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NEWS ON CSIR

R&D ACHIEVEMENTS

Volume:3





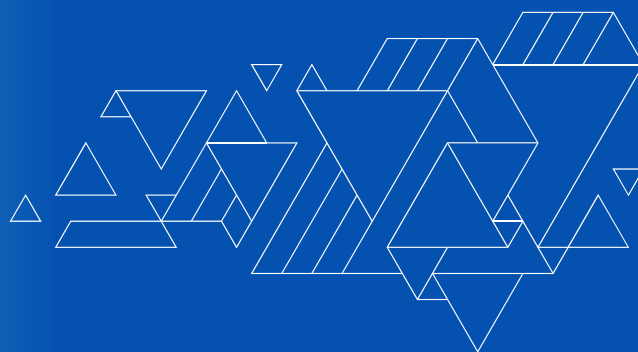
CSIR stands at the forefront of shaping India's scientific future with innovation, sustainability and inclusivity. This newsletter mirrors our mission transforming cutting-edge research into societal impact, nurturing young minds and building India's strength as a global knowledge leader.

Dr. (Mrs.) N. Kalaiselvi, DG-CSIR & Secretary, DSIR



At CSIR-NIScPR, we are committed to connecting Science, Technology and Innovation with society through policy research, communication and outreach. This edition highlights our initiatives from empowering grassroots innovation to fostering industry linkages, making science not just informative, but transformative for communities and the nation.

Dr. (Mrs.) Geetha Vani Rayasam, Director, CSIR-NIScPR



CSIR Established Centres of Excellence for Green Firecrackers



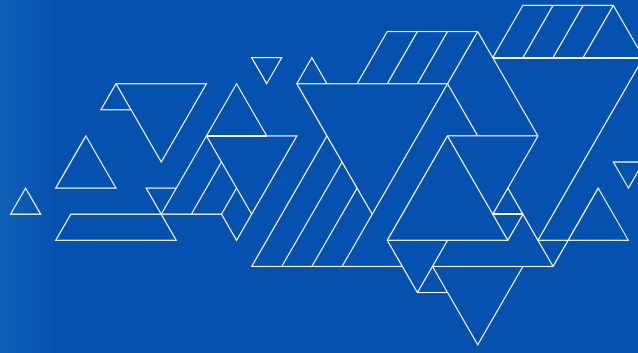
Dr. N. Kalaiselvi, Director General, CSIR and Secretary, DSIR, on 2 December 2025, virtually inaugurated the National Centre of Excellence for Green Firecrackers at CSIR-National Environmental Engineering Research Institute (CSIR-NEERI), Nagpur, and a Centre of Excellence at CSIR-Central Electrochemical Research Institute (CSIR-CECRI), Karaikudi. The centres aim to support research, testing, standardization and development of eco friendly firecracker technologies. Building on CSIR's innovations that reduce particulate emissions, the initiative strengthens support to the fireworks industry while addressing environmental concerns. The facilities will enhance R&D, promote sustainable manufacturing practices and reinforce CSIR's role in advancing environmentally responsible technologies aligned with national priorities.



CSIR Supported Hydrogen Fuel Cell Vessel Began Commercial Operations in India

On 11 December 2025, India began commercial operations of its first indigenous hydrogen fuel cell vessel at Varanasi, flagged off by Union Minister Sarbananda Sonowal. Developed by Cochin Shipyard Limited under the Harit Nauka initiative, the hydrogen powered catamaran marks a major step towards clean and sustainable inland water transport. This vessel operates on hydrogen fuel cells with zero emissions, supporting green mobility and modernisation of waterways. The development of the fuel cell system drew on work supported under CSIR's NMITLI programme, with KPIT collaborating with CSIR-National Chemical Laboratory and CSIR-Central Electrochemical Research Institute to develop low temperature PEM fuel cells for marine applications, reinforcing India's commitment to indigenous clean energy technologies.





CSIR-NAL and SDAL Successfully Tested AI Enabled Loitering Munition UAV



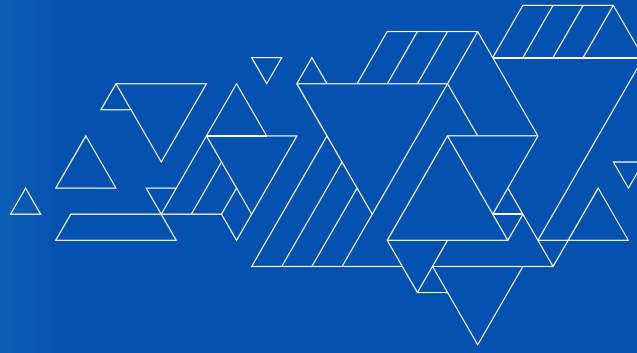
On 12 December 2025, CSIR-National Aerospace Laboratories (CSIR-NAL), in collaboration with Solar Defence and Aerospace Ltd. (SDAL), successfully conducted field testing of an indigenous long range loitering munition UAV and solar powered high altitude platforms (HAPs), marking a significant advancement in India's defence capabilities. UAV features AI enabled navigation, GPS denied operation and long endurance performance, enhancing precision strike and surveillance capabilities. HAP systems provide persistent aerial monitoring and communication support. The development highlights strengthened public private collaboration and reinforces India's focus on indigenous defence technologies, supporting national initiatives aimed at self reliance and advanced aerospace innovation.



CSIR-SERC and VIT Chennai Partnered for Academic and Research Collaboration

CSIR-Structural Engineering Research Centre (CSIR-SERC) signed a Memorandum of Understanding on 16 December 2025 with VIT Chennai to strengthen academic and research collaboration. The agreement focuses on joint research, student internships, faculty exchange and collaborative academic programmes in structural engineering and allied fields. It aims to enhance industry academia linkages and promote knowledge exchange between institutions. By leveraging combined expertise, the collaboration is expected to support capacity building, innovation and skill development, contributing to the advancement of research driven solutions in engineering and infrastructure sectors.





India Joined Global League with World's 5th Solar Cell Calibration Facility



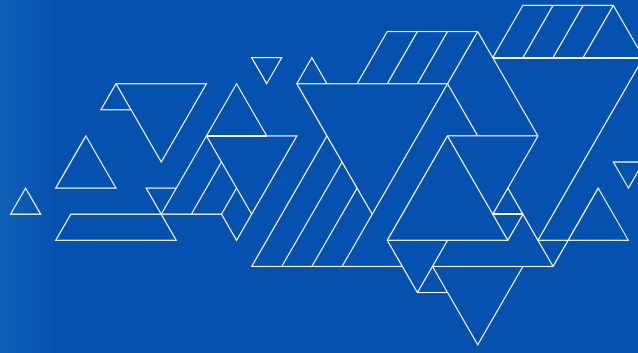
CSIR-National Physical Laboratory (CSIR-NPL) marked a major milestone on 5 January 2026 during its 80th Foundation Day with the inauguration of the National Environmental Standard Laboratory and the National Primary Standard Facility for Solar Cell Calibration by Union Minister Dr. Jitendra Singh. The environmental facility enables accurate calibration of air pollution monitoring systems under Indian conditions, strengthening regulatory frameworks and data reliability. Solar calibration facility places India among leading nations in photovoltaic measurement standards, reducing dependence on foreign certification and improving efficiency. The development enhances national capabilities in environmental governance, renewable energy and advanced metrology, supporting self reliance and sustainable growth.



Amrita Vishwa Vidyapeetham and CSIR-NIScPR Signed MoU to Advance R&D Collaboration

A two day national workshop on “Sustaining Innovation: Embedding R&D in State Institutions” concluded on 9 January 2026 at Amrita Vishwa Vidyapeetham, Coimbatore, bringing together policymakers, scientists and academic leaders to strengthen state level innovation frameworks. The discussions focused on integrating research and development into governance to support evidence based policymaking and scalable innovation. A key outcome was the signing of a MoU between Amrita Vishwa Vidyapeetham and CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), exchanged between Dr. Maneesha Vinodini Ramesh, Pro Vice Chancellor, Amrita Vishwa Vidyapeetham and Dr. Geetha Vani Rayasam, Director, CSIR-NIScPR. This initiative highlights the role of institutional collaboration in advancing science driven development.





CSIR-NIScPR Hosted International Symposium on Human Centred AI and Energy Security



CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), New Delhi, on 9 February 2026, organised an international symposium on “Human Centred AI and Sustainable Development: Holistic Pathways for Energy Security” as a pre summit event for the India AI Impact Summit 2026. The programme brought together global experts, policymakers and researchers to discuss people centric AI approaches for sustainable and inclusive energy systems. Dr. Geetha Vani Rayasam, Director, CSIR-NIScPR, emphasised safe and trusted AI frameworks, while Chief Guest Dr. Ashutosh Sharma, Former President, INSA, highlighted balanced adoption of AI. Sessions covered ethical AI, energy transition, governance and innovation, reinforcing the importance of responsible, inclusive and policy aligned AI for sustainable development.



INSA and CSIR-NIScPR Signed MoU for Science Communication and Policy Research

Indian National Science Academy (INSA) and CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR) signed a Memorandum of Understanding on 10 February 2026 in New Delhi to strengthen collaboration in science communication and evidence based policy research. Dr. Geetha Vani Rayasam, Director, CSIR-NIScPR, highlighted the synergy between the institutions, while Prof. Shekhar C. Mande, President, INSA, emphasised the importance of strong policy frameworks in a rapidly evolving scientific landscape. The partnership will support joint research, publications, capacity building and stakeholder engagement. It aims to enhance evidence based policymaking and strengthen India's science, technology and innovation ecosystem through collaborative knowledge exchange.



NEWS CAPSULES

IISF 2025 Brought Science, Innovation and Society Together for Aatmanirbhar Bharat



India International Science Festival 2025, the 11th edition of India's flagship science outreach programme, was held from 06-09 December 2025 in Panchkula, Haryana. The festival was organised by the Ministry of Earth Sciences (MoES) and coordinated by the IITM, aligning with national science priorities. The event aimed to promote scientific temper, strengthen public engagement and showcase innovation for a self-reliant India under the theme "Vigyan Se Samruddhi: for Aatmanirbhar Bharat." The festival featured many technical and thematic sessions across science, technology, innovation and industry. The four-day event featured over 150 technical sessions, 28 thematic events, a science expo, and programs aimed at promoting scientific temper, innovation and industry-academia interaction.



Rashtriya Vigyan Puraskar 2025 Recognised CSIR Aroma Mission and Scientific Excellence

On 23 December 2025, Rashtriya Vigyan Puraskar 2025 ceremony held at Rashtrapati Bhavan, New Delhi, recognised the CSIR led Aroma Mission with the Vigyan Team Award for advancing the “Purple Revolution” and promoting lavender based agri entrepreneurship. This initiative has enabled large scale cultivation of aromatic crops, particularly in the Himalayan region, creating new livelihood opportunities and supporting rural economies. The recognition highlights the mission’s role in translating scientific research into field level impact, reducing dependence on imports and promoting value addition. It underscores the importance of collaborative, application oriented science in driving inclusive and sustainable development.



BVS 2025 Highlighted Integration of Traditional and Modern Science for Sustainable Development

The 7th edition of Bharatiya Vigyan Sammelan (BVS) 2025, held from 26–29 December 2025 at National Sanskrit University, Tirupati, Andhra Pradesh, marked a significant gathering at a major academic hub hosting premier institutions. The theme, “Samagra Vikas ke liye Bharatiya Avadharana”, focused on sustainable development through an Indian perspective. The event aimed to connect traditional knowledge with modern science, promote regional languages in science communication, and showcase grassroots innovations. It highlighted India’s scientific heritage while encouraging young minds towards innovation and original thinking. BVS 2025 also explored the role of indigenous knowledge systems in addressing contemporary challenges and strengthening science-driven societal development.



DSIR Marked 42nd Foundation Day with Reforms to Boost Deep Tech Startups

Department of Scientific and Industrial Research (DSIR), on 4 January 2026, marked its 42nd Foundation Day with key reforms to support deep tech startups. Honourable Minister of State for S&T and Earth Sciences, Dr. Jitendra Singh announced removal of the mandatory three year existence condition for startups to access financial support, enabling early stage innovators to scale faster and strengthen the startup ecosystem. The event also featured the launch of updated guidelines for recognition of in house R&D centres, the PRISM innovation platform and a disaster management plan. The initiative highlights efforts to promote industry linked research, support emerging entrepreneurs and accelerate India's transition towards a technology driven and innovation led economy.



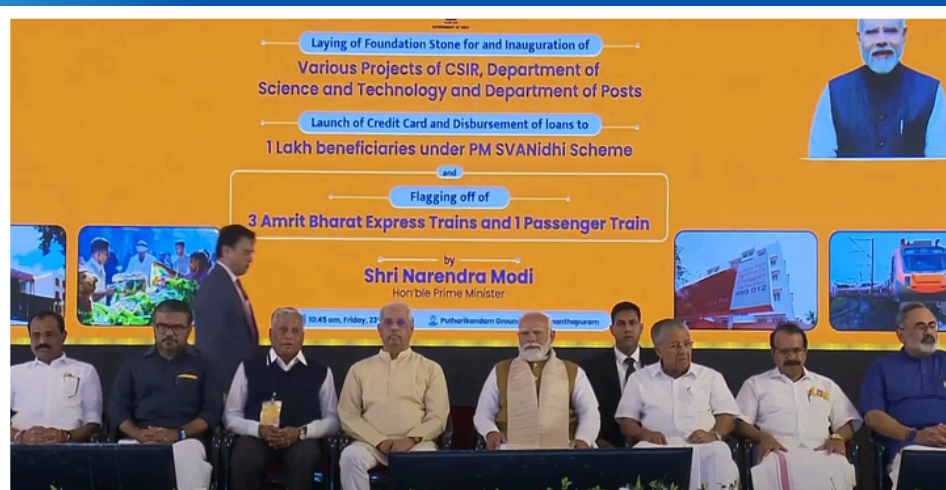
‘Abhyuday 3’ Promoted Technical Hindi in Science and Technology

Third Technical Hindi Symposium “Abhyuday 3”, held on January 5–6, 2026, organised in collaboration with CSIR–National Institute of Science Communication and Policy Research (CSIR–NIScPR), IIT Indore and IIT Jodhpur, promoted the use of Technical Hindi in science and technology communication. The programme brought together researchers, academicians and experts, with 25 research papers presented on themes including biodiversity, AI, innovation and social applications of science. Technical sessions, invited talks and release of a Smarika compiling peer reviewed research contributions marked the event. A *Vigyan Kavi Sammelan* was also organised, where poets creatively expressed themes of science, technology, innovation and societal concerns. The initiative reinforced the importance of Indian languages in making science more accessible and inclusive.



CSIR-NIScPR Marked 5th Foundation Day with Focus on AI and Science Policy

CSIR-National Institute of Science Communication and Policy Research (CSIR-NIScPR), on 14 January 2026, celebrated its 5th Foundation Day, highlighting its commitment to advancing science communication and policy research. Dr. Geetha Vani Rayasam, Director, CSIR-NIScPR, emphasized leveraging AI for regional language communication and strengthening global engagement. Event featured a distinguished lecture by Chief Guest Dr. Shivkumar Kalyanaraman, CEO, ANRF, who highlighted the institute's potential in driving innovation and policy solutions. SVASTIK web portal was also launched to disseminate scientifically validated traditional knowledge across multiple languages. Programme included poster presentations, reinforcing NIScPR's role in inclusive science communication and global knowledge outreach.



PM Laid Foundation Stone for CSIR-NIIST Innovation Hub

Prime Minister Narendra Modi laid the foundation stone for the CSIR-NIIST Innovation, Technology and Entrepreneurship Hub at Bio 360 Life Sciences Park, Thiruvananthapuram on 23 January 2026. Developed by CSIR-National Institute for Interdisciplinary Science and Technology (CSIR-NIIST), the hub is envisioned to drive deep tech innovation, technology translation and entrepreneurship in the life sciences sector. Facility focuses on Ayurveda research, sustainable packaging, biomanufacturing, green hydrogen and agri based technologies. It is designed to support startups, MSMEs and industry collaboration, promoting value addition, skill development and employment generation, strengthening India's innovation ecosystem and global competitiveness in life sciences.



RISE Conclave 2026 Strengthened Research Industry Startup Collaboration

Research, Industry, Startup and Entrepreneurship (RISE) Conclave 2026, held on February 14-15, 2026, at the Chennai Trade Centre, Chennai, brought together leaders from academia, research, industry and startups to advance innovation led growth aligned with Viksit Bharat 2047. Union Minister Dr. Jitendra Singh inaugurated the conclave. Discussions focused on translating research into scalable technologies and building strong cross sector partnerships. Dr. N. Kalaiselvi, DG, CSIR, emphasised integrated innovation ecosystems, while experts highlighted academia industry collaboration. A startup expo featuring over 140 startups and MSMEs showcased deep tech solutions, reinforcing efforts to accelerate entrepreneurship and technology driven development.



DATA ANALYSIS



X(Twitter): Monthly Engagement Growth

December 2025

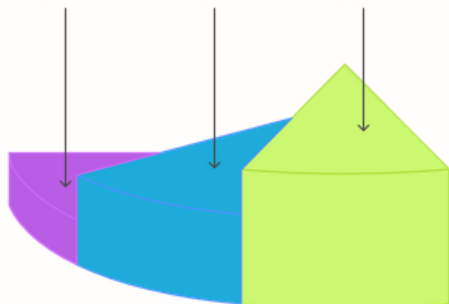
Significant increase in posts and engagement with 130,024 impressions and 8,507 engagements.

January 2026

Initial engagement with 186,775 impressions and 13,565 engagements.

February 2026

Sustained high performance with 187,810 impressions and 13,668 engagements.



Facebook: Monthly Engagement Growth

December 2025

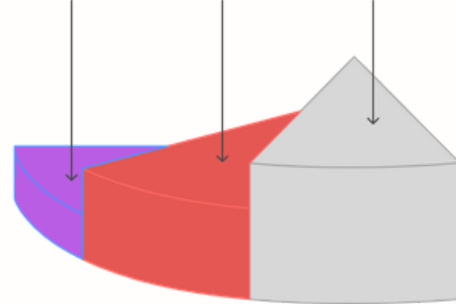
Initial Engagement with 293456 reach and 8877 engagement.

January 2026

Sustained high performance with 225037 reach and 7450 engagement.

February 2026

Significant increase in posts and impressions, 314296 reach and 8554 engagement.



Instagram: Monthly Engagement Growth

December 2025

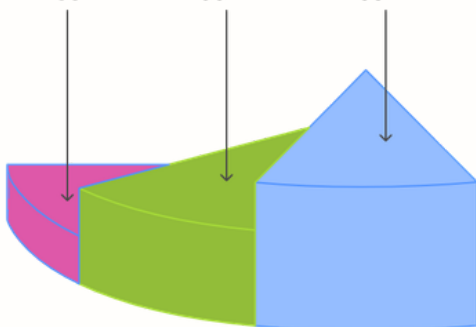
Initial Engagement with 45619 impression and 714 engagement

January 2026

Sustained high performance with 17461 impression and 379 engagement.

February 2026

Significant increase in posts and impressions, 21405 impression and 631 engagement.



Youtube: Monthly Engagement Growth

December 2025

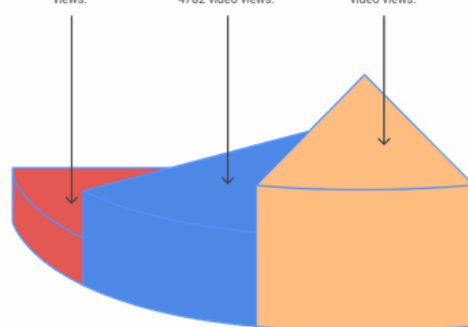
Initial Engagement with 45 posts and 7365 video views.

January 2026

Initial Engagement with 25 posts and 4782 video views.

February 2026

Sustained high performance with 24 posts and 3504 video views.



LinkedIn : Monthly Engagement Growth

December 2025

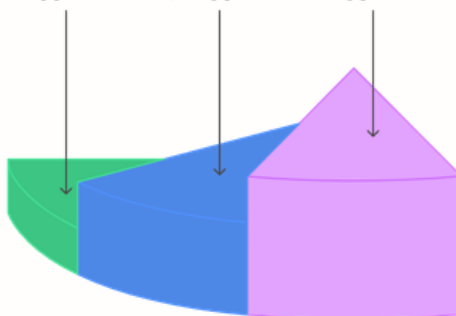
Significant increase in posts and engagement with 33,738 impression and 3,198 engagements.

January 2026

Initial engagement with 102,695 impression and 5,414 engagements.

February 2026

Sustained high performance with 80,208 impression and 9,391 engagements.



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Science Media Communication Cell (SMCC) & CSIR-NIScPR

