DoS & Chairman, ISRO, recognised the contributions of CSIR and India's national R&D ecosystem and referred to India's long-term objectives, including a future human mission to the Moon, Mars exploration and the establishment of an Indian Space Station.

address, outlined CSIR's scientific and technological contributions towards strengthening India's space capabilities and stated that the meet would offer valuable takeaways through knowledge sharing among scientists, researchers, astronauts and international experts and would address the gap areas. She highlighted India's commitment to indigenous innovation and collaborative R&D, while acknowledging the guidance of Hon'ble Union Minister Dr Jitendra Singh in advancing national scientific and technological goals.

Dr V Narayanan, Secretary, Department of Space (DoS) & Chairman, ISRO, delivered the strategic address and said that the Gaganyaan space programme requires collaboration across different ministries, R&D institutions, academia and partner organisations. He outlined evolving mission priorities, including next-generation crew safety systems, advanced life-support technologies and scientific payload development. He recognised the contributions of CSIR and India's national R&D ecosystem and referred to India's long-term objectives, including a future human mission to the Moon, Mars exploration and the establishment of an Indian Space Station.

Dr Abhay A Pashilkar, Director, CSIR-NAL, welcomed participants and reiterated NAL's commitment to advancing technologies, material research and testing capabilities supporting India's aerospace and human spaceflight goals.

A special video message by Mr Jean-Francois Clervoy, ESA Astronaut (NASA STS-66, STS-84, STS-103), added a global perspective and underlined the importance of international cooperation and shared scientific learning in advancing human spaceflight.

During the experience-sharing sessions, Group Captain Prasanth B Nair, ISRO Astronaut, presented insights from astronaut training, microgravity simulations, operational readiness and recovery frameworks. Wg Cdr Rakesh Sharma (Retd), India's first astronaut, reflected on his 1984 Soyuz mission and acknowledged NAL's long-standing aerospace contributions. Both astronauts emphasised that the Indian Human Spaceflight Programme is aimed at peaceful exploration and human-centric research.

Technical and thematic sessions featured presentations by international and national experts, including Dr Lucia Rocco (ESA) on human spaceflight physiology, Dr Akiko Otsuka (JAXA) on collaborative research perspectives, and Prof. Pradipta Biswas (IISc) on human-technology interaction and interface design for crewed missions.

The CSIR-ISRO Space Meet 2025 concluded with a collective resolve to strengthen science-technology convergence, mission-driven R&D and multi-agency collaboration to advance India's human spaceflight programme, aligned with the national vision of Viksit Bharat.

CSIR and NICDC Partner to Drive Innovation Across India's Industrial Corridors



The Council of Scientific and Industrial Research (CSIR) and the National Industrial Corridor Development Corporation (NICDC) signed a Memorandum of Understanding (MoU) on 12 November 2025, to establish a collaborative framework for leveraging CSIR's R&D expertise and innovative technologies across India's upcoming industrial corridors.

The MoU was signed in the presence of Dr N Kalaiselvi, Director General, CSIR, and Shri Rajat Kumar Saini, IAS, CEO & MD, NICDC. It was formally executed by Dr Vibha Malhotra Sawhney, Outstanding Scientist and Head, Technology Management Directorate, CSIR, and Mr Vikas Goel, General Manager (CS & Marketing), NICDC, at CSIR Headquarters, New

Delhi. Senior officials from both organisations were also present.

This strategic partnership seeks to foster self-reliant, innovation-led industrial ecosystems aligned with key national initiatives such as Make in India, Startup India, and Aatmanirbhar Bharat. The collaboration will promote the establishment of R&D hubs, industrial incubators, and innovation centres within smart cities to strengthen industry-academia-research linkages and accelerate the growth of high-tech enterprises.

A key focus of the partnership will be identifying, adapting, and deploying advanced technologies to enhance productivity, operational efficiency, and environmental sustainability across sectors. Priority areas include industrial automation, biotechnology,

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renewable energy, advanced materials, digital manufacturing, robotics, aerospace, infrastructure engineering, chemicals, pharmaceuticals, medical devices, scientific instrumentation, agro-processing, and sustainability-driven utilities.

This MoU marks a significant step toward integrating scientific innovation with industrial growth to strengthen India's position as a global manufacturing and technology leader.

Source:PIB

MoUs/Agreements

CSIR-NPL Transfers Technologies



Advances in Noise Metrology with Transfer of “Portable Free-Field Sound Calibration System” to Industry

CSIR-National Physical Laboratory (CSIR-NPL), New Delhi, transferred technology entitled Free-Field Calibration System for Noise Measuring Devices with a Portable Anechoic Chamber to M/s Hi-Tech Calibration & Testing LLP, Vapi, Gujarat, on 29 October 2025.

The present technology developed by Acoustics and

Vibration Metrology subdivision, CSIR-NPL, titled “Free-field Calibration System for Noise Measuring Devices with a Portable Anechoic Chamber” is a calibration system developed for free-field calibration of sound level meters and analysers in a portable anechoic chamber. The portable chamber developed has been verified for free-field

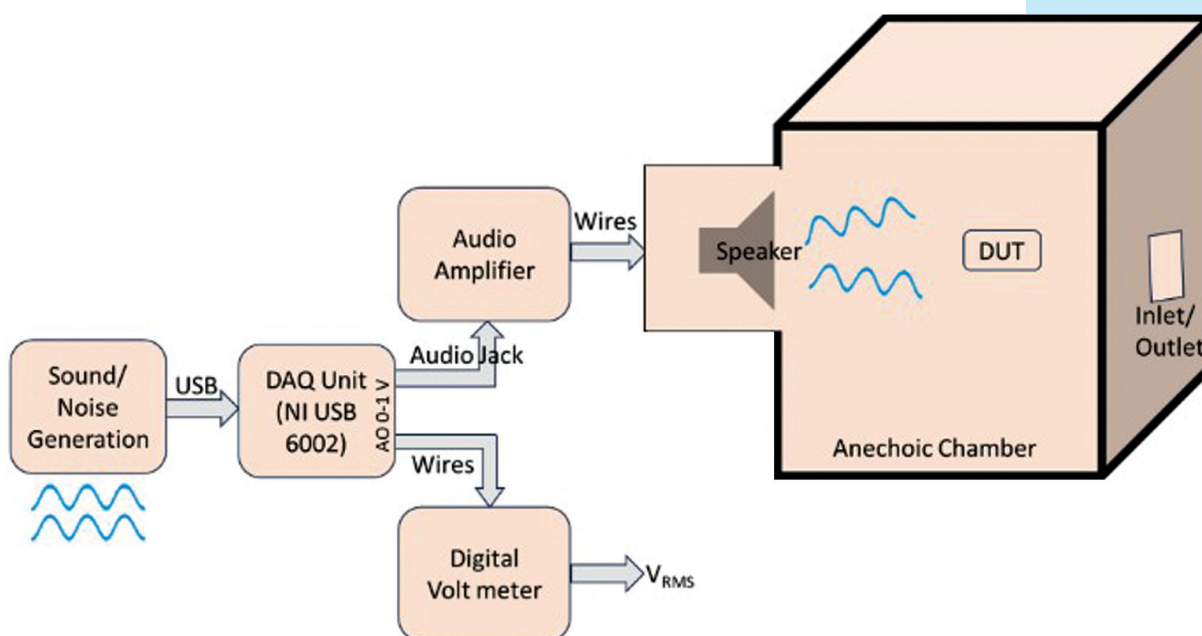


Fig.(a) Block diagram of system architecture

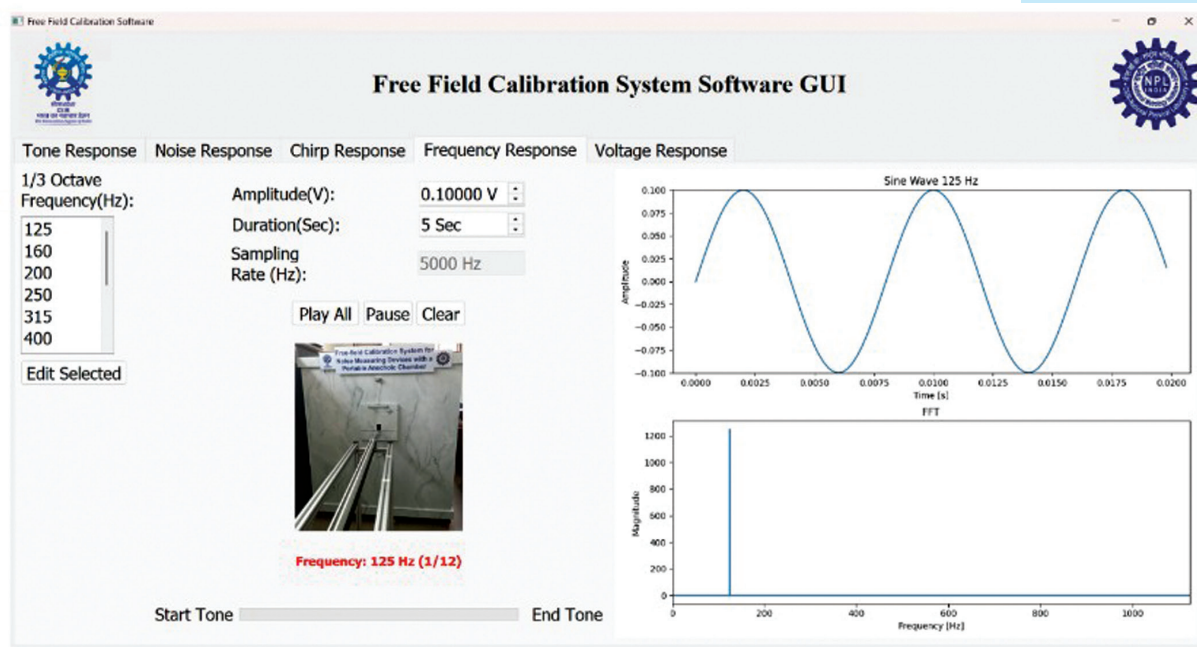


Fig. (b) Free field calibration system software GUI

characteristics, and the sound absorption characteristics of the absorptive materials have been evaluated in reverberation chambers.

The technology shall be very helpful for calibration and testing laboratories and industries like toy manufacturing, manufacturers of sound level

meters, and noise monitoring terminals for ascertaining the free-field characteristics of the devices manufactured by them. The traceability of the system is through the national standards of sound pressure level realised at Acoustics and Vibration Metrology, CSIR-NPL.

The novelty of the technology lies in the fact that a portable chamber, in conjunction with a user-friendly GUI developed, can calibrate the noise measuring device in a range of 50 dB to 110 dB and frequency of 250 Hz to 10 kHz. A GUI framework so developed can be used to generate pure tone, random noise and chirp signals in order to ascertain the response of the noise measuring device at varied amplitudes and frequency levels. Fig. 1(a) shows

the block diagram of the system architecture, and Fig. 1 (b) shows the free-field calibration system software GUI. The technology shall be helpful for calibration and testing labs in the country for calibration and testing of noise measuring devices, including sound level meters, sound level analysers and noise monitoring terminals for strengthening the measurement traceability chain in sound parameters throughout the country.

Another Step towards “Atmanirbhar Bharat

In recent years, CSIR-NPL has been actively engaged in the development, testing, and calibration of several Particulate Matter (PM) technologies. A state-of-the-art facility has been established in the Gas Metrology Section of the Environmental Sciences and Biomedical Metrology Division at CSIR-NPL. This facility provides comprehensive services to Indian manufacturers and industries in related domains, including filter and mask testing, air purifier testing, Beta ray particle monitor calibration, and manual sampler testing and calibration, among others.

In addition to providing technology support to various industries, several PM measurement technologies – including PM_{2.5}, PM₁₀, and cascade impactor samplers – have already been transferred to Indian manufacturers and successfully commercialised, in line with national initiatives such as “Make in India” and “Atmanirbhar Bharat” (Self-Reliant India).

As a further outcome of this facility, a “High-Volume PM₁ Sampler” technology, indigenously designed and developed at CSIR-NPL, was transferred to the MSME M/s MJ Environmental



Technology Transfer and MoU signing between CSIR-NPL, New Delhi, and M/s MJ Environmental Solutions LLP, Noida

Solutions LLP, Noida, during the CSIR Foundation Day celebration held on 29 October 2025, at CSIR-NPL.

This technology features a novel design of a PM₁ impactor sampler, which efficiently segregates particulate matter (PM) larger than 1 µm (aerodynamic diameter) and enables the collection of particles

≤ 1 µm in size from ambient air on an 8-inch × 10-inch filter, operating at a high flow rate of 1.13 m³/min (approximately 40 CFM). This marks the first high-volume PM₁ sampling technology developed in India, representing a significant step toward indigenous capability in advanced air quality monitoring systems.

CSIR-AMPRI Inks an MoU with IMD

On the auspicious occasion of CSIR's Foundation Day, 26 September 2025, the SODAR (Sound Detection and Ranging) system facility, designed & developed by CSIR-Advanced Materials and Processes Research Institute (CSIR-AMPRI), Bhopal, was inaugurated at India Meteorological Department (IMD), Delhi, by Dr M Ravichandran, Secretary, Ministry of Earth Sciences (MoES), Dr Mrutyunjay Mohapatra, Director General of Meteorology, India Meteorological Department and Prof. Dr Thallada Bhaskar, Director, CSIR-AMPRI, Bhopal. Dr Mohd Akram Khan, Chief Scientist & Head, Energy and Environmental Solutions Division; Dr Sandeep Singhai, Senior Principal Scientist & Head, Business Development Group, Dr Kirti Soni, Senior Principal Scientist & Principal Investigator of the SODAR activity, CSIR-AMPRI, Bhopal and Dr Manish Mohan Gore, Senior Scientist, CSIR-NIScPR, Delhi were also present on the occasion. Honourable Dr N Kalaiselvi, DG CSIR and Secretary, DSIR, joined the event virtually



and underscored this initiative a very significant in terms of strengthening the indigenisation of Indian technology for serving society.

Dr M Ravichandran, Secretary, Ministry of Earth Sciences, Govt of India, considered this MoU between CSIR-AMPRI and IMD very promising. Dr M Mohapatra, DGM, IMD, remarked that the SODAR unit of AMPRI will add value and provide additional data for a better forecast of weather.

This collaboration between CSIR-AMPRI and IMD is expected to generate significant advances in the field of meteorology, climate science, and environmental studies, benefiting both research communities and the nation as a whole.

A Memorandum of Understanding was signed between CSIR-AMPRI and IMD, and documents were exchanged between Prof. Dr Thallada Bhaskar, Director, CSIR-AMPRI, and Dr Mrutyunjay Mohapatra, Director General of Meteorology, India Meteorological Department.

The purpose of this MoU is to enhance collaborative research work between CSIR-AMPRI and IMD in climate and environmental studies with emphasis on scientific and societal challenges related

to weather, climate variability, forecasting and disaster risk reduction. The MoU facilitates the sharing of SODAR system data across various locations for forecasting, validation, and research initiatives.

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R&D

What's Behind the Shape-shifting Cells?

Imagine a white blood cell needing to move toward a pathogen to engulf and destroy it. The blood cell needs to form flat protrusions in the direction of the pathogen to swim toward it. These protrusions form within microseconds. Scientists at CSIR-Centre for Cellular and Molecular



Justus Francis and Saikat Chowdhury at the cryogenic electron microscope facility at CSIR-CCMB

Biology (CSIR-CCMB), Hyderabad, have discovered how cells can adapt their internal skeletons to create such protrusions. The study is published in *Nature Structural & Molecular Biology*.

The cell's shape depends on a dense, branched actin network found near the cell membrane. Actins are structural but very dynamic molecules known for their ability to push on the cell membrane. When the cell needs to make a new protrusion, it must create a new meshwork of actin that can push in the desired direction of movement. CCMB scientists led by Dr Saikat Chowdhury discovered that cells can generate new actin mesh from a pool of actin monomers in a tightly regulated manner via a protein called SPIN90.

They found that SPIN90 works as a dimer with another protein complex – Arp2/3. This initiates the growth of new actin filaments starting from the SPIN90-Arp2/3 complex, in two directions – always separated by about 150° at the starting point. These new filaments serve as scaffolds for

building a new branched actin meshwork. Thus, it creates a new protrusion, gives a new shape to the cell, or directs its motility.

Dr Chowdhury commented, “SPIN90's ability to build actin filaments in two directions may explain how cells rapidly create adaptable scaffolds. This can help us understand how cells remodel themselves in health and disease, including cancer, immune disorders, and wound healing.”

These findings let us understand the fundamental processes of cells. “We were able to see this mode of action of SPIN90 at nearly atomic resolution. This allowed us to understand the precise mechanism of actin filament formation from its earliest stages. It is the same mechanism that controls how all mammalian cells divide and function,” said Justus Francis, the study's first author and a PhD student in Dr Saikat Chowdhury's group at CCMB. This achievement was possible thanks to India's state-of-the-art cryogenic electron microscope at CCMB, provided by the CSIR.

Scientists at CSIR-CCMB, Hyderabad, have discovered how cells can adapt their internal skeletons to create such protrusions.

Conferences/Workshops/Seminars

CSIR–CFTRI Observes World Food Day with International Workshop on Wheat and Flour Quality Analysis

On the occasion of World Food Day (16 October 2025), the CSIR–Central Food Technological Research Institute (CSIR-CFTRI), Mysuru, organised a one-day

workshop on “Advances in Wheat and Flour Quality Analysis: Techniques and Applications.” The event was jointly organised by the Flour Milling, Baking



and highlighted the significance of applying modern scientific tools for ensuring the quality, consistency, and nutritional value of wheat-based products. He stressed the importance of such collaborative platforms in promoting knowledge exchange between academia and industry.

Mr Akshay Charegaonkar, Managing Director, Anchrom Enterprises India Pvt. Ltd, shared insights into the company's contributions to analytical instrumentation in food and grain quality analysis, while Mr Evans Daniel Hill, Sales Director, KPM Analytics, Malaysia, elaborated on global advancements in wheat quality assessment and the role of CHOPIN Technologies in developing state-of-the-art analytical equipment.

The technical sessions were led by experts from CHOPIN Technologies, France — Ms Lena Bosc Bierne, Food Applications Manager, and Ms Lucie Lebert, Food Applications Specialist. They demonstrated the application of modern analytical instruments such as Mixolab, SDmatic, Alveolab, and RheoF4 for evaluating dough rheology, starch damage, and proofing behaviour. These sessions provided valuable insights into how such technologies can

and Confectionery Technology (FMBCT) Department of CSIR-CFTRI in association with Anchrom Enterprises India Pvt. Ltd and CHOPIN Technologies, France.

The workshop aimed to highlight the latest developments in analytical tools and techniques for assessing wheat and flour quality, bridging the gap between research and industrial practice. It brought together scientists, technologists, and industry professionals to discuss the importance of modern evaluation methods in improving flour quality, process efficiency, and product performance. Dr Suresh D Sakhare, Senior Principal Scientist and Head, FMBCT, briefed the gathering on the objectives of the workshop and emphasised the importance of adopting advanced analytical approaches for improving communication between millers and bakers.

Dr Giridhar Parvatam, Director, CSIR-CFTRI, inaugurated the event

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enhance quality control and process optimisation in the milling and baking industries.

Dr Suresh D Sakhare delivered a technical presentation on “Importance of Damaged Starch – Millers and Bakers’ Perspective,” highlighting how controlled starch damage plays a crucial role in flour performance, dough characteristics, and end-product quality. He emphasised the need for integrating advanced analytical tools into routine quality assessment to achieve consistent baking results and improved consumer satisfaction.

The participants also had the opportunity to visit the FMBCT laboratories, where they witnessed CFTRI’s state-of-the-art facilities for flour milling, dough rheology studies, and analytical evaluations.

The workshop attracted active participation from leading industry professionals representing Britannia Industries, Tata Consumer Products, Novozymes, and Krisha Flour Mill, alongside researchers, academicians, and students.

The event concluded on a highly positive note, reinforcing the relevance of scientific collaboration and technological innovation in addressing the evolving needs of the grain and flour industries. The workshop successfully served as a platform for knowledge exchange, fostering partnerships between research institutions and industrial stakeholders in the pursuit of quality and sustainability in cereal processing.

Capacity Building National Workshop for Teachers on Communication and Dissemination of Indian Knowledge System (IKS)

CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), New Delhi, organised a Capacity Building National Workshop for Teachers on “Communication and Dissemination of Indian Knowledge Systems” under the national initiative SVASTIK (Scientifically Validated Societal Traditional Knowledge) to communicate scientifically validated traditional knowledge to society, jointly



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with the Indian National Young Academy of Science (INIAS) under its flagship programme RuSETUP (Rural Science Education Training Utility Programme) and Maharshi Dayanand University (MDU), Rohtak, on 16 October 2025 at MDU, Rohtak. More than 100 participants from 75 different institutions registered and actively participated in the workshop.

The programme started with the welcome address by Dr Surender Yadav, MDU, followed by the introductory remarks by Dr Geetha Vani Rayasam, Director, CSIR-NIScPR, who joined online. She introduced SVASTIK and appreciated the collaborative efforts of CSIR-NIScPR, INIAS, and MDU in taking IKS dissemination to regional institutions and teachers.



Padma Bhushan Dr Anil P Joshi, the Chief Guest and Founder of the Himalayan Environmental Studies and Conservation Organisation (HESCO), Dehradun, delivered a motivational keynote speech. In his discussion of the complex relationships between the economy, ecology, and environment, Dr Joshi, who is popularly referred to as the “Mountain Man of India”, emphasised that traditional Indian knowledge has always been based on sustainability and self-reliance. He encouraged teachers to

promote scientific learning within the context of India’s indigenous traditional knowledge.

Prof. Rajbir Singh, Vice Chancellor, MDU, commended the joint efforts of CSIR-NIScPR, INIAS, and MDU in promoting interdisciplinary initiatives on IKS. He emphasised that the true dissemination of knowledge begins with teachers, who serve as key communicators and change makers in society.

The first technical session of the workshop on “India’s science

& technology heritage: From protection to perpetuation” focused on India’s rich and diverse scientific heritage and its continuity in the present era.

Prof. Ranjana Aggarwal, an eminent organic chemist, Outstanding Scientist, CSIR, and former Director of CSIR-NIScPR, emphasised that a holistic perspective that integrates the natural, social, and spiritual sciences forms the foundation of India’s scientific heritage. She pointed out that false information frequently misrepresents traditional knowledge in the digital age, emphasising the importance of clear communication, scientific validation, and inclusive education. She referred to programmes that document and validate traditional practices in multiple languages, such as CSIR-NIScPR’s SVASTIK project, the Ministry of AYUSH, AICTE’s IKS divisions, and NEP 2020.

Dr Ashwani Tiwari, Associate Professor, School of Environmental Sciences, JNU, delivered an engaging lecture on the importance of traditional rainwater harvesting systems in addressing India’s growing water scarcity. To encourage local conservation efforts, he advised educators to incorporate traditional water knowledge into environmental education.

Dr Charu Lata, Principal Scientist, CSIR-NIScPR, and Coordinator, SVASTIK, delivered an insightful talk on India’s traditional food wisdom. She also outlined the systematic process followed under SVASTIK from identifying

and validating traditional practices to communicating them to the public through digital and social media platforms. She additionally invited the participants to serve as “Brand Ambassadors of SVASTIK” by providing local examples of traditional knowledge from their areas, and added that educators and researchers who can link conventional knowledge with verified scientific data are the first to effectively communicate science.

The second session started with an interactive hands-on training on traditional knowledge communication conducted by Dr Paramananda Barman, Senior Scientist and the SVASTIK team from CSIR-NIScPR. He began by explaining the fundamentals of science communication and discussed its various forms, including popular science writing, infographics, podcasts, and social media outreach that help translate scientific concepts for wider audiences. During the session, participants received hands-on training in designing communication materials and learning how to create visually appealing infographics, posters, and short videos on traditional practices.

At the end of the session, Dr Raj Mukhopadhyay, Scientist, ICAR-Central Soil Salinity Research Institute, Karnal, delivered an informative talk on indigenous soil management practices and their role in enhancing soil fertility, microbial activity, and nutrient cycling.

The workshop concluded with an interactive feedback and

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vote of thanks session, where participants from schools and colleges expressed gratitude for the enriching experience. In the concluding remarks,

Dr Sandhiya Lakshmanan, Senior Scientist, CSIR-NIScPR, thanked all dignitaries, speakers, and participants for their active engagement.

Events

IMTECH Hosts CSIR-Invitational Indoor Sports Tournament 2025



being hosted under the aegis of CSIR Sports Promotion Board (SPB). The tournament, being held from 11-14 November 2025, brings together teams from various CSIR laboratories, science and technology ministries, public sector undertakings and other institutes across the tri-city to celebrate fitness, teamwork, and camaraderie.

The inaugural ceremony was graced by Padmashree Pargat Singh, the Indian Hockey team captain who led the Indian men's hockey team in the 1992 and 1996 Olympic Games. He is the only Indian player to have captained the team at the Olympics twice and was the Guest of Honour at the CSIR Indoor Sports tournament. In his address, Shri Pargat Singh shared the importance of sports in the overall well-being of individuals by promoting discipline, perseverance and mutual respect.

He emphasised that such events encourage employees to balance their professional commitments with active participation in recreational and fitness activities, essential for overall well-being and team spirit. He also advised



The Staff Club of CSIR-Institute of Microbial Technology (CSIR-IMTECH), Chandigarh, inaugurated the CSIR-Invitational Indoor Sports Tournament 2025,

the young children and students to devote some time to outdoor recreational activities for a healthy mind and a fit body.

The function was presided over by Ms Purna Puri, IAS and Secretary of the Sports Department in the Chandigarh administration, who was the Chief Guest at the event along with Dr Sanjeev Khosla, Director, CSIR-IMTECH, in the esteemed presence of Prof. Shantanu Bhattacharya, Director, CSIR-CSIO and Dr Anuradha Madhukar, Secretary, CSIR Sports Promotion Board. In his inaugural remarks, Dr Khosla congratulated the organising team for their efforts in organising the indoor games in memory of

eminent scientists like Dr Hussain Zaheer, Dr MGK Menon, Dr AP Mitra and Dr GS Sidhu as a tribute to their contributions in Indian science. The tournament features popular indoor games such as badminton, table tennis, chess and bridge, offering a platform for more than 120 players across 20 teams to display their sporting excellence and foster a sense of togetherness beyond laboratories.

Dr V Venkata Ramana, Principal Scientist & convenor of the tournament, acknowledged the support and participation of all CSIR institutions, Sports Promotion Board, sponsors and IMTECH staff club in organising the tournament.

CSIR–NIScPR Celebrates 10th Ayurveda Day



CSIR-National Institute of Science Communication and Policy Research (CSIR–NIScPR), New Delhi, celebrated 10th Ayurveda Day on 17 October 2025. The occasion marked a significant milestone in promoting Ayurveda as a holistic

approach to health and well-being rooted in sustainability and natural living. The celebration was commemorated by conducting an NIScPR SVASTIK lecture under the umbrella of the national initiative #SVASTIK (Scientifically Validated

Societal Traditional Knowledge) to communicate scientifically validated traditional knowledge to society, and a free health check-up camp for CSIR-NIScPR staff.

Dr Kishore Patel from the CCRAS-Central Ayurveda Research Institute (CARI), New Delhi,

adulteration, advocating for standardised formulations, evidence-based integration, rational marketing, and public awareness. He also appreciated the #SVASTIK initiative, which disseminates traditional knowledge among the public with a scientific outlook.

Shri Rajesh Kumar Singh Roushan, Controller of Administration, CSIR-NIScPR, elaborated on the historical roots of Ayurveda and the contributions of ancient physicians such as Āchārya Nāgārjuna. He also spoke about the growing global recognition of Ayurveda as a comprehensive system of health care.

Dr Suman Ray, Sr Principal Scientist, CSIR-NIScPR, commended this year's theme, "Ayurveda for People and Planet," which reflects a shared commitment to leveraging Ayurveda's potential for global health and environmental harmony.

Dr Charu Lata, Principal Scientist and Coordinator SVASTIK, and Nodal Officer for the 10th Ayurveda Day celebrations at CSIR-NIScPR, proposed the vote of thanks, expressing gratitude to the Director of CSIR-NIScPR and all distinguished speakers and participants for making the celebration a success.

A free health assessment camp was also organised, under which NIScPR staff & students availed the OPD consultations. Such initiatives aim to enhance accessibility to traditional healthcare knowledge, improve community health awareness, and foster scientific innovation in the Ayurvedic sector.



delivered an insightful NIScPR SVASTIK lecture on the foundational principles of Ayurveda. He discussed the causes of diseases linked to lifestyle and stress, and underscored the importance of balanced nutrition, mindful eating, and ethical living through the concepts of Āchāra Rasāyana and Sadvrta for achieving holistic well-being.

Dr Naresh Kumar, Chief Scientist, CSIR-NIScPR, highlighted the remarkable global expansion of Ayurveda, noting that within less than a decade, Ayurveda Day has transformed from a national observance into a global health movement. He emphasised the need for Ayurvedic practitioners and researchers to counter misinformation and prevent

Inauguration of the AcSIR Science Club at CSIR-AMPRI

Prof. Manoj Kumar Dhar, Director, AcSIR, inaugurated the AcSIR Science Club at CSIR-AMPRI, Bhopal, on 2 September 2025. In the first session, the programme began with the lighting of a lamp by all dignitaries, followed by Saraswati Vandana by AcSIR PhD students. Prof. Thallada Bhaskar, Director, CSIR-AMPRI, Bhopal, welcomed Prof. Dhar with a floral bouquet.

Dr Mohd Akram Khan, Chief Scientist, CSIR-AMPRI, provided a brief introduction about the programme. He highlighted about main objectives of the Science Club, which are to ignite minds and inculcate creativity in AcSIR students and to give the opportunity to think out of the box and foster and showcase their inherent talent and creativity, including art, music, dance, social gathering, debate and many more.

During his address, Prof. Thallada Bhaskar highlighted the importance of creating the Science Club at various CSIR labs, which encourages the students who are the torch bearers to showcase their work accurately and in time time-bound manner using their hidden talent. He emphasised skill development and correlated skill development with employment.

He said that skills are demanded for career development. Many skills can be learned through group discussions and interactions. This will open the thoughts and make students confident to talk, present



their work and give their best to be outstanding among the crowd. He appreciated and highlighted the contributions of Prof. Dhar for uplifting and streamlining various activities of AcSIR.

Dr Alka Mishra, Principal Scientist and Co-ordinator, AcSIR, CSIR-AMPRI, Bhopal, spoke about “Nurturing Scholars, Driving Research”. Through her presentation, she highlighted the importance of the Science Club. She presented the growth and journey of AcSIR at CSIR-AMPRI and highlighted the progress over the years.

All the office bearers of the Science Club took the oath given by Prof. Dhar. Students delivered a talk about the Science Club, AcSIR AMPRI, covering forthcoming activities to be performed under the umbrella of the Science Club.

Prof. Thallada Bhaskar highlighted the importance of creating the Science Club at various CSIR labs, which encourages the students who are the torch bearers to showcase their work accurately and in time time-bound manner using their hidden talent.

Prof. Manoj Kumar Dhar highlighted overfilling the gap by creating diverse skills in the PhD students, along with research training to make them industry-ready. He mentioned about research ecosystem.

Prof. Manoj Kumar Dhar initially provided a brief update on AcSIR. He talked about “Building Next Gen Researchers, Innovators, Entrepreneurs and Nation Builders”. He highlighted the importance of R&D and said that we need to update our R&D, which plays a key role in self-reliance. He mentioned that we need to train the young students with the skills relevant today. Time will become tough for new generations. We survived with only one job throughout our lives, but the same scenario will not be there. Each one will have to change jobs several times in future. Each time they have to face new challenges, which they need to overcome. He said that these challenges create new skills and cited an example of online platforms during the COVID-19 period.

He highlighted overfilling the gap by creating diverse skills in the PhD students, along with research training to make them industry-ready. He mentioned about

research ecosystem. He elaborated on who Next Gen Researcher is and the role of AcSIR to create next-gen researchers in India, drawing on global best practices while staying firmly rooted in our national needs and priorities. He mentioned that a next-gen researcher embraces innovations, adaptability, and a forward-thinking approach to research, often leveraging new technologies and methodologies to address contemporary challenges.

He highlighted that AcSIR has the highest number of PhD students of any national institute. He showed AcSIR progress at a glance. He mentioned that AcSIR is unique and was created as an important arm of CSIR, which has grown over time. AcSIR ranking is rising every year in the research category, not only nationally but also internationally. He highlighted other institutes associated with AcSIR and different programmes of AcSIR, the AcSIR model and iPhD programme, global partners of AcSIR, joint PhD programme, Bravura magazine, etc. He congratulated the whole



Science Club team and the Director, CSIR-AMPRI, for going beyond the boundaries of the Science Club and making it so extensive.

Prof. Dhar was felicitated by the Director, CSIR-AMPRI, with a CSIR-AMPRI technology-based memento. Students of AcSIR moderated the

programme and proposed the vote of thanks.

In the second session, Prof. Dhar interacted with AcSIR PhD students and visited various laboratories/facilities of CSIR-AMPRI. Prof. Dhar also planted a sapling on the occasion.

“Health Check-up Camp under Phenom India Project”

CSIR-Central Electronics Engineering Research Institute (CSIR-CEERI), Pilani, has organised a week-long health check-up camp under the Phenome India-CSIR Health Cohort Knowledgebase (PI-CHeCK) initiative of CSIR. The camp, held from 21-27 August 2025, marked an important step towards advancing personalised and precision medicine in India.

The Phenome India project is a nationwide effort aimed at identifying India-specific risk factors for cardiometabolic diseases. Unlike studies conducted in Western countries, this initiative is designed to capture unique genetic, lifestyle, and environmental determinants relevant to the Indian population. By doing so, it seeks to generate abundant scientific insights that could aid in developing diagnostic and prognostic biomarkers for both infectious and chronic non-communicable diseases.

During the seven-day camp at CSIR-CEERI's Dispensary, 405 participants, including employees, pensioners, and their spouses, underwent comprehensive



physical and clinical assessments. In addition to blood collection for cardiometabolic testing, the camp featured a range of non-invasive diagnostic tests. These included Lung Oscillometry and Spirometry, Body Composition Analysis (BCA), Electrocardiogram (ECG), Transient Elastography (Fibroscan), and Blood Biochemistry profiling. Each participant was also interviewed through a detailed questionnaire covering demographics, lifestyle patterns, dietary habits, medical history, and current medications.

Events

Highlighting the larger significance of the study, experts noted that health cohort studies of this kind have been instrumental worldwide in mapping genetic and lifestyle risk factors that influence long-term health outcomes.

Blood samples collected during the camp were handled exclusively by qualified professionals from CSIR-IGIB, ensuring scientific rigour and participant safety. Importantly, except for the blood collection, all diagnostic procedures conducted were entirely non-invasive, thus causing no harm or discomfort to participants.

A strong emphasis was placed on confidentiality throughout the programme. All health records and data collected during the camp will remain strictly confidential, accessible only to authorised study personnel. No identifying information will be disclosed to the public or individuals not directly associated with the project.

Highlighting the larger significance of the study, experts noted that health cohort studies of this kind have been instrumental worldwide in mapping genetic and lifestyle risk factors that influence long-term health outcomes. The Indian cohort, under PI-CHeCK, is expected to provide equally valuable insights tailored to the nation's unique health challenges,

particularly the rising burden of cardiometabolic and lifestyle-related diseases.

The health check-up camp at CSIR-CEERI thus represents an important contribution to this nationwide scientific initiative. With active participation from its present and retired employees and their families, the institute has reaffirmed its commitment to supporting research that directly benefits society's health and well-being.

The scientific responsibility for the project lies with Dr Shantanu Sengupta, Principal Investigator from CSIR-Institute of Genomics and Integrative Biology (CSIR-IGIB), New Delhi. The camp at CEERI was coordinated by Dr Deepak Bansal, Senior Principal Scientist, CSIR-CEERI, with strong support from a visiting team of medical and technical experts from CSIR-IGIB. Their efforts were complemented by dedicated volunteers from CSIR-CEERI, who ensured smooth registration, guidance, and testing for all participants.

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