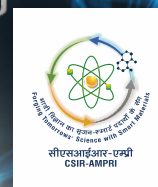




Samvardhan



Quarterly Newsletter of CSIR-AMPRI, Bhopal

July-September 2025, Volume 1, Issue 2

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From the Director's Desk



I feel delighted to present the second issue (July to September 2025) of quarterly newsletter, of CSIR-AMPRI, Bhopal. CSIR-AMPRI, a premier research institute under the Council of Scientific and Industrial Research (CSIR), New Delhi.

During this period of three months, SODAR (Sound Detection and Ranging) system facility, designed & developed by CSIR-AMPRI, Bhopal was inaugurated at India Meteorological Department, (IMD), Delhi and MoU was signed between CSIR-AMPRI and IMD on the auspicious occasion of CSIR's Foundation Day, 26th September 2025. MoU was also signed between CSIR-AMPRI and IISER Bhopal to explore possibilities of

collaborative work in the areas of mutual interest. Several projects were materialised, papers were published and Ph.D were completed during this quarter. Our team contributed significantly in skill development, jigya, organisation of various events as well as showcased products/ technologies in CSIR-Model Super Store and 12th Bhopal Vigyan Mela.

CSIR-AMPRI is committed to develop internationally competitive technologies/ products in the area of advanced materials for social benefits and to contribute to the Indian government's vision to transform India into a developed Nation by 2047.

- Dr. Tallada Bhaskar

R&D Highlights

Interlockable Gamma and Neutron Shielding Bricks for Healthcare till Strategic Sectors

X- ray, gamma ray and neutron shielding materials are the inevitable part of civil construction in X-ray diagnostic and computerized tomography (CT) scanner room, sterilization plants, cancer treatment bunkers, nuclear power plants, industrial radiography, etc., to protect public, patients and environment from the radiation hazard. Conventionally lead blocks and concretes are widely used to build radiation shielding walls. Since Lead is toxic, CSIR-AMPRI has converted red

mud (alumina industry waste) into interlockable gamma and neutron shielding bricks through hot compaction by adding certain additives. The density of these bricks varies between 3.3g/cc to 5.23g/cc. The developed shield possesses the compressive strength of >240 MPa and retains until 500°C. CSIR-AMPRI is further working on upscaling of bricks in pilot scale and has commissioned a pilot plant for the same. These bricks can be used to build radiation shielding structures in hospitals till nuclear power plants without any additional support structure unlike lead.



Interlockable bricks



New Projects

1. Design and Development of Highly Durable Hybrid Wood Plastic Composites WPCs Utilizing Large Scale Agro Wastes, Paddy Straw/Stubble, and its Upscaling to Create Commercial Opportunities, Sponsored by DST under Technology Development Programme (TDP), Project Cost: Rs. 99,19,600.
2. Development of advanced geopolymer-based antimicrobial tiles to protect common people from hospital-acquired infections, Sponsored by Ministry of Science & Technology, Department of Science & Technology, Project Cost: Rs. 35,69,000.
3. Utilization of By-Product from BPCL for the Synthesis of Silicon Carbide (SiC) Materials: A Scientific Approach, Sponsored by Bharat Petroleum Corporation Limited (BPCL), Project Cost Rs. 80,30,000.
4. Centre of Advanced Research and Innovations in Assistive and Rehabilitative Technologies for the Elderly and Disabled Individuals WP-10 (CSIR- AMPRI): Design and development of SMA actuator for hand exoskeleton/ orthoses components, Sponsored by Indian Council of Medical Research (ICMR), Project Cost: Rs. 149,84,680.
5. Recycling of Metals and Silicon from the Solar Waste, Sponsored by CSIR, Project Cost: Rs. 60,00,000.
6. Performance Evaluation and Assessment of Operational Adequacy of Common Hazardous Waste, Treatment, Storage and Disposal Facility at Pithampur, Near Indore, District Dhar (M.P.), Sponsored by M/s Re-Sustainability Limited, Hyderabad, Project Cost: Rs. 53,45,400.



Patents

1. Reduced graphene oxide/poly (vinylidene fluoride-co-hexafluoropropylene) sponge: preparation and application thereof.
Inventors: Pradip Kumar, Shilpee Chauhan, Shiv Singh, Application No. 202511086178, Filed in India on Sep 10, 2025

Publications

1. T. Sardar, S. Mishra, S. Pandey, A. Mishra, A. Khan, B. Parmar & S. Singhai, Advancement in Nanogenerators Using Different Carbon Quantum Dots (CQD) & and Graphene Quantum Dots (GQD) Based Materials: A Review, Integrated Ferroelectrics, July 2025.
<https://doi.org/10.1080/10584587.2025.2482419>. IF: 0.7.
2. A. Chauhan, R. Kumar, P. Raizada, S. Thakur, Van-Huy Nguyen, A. Singh, Quyet Van Lee, P. Singh, A. Sudhaik, Novel hydrogen-bonded organic framework (HOF) for highly efficient photocatalysis: From structural designs to multifunctional applications, Coordination Chemistry Reviews, 535, 216634, 2025. IF: 23.5.
3. S. Sharan, P. Khare, R. Shankar, N. K. Mishra, A. Tyagi, A. Modi, S. Singh, Optimization and modeling of bimetallic oxide (Fe-Zn) nanoparticles on a PbO₂/Pb electrode for the electro-fenton process in industrial wastewater treatment, Materials Chemistry and Physics, 338, 130667, 2025. IF: 4.7
4. K. Yadav, S. Verma, Designing and study of advanced 3D-printed lightweight and eco-friendly bamboo fiber powder and chapati food waste powder based composite material, Polymer International, July 2025, IF: 3.6. <https://doi.org/10.1002/pi.6792>.



11. डॉ दिपेन रजक, मेटल फोम: वाहन निर्माण में क्रांतिकारी कदम, विज्ञान प्रगति, Vol.73-74 (08), Page 60 - 61 (August 2025) NIScPR-CSIR, India.
12. M. Patel, P. Prabhakar, P. Kumar, J.P. Chaurasia, A.K. Shrivastava, N. Dwivedi, C. Dhand, Polynorepinephrine enhanced synergism boost the detection of Cd^{2+} and Pb^{2+} ions with graphene oxide-based electro-chemical sensors, Microchemical Journal, 216, 114739, 2025. IF:5.1.
13. P. Chouhan, A. Sharma & A. Pappu, Advancing Sustainable Insulation: Upcycling Glass Wool Waste into High-Performance Composites, National Academy Science Letters, September 2025. IF:1.3.
<https://doi.org/10.1007/s40009-025-01803-2>.
14. S. Jaiswal, J. Vishwakarma, S. Nema, A. Ohlan, M. Ashiq, C. Dhand, N. Dwivedi, Slippery and wear-resistant shape memory polymers enabled by the reinforcement of double transition metal-based MAX phase ($\text{Mo}_2\text{TiAlC}_2$), Carbon, 244, 120635, 2025. IF:11.6.
15. K. Kumar, H. Kumar, D. P. Singh, Vandana, Silver nanoparticle synthesis on silicon substrate by electrodeposition technique and their SERS application for detection of melamine and methylene blue pollutants, Surfaces and Interfaces, 72, 106993, 2025. IF:6.3.

Honors/ Awards

1. Dr. Thallada Bhaskar, Director visited Graduate School of Environmental Studies (GSES), Tohoku University, Japan during 7-12 September 2025 and

delivered Inaugural lecture on “Sustainable Approaches for The Valorization of Natural and Synthetic Polymeric Waste”.



Dr. Thallada Bhaskar in GSES Japan

2. Dr. Manoj Kumar Gupta, Senior Scientist, CSIR-AMPRI, Bhopal has been selected as Member of The National Academy of Sciences, India (NASI).
3. Prof. Dr. Thallada Bhaskar, Director, CSIR-AMPRI, Dr. P Asokan, Chief Scientist, Dr. Manoj Kumar Gupta, Principal Scientist, Dr. Dipen Kumar Rajak, Scientist, Dr. Pradip Kumar, Principal Scientist, Dr. Shiv Singh, Senior

Scientist, Dr. K. Karthikeyan, Scientist of CSIR-AMPRI, appeared in the Stanford/Elsevier Top 2% Scientists List for 2025.

4. Dr. Thallada Bhaskar, Director, CSIR-AMPRI, Bhopal became member of Research Advisory Committee of Sardar Swaran Singh National Institute of Bio-Energy, Kapurthala, Punjab.

AcSIR

1. Dr. Netrapal Singh has been awarded a Postdoctoral Research Fellowship under the Brain Pool Fellowship Program in South Korea. He will join Chungnam National University (CNU), Daejeon, as a Post-Doctoral Researcher in the Department of Materials Chemistry. Dr. Singh completed his Ph.D. in Physical Sciences (Materials Science) at AcSIR, CSIR- AMPRI, Bhopal, under the supervision of Dr. Surender Kumar. on topic “Investigations of Meniscus Confined 3D Printed Nanostructures for Surface Plasmonic and Solar Cell Applications”.
2. Ms. Ayushi Singhal, Ph.D. scholar working under supervision of Dr Raju Khan is working as Ph.D. student under AcSIR Bilateral RMIT at RMIT University, Melbourne. She has received the Best Poster – People’s Choice Award during the Joint Research Day – School of Engineering & SHBS held on 7th July 2025, organised by RMIT University, Melbourne.
3. AcSIR Science Club at CSIR-AMPRI, Bhopal was inaugurated by Prof. Manoj Kumar Dhar, Director, AcSIR, on September 2, 2025. Prof. Dhar addressed the gathering, elaborated the potential opportunities for students and faculties and appreciated the contributions.



Inauguration of AcSIR Science Club at CSIR-AMPRI

4. Monika Patel, 10CC20A35008, Ph.D student of AcSIR, Supervisor: Dr. Chetna Dhand, Co-supervisor: Dr. Pradip Kumar successfully defended Ph.D thesis titled “Bio-inspired graphene-based nanocomposites enabled electrochemical sensor for the detection of heavy metal ions on September 10, 2025.

Skill Development

1. CSIR-AMPRI, Bhopal celebrated World Youth Skills Day under the aegis of CSIR Integrated Skill Initiative on July 15, 2025. Dr. Ritesh Kumar, Principal Scientist,

CSIR-CSIO delivered the talk on "Youth Empowerment Through AI and Digital Skills Building Tomorrow's Leaders Today".



Celebration of World Youth Skills Day at CSIR-AMPRI

Jigyasa

1. "One Day as a Scientist", week was celebrated during July 21 to 25, 2025 at CSIR-AMPRI, Bhopal under CSIR-Jigyasa initiative for school students. The programme

involved lab visits, Debate/ Quiz Competition, Popular Lecture Sessions, Fun Activities & Student-Scientist Interaction.



Celebration of "One Day as a Scientist" week at CSIR-AMPRI

2. As part of the CSIR-Jigyasa Initiative, CSIR-AMPRI scientists Dr Satanand Mishra & Dr Chetna Dhand visited PM SHRI KV No.1, Bhopal on August 26, 2025.

They delivered lectures on Machine Learning & Nano inspired Antimicrobial Approaches and interacted with students at the Atal Tinkering Lab.



Lecture by CSIR-AMPRI scientists at PM SHRI KV No.1, Bhopal

3. As part of the CSIR-Jigyasa Initiative, CSIR-AMPRI scientists Dr. Satanand Mishra & Dr. Ram Kumar visited PM SHRI KV No. 2, Bhopal, on August 28, 2025. They

delivered lectures on Machine Learning & Transmission Electron Microscopy and interacted with students.



Lecture by CSIR-AMPRI scientists at PM SHRI KV No. 2, Bhopal

4. As part of the CSIR-Jigyasa Initiative, CSIR-AMPRI scientists Dr. Satanand Mishra & Dr. Tilak Chandra Joshi visited PM SHRI KV CRPF Bangrasia, Bhopal, on September 11, 2025. They

delivered lectures on the Application of AI in Sensing Technology & Impact Absorbing Materials and interacted with students.



Lecture by CSIR-AMPRI scientists at PM SHRI KV CRPF Bangrasia, Bhopal

5. As a part of the CSIR-Jigyasa Initiative, AMPRI scientists Dr. Satanand Mishra & Dr. Sarika Verma visited PM SHRI KV Bairagarh, Bhopal, on September

12, 2025. They delivered lectures on Application of AI in Sensing Technology & Application of 3D Printing in Healthcare & interacted with students.



Lecture by CSIR-AMPRI scientists at PM SHRI KV Bairagarh, Bhopal

6. CSIR-AMPRI, Bhopal, organized a popular lecture, lab visit & student-scientist interaction on September 18, 2025, for PM SHRI

KV, Katni, under Jigyasa. Students visited the various laboratories/ facilities of AMPRI and interacted with scientists.



Visit of students of PM SHRI KV, Katni at CSIR-AMPRI

7. CSIR-AMPRI hosted a popular lecture, lab visits & student-scientist interaction on September 24, 2025, for students

& teachers of the “Entrepreneurial Adventure Camp” organised by PSSCIVE, NCERT, Bhopal.



Glimpses of popular lecture organised for students & teachers of the “Entrepreneurial Adventure Camp” at CSIR-AMPRI

79th Independence Day on August 15, 2025

CSIR-AMPRI, Bhopal celebrated 79th Independence Day on August 15, 2025 (Theme 'Naya Bharat'). Prof. Thallada Bhaskar, Director, CSIR-AMPRI hoisted the National Flag and addressed the staff on the occasion. Dr. Bhaskar also unveiled the logo of think tank for transformation (T3 Club). Various competitions (fancy dress, poem /song, colouring, quiz, and essay) were organised for children of staff members



of CSIR-AMPRI, Bhopal, by the staff club on August 10, 2025 (Sunday), for the celebration of the Independence Day on 15th August 2025.

National Sports Day 2025

CSIR-AMPRI, Bhopal, organized series of events to commemorate National Sports Day 2025. 1.) The Fit India Pledge was taken under the Chairmanship of Dr. Thallada Bhaskar, Director, followed by a walk by staff members on August 29, 2025. 2) Running and cycling competitions were organised for the

children of staff members on August 31, 2025. 3) Ms Nidhi Pawaiya, international athlete shot-put, and Mr Ram K. Khilrani, national swimming player, addressed CSIR-AMPRI staff on September 1, 2025. A musical chair race for female staff was also organized on the same day.



Glimpses of programmes organised to commemorate National Sports Day 2025

84th Foundation Day of CSIR on 26th September 2025

On the occasion of 84th Foundation Day of CSIR on 26th September 2025, Honourable DG CSIR unveil the logo of AMPRI and addressed the team AMPRI from New Delhi.



Unveil the logo of CSIR-AMPRI

CSIR-AMPRI's SODAR Facility Installed & Inaugurated at IMD Delhi

On the auspicious occasion of CSIR's Foundation Day, September 26, 2025, SODAR (Sound Detection and Ranging) system facility, designed & developed by 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 and dignitaries from both sides. Dr. N. Kalaiselvi, DG CSIR and Secretary, DSIR joined the event virtually.



Inaugurations of SODAR system facility at IMD, Delhi

"Swasth Nari, Sashakt Parivar Abhiyaan" at CSIR-AMPRI, Bhopal

The Ministry of Health & Family Welfare has launched the health Abhiyaan- 'Swasth Nari, Sashakt Parivar Abhiyaan' from 17th September to 2nd October 2025, culminating on Gandhi Jayanti. As per the instructions received regarding various activities to be organized

during the fortnight, CSIR-AMPRI have performed various activities which included 1 Blood Donation Camp for Staff, Family Members and Researchers on September 29, 2025 2) Lecture Session on Women's Health for Staff, Family Members, Pensioners and Researchers on September 30, 2025 3) Health Screening of Regular Women Staff at AMPRI during 30th September -

सीएसआईआर-एम्प्री, भोपाल में 9-15 सितम्बर, 2025 की अवधि में हिंदी सप्ताह का आयोजन

सीएसआईआर-एम्प्री में दिनांक 09 सितम्बर, 2025 से प्रारंभ होने वाले हिंदी सप्ताह का समापन दिनांक 15 सितम्बर, 2025 को हिन्दी दिवस समारोह के रूप में हुआ। हिन्दी सप्ताह के अंतर्गत स्टाफ सदस्यों के लिए हिन्दी और हिन्दीतर वर्ग में कई प्रतियोगिताओं का आयोजन किया गया, जिनमें सभी ने उत्साहपूर्वक प्रतिभागिता की।

15 सितम्बर, 2025 को हिन्दी दिवस समारोह

में डॉ. दिनेश कुमार चमोला, प्रोफेसर (पूर्व अध्यक्ष एवं डीन), आधुनिक ज्ञान विज्ञान संकाय, निदेशक आई क्यू ए सी, चीफ प्रोक्टर, उत्तराखंड संस्कृत विश्वविद्यालय, हरिद्वार मुख्य अतिथि थे।

इस अवसर पर हिन्दी सप्ताह के दौरान आयोजित प्रतियोगिताओं के विजेताओं तथा वर्ष भर हिन्दी में अधिक काम करने वाले स्टाफ सदस्यों को पुरस्कृत किया गया। इस अवसर पर संस्थान की राजभाषा पत्रिका 'सोपान' का विमोचन मुख्य अतिथि के कर-कमलों द्वारा हुआ।



हिन्दी सप्ताह के दौरान आयोजित कार्यक्रमों की झलकियाँ

Outreach Activities

1. CSIR-AMPRI, Bhopal team attended M.P. Mining Conclave on August 23, 2025 in Katni M.P.

The Chief Minister was the chief guest of the event.



CSIR-AMPRI Team in M.P. Mining Conclave

2. Dignitaries from Vijnana Bharati (VIBHA) visited CSIR-AMPRI, Bhopal on July 18, 2025. They have seen various laboratories

/facilities and discussed with scientists about technologies /products developed by CSIR-AMPRI.



Glimpses of visit of Dignitaries from Vijnana Bharati (VIBHA) at CSIR-AMPRI

3. Team of various Directors and officials from Handicrafts Exporters Association, Agra (Agra Marble Industries) viz. Mr. DPS Kharbanda, IAS and Former Secretary of Investment Promotions for the Government of Punjab

and CEO, Invest Punjab and Mr. Gaurav Gupta, Director, Grant Thornton Bharat LLP along with other officials from Industries visited at CSIR AMPRI Bhopal on September 19, 2025.



Visit of team of Handicrafts Exporters Association, Agra (Agra Marble Industries) at CSIR-AMPRI, Bhopal



Staff News

Visit Abroad

1. Dr. Thallada Bhaskar, Director visited Graduate School of Environmental Studies (GSES), Tohoku University, Japan during 7-12 September 2025 and delivered lecture.
2. Mr. Shiv Singh Patel, Senior Scientist, participated in “163rd Training Course on Infrastructure Development and Planning” at Taoyuan, Taiwan during September 5 to October 3, 2025.
3. Dr. Belachew Zegale Tizazuat under the scheme of CSIR-TWAS 2024 have joined CSIR-AMPRI, Bhopal, under the supervision of Dr. Mohammad Ashiq.

New Joining

Sr.No	Name	Designation
1	Sh. Deepanshu Ahlawat	Asstt. Section Officer
2	Sh. Sanjit Kumar	Junior Secretariat Assistant
3	Sh. Rohit Kumar	Junior Secretariat Assistant
4	Sh. Rakesh Kumar	Junior Secretariat Assistant
5	Sh. Shivam Upadhyay	Junior Secretariat Assistant (F&A)
6	Ms. Swati Chouhan	Junior Secretariat Assistant (F&A)
7	Ms. Rekha Chourey	Junior Secretariat Assistant (S&P)
8	Sh. Varun Bachchani	Junior Secretariat Assistant (G.)
9	Sh. Akash Kumar	Junior Secretariat Assistant (G.)
10	Sh. Brij Mohan Meena	Junior Secretariat Assistant (G.)
11	Sh. Priyanshu Kumar	Junior Secretariat Assistant (S&P)
12	Sh. Rahul Madhukar Paunekar	Junior Secretariat Assistant (G.)

Superannuation

1. Sh. T.S.V.C. Rao, Principal Technical Officer, September 30, 2025
2. Dr. Edward Peters, Principal Technical Officer, September 30, 2025



CSIR-AMPRI in Media

भारत सरकार ने 30 अगस्त को पहचान का एम्प्री में होगी लिथियम, ग्रेफाइट जैसे क्रिटिकल खनिजों पर रिसर्च क्लीन एनर्जी और ईवी सेक्टर को होगा फायदा

रहुल शर्मा | भोजपुर

राजधानी के एडवांस्ड मटेरियल्स प्रोग्रेस एंड रिसर्च इंस्टीट्यूट (एम्प्री) मध्यभारत का पहला ऐसा संस्थान बनने जा रहा है, जो नेशनल क्रिटिकल मिनेरल मिशन को लेकर काम करेगा।

यहां लिथियम, टाइटेनियम, प्लेटिनम जैसे क्रिटिकल मिनेरल्स को लेकर रिसर्च होगी। यह टेक्नोलॉजी डेवलपमेंट के साथ क्लीन एनर्जी और ईवी सेक्टर के लिए काफी फायदेमंद साबित होगा। मिनिस्ट्री ऑफ माइंस ने चार आईआईटी और तीन सेंटर ऑफ एक्सलेंस को नेशनल क्रिटिकल मिनेरल मिशन पर शोध व अध्ययन के लिए अधिकृत किया है। इनमें आईआईटी बॉम्बे, हैदराबाद, धनबाद, रुड़की सहित सीएसआईआर की तीन लैब रिसर्च एंड डेवलपमेंट के क्षेत्र में काम करेगी। इनके अलावा

भारत लिथियम, कोबाल्ट और निकल के लिए आयात पर निर्भर है। रिसर्च से इनका उपयोग और उत्पादन बढ़ाकर ऊर्जा सुरक्षा व रक्षा क्षमताओं को मजबूत किया जा सकता है। एम्प्री की रिसर्च में फोकस रहेगा कि जो क्रिटिकल मिनेरल्स हमारे यहां नहीं होते हैं, उनका विकल्प क्या हो सकता है या इनका फिर से किस तरह से उपयोग हो सकता है। मग्न में ही स्कैंडिनवियम, ग्रेफाइट जैसे तत्वों की मौजूदगी पाई गई थी।

एम्प्री भी सहयोग देगा क्योंकि यहां आधुनिक उपकरण और लैब हैं। क्रिटिकल मिनेरल्स वे खनिज होते हैं जो आर्थिक विकास, तकनीकी प्रगति, और राष्ट्रीय सुरक्षा के लिए आवश्यक हैं। लेकिन इनकी आपूर्ति बहुत कम होती है। क्योंकि ये अपेक्षाकृत कम स्थानों पर मिलते हैं। इन्हें निकालने की तकनीक काफी खर्चीली होती है।

रेयर अर्थ मिनेरल्स और क्रिटिकल मिनेरल्स को उपलब्धता से विदेशों पर निर्भरता कम होगी। स्वदेशी तकनीक विकसित होगी, जिससे आत्मनिर्भरता बढ़ेगी। इसका उपयोग ग्रीन एनर्जी के लिए होगा।

- डॉ. मनोज गुप्ता, सीनियर साइंटिस्ट, एम्प्री



Ministry of Science & Technology

75 Azadi Ka Amrit Mahotsav

CSIR-AMPRI designed & developed SODAR system facility inaugurated at IMD

An MoU signed between CSIR-AMPRI and IMD

This Effort is to enhance collaborative research on scientific and societal challenges related to weather, climate variability, forecasting

प्रतिष्ठिति: 27 SEP 2023 4:58PM by PIB Delhi

On the auspicious occasion of CSIR's Foundation Day, 26th September 2023, SODAR (Sound Detection and Ranging) system facility, designed & developed by CSIR-Advanced Materials and Processes Research Institute (AMPRI), Bhopal was inaugurated at India Meteorological Department, (IMD), Delhi by Dr. M. Ravichandran, Secretary, Ministry of Earth Sciences (MoES), Dr. Manjunath Mahapatra, Director General of Meteorology, India Meteorological Department and Prof. Dr. Thallada Bhaskar, Director, CSIR-AMPRI, Bhopal. Dr. Mohd Akram Khan, Chief Scientist & Energy and Environmental Solutions Division, Dr. Sandeep Singhal, Senior Principal Scientist & Head, Business Development Group, Dr. Kirti Sood, Senior Principal Scientist & Principal Investigator of the SODAR activity, CSIR-AMPRI, Bhopal and Dr. Manish Mohan Gera, Senior Scientist, CSIR-NIS-PR, Delhi were also present on the occasion.

विज्ञानियों ने पराली से बनाया प्लाईवुड बोर्ड, न दीमक लगेगी और न ही आग

योग में विज्ञान मेला • 300 से अधिक स्कूल, कालेज व शोध संस्थानों के प्रोजेक्ट्स व प्रोटोटाइप किए प्रदर्शित

राजधानी दिल्ली में आयोजित एक कार्यक्रम में विज्ञानियों ने पराली से बनाया प्लाईवुड बोर्ड का प्रदर्शन किया। यह बोर्ड दीमक और आग से सुरक्षित है।

पाराली से तैयार प्लाईवुड की कीमत भी कम

एम्प्री के विज्ञानियों ने पराली से तैयार प्लाईवुड बोर्ड का प्रदर्शन किया। यह बोर्ड दीमक और आग से सुरक्षित है।

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Contact



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