

W E L C O M E T O O U R

MBUST Insights

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Dr. Sabina Shrestha, Dr. Sudip Pandey and Saugat R.C.

Celebrating MBUST Annual Day

Exploring the Hiti Pranali, Kathmandu Valley's Ancient Water Management Heritage

By Dr. Sabina Shrestha

On 3 August 2025, MBUST celebrated its Annual Day of Establishment. The event featured an inspiring speech by President Dr. Rajendra Dhoj Joshi, who reflected on the university's journey and achievements. This was followed by congratulatory remarks from the director of the Institute of Applied Sciences, Dr. Kirti Kusum Joshi. The program's highlight was the keynote address by Vice-President Padma Sunder Joshi, focusing on Nepal's Hiti Pranali and key insights from his recent book "Hiti Pranali".



President Dr. Rajendra Dhoj Joshi delivering keynote address

The Hiti Pranali, Kathmandu Valley's traditional water distribution network, is not only an engineering marvel developed in Nepal but also a testament to the advanced scientific knowledge of its time. This sophisticated system incorporated precise surface leveling, effective waterproofing and sealant techniques, efficient filtration methods, and the separation of drinking water from water used for other purposes. Additionally, it included crucial aspects of water recharge and wastewater drainage, which collectively contributed to maintaining a clean and healthy environment.

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Dr. Kirti Kusum Joshi giving his remarks

This hydraulic infrastructure supported continuous habitation and urban development through successive dynasties—Licchavi, Malla, and Shah—and is reflected in the valley's living heritage, festivals, and monuments. Remarkably, these cities remain inhabited and culturally vibrant to this day. The intricate details surrounding the inscriptions and images of the Makara (the vehicle of the deity Ganga) and Bhagirath (renowned for his devotion in bringing Ganga to Earth), along with the artistic placement of lamps and symbolic serpents, capture the rich artistic imagination and human values of the era. These elements are thoughtfully explored in the book. The author's work not only gives vivid account of the majestic picture of Kathmandu's lifeline and glorious past but also plays a crucial role in reviving this lost and declining heritage for future generations.



Vice-President Padma Sunder Joshi delivering the keynote address

Fostering Partnerships

MBUST SHOWCASES RESEARCH ACTIVITIES OF UNIVERSITY AT CNI MEETING

By Dr. Sabina Shrestha

On 27 August 2025, a meeting was held at the Confederation of Nepalese Industries (CNI) to explore prospects for collaboration between industries and MBUST. The event provided a valuable platform to highlight MBUST's vision, mission, and ongoing research initiatives.

President Rajendra Dhoj Joshi opened the session with an insightful briefing on MBUST's strategic goals and research focus areas. Academic faculty members including Dr. Bhushan Shrestha, Dr. Sabina Shrestha, Dr. Anupama Shrestha, Dr. Sudip Pandey, Dr. Saurabha Bhattarai, and Dr. Kishor Timsina presented overviews of research activities currently underway within MBUST's laboratories. These encompass work in Organic Agriculture, Forest Biomaterials Science and Engineering, as well as Sustainable and Resilient Infrastructure programs. Industrial stakeholders shared their perspectives and concerns across diverse business sectors, including human food, animal feed, mining, fertilizers, medicine, renewable materials, and paints.

The meeting concluded with remarks by Mr. Satish Chand Shrestha, CNI Vice-president emphasizing the importance of sharing MBUST's research developments with CNI's industrial stakeholders, fostering dialogue to identify collaboration opportunities that can drive innovation and sustainable growth.

This engagement marks an important step towards strengthening the synergy between research and industry, aiming to harness scientific advancements for Nepal's economic and developmental progress.



Some highlights of the MBUST-CNI meeting

Strategic Dialogue on Advancing Forest Biomaterials Education and Research in Nepal

INITIATING ACADEMIC AND RESEARCH COLLABORATION ON FOREST BIOMATERIALS SCIENCE AND ENGINEERING WITH FRTC

By Dr. Sudip Pandey

On 25 August 2025, a productive and forward-looking meeting with the team from the Forest Research and Training Centre (FRTC) was held to discuss the prospects of introducing a specialized academic program in Forest Biomaterials Science and Engineering. The discussion centered on the importance of this emerging field in promoting the sustainable use of forest resources, fostering innovation in value-added forest-based products, and strengthening Nepal's forest-based industries. Given the country's rich forest resources and growing demand for green and sustainable technologies, such a course is seen as highly relevant to Nepal's broader economic and environmental goals.

The meeting was recognized by both sides as a significant first step toward institutional collaboration. There was a shared understanding of the need to integrate research, training, and innovation to advance this field. As a result, both parties agreed to pursue a collaborative approach that includes joint supervision of students and research, shared use of laboratory facilities, and teaching contributions by experts from the Forest Research Division. These forms of collaboration will not only strengthen academic capacity but also bridge the gap between research and application.



Participants of MBUST-FRTC meeting

The FRTC team expressed enthusiasm about the initiative and shared updates on their current research infrastructure and strategic priorities, which align well with the proposed course. FRTC generously shared the newly developed Land use Map of Nepal. This updated map will serve as a valuable tool for spatial planning, forest inventory, and the integration of geospatial data in the biomaterials curriculum and research. Overall, the meeting was highly successful in laying the groundwork for a long-term academic and research partnership. It represents a meaningful step forward in the development of forest biomaterials education in Nepal and reflects a shared commitment to innovation, sustainability, and the advancement of Nepal's forest-based bioeconomy.

Come Hunt With Us

WHERE SCIENCE MET FOREST

By Saugat R.C.

The Mushroom Lab at MBUST successfully organized its first-ever experiential event, “Come Hunt With Us”, on August 10–11, 2025, combining a mushroom foraging trip in Chitlang with hands-on laboratory training at the university. Designed to blend science, culture, and adventure, the program attracted participants from diverse academic backgrounds including forestry, agriculture, Arts and computer science.



On the first day, participants explored the forests of Chitlang, learning to identify wild mushrooms under the guidance of experts, followed by an evening of reflections at Chitlang Village Resort. The second day featured practical lab sessions at MBUST on spore printing, tissue culture, and microscopy, with guidance from Dr. Bhushan Shrestha and the Mushroom Lab team.



The event was made possible through the institutional support of MBUST, community partnership with Chitlang Village Resort, and sponsorship from the Research Institute of Agriculture and Applied Sciences (RIAAS). With positive feedback and a sustainable financial outcome, the initiative has set the foundation for future editions that will continue fostering research, education, and entrepreneurship at MBUST.

To know more about the success of this event,

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