MADAN BHANDARI UNIVERSITY OF SCIENCE AND TECHNOLOGY

NEWSLETTER | **ISSN NO. 3059-9342 (ONLINE)**
ISSUE 20 | FEBRUARY 2026

WELCOME TO

MBUST Insights

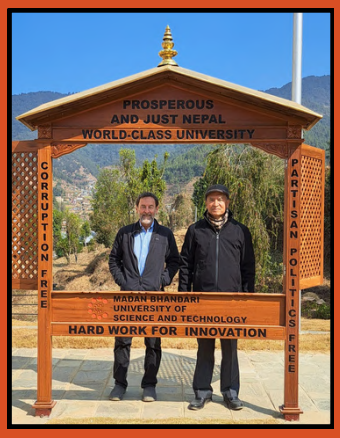
THE FIRST COMMENCEMENT CEREMONY

By Dr. Sarbesh Das Dangol

The first commencement ceremony of MBUST (Photographs by MBUST)

On February 8, 2026, Madan Bhandari University of Science and Technology conducted its first commencement ceremony, and the university President conferred degrees to the university's first graduates: Ms. Sabnam Subedi, Mr. Sushil Rai, and Mr. Dhana Krishna Acharya, in the presence of the university's board of trustees and officials. The university also presented an honorary degree to Dr. Jamil Salmi, who was invited as the chief guest of the commencement ceremony. The ceremony was attended by over 400 guests from Nepali academia, industry, health and research institutes, and several active and retired professionals.

Quick Stories



Feb 20, 2026: Mr. Nick Langton, Executive Director of the United States Educational Foundation in Nepal (USEF-Nepal), visited Madan Bhandari University of Science and Technology (MBUST) to discuss science, technology, and innovation activities to explore collaborative opportunities in research and development. Mr. Langton visited individual university laboratories and interacted with the principal investigators and the students.

Feb 24, 2026: It was an honour to welcome Jaco du Toit, UNESCO Representative to Nepal, to Madan Bhandari University of Science and Technology (MBUST). Mr. Toit was accompanied by UNESCO Nepal representatives Ms. Nirjana Sharma and Ms. Yujie Fan. Our university team had an inspiring discussion on biodiversity conservation, science-driven innovation, & knowledge sharing for sustainable development in Nepal. The UNESCO team visited the university laboratories to discuss the ongoing activities with laboratory principal investigators and students.

Research Commercialization Facilitation Committee

Framework for effective research commercialization implementation in Nepal

By Dr. Sarbesh Das Dangol

The Federal Ministry of Education, Science, and Technology (MoEST) has formed a Research Commercialization Facilitation Committee to ensure the effective implementation of the workshop program to enable the commercialization of research outputs from Nepali universities and research institutions, approved under the federal ministry's annual program. Dr. Sarbesh Das Dangol is serving as a committee member representing Madan Bhandari University of Science and Technology (MBUST).

Representatives from MBUST, Kathmandu University (KU), Tribhuvan University (TU), Confederation of Nepalese Industries (CNI), Phutung Research Institute (PRI), and MoEST attended the meeting at the ministry's office in Singhadurbar, Kathmandu.

Dr. Sarbesh stressed that MBUST identifies priority research areas that include organic and climate-resilient agriculture using modern technologies, advanced genome editing techniques, promotion of protected cultivation in strategic crops, forest biomaterials and sustainable materials, and resilient built infrastructures with AI and data science integration. He emphasized that the research outcomes should be clearly categorized, measurable, and transferable, and the evidence-based research outcomes should be aligned with national development priorities. He further requested the ministry to facilitate this initiative via standardized science, technology, and innovation (STI) indicator reporting, periodic submission from research institutes, validation by authorized personnel, and institutional coordination for effective research outcome collection. He also focused on the need of business incubation centers to convert research outputs to commercial products, a national online research outcome database, and partnerships between academia, industry, and government, specifically MoEST, the Federal Ministries of Finance, as well as Industry, Commerce, and Supplies. He also underscored follow-up on previously completed research grants, scaling outcomes, and supporting their commercialization potentials through policy support and intellectual property protection.

The KU representative emphasized that there is a need for a national data repository of all research conducted in Nepal, the prioritization of evidence-based research, and policy support for patenting and commercialization. The TU representative emphasized that apart from basic research, there is a need for robust mechanisms to translate research outcomes into market-ready products, and recommended the documentation of national priority research and a centralized database. The CNI representative stressed that marketing and research should go in parallel and proposed matching fund models, infrastructure development for prototype development, stronger collaboration between industry and academia, and export-oriented innovation as Nepal prepares to graduate from a least developed country (LDC) to a developing nation. The PRI representative also focused on the consolidation of various national research into a common national database, and further stressed that industry should be involved in priority setting.

The meeting concluded with a consensus on the development of a unified national research database, the improvement of academia-industry-government collaboration, and organizing a dedicated workshop to finalize frameworks for implementation.

Alpine Ecosystems under Climate Change

Guest Lecture by Shalik Ram Sigdel at MBUST

By Dr. Sudip Pandey

On February 22, 2026, Dr. Shalik Ram Sigdel, Associate Professor at the Institute of Tibetan Plateau Research, Chinese Academy of Sciences delivered an engaging lecture at MBUST on Response of Alpine Vegetation to Global Warming in the Himalayas. His talk highlighted how climate warming and changing precipitation patterns are reshaping alpine treelines and shrublands across the Himalayas.

Based on field observations, tree-ring analysis, and modeling, Dr. Sigdel highlighted that, although warming favors the establishment and upslope expansion of trees in general, the role of moisture is critical in determining the pace and success of vegetation shifts. The results showed that there were marked species-specific responses, with the late-successional *Abies spectabilis* (fir) increasingly dominating over the *Betula utilis* (birch) in a warming and drying climate. Other topics that were raised during the seminar included shrub line dynamics, Himalayan glacier retreat, and functional plant traits.

Guest lecture participants

The presentation highlighted the need to integrate both biotic and abiotic factors to better understand and predict future changes in Himalayan alpine ecosystems and their implications for ecosystem services.

Adding Value to Kiwifruit

Kiwifruit with a Purpose

By Ankita Nepal, Dr. Sabina Shrestha, Dr. Rameshwar Rai, and Asmita Rai

Under the supervision of Dr. Sabina Shrestha, and Supervisor Rameshwor Rai, Miss Ankita Nepal worked along with Asmita Rai on value addition of kiwifruit to reduce food wastage and increase farmers' income.Three different product was made. Kiwi candy was prepared by dipping fruit pieces in syrup mixed with natural pulp to improve taste and quality. A sugarless dry kiwi candy was also developed as a healthy snack option. These products help utilize surplus fruits when production is high and market prices are low, extending shelf life and reducing postharvest losses.

Turning surplus into solution

Overall, this initiative shows how proper use of fruit and peel can support nutrition, promote small enterprises, create income opportunities, and strengthen sustainable food systems.

Pachak (a digestive mouth freshener) was made from the outer peel of the fruit, which is usually discarded. Kiwi peel is rich in antioxidants and fiber, which are beneficial for digestion and overall health. The pachak was prepared by mixing the peel with black salt, amchur (*Mangifera indica*), cumin (*Cuminum cyminum*), black pepper (*Piper nigrum*), ajwain (*Trachyspermum ammi*), long pepper (*Piper longum*), and hing. This combination makes it a natural digestive product with added health benefits.

From Nepal to Spain

Faculty Paper Presentation at GCWOT'26, Spain

By Dr. Ritu Raj Lamsal

Dr. Ritu Raj Lamsal, faculty member of the Digital Technology Program at Madan Bhandari University of Science and Technology (MBUST), Nepal, participated and presented a paper titled "Responsible AI Framework for Safe, Explainable, and Policy-Compliant Autonomous Systems," at the 8th Global Conference on Wireless & Optical Technologies (GCWOT'26), held from February 11th to 13th, 2026, at the University of Malaga, Spain. The conference was organized under the IEEE Spain Section, bringing together over 150 researchers, academicians, and industry professionals from across Europe, Asia, and the Middle East. GCWOT'26 was jointly organized by the University of Malaga, Mehran University of Engineering & Technology (MUET), and Sir Syed University of Engineering & Technology (SSUET), with technical cooperation and support from EU KA107 ICM mobility projects and the EU KA2 Capacity Building ACTIVE Project.

The conference serves as an established international forum for researchers to exchange knowledge on novel aspects of technology, application, and service development within wireless, optical, and underwater communication technologies. The 8th edition covered a diverse range of themes at the intersection of wireless communications, optical technologies, and artificial intelligence, including wireless communication systems such as 5G and 6G technologies, mobile edge computing. The conference featured 69 paper presentations across eleven technical sessions.

Top: *Dr. Ritu Raj Lamsal delivering his oral presentation at GCWOT'26*
Bottom*: Dr. Lamsal with fellow participants and delegates at the conference*

Continuing the Legacy

Graduates Honored, New Cohorts Welcomed

By Birendra Mahara

On February 5, 2026, the Master's degree in Applied Science (MAS) batch of 2024 and the PhD batch of 2023, in collaboration with the university, hosted a memorable farewell-and-welcome celebration at the stunning Chitlang Resort. This significant event not only welcomed the third cohort of students from various academic programs but also celebrated the pioneering graduating class of 2024 from the Organic Agriculture program. This milestone marks a historic achievement for the university and potentially for Nepal, as it stands as the only institution in the country offering an MAS in Organic Agriculture.

The celebration brought together a diverse gathering of students, including those from the May 2025 intake in Data Science and Artificial Intelligence, along with students from the November 2025 intakes in Organic Agriculture, Forest Biomaterial Science and Engineering (FBM), and the Sustainable and Resilient Infrastructure (SRI) program. The evening was elegantly led by Er. Nil Kantha Regmi, who set a warm tone for the festivities. As the new cohort embraced their place within this vibrant academic community, attendees enjoyed a delightful dinner. The night was alive with energy, filled with captivating dance performances and heartfelt singing, creating an atmosphere filled with joy and celebration.

A particularly touching moment unfolded during the tribute to the first graduating class of Organic Agriculture students: Sabnam Subedi, Dhankrishna Acharya, and Sushil Rai. They shared personal stories and memorable experiences from their two-year journey in Chitlang and at the university. Their invaluable contributions have been pivotal in shaping the program's identity and direction. Their graduation sets a standard for academic excellence and resilience. We extend our best wishes to all three seniors for their bright futures ahead, sending heartfelt hopes for their journeys in life.

Event banner

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Fueling Economic Growth by University Research

CNI–MBUST Roundtable Highlights

By Dr. Sabina Shrestha

On February 7, 2026, the Confederation of Nepalese Industries (CNI) and Madan Bhandari University of Science and Technology (MBUST) hosted a round table discussion. Dr. Dinesh Raj Bhuju, Academic and Research Vice-President, as the moderator of the event on "Fueling Economic Growth by University Research", portrayed the round table as a symbolic space for open idea exchange, collective decision-making free from disputes, and sustaining harmony through shared purpose. It was the effort to bring together academia, industry, and government in a spirit of constructive dialogue; the discussion aimed to foster meaningful collaboration. He also reminded that the objective was to initiate meaningful dialogue on how industry and universities can work together to create harmony for economic growth across industry, agriculture, and service sectors, leveraging the university of research as a key driver.

Mr. Birendra Pandey, President, CNI reminded in his welcome speech that Nepal's economic growth must be driven by innovation, competitiveness, and sustainability, with universities generating and transforming knowledge into products and services. There is need of research seeking practical solutions, not remain confined to publications; it must contribute directly to enterprises and the national economy through real projects, not just MoUs. The government and academia should integrate industry to create skill pathways, structured platforms, and a strong, coherent research framework rather than today's fragmented efforts. The research demands sustained financial commitment, with government playing a critical enabling role through supportive initiatives, clear priorities, and protection of intellectual property. He also emphasized that the technology transfer must be continuous and institutionalized, moving from one-time interactions to long-term mechanisms that translate lab outputs into marketable technologies. Further, he elaborated that university research can truly fuel economic growth only when it is firmly connected to industry through strong and long-term collaboration.

Mr. Padma Jyoti, Chairperson, Board of Trustees, MBUST welcoming round table discussion participants

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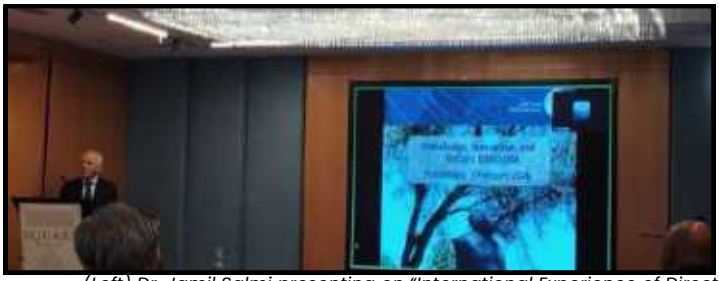
Mr. Padma Jyoti, Chairperson, Board of Trustees, MBUST, in his welcome speech elaborated on the need to incorporate best practices to build a world-class university that delivers meaningful, practical, and tangible prosperity for Nepal. He further emphasized the need for creating strong, institutional linkages between academia, business, and the economic sector. He also emphasized the need to include universities and even schools in this reform process, building a pipeline from early education to advanced programs, and the need for a strong governance structure and to create linkages between academia and business for national economic development. There is a need for universities to produce technology to convert into wealth by the business community. He urged that the first three Masters of Applied Science graduates to put their ideas and insights for future directions.

Dr. Jamil Salmi, Tertiary Education Specialist addressed on "International Experience of Direct and Indirect Contribution of Universities to Economic Growth". He gave examples of Korea and Brazil in education, knowledge innovation, and emphasized that knowledge is the oil of the future and higher education is the heart of economic growth. He elaborated that university can contribute in highly specialized people working in industry and who creates startups and theoretical development with application in local and regional economy. He also shared idea that one should explore what is important and what can be used within resources available such as development of optical equipment in Arizona and solar energy by Singapore and need of professors who are also entrepreneur are necessary. There is need of creation of vibrant ecosystem for startups and develop culture of entrepreneurship and risk taking as well as dynamic interactions between international and emerging local firms. The emphasized that every nation has to move fast as world is competitive and tough. He challenged to researchers to find, what is your vision, what is next and also remined that it is important to find where one wants to go and imagination and independent thinking are must.

Prof. Seeram Ramakrishna, Xinghua Distinguished Chair Professor, Tsinghua University, China, addressed on "Good Practices in Research Funding Approaches: Benchmarking and Gaps with Respect to the Best Practices". He reminded that industries are risk takers and the world indeed is changing rapidly and it is a historic time—industries have to take risk and move out of comfort zone. He also emphasized that countries have different commitment but the way scientific research are centralized and certain areas are focused as limited resource in university and critical mass of talent and it requires to choose and build critical team and accelerate process. There is need of policy support and motivation and determination have and independent and strategic focus and gave example of Singapore's success in solar energy, biomedical and microelectronics. He further exemplified increase in GDP of Vietnam despite COVID-19 credited to policy coordination, deep interaction with industry and realign higher education sector. He further gave example of rapid raise of Tsinghua University and emphasized on development of culture which leads to sustain translation and make real world impact. He reminded MS and PhDs researchers and graduates that there are no boundaries and set for world benchmark and innovation should be for multiple jurisdictions. He also elaborated on need of contribution of alumni, training in advanced fields, integrating traditional knowledge and current advancement, creation of industrial parks for enterprises and strengthening of incubation centers. He reminded that the competition is opportunity to be more innovative, emphasis should be strengthening current industry and innovation should think for industries of future.



(Left) Dr. Jamil Salmi presenting on "International Experience of Direct and Indirect Contribution of Universities to Economic Growth", (Right) Mr. Birendra Pandey presenting on "Meeting Research, Development, and Innovation Demands of Industries."

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Prof. Shantayanan Devarajan of Georgetown University, US, addressed "Who should fund research?" and reminded that economic growth is a way to escape poverty, with labor productivity and capabilities as the major determinants. He asked, to accelerate productivity growth, what can the government do? He urged the creation of a research institution as knowledge is generated by research and innovation as government will have access to more people. Subsidize industry for research and innovation and diffusion of technology to international trade, eliminate trade barriers, intermediate and capital goods. He emphasized that one should think more competitive export to the world market and what competitors are producing. There is a need of increase education and skills of workers, which can have a direct effect, and workers should be trained to use or interact with new technology. There should be a culture of sustained technology with continuous learning and innovation. MBUST and CNI should try out innovations in the industry and innovate that will work and make economic growth.

Mr. Birendra Pandey, President, CNI, addressed the “Meeting Research, Development and Innovation Demands of Industries”. He pointed out that the productivity of workers in Nepal is low compared to neighboring countries, and the private sector in Nepal contributes more than 80%. He remarked that university research is more supply-driven rather than industrial need, and there is a need for market-driven research in process optimization, efficient energy use, automation, value addition, control post-harvest loss, service in IT sectors, and scale-up using AI. He further emphasized there is also a need for cost-cutting, inclusion of mitigation of vulnerability of climate change, compliance, and the circular economy. He elaborated that the CNI research cell is bridging policy and industry. He emphasized the need to identify growth sectors for $100 Billion economy from $44 Billion. He reminded that there is a correlation between investment and industry-academia collaboration and skills alignment, as well as curricula, internship, and industry-research projects, and CNI has a commitment to pilot innovative research.

Dr. Rajendra Dhoj Joshi, President, MBUST, addressed “MBUST Initiatives for Fueling Research.” He urged to focus on concrete, tangible areas and economic zones, starting with small things where partnership is ready and avoiding areas lacking current experience. He reminded that there is a problem in policy which is often encountered by industries, and building a prosperous Nepal without the development of policy can be a futile effort. There should be harmony of art and science for comprehensive sustainable and subsistence research. As all issues cannot be solved at once, there is need of focus on few critical issues, special sectors and future technology such as drone technology are also of utmost importance. He elaborated that ecosystem should be developed where genuine research can be done and enterprises are also gearing up research and government should support with funding. He asked researchers to come up with impactful research as conceptual framework which direct what can be done and can make changes. Further, autonomy for economic development and logic should be spelled out clearly. He also reminded that MBUST has unique research ecosystem, with faculty working and all students are involved in research at MBUST and reminded need of 4 crore for student financing. He highlighted some research being done at MBUST such as native mushroom seed and culture development, treatment and geometrical investigation of bamboo for building materials can make immediate impact. He further elaborated on recent MAS student graduates' research for treatment for root knot disease, Kiwi plant production and community supported agriculture can have significant impact in organic agriculture. He stressed that MBUST has been doing research on demand of industries and business sectors and also emphasized the need of policy research.

Participants of round table discussion

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Round table discussions were held on what, why and how in different themes with outcomes as follows:

The thematic area "Designing a Support STI Ecosystem" was led by Dr. Seeram Ramakrishan, with concluding remarks presented by Prof. Dr. Dilip Subba, Vice-Chancellor, Nepal Academy of Science and Technology, and Prof. Bikash Nakarmi , Nanjing University of Aeronautics and Astronautics.

Professor Subba elaborated that industries in Nepal lack R&D beyond quality control labs, are cautious of academic ties, uninterested in R&D financing, and unaware of their role in new knowledge, technology, and national welfare - this must be corrected through sharing. Further, he pointed out that university curriculum and research are not need-based, not aligned with industry, national priorities, or community needs (e.g., for farmers and small entrepreneurs), and most researches are done primarily for degrees and promotions. There are gaps include no up-to-date knowledge on research areas usable in Nepal, like bamboo technology, ceramics, cement, paper/textile/fiber technology, but lacking in university and Council for Technical Education and Vocational Training curricula. There is also a lack of real issues of STEM not being addressed by the government, politics, planners, and media coverage. Public like to reap science/technology benefits without appreciation. The government needs serious commitment, policy, and an annual budget for an innovation ecosystem. NAST promotes S&T but struggles with ecosystem-building and commercialization until the environment improves.

Further, Prof. Bikash Nakarmi advocated on need of a policy allowing professors to hold companies; align student research with company needs for commercialization. He reminded need to address policy gaps in Nepal and fund promising ideas as well as nee of survey of industrial needs (e.g., gather small funds from each industry). Further, he pointed curriculum gap cannot be changed immediately, but proposed a one-year bachelor's project (industry-guided or supervised project) so that professors and students work together fulfill market needs. Establish university-industry collaboration offices like in Korea, organize workshops, focus on low-altitude economy, lobby for funding, and enable industry-supervised projects.

The thematic area "Aligning Public Policy to Accelerate Industry" was led by Dr. Jamil Salmi, Tertiary Education Specialist, with concluding remarks presented by Ms. Sunita Nhemaphuki, representative of small and medium industry, and Dr. Salmi.

Ms. Nhemaphuki highlighted the need of University-industry policy to create trust and for prosperity, sustainability. She pointed innovation is missing, IPR sharing is needed, to optimize resources requires collaboration, coordination, and reinvestment. She urged the need for government policies for small, medium, and large industries; create their own funds for continuous support; industrial policy with ecosystem development; university startup funds; track products; update on successes so students become potential human resources. She stressed that universities must be bound for research, ministries should fund these efforts, and there is a need of system to award industries. Further, Prof. Salmi added the importance of consistency, and it has two dimensions - over time (across governments) and horizontally (all agencies aligned, same language, no conflicting laws).

The thematic area "**Scope for Increasing Research Funding for Government and Modality for Research Funding**" was led by Prof. Suzane Fortier, BOT Member, MBUST, who also delivered a concluding remark.

Prof. Fortier urged the government to invest, as technology takes time to reach the market, ultimately benefiting society. She further pointed out that we need to be honest and accept the fact that Nepal is falling behind at the moment.

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Scholarships are important for keeping talent in Nepal. Industry needs to increase efficiency and be competitive. The government should be informed about what can be done, and long-term funding (like 3 years) as well as incentives for people to invest, should be encouraged. Matching funds for private-sector investment and tax incentives for philanthropy can encourage such practices.

The thematic area "Scope for increasing research funding from entrepreneurs" was led by Mr. Birendra Pandey, President, CNI, and conclusive remarks were presented by Mr. Ashish Jajodia, CNI Member. Mr. Jajodia stated that CNI is an umbrella organization for medium and large industries. In Nepal, it is necessary to identify local raw materials for competitive products and to obtain proper government laboratory certification (low cost, high output, industry-specific). Industries are hungry for diversification, and the provision of matching funds for ownership and use of corporate social responsibility for research and development needs to be encouraged, and also public private partnership, value addition for big companies, policy clarity for startups, and NRN diaspora utilization.

The thematic area "Research Demand of the Economy" was led by Mr. Padma Jyoti, Chairperson of the MBUST Board, with concluding remarks presented by Prof. Dr. Anjana Singh, Tribhuvan University.

Prof. Singh addressed the need to initiate dialogue between industries and universities to identify research topics through academia-industry interaction, including the hybridization of traditional and scientific knowledge. Students who work on startups and as new entrepreneurs should be supported, and research done "for the sake of research" should be avoided; instead, identify research with a strong framework and alignment with funders' interests. National and international funding should be sought for strong topics, ensuring research is market-driven for good productivity and competitiveness. It is essential to remember that research can make a real impact at the societal, national, and international levels, so every step in the value chain should be addressed and incorporated. In the future, universities may gain royalties, which can fund further research. Various platforms should be created for researchers to utilize existing expertise and minimize brain drain.

Prof. Rajendra Dhoj Joshi expressed happiness with the round table outcomes, promised to work with CNI and partners to transform the industry landscape and drive economic growth. Dr. Ghanashyam Ojha, Director General of CNI, thanked speakers for their educative and insightful presentations and expressed CNI's commitment to collaborating with academia. He emphasized the importance of such collaboration to create industry-needed skilled manpower, which is a major asset for the country; losing this manpower imposes a huge cost on Nepal. He extended thanks on behalf of CNI, all guests, dignitaries, and the MBUST team.

Prof. Shantayanan Devarajan addressing online on "Who should fund research?"

First Commencement Ceremony 2026

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