



NAST- MONTHLY NEWSLETTER

February 2025



**S&T
Activities**

**Important
Events &
Meetings**

**Specialized
Research
Center**

**Promotional
Activities**

Global Navigation Satellite Systems for Policy and Decision Makers

The Space Research Centre of Nepal Academy of Science and Technology (NAST), in partnership with the Center for Space Science and Geomatics Studies (CSSGS) and the Institute of Engineering (IoE), Tribhuvan University hosted a workshop-cum-training program on Global Navigation Satellite Systems (GNSS) at the auditorium of NAST, on 1st February 2025. The workshop-cum-training program provided advanced insights into GNSS technology, bringing together experts and participants from various regions to advance their understanding of GNSS.



The presence of over forty five national stakeholders from Nepal, envisioned the strengthening of the local networks. The Center for Spatial Information Science (CSIST) of the University of Tokyo and the International Committee for GNSS (ICG) of the United Nation have collaborated for Outer Nation Space Affairs (UNOOSA) and collaborating on a GNSS training program.

MoU Between NAST and NTNC, Nepal

The signing of Memorandum of Understanding (MoU) between the Nepal Academy of Science and Technology (NAST) and the National Trust for Nature Conservation (NTNC), Nepal held on 3rd February 2025, marks an important step in fostering scientific and technological collaboration. The MoU was signed on the auspicious occasion of “Saraswati Puja”, a celebration of knowledge and learning, which adds a symbolic layer



to the collaboration. The agreement, signed by Dr. Rabindra Prasad Dhakal, Secretary of NAST, and Dr. Naresh Subedi, Member Secretary of NTNC, aims to develop a strategic alliance between the two organizations to focus on several key areas; such as cooperative scientific and technological research, academic projects and knowledge sharing, multidisciplinary research on protected area and, biodiversity conservation. This MoU is set to leverage the expertise and resources of both organizations and, strengthen the capacity to address environmental challenges to ensure sustainable development in line with global conservation goals.

Capacity Building Training Program

The capacity-building training program was organized from February 3-6, 2025 by the Information Access Center (IAC) established under the Science and Technology Information Center of NAST, in collaboration with the Nepal Transportation and Warehouse Company Limited. The training was conducted in the Mobile IAC bus, particularly for the employees of Nepal Transportation and Warehouse Company Limited situated in Baluwatar. The trainers comprised of Dr. Suresh Kumar Dhungel, Chief Technical Officer, and Pradeep Dhodari, System Administrator from NAST. The training was organized to enhance the IT skills of the employees, enabling them to improve the efficiency within the company.



MoU Between NAST and CSIR, India

The signing of the Memorandum of Understanding (MoU) between the Nepal Academy of Science and Technology (NAST) and the Council of Scientific and Industrial Research (CSIR) on 18th February, is a significant step towards fostering deeper scientific and technological collaboration between NAST and CSIR. The agreement was signed by Dr. N. Kalaiselvi, Director General of CSIR, and Prof. Dr. Dilip Subba, Vice-chancellor of NAST, at CSIR-National Physical Laboratory in New Delhi, India.

The agreement penetrates the key areas like bio-sciences, food science, water and environmental studies, fuel and mining sciences, nanotechnology, and alternative energy. The partnership also aims to tackle pressing issues such as public health, food security, and environmental sustainability. Furthermore, the emphasis on research collaborations, exchange programs, and workshops will be instrumental

in elevating the skill of researchers and scientists. Learning from global practices and standards will undoubtedly improve the quality of research and innovation in Nepal, positioning the country to contribute more effectively to international scientific communities.

This partnership holds great promise for advancing technological development, fostering innovation, and generating solutions to the challenges faced, which will ultimately improve the state of R&D. The long-term impacts of this collaboration could be transformative, particularly in sectors like renewable energy, healthcare, and environmental protection.



Brain Pooling Program (2081/82)

The Brain Pooling Program is a significant initiative aimed at leveraging the knowledge, experience, and skills of the Nepali diaspora and experts in science and technology to foster research and development in Nepal. This program, facilitated by the Nepal Academy of Science and Technology (NAST), offers a platform for scientists and technologists to collaborate on research projects or utilize laboratory to carry out research that could potentially benefit the society. For the fiscal year 2081/82, the selection committee selected the following two candidates after the presentation, which was held on 5th February.

S.N	Name	Subject	Proposal Title
1.	Dr. Rishi Ram Poudel	Physics	<i>Analyze the Simultaneous Multiwavelength Data of an M-Dwarf (Wolf 359) Obtained with NASA's Neutron Exoplanet Survey Satellite (TESS), NASA's Neil Gehrels Swift Observatory, NASA's Neutron Interior Composition Explorer (NICER), XMM-Newton Mission and Other Ground Based Telescopes.</i>
2.	Dr. Buddha Bahadur Basnet	Microbiology	<i>Harnessing Endolichen Fungi Derived Compounds to Combat Antimicrobial Resistance.</i>

The expertise of Dr. Rishi Ram Paudel in space technology aligns perfectly with the existing space technology laboratory in NAST, allowing for the potential strengthening of both research output and public awareness in space sciences. This collaboration could help elevate Nepal's presence in the field of space technology, and further contribute to advancements in this rapidly growing sector. On the other hand, Dr. Buddha Bahadur Basnet's contribution in the field of microbiology could be a significant boon to the microbiology lab of NAST. His work could open up new possibilities in areas such as disease research, biotechnology, and environmental science, which would be critical for addressing local health challenges

NAST welcomes both the scientists and expects prominent research at NAST

Prime Minister National Talent Award-2081



The prestigious and momentous award, the Prime Minister National Talent Award-2081 was awarded to Engr. Hariram Shrestha, Head of the Space Research Center at NAST and a co-developer of Nepal's first satellite, NepaliSat-1. The award was conferred by the Rt. Honorable Prime Minister Khadga Prasad Oli, on the National Democracy Day, 19th February, 2025. The award is a testament to his exceptional contribution in the field of space technology. The award were conferred to ten outstanding activities in the arena of peace, good governance, innovation, scientific discovery, research and development, and Engr.

Shrestha is one of the awardees.

The role of Engr. Shrestha in the development of NepaliSat-1 not only marks a milestone in Nepal's space exploration but also highlights his dedication to scientific discovery and innovation. This award is not just a personal achievement but also a recognition of the growing space technology community in Nepal, inspiring future generations of researchers and innovators.

Young Scientists Research Grant

The presentations for Young Scientist Research Grant was held on 20th and 21th February, 2025 followed by expert evaluation, which was an important part of the process. It allows the young scientists to present their research ideas, receive valuable feedback, and potentially secure funding for their projects. The selection of the deserving research proposals is in process and will be announced soon. This Program also fosters an environment of healthy competition and collaboration, which can lead to valuable partnerships among budding scientists and experienced professionals in the field. The grant is divided into 3 categories:

- Single researcher: The proposed research, submitted in the name of an individual researcher,
- Institutional: The proposed research submitted in the name of a school, institution, campus, university etc.
- Collaboration: The submitted research proposals, conducted in collaboration with other scientific institutions.

By continuing to support and motivate young talent, NAST is playing a crucial role in building a stronger scientific community in Nepal and ensuring that the future research skills are in capable hands.

Workshop on Ecosystem-based Adaptation in Urban Areas of Nepal

The workshop on Identifying Potential Research Areas for Ecosystem based Adaptation (EbA) in Urban Areas of Nepal was organized on 25th February by Nepal Academy of Science and Technology (NAST) in collaboration with Kathmandu Valley Development Authority (KVDA). It was an important initiative to address the challenges posed by urban climate change and urbanization in Nepal, particularly in the Kathmandu Valley. The workshop focused on Ecosystem-based Adaptation (EbA) and highlighted the growing recognition of integrating natural solutions to enhance urban resilience against climate impacts.



The participants comprised of a diverse range of stakeholders, including experts, academicians, government representatives, and media. The workshop provided an opportunity to explore and prioritize key research areas related to urban climate change adaptation. The connection of the workshop with the Implementation of Urban EbA Research Activities Project run by the Nepal Climate Change Knowledge Management Center (NCKKMC) of the Science and Technology Information System Centre (STISC) at NAST, is also noteworthy, as it ensures that the research findings are tied to practical, on-the-ground applications.

During the program, key figures, such as Prof. Dr. Pramod Kumar Jha and Ms. Januka Dhakal underscored the importance of EbA and scientific research in formulating sound urban policies. During the closing session, experts like Dr. Sunil Babu Shrestha, Mr. Batu Krishna Upreti, and Dr. Deepak Kumar Khadka shared their insights, to steer the project's future actions.

NAST Audio Visual Program

NAST audio program on science and technology, is broadcasted through Kantipur FM (96.1MHz), every Saturday at 7:30 to 8:30 am, and the visual program is aired through Nepal Television, every Saturday at evening 5:00 to 5:30 pm. Each episode is 30 minutes long. The program is divided into three segments:

- The first segment quenches the thirst of the audience by answering their questions related to science and technology,
- The second segment presents a documentary about current scientific events, activities, programs, and indigenous technologies of the country, among other topics.
- The third segment features interviews with scientists and technologists, focusing on their research.

The audience for both the audio and visual programs span a broad spectrum, including students, scientific and non-scientific community, and the general public.

Radio Program List

S.N.	Date	Segment 2	Segment 3
1.	February 01, 2025	Cubesat Design and Training Workshop	Organization for Women in Science- Nepal Chapter
2.	February 08, 2025	Workshop on Medicinal Mushrooms and MoU signing between NAST and NTNC	
3.	February 15, 2025	Report on Association of Women in Science	
4.	February 22, 2025	Information on Dinosaurs	Talk Report with Dr. Suresh Dhungel and Pradeep Dodhari on Establishment of Information Access Center

Television Program List

S.N.	Date	Program Title
1.	February 01, 2025	1. Cubesat Training Workshop (In collaboration with NAST and Orion Space) 2. 5th AGM of OWSD- Nepal Chapter (OWSN)
2.	February 08, 2025	1. MoU signed between NAST and NTNC 2. Workshop on the Commercial Potential of Medicinal Mushrooms in Nepal: Opportunities and Challenges
3.	February 15, 2025	1. What is the Level of Female Participation in Science and Technology?
4.	February 22, 2025	2. NAST Information Access Center (Dr. Suresh Dhungel and Pradip Dodhari) 2. Red Panda 3. Lead poisoning

Participation of Executives and Staffs

S.N	Name	Program Date/Venue	Theme	Organizer
1.	<i>Dr. Tista Prasai Joshi, Senior Scientific Officer</i>	<i>February 6-8, 2025, Miranda House, Delhi University</i>	<i>Role of Biotechnology in Biological Science: Striving for a sustainable Future</i>	<i>Department of Zoology, Miranda House</i>
2.	<i>Dr. Rabindra Prasad Dhakal, Secretary, NAST</i>	<i>February 13, 2025 Reliance International College, Kathmandu</i>	<i>4th Reliance Science Fair featuring Literature Fest</i>	<i>Reliance International College</i>
3.	<i>Dr. Rabindra Prasad Dhakal, Secretary, NAST</i>	<i>February 16, 2025 St. Xaviers College, Maitighar</i>	<i>Building a Sustainable Research Ecosystem in Nepal: Digital Tools, Collaboration, and Policy</i>	<i>The Nepal Research Collaboration Center (NRCC)</i>
4.	<i>Prof. Dr. Dilip Subba, Dr. Sajan Lal Shyaula and Dr. Tista Prasai Joshi</i>	<i>February 24-25, 2025 Kathmandu, Nepal</i>	<i>3rd International Conference</i>	<i>Biotechnology Society Nepal</i>
5.	<i>Dr. Rabindra Prasad Dhakal, Secretary, NAST</i>	<i>February 27- March 01, 2025 Diktel, Khotang</i>	<i>1st National Bamboo Conference</i>	<i>Diktel Rupakot Majhuwagadhi Municipality, Khotang</i>

Edited by:

Luna Vajra, Chief, Promotion and Publicity Division, NAST

Prepared by:

Naina Byanjankar, Assistant Research Fellow, Promotion and Publicity Division, NAST

NAST MONTHLY NEWSLETTER
February 2025

TO:

**S &T Promotion and Publicity Division,
Nepal Academy of Science and Technology (NAST)
Khumaltar, Lalitpur
GPO Box: 3323, Lalitpur, Nepal
Telephone: 01- 5253717, 5253720
Email: promotion@nast.org.np, scitechawareness@gmail.com
Fax: +977-1-5253713
Visit us: <https://nast.org.np>**