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IITBBS Express

Events, Achievements & Expressions

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Picture Credit: Dr. Manas Jyoti Kashyap

IIT Bhubaneswar and IIT (ISM) Dhanbad Sign MoU to Strengthen Research and Academic Collaboration

IIT Bhubaneswar and IIT (ISM) Dhanbad signed an MoU on 16th September 2026 to strengthen research collaboration and academic exchange, with an initial focus on semiconductors and basic sciences. The MoU was signed by Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar, and Prof. Sukumar Mishra, Director, IIT (ISM) Dhanbad. Prof. Subhransu R. Samantaray, Dean-PG & Research Programs; Prof. Vijay Shankar Pasupureddi, Dean-Sponsored Research & Industrial Consultancy; Prof. Animesh Mandal, Dean-Alumni, Corporate and International Relations; Prof. Shyamal Chatterjee, Dean-Continuing Education; Prof. Umaprasana Ojha, Dean-Faculty Affairs; and Prof. Chandrashekhar N. Bhende, Head-Department of Electrical Engineering & Coordinating Head, School of Electrical and Computer Sciences were present on this occasion.

The partnership will promote joint research, doctoral co-supervision, faculty and student exchanges, collaborative funding, shared research facilities and expert interactions. Semiconductor research has been identified as an initial priority, underscoring the Institutes' commitment to advancing cutting-edge research and strengthening India's semiconductor ecosystem.

Speaking on this occasion, Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar said: "Through this collaboration with IIT (ISM) Dhanbad, we seek to create greater opportunities for joint research, academic exchange and doctoral engagement. By bringing together our complementary strengths, we hope to foster meaningful research collaborations and advance knowledge in different fields of knowledge."

Prof. Sukumar Mishra, Director, IIT (ISM) Dhanbad, said: "This MoU marks the beginning of a greater journey towards deeper collaboration in research and academia. By bringing together the strengths and expertise of both institutions, we look forward to building meaningful partnerships that create lasting impact and contribute to the advancement of science and society."

The MoU provides for joint outreach programmes and reciprocal exchange of faculty, personnel and students in mutually identified areas. Valid for five years, extendable by mutual consent, it provides for 50:50 joint ownership of intellectual property generated collaboratively, unless otherwise agreed. The partnership aims to leverage the complementary strengths of both Institutes to advance research, knowledge exchange and academic engagement.

IIT Bhubaneswar Hosts the 2nd IDSPS Industry Consortium Meeting (ICM II)

IIT Bhubaneswar, in collaboration with the India Design, Semiconductors, Packaging and Systems (IDSPS) consortium, hosted the second edition of the IDSPS Industry Consortium Meeting (ICM II) on September 21–22, 2026, at the Senate Hall. Following the inaugural meeting held earlier this year at IIT Gandhinagar, the consortium continues its biannual rhythm between the two institutions to drive self-reliance and innovation across India's semiconductor and electronics ecosystem.

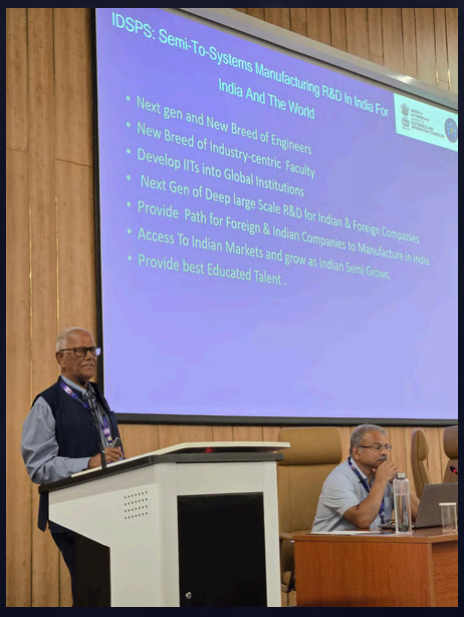
The inaugural session brought together distinguished academic leaders, industry stalwarts, and government policymakers. Prof. Shreepad Karmalkar, Director of IIT Bhubaneswar, delivered the welcome address and opening remarks, emphasizing the need for academia and industry to join forces as co-creators of future-ready technologies. Shri Vishal Kumar Dev, Principal Secretary, E&IT Department, Government of Odisha, outlined the state's strategic roadmap to establish Odisha as a premier hub and crucible for semiconductor growth.

Key perspectives on ecosystem enablement, collaborative innovation, and manufacturing were shared by Prof. Rao Tummala (CEO, IDSPS), Shri Ashok Chandak (President, IESA & SEMI), and Shri Venkata Simhadri (Founder & CEO, ASIP). Dr. Ravi Mahajan, Intel Fellow and Member of the National Academy of Engineering (NAE), addressed the gathering on packaging pathfinding and the pivotal role of the Industry Advisory Board.

Concluding the morning proceedings, Prof. Shreepad Karmalkar delivered Keynote Session 1, presenting the vision for establishing a National Research Center in Integrated Power Electronics and an associated pilot line at IIT Bhubaneswar. Over the two-day consortium, experts deliberated across strategic pillars—spanning advanced packaging, wide-bandgap power electronics, opto-electronics, and system architectures—to establish India as a global semiconductor design and manufacturing leader.

Odisha
India's Emerging Semiconductor and Digital Economy Hub
Investment Opportunities | SEMICON India 2026
September 2026

Semiconductor Manufacturing in Odisha
Silicon Carbide powder
Packaged Discrete Power Device Chip
Chips integrated into Power Module
Ingot
Processed Wafer
ATMP
Chip
FAB
Wafers


IDSPS: Semi-To-Systems Manufacturing R&D In India For India And The World
Next gen and New Breed of Engineers
New Breed of Industry-centric Faculty
Develop IITs into Global Institutions
Next Gen of Deep large Scale R&D for Indian & Foreign Companies
Provide Path for Foreign & Indian Companies to Manufacture in india
Access To Indian Markets and grow as indian Semi Grows.
Provide best Educated Talent .

INDUSTRY CONSORTIUM MEETING (ICM II)
Sep 21 - 22, 2026
Senate Hall, Admin Building [2nd Floor]
9:30 AM - 5:30 PM

SAMARTH (Silicon and Advanced Semiconductor Manufacturing Research and Training Hub) at IIT Gandhinagar
Partners: Funded jointly by the Ministry of Electronics and Information Technology (MeitY), the Government of Gujarat's Department of Science and Technology, alongside industry collaborators like Tata Electronics and Synopsys
SILICON AND ADVANCED SEMICONDUCTOR MANUFACTURING
RESEARCH AND TRAINING HUB
BUILDING CHIPS. BUILDING FUTURES. BUILDING A SELF-RELIANT INDIA.

Celebrating Our Faculty Achievement

Congratulations!

Prof. Rajan Jha

Professor, Department of Physics,
School of Basic Sciences
IIT Bhubaneswar

on being elected as a

Fellow of the Indian National Academy of Engineering (INAE)

Fiber Optoelectronics

Plasmonics

Wearable Photonics

SENSING INNOVATION FOR A BRIGHTER TOMORROW

This prestigious recognition honours his significant contributions in ***fiber optoelectronics***, ***plasmonics***, and ***wearable photonics***, advancing global sensing through high-resolution interferometers, plasmon-coupled systems, and scalable wearable devices.

IIT Bhubaneswar congratulates Prof. Rajan Jha on this distinguished achievement and wishes him continued success in his research and innovation endeavours.

IIT Bhubaneswar Initiates Entrepreneurship Engagement Series with Interactive Session on Entrepreneurial Mindset

Following the enthusiastic response to the talk “An Evening of Wisdom, Leadership & Entrepreneurial Excellence” by Shri Madan Mohan Mohanka, Chairman, Tega Industries, on Entrepreneurship Day, IIT Bhubaneswar organised an interactive session on “Introduction to Entrepreneurship” on 8th September 2026, to encourage students to explore entrepreneurship as a career pathway.

The session kicked off a proposed series of interactive engagements to help students develop an entrepreneurial mindset, identify meaningful problems, validate ideas, and take their first steps toward building something of their own.

Dr. Soobhankar Pati, CEO, IITBBS Research & Entrepreneurship Park, made a presentation and interacted with the participants. Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar was also present on the occasion.

The session focused on the fundamental question of what it means to be an entrepreneur. Emphasising that students do not necessarily need a startup idea to begin their entrepreneurial journey, the discussion encouraged participants to first develop the ability to identify inefficiencies, friction points and unmet needs around them.

A key message of the session was that entrepreneurship begins with identifying the right problem, rather than immediately developing a solution. Participants were encouraged to understand users, test their assumptions, build small experiments or Minimum Viable Products (MVPs), learn from actual user responses and continuously refine their approach.

This interactive session encouraged students to question assumptions, identify real-world problems and explore solutions, highlighting the importance of validating needs through user behaviour.

The session emphasised that entrepreneurial thinking goes beyond startups, encompassing problem-solving, experimentation, learning from failure and value creation across diverse careers.

The strong participation set the stage for upcoming sessions on customer discovery, idea validation and experimentation, further strengthening IIT Bhubaneswar’s culture of innovation and entrepreneurship.

The second session of the series of interactions was held on 11th September 2026, which dealt with “Is this a Problem Worth Solving? : From Observation to Evidence“.

Workshop on ‘Learnings from Best Waste Management Practices and Evaluating Standards for Improved Implementation’

A BIS-sponsored workshop on “Learnings from Best Waste Management Practices and Evaluating Standards for Improved Implementation” was organised by the School of Infrastructure, IIT Bhubaneswar, on 21 September 2026, focusing on challenges, technological solutions and the role of standards in sustainable waste management. Around 80 participants from academia, government, urban local bodies, industry, NGOs and civil society engaged in discussions on strengthening waste management through innovation, policy and standardisation.

IIn their opening remarks, Prof. Shyamal Chatterjee, Dean (Continuing Education), and Prof. Rajesh Roshan Dash, Head, School of Infrastructure, highlighted the growing need for sustainable, evidence-based waste management and robust standards amid rapid urbanisation and rising waste generation. They stressed stronger collaboration among academia, government, industry and communities to achieve long-term sustainability.

Dr. Mohit Somani, Coordinator of the workshop, highlighted its relevance during Swachhata Pakhwada and stressed the need to periodically update waste management standards to address emerging waste streams, technologies and environmental challenges. The technical programme featured five expert lectures on municipal waste management, processing technologies, implementation of waste management rules and the role of standards.

A key highlight was the BMC Deputy Commissioner’s keynote on “Bhubaneswar’s Journey towards a Circular and Zero-Landfill City,” showcasing waste segregation, processing and resource recovery initiatives. BIS and industry experts discussed the role of standards and innovative technologies such as Thermo-Catalytic Conversion (TCC). The workshop emphasised academia–industry–government–community collaboration for more efficient, standardised and sustainable waste management.

Our Research Excellence:

From Snow to Greening: A Changing Landscape across the Hindu Kush Karakoram Himalaya Mountains

Research for a Better Tomorrow

Congratulations!

TO OUR RESEARCHERS

Subhransu Sekhar Gouda

School of Infrastructure

IIT Bhubaneswar

From Snow to Greening:

A Changing Landscape across the Hindu Kush Karakoram Himalaya Mountains

A remarkable achievement by researchers from IIT Bhubaneswar published in ***npj Climate and Atmospheric Science***

A significant contribution to understanding how climate change is reshaping high-altitude ecosystems in the Hindu Kush–Karakoram–Himalaya (HKKH).

Saket Dubey

School of Infrastructure

IIT Bhubaneswar

Tracking a Changing Himalaya

Using nearly three decades of satellite observations and climate data, the study analysed changes in snowmelt timing and surface greenness across six major mountain regions of the HKKH **(1994–2005 vs 2013–2024).**

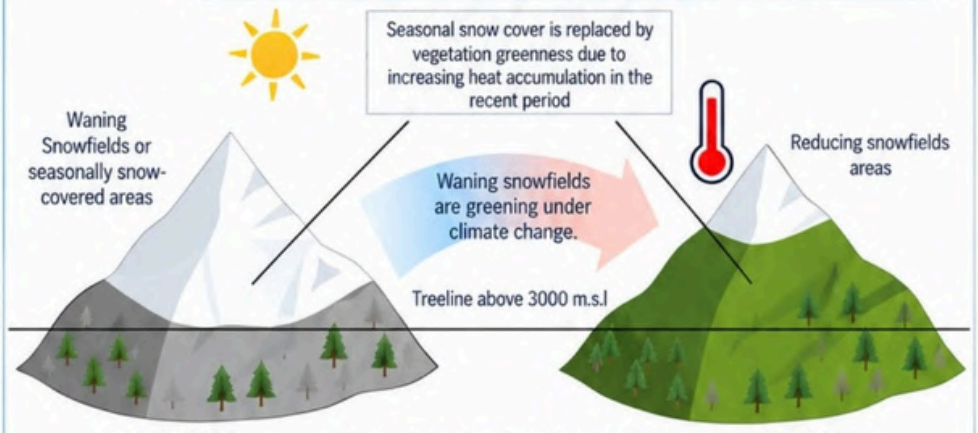
Major Findings

Snow is melting **~4.4 days earlier** on average (~11 days earlier in areas with clear shift)

21 ~81% waning snowfields showed increased greenness

Growing-season heat accumulation increased by **> 50% to 70%**

How Earlier Snowmelt Leads to Greening



Comparison of melting of snow and greening between two study periods, 1994-2005 and 2013-2024.

Regions with Strong Greening Response

- **92%** Karakoram
- **89%** Western Himalaya
- **83%** Central Himalaya

~30% of areas with earlier snowmelt showed **> 20% increase** in greenness.

A recent study published in npj Climate and Atmospheric Science reveals significant changes across the Hindu Kush–Karakoram–Himalaya (HKKH), with earlier snowmelt, longer snow-free periods and increasing surface greenness. Using three decades of satellite observations, researchers compared snowmelt timing and vegetation greenness across six mountain regions between 1994–2005 and 2013–2024.

Across high-altitude areas above the treeline, nearly two-thirds of waning snowfields showed earlier snowmelt, with snow disappearing 4.4 days earlier on average and about 11 days earlier in areas with a clear shift. The change was most widespread in the Hengduanshan, followed by the Hindukush and Karakoram. Meanwhile, nearly 81% of snowfields showed increased greenness, exceeding 92% in the Karakoram, 89% in the Western Himalaya and 83% in the Central Himalaya. Nearly 30% of areas experiencing earlier snowmelt recorded over 20% greater greenness, demonstrating a strong link between earlier snow loss and vegetation growth.

Earlier snowmelt exposes the surface during warmer periods, substantially increasing growing-season heat accumulation—by over 50% in the Hindukush and Karakoram and over 70% across the Western, Central and Eastern Himalaya and Hengduanshan. However, temperature alone does not explain the response. In the Central and Eastern Himalaya, snowmelt water, higher soil moisture and Indian summer monsoon rainfall further support vegetation growth, highlighting regional differences in how warming and changing snow dynamics are reshaping HKKH ecosystems.

Taken together, these findings reveal a changing face of Asia's high mountains. Earlier snowmelt is extending the snow-free season and altering conditions for alpine vegetation. This does not necessarily mean that more vegetation is simply replacing retreating snow. Instead, it reflects a changing relationship between seasonal snow, warmth, moisture and vegetation activity. As temperatures continue to rise, areas where snow currently persists late into the growing season may be particularly sensitive to further environmental change.

Read the full Paper: https://doi.org/10.1038/s41612-026-01409-5

Prof. Lam Kin Yong from Singapore Institute of Technology visits IIT Bhubaneswar

Prof Lam Kin Yong from Singapore institute of Technology, Singapore (Senior Advisor (International Engagements) visted IIT Bhubaneswar on 17th September 2026 and interacted with the faculty members on the possible collaboration and exchange programs with IIT Bhubaneswar. He was also the former Vice President (Industry) of NTU Singapore.

On this occasion, Prof. Animesh Mandal, Dean-Alumni, Corporate and International Relations; Prof. Subhransu Ranjan Samantaray, Dean-PG & Research Programs; Dr. Amritendu Roy, Head, School of Minerals, Metallurgical & Materials Engineering and Dr. Raj K. Singh, Head of School of Earth, Ocean and Climate Sciences were present on the occasion.

The interaction highlighted SIT's strong industry linkages and translational research approach, particularly in areas such as Artificial Intelligence, data science, robotics, advanced manufacturing, semiconductors, energy, sustainable maritime engineering, infrastructure and railway engineering. SIT representatives expressed interest in collaborating with IIT Bhubaneswar through joint research, industry-sponsored doctoral programmes and Master of Engineering programmes.

The discussions also explored opportunities for collaboration in emerging areas including AI, robotics, semiconductor technologies, digital infrastructure and energy systems. Both institutions recognised the potential for multidisciplinary research and stronger industry-academia linkages, including opportunities for student and faculty engagement.

The interaction marks a step towards expanding IIT Bhubaneswar's international academic and research partnerships, particularly with institutions and industry ecosystems in Singapore and Southeast Asia.

Plantation drive as part of 'Ek Ped Maa Ke Naam' Campaign

As part of the 'Ek Ped Maa Ke Naam Campaign-3.0' and 'Swachhata Hi Seva-2026' programme, IIT Bhubaneswar, organised a mass plantation drive on its premises on 17th September 2026. The members of the Institute participated in the drive in large number with enthusiasm and vigour and planted about 200 avenue, fruit-bearing and ornamental saplings in IIT Bhubaneswar campus.

Prof. Shreepad Karmalkar, Director, IIT Bhubaneswar, inaugurated the drive by planting saplings. Prof. Mihir Kumar Das, Dean (Student Affairs); Shri Bamadev Acharya, Registrar; Prof. Brahma Deo, Academic Coordinator, SMMME; Prof. S.K. Panda, Chairperson (Infrastructure); Dr. Pattabhi Ramaiah Budarapu, Chairperson (Warden Council); Dr. Sivaiah Bathula, Chairperson (GATE); Dr. Ankit Dalal, NSS Coordinator and Shri K. Rabin Kumar Dora, Superintending Engineer of IIT Bhubaneswar led the plantation drive and planted saplings. Faculty members, staff, residents, students and NSS volunteers participated in this drive with great enthusiasm. Mr. K.V. Reddy, Assistant Horticulturist, coordinated the event.

LiFE
#एक_पेड़_माँ_के_नाम3.0
#Plant4Mother
Plantation drive by

LiFE
#एक_पेड़_माँ_के_नाम3.0
#Plant4Mother
Plantation drive by

Ganesh Puja Celebration

Bishwakarma Puja Celebration

"Some people feel the rain. Others just get wet."

— Bob Marley

Picture Credit: Dr. Manas Jyoti Kashyap