



TEZPUR UNIVERSITY NEWSLETTER

(Volume 17-Issue IV)

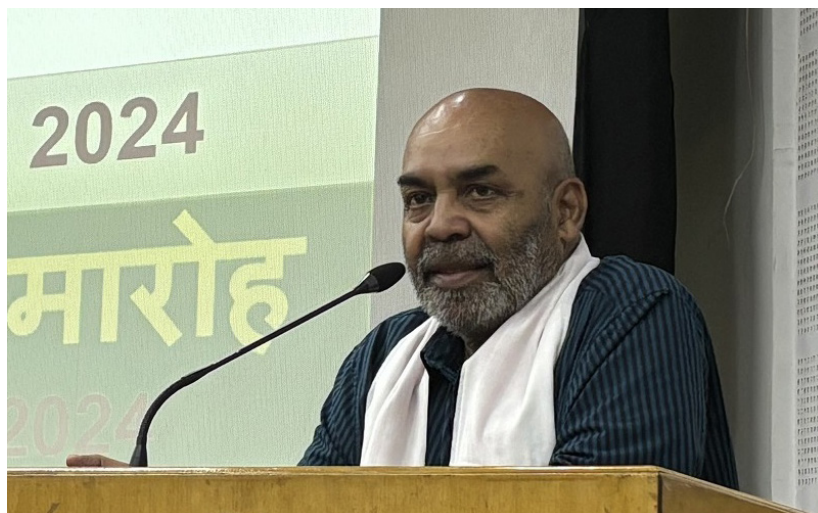
October-November, 2024



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I'm happy to note that October-November edition of our university Newsletter is getting published. Like previous editions, this publication will give our readers a window into the vibrant academic and research activities that define our institution.

Over the past quarter, our university has continued to soar to new heights. Our dedicated faculty members have engaged in groundbreaking research, won awards and published quality research papers. Our students have excelled in various academic and extracurricular pursuits, bringing laurels to the university.

This edition of the Newsletter highlights the diverse range of achievements, from successful conferences and workshops to innovative ideas that our university is promoting.

Let us continue to work together to make Tezpur University an institution of repute.

EDITORIAL

The editorial team is happy to inform you of the publication of its October-November, 2024 edition of the University Newsletter. The Newsletter gives a comprehensive overview of the university's accomplishments, highlighting the diverse range of activities undertaken by its faculty, staff, and students during the past three months.

The Newsletter carries information about the innovative research conducted by our faculty members and students, and highlights the accomplishments of students in academics, sports, cultural activities, etc.

We tried to highlight positive stories of the TU community to inspire and motivate all. We hope our readers will enjoy this edition.

Editorial Team



TU Researchers Develop Fish Quality Monitoring Device

Innovative research by three researchers of the University has offered a practical, eco-friendly tool for ensuring fish quality. Ms. Monica Yumnam, Research scholar under the guidance of Prof Poonam Mishra of the Department of Food Engineering and Technology has found an innovation that alerts the chemical spoilage of fish.

This innovation has been awarded for Gandhian Young Technological Innovation (GYTI)-2023 for its potential to safeguard public health, reduce food waste, and transform the way fish quality is monitored across the supply chain. The work is carried out in collaboration with Prof Pabitra Nath of Department Physics, Tezpur University.

The work titled “Customer friendly smartphone-based portable optical device for determination of chemical spoilage of fish suitable for field

analysis” offers a game-changing alternative. Because a smartphone-integrated device is affordable, efficient, and portable. The device uses a polyaniline (PANI) sensor, a pH-sensitive polymer specific for ammonia detection which changes color as fish deteriorates.

Users can simply place the sensor over the fish and insert it into the device. The smartphone’s camera detects the color change, and a dedicated Android app provides real-time spoilage analysis. Lab tests confirmed the sensor’s accuracy, matching the reliability of high-end equipment with over 95% precision.

Prof. Shambhu Nath Singh, Vice Chancellor of the University, congratulated the team for their dedication and innovative spirit.

TU figured at 35th in THE - Interdisciplinary Science Rankings

In its inaugural episode of Times Higher Education Interdisciplinary Science Rankings 2025, Tezpur University, the only ranked institute in North eastern India is figured at 35th position among the Indian Universities engaged in Interdisciplinary Science education and research. According to Times Higher Education Interdisciplinary Science Rankings 2025 (THE-ISR) source, 749 higher education institutes from 92 countries/

territories are ranked based on the institute’s contributions and commitment to interdisciplinary science. THE-ISR uses eleven carefully calibrated performance indicators to assess the institutions across key areas viz., interdisciplinary science research expenditure, success of such research, facilities for interdisciplinary science research and administrative support including promotional policy. THE-ISR uses 157 million citations, 18 mil-

lion research publications and survey responses from more than 20,000 scholars globally. Prof D C Baruah, Director of Centre of Multidisciplinary Research who is also leading the Internal Quality Assurance Team of the University stated that the THE-ISR global recognition will boost the interdisciplinary culture of education further in the University.

Prof Shambhu Nath Singh, Vice Chancellor of the University congratulates the TU fraternity engaged in interdisciplinary research for global recognition of their works and hopes that hard work of TU researchers will excel more in coming days. He also assures all sorts of need based support for promotion of Interdisciplinary education and research which has been key aspects of NEP2020.



Conference on Resurgent Bharat: Insights from Northeast organised

Tezpur University (TU) in collaboration with Students for Holistic Development of Humanity (SHoDH) organised a two-day conference titled “Resurgent Bharat: Insights from Northeast on September 07-08, 2024. The event was inaugurated by Vice Chancellor of TU, Prof. Shambhu Nath Singh. Other distinguished guests present on the occasion were-Dr. Rita Moni Baishya, Associate Professor, Department of Hindi, Gauhati University, Mr. Rahul Rana, student leader and activist from Central University of Himachal Pradesh, Mr. Arjun Anand-national Convenor of students for SHoDH and Ms. Swathi Chintala-convenor of Northeast universi-

ties workshop.

Speaking on the occasion as the Chief Guest, Prof. Singh in his address focussed on the development story of the Northeast and emphasized the importance of education in bringing transformation.

The conference was attended by students from Nagaland University, Manipur University, Rajiv Gandhi University, Arunachal Pradesh, Mizoram University, Tripura University, Cotton University and Gauhati University. A series of panel discussions and interactive sessions covering a wide range of topics shall be discussed in the next two days.



TU Students' Beverage Idea Wins International Recognition

A multidisciplinary team of students from the University has demonstrated the use of Bael (wood apple) as tea-like beverage. Wood apple commonly known as Bael in Assam is the locally available fruit.

The idea developed by Mr. Mizanur Rahman, Ms. Shikha Rani Gogoi, Mr. Chinmoy Talukdar and Mr. Rishi Paul, all from the Department of Electronics and Communication Engineering (ECE), and Mr. Bastab Tapan Bordoloi from the Department of Business Administration was adjudged as the best team (along with four other teams) out of 175 participating teams by Institute of Electrical and Electronics Engineers (IEEE) Smart Village (ISV) South Asia Working Group (SAWG) for a national level student project contest, titled IdeaRun.

The students were awarded in an event hosted as a part of the annual IEEE Smart Village Symposium 2024 held during 07-08 November 2024 at

Dhirubhai Ambani Institute of Information and Communication Technology, Gandhinagar.

The work of the team is mentored by Dr. Rupam Goswami, a faculty from the Department of ECE and an associated faculty of the Centre for Multidisciplinary Research, TU.

Prof Shambhu Nath Singh, Vice Chancellor of the University congratulated the team and expressed his happiness expecting that such international recognitions would motivate students across discipline for entrepreneurship through local community engagement.

Prof. Debendra Chandra Baruah, Director of Centre for Multidisciplinary Research, TU, leading the TU team, informed that tender Bael is traditionally used for preparing beverages in the rural areas of Assam but remains neglected as far as its commercialization is concerned.



TU faculty elected as Fellow of the National Academy of Sciences

Dr. Satya Sundar Bhattacharya, Associate Professor in the department of Environmental Science has been elected as a Fellow of the National Academy of Sciences, India (NASI) for the year 2024. This prestigious recognition is bestowed upon noted scientists who have made significant contributions to their respective fields of research.

NASI was founded in the year 1930, with the objectives of promotion of Science & Technology in all its branches by organizing diverse scientific activities and publication of journals and books. It is a premier organization of Scientists, Engineers and Health professionals as its Fellows and Members.



Tezpur University Joins MARG - A Unique Mentorship Program

The University on September 27, 2024 participated in the Mentoring for Academic Excellence & Research Guidance (MARG) initiative. MARG is designed to leverage the expertise of Indian-origin scholars and professionals from four reputed institutions-George Mason University, University of Maryland, Stanford University and Purdue University. The inaugural program was organized by Embassy of India, Washington, DC.

MARG will initially be mentoring students from 11 Indian Higher Educational Institutions including Tezpur University.

“This initiative will not only provide Tezpur University with access to global perspectives and best practices in higher education but also facilitate long-term partnerships”, Prof. Shambhu Nath Singh, Vice Chancellor, TU said.

TU also participated in a special technical session on Chips and Semiconductors by Prof. Vijay Raghunathan, Director Semiconductor center and Vice President, Purdue University. TU is the only university in India to join this program.



Academic and Administrative Audit Team visits Tezpur University



An Academic and Administrative Audit (AAA) Team visited Tezpur University on September 24, 2024 to assess the university's quality and performance. Visit of AAA is mandated by the National Assessment and Accreditation Council (NAAC) that has evolved tools and guidelines for improving quality for different levels of Higher Education Institutions (HEIs).

The AAA team was comprised of Chairperson, Prof. Anand Bhalerao, Vice Chancellor (VC), Central University of Rajasthan, Prof. Darlando Thanmi Khathing, VC of North East Christian University and founding VC, Central University of Jharkhand,

Prof. G. Parthasarathy, INSA Senior Scientist and Professor at National Institute of Advanced Studies, Indian Institute of Science Campus, Bengaluru, Prof. Samir Kumar Das, former VC, University of North Bengal and Director, Institute of Foreign Policy Studies, University of Calcutta and Prof. Prabin Kumar Bora, retired Professor, Department of Computer Science and Engineering, IIT Guwahati.

During the three days visit, the team comprehensively reviewed various aspects of the university, including academic programs, research activities, infrastructure, and administrative efficiency.

Northeast Astronomers Meet Explores Cosmic Frontiers

The Department of Physics sponsored by the Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune on October 23-24,



2024, organised a two-day conference titled North-east Meet of Astronomers (NEMA) at the university campus.

NEMA is a series of annual meetings, first initiated by the Department of Physics, Tezpur University in association with IUCAA in 2015. It aims to bring young and highly motivated students, researchers, College and University teachers of the North-East region working or intending to take up

research in the field of Astronomy, Astrophysics and Astroparticle physics and related topics on a single platform. This is the 9th in the series.

Prof. Ajit Kembhavi, former director of IUCAA, Prof. Ranjeev Misra, Senior Professor and Dean, Visitor Academic Programmes, IUCAA, Dr. Kanak Saha, Professor, IUCAA and Shanti Swarup Bhatnagar awardee were present on the occasion.



Youth Conclave for Tea Garden Community organised

The Department of Social Work in collaboration with Assam Chah Janagosthi Shiksha Sanskriti Nyas organized a Youth Conclave titled “Youth Conclave for the Tea Garden Community on August 20, 2024. The event held at the KBR auditorium of the University was attended by Sh. K.N.Raghunandan, Joint- Organising Secretary of Vidya Bharati Uchcha Shiksha Sansthan, Sh. Kamakhya Prasad Tasa, Hon’ble Member of Parliament, Kaziranga constituency and Sh. Sanjay Kishan, Hon’ble Minister, of Labour and Employment, Govt. of Assam among other dignitaries.

Speaking on the occasion as the Chief Guest, Shri Raghunandan lauded the hard work of tea tribe community of Assam. He said that the tea industry has played a pivotal role in shaping Assam’s economy. Addressing the gathering as guest of honour, Shri Tasa spoke of importance of self-reinvention

and empowerment.

Delivering the presidential address, Prof. Shambhu Nath Singh, VC, TU highlighted the importance of education in empowering the tea community. Interacting with the audience in the second half, Sh. Sanjay Kishan said that the tea tribe com-

munity has rich cultural history and as the community grows, so grows the nation.

The conclave brought together a large number of youths from various tea estates. The conclave had interactive workshops, panel discussions, and talks.

TechXetra - Annual Techno Extravaganza



Tezpur University's School of Engineering organized its annual techno-cultural extravaganza, TechXetra 2024 from November 08-10, 2024. The three-day long TechXetra 2024 celebrated innovation, creativity, and the power of technology. The event featured a diverse range of activities, including Technical Workshops, Hackathons, coding, ideathon etc. This year's theme was "The Odyssey of a Greener Tomorrow:

Engineering Earth's Future". Ankur Bharali, District Commissioner, Sonitpur was present at the inaugural event as the Chief Guest. Hon'ble Union Minister of Ports, Shipping and Waterways and Former Chief Minister, Assam Shri Sarbananda Sonowal, also attended the TechXetra 2024. Lima Das, noted actor and a Sattriya dancer performed during the occasion.



NE Physicists Convene at Tezpur University

Department of Physics organised the 14th Biennial Conference of the Physics Academy of the North-East (PANE-2024) during November 12-13, 2024. The two-day prestigious academic event brought together renowned physicists, researchers, and students from across the region and beyond to delve into the latest advancements and

cutting-edge research in the field of physics.

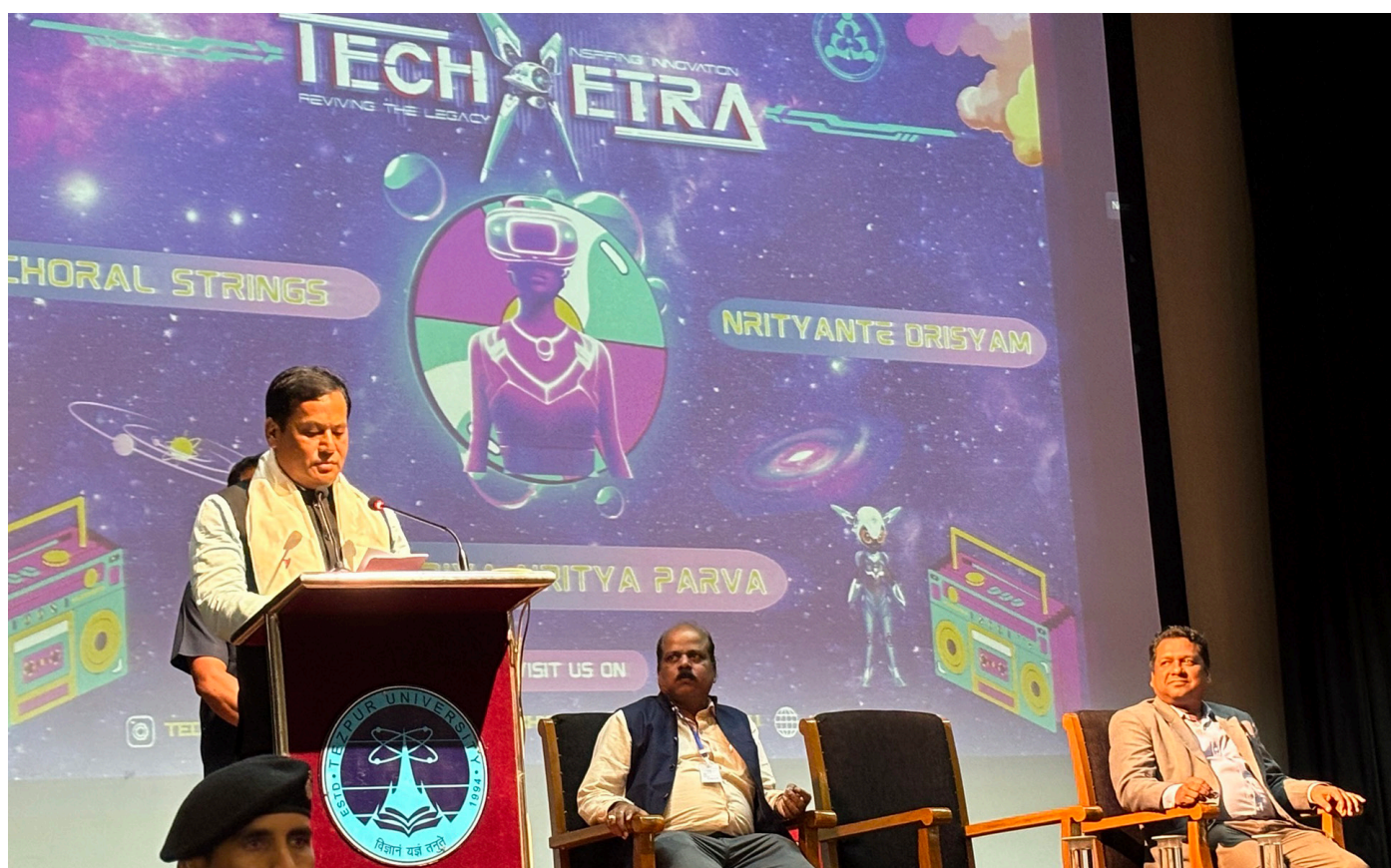
The Physics Academy of Northeast is the largest science academy of Northeast India. This is also one of the oldest academies of the region.

Prof. Dhruba J. Saikia, former Vice Chancellor, Cotton College State University and currently professor at Tata Institute of Fundamental Research, Prof N Nimai Singh, President, PANE, Prof D S Kulshrestha, a noted theoretical physicist, and Dr. Samrat Dey, Secretary PANE, Pragjyotish College were present on the occasion. During the occasion, the University conferred Bipinpal Das

Memorial Award to Prof Dhruba J Saikia. Late Bipinpal Das was an academician per excellence and an astute parliamentarian. Ms Aditi Bhuyan, daughter of late Bipinpal Das gave away the honour to Prof Saikia.

Later Prof Saikia delivered Bipinpal Das Memorial oration on the topic- Radio galaxies and quasars: an overview and current challenges.

A book titled “Fifty years of Quarks and Gluons” written by Prof. Dilip Kumar Choudhury, Retired Professor, Department of Physics, Gauhati University was also released on the occasion.



Union Minister Sarbananda Sonowal Addresses Students at TechXetra

Hon'ble Union Minister of Ports, Shipping and Waterways and Former Chief Minister, Assam Shri Sarbananda Sonowal, graced the TechXetra 2024, the annual techno-cultural festival of Tezpur University on November 09, 2024.

Addressing the students at the KBR auditorium of the University, the Union Minister called upon students to actively participate in

India's journey to becoming a global powerhouse. He urged the students to embrace their role as responsible citizens and contribute to the nation's progress. He emphasized that India has the potential to lead the world and should not merely follow the footsteps of other nations. He concluded by stressing the importance of qualities like vision, commitment, and effective policymaking in a leader.

Workshop on Statistical Methods and Data Analysis organised



The Department of Environmental Science conducted a five days comprehensive workshop on Statistical Methods and Data Analysis in Environmental Science Research from 15 – 19 October, 2024. The workshop aimed to equip researchers and students with essential statistical tools and techniques using SPSS and JAMOVİ

software.

During the valedictory session, Prof Shambhu Nath Singh, Vice Chancellor of the University interacted with the students.

Prof. K. Marimuthu, Head of the Department of Environmental Science was the resource person of the workshop.



Workshop on Documentation and Preservation of Textiles organised

Tezpur University's Department of Cultural Studies organised a two-day National Workshop on Documentation and Preservation of Textiles from October 25-26, 2024. Dr. Smita Singh, an Independent Textile Conservation Consultant, was present at the inaugural session. Dr. Anamika Pathak, Former Curator of Decorative Arts and Textiles at the National Museum, New Delhi, joined virtually.

Before, the start of the workshop, the department commemorated the death anniversaries of noted academician, folklorist, and artiste, Padma Shri Prof. Birendranath Datta, the founder head of the Department, and Dr. Rabin Dev Choudhury, a former professor of the department and a renowned archaeologist, art historian, and museum administrator. Floral tributes were offered to both.



J. N. Baruah Science Award to TU Faculty

Dr. Pankaj Barah, an Assistant Professor in the Department of Molecular Biology and Biotechnology, has been honored with the prestigious Dr. J.N. Baruah Science Award in Biological Sciences for 2024.

The accolade, conferred by the Dr. J.N. Baruah Trust in collaboration with the Assam Science Society's Jorhat Branch and the Council of Scientific & Industrial Research (CSIR)-Northeast Institute of Science and Technology (NEIST), Jorhat, recognizes outstanding contributions to the field of biological sciences.

Congratulating Dr. Barah, Professor Shambhu Nath Singh, Vice Chancellor said that Dr. Barah's receipt of the Dr. J.N. Baruah Science Award not only highlights his individual achievements but also underscores the vibrant scientific community at Tezpur University.

History of Science Young Associate Award

Indian National Science Academy (INSA) has conferred "History of Science Young Associate (2024)" award to Dr. Asadulla Asraf Ali, for his PhD research works carried out under supervision of Prof. Robin Kumar Dutta from Department of Chemical Sciences.

Initiated in 2023, the award recognizes the potential of young researchers working in the broad area of History of Science in India, and to motivate to achieve further excellence in the pursuit of their research.



Workshop on Pre-Modern Assamese Manuscripts

The Department of Assamese on October 21, 2024 organised a workshop on “Pre-Modern Assamese Manuscripts: Reading and Textual Criticism”. Shubhabrata Goswami, Sattradhikar, Nikamul Sattr, Gyan Chandra Goswami of Karatipar Sattr, Kushadev Mahanta of Gunamora Sattr, Dhiren Chandra Mahanta of Borbhakati Sattr and Mani Madhav Mahanta of Bali Sattr were present on the occasion.

TU Seminar Focusses on Ancient and Medieval Scientific Materials

Department of Chemical Sciences jointly with the Indian National Science Academy (INSA) organized a two-day National Seminar on the History of Science focusing on scientific developments and materials from ancient and medieval periods during September 09-10, 2024.

The event, which took place at the Council Hall of the University drew noted academicians, researchers, and students from across the country. Dr. Binoy K Saikia, Principal Scientist at North-east Institute of Science and Technology, Jorhat, Prof. Ramesh C. Deka, Vice Chancellor, Cotton University, Prof. K. Ramasubramanian, Institute

Chair Professor at Cell for Indian Science and Technology in Sanskrit, Indian Institute of Technology Bombay were the notable speakers present on the occasion.

Prof. Shambhu Nath Singh delivered the opening remarks. Noted scientist and President, Indian National Science Academy, Prof. Ashutosh Sharma delivered the Inaugural address. Prof. D. Balasubramanian, Vice-Chair, National Commission for History of Science, INSA gave an account of the commission. The seminar had several in-depth sessions on where academicians from across the country shall present their scholarly work.

TU Aims at Empowering Future Generations with Entrepreneurship Skills



The University on September 20, 2024 organised a session on Capacity Building on Design and Entrepreneurship (CBDE) program aimed at empowering students, faculty, and future entrepreneurs with design thinking and innovation-led entrepreneurship skills.

The CBDE is a flagship program of Ministry of Education that empowers selected Higher Educational Institutes (HEIs) and its faculty members to focus on Design and Entrepreneurship development in their institution with the support of mentors from industry.

Tezpur University is among the 30 HEIs have been selected through a rigorous process.

The event was held at the Dean's Gallery, School of Engineering, which was graced by Prof. Khanindra Pathak, Managing Director of Science and Technology Entrepreneur's Park, IIT Kharagpur, Prof. Manabendra Bhuyan, Former Pro Vice Chancellor, TU, and Dr. Miftahul Islam Barbaruah, Director, Vet Helpline India Pvt Ltd. Prof. Sudhir Varadarajan, Program Director, IIITDM Kancheepuram joined virtually.

Tezpur University Observed Hindi Pakhwada

Tezpur University concluded its fortnight-long Hindi Pakhwada on October 17 2024, with a valedictory function. The Pakhwada was organised between 14-30th September 2024 during which various competitions/activities were being held.

During the fortnight arranged by the Hindi Cell of the University, many competitions of different categories were organized for employees and their children. Competitions such as Draft writing and translation, quiz and Hindi typing, poetry recitation etc. were organized.



National Education Day Observed



The Department of Education observed National Education Day on November 11th, 2024 to honour the legacy of Maulana Abul Kalam Azad, the first Education Minister of Independent India.

The event was marked by a series of insightful discussions, thought-provoking presentations, and cultural performances.

The highlight of the event was a lecture on the topic- "Idea of a University in the Digital Age" by Prof CB Sharma, Former chairperson of the National Institute of Open Schooling and currently serving as Professor of Education at the School of Education, IG-NOU.

Swachhata Pakhwada 2024

The University inaugurated the Swachhata Pakhwada 2024, a 15-day cleanliness drive, with a solemn pledge taken by the Vice Chancellor of the university, Prof. Shambhu Nath Singh, along with key university officials and students of the university. The event, held at the university campus on September 1st, marked the beginning of a series of activities aimed at promoting cleanliness and environmental responsibility. Prof. Singh led the pledge,

underscoring the importance of Swachhata (cleanliness) as a core value that aligns with the university's commitment to sustainable development. Registrar Dr. Biren Das, Programme Coordinator of National Service Scheme (NSS), TU Prof. Amiya Kumar Das, National Cadet Corps (NCC) Tezpur University's Associate NCC Officer (ANO) Dr. Hitesh Sharma, and Director of the Centre for Distance and Online Education (CDOE) Dr. Akhilesh Kumar also joined the event.

Newly elected Students' Council of Tezpur University assumes Office

Tezpur University has successfully conducted its annual Students' Council Election for the year 2024. Subsequently, the newly elected members of Tezpur University Students' Council (TUSC) assumed charge of the office on October 07, 2024 at a solemn ceremony organised at the

Council Hall of the University. The election was held on September 21, 2024 and the results were declared on September 23, 2024.

In presence of Prof. Shambhu Nath Singh, Vice Chancellor of the University, the office of Students Affairs handed over



the portfolios to 10 newly elected TUSC candidates and Executive members on the occasion.

Himangshu Lahkar, a student of Department of Electronics and Communication Engineering was elected as the President and Pragyandeep Borah, a student of Centre for Women Studies was elected as the General Secretary of TUSC.

Prof. Debarshi Prasad Nath of De-

partment of Cultural Studies, who was the Returning Officer of the election urged the newly elected representatives to work closely with the University administration to address student concerns and promote academic excellence.

Prof. Manabendra Mandal, Dean, Students Welfare administered oath to the newly elected candidates.

National Space Day Organised



Department of Physics on August 23, 2024 organised National Space Day, celebrated in India for the successful landing of Chandrayaan-3 on the Moon on this very day. On the occasion, the University invited noted scientist Dr. V. Girish, Deputy Director of the Indian Space Research Organization (ISRO). Dr. Girish delivered a captivating keynote lecture titled “The Moon, an Enigma.” At the KBR auditorium.

In addition to the talk, Led by Prof Gazi Ameen Ahmed, Department of physics

and chairperson of the organising committee, the University organised several activities to popularise the day. The astronomy club of the University organised astronomical observation, outreach programs were organised in the nearby villages and a poster session was also organised to observe the day.

Earlier, students, faculty and staff members of the University watched the live streaming of President of India, Smt. Droupadi Murmu’s address to the nation on the occasion of the National Space Day.



Lecture on Cyber Security Awareness

The Department of Mass Communication and Journalism organized a lecture on cyber security awareness on October 29, 2024. Mr. Pranab Jyoti Goswami, Assistant Inspector General of Police (AIGP) and Chief Public Relations Officer (CPRO) of Assam police delivered an enlightening lecture on the critical issue of cyber security. His insightful presentation shed light on the evolving landscape of cyber threats and the essential measures to safeguard our digital assets. Mr. Goswami's expertise and experience in the field made the lecture both informative and engaging, leaving the audience well-equipped to navigate the complexities of the digital age.

KC Biswal takes charge as Registrar of Tezpur University

Dr. Kailash Chandra Biswal, a professor in the Department of Management, North-Eastern Hill University (NEHU), has assumed his duties as Registrar, Tezpur University, effective October 14, 2024.

Dr. Biswal brings a wealth of experience in academic administration and management to his new role. He has been associated with NEHU since 2012, where he joined as an Associate Professor in the Department of Management. Prior to joining NEHU, he had served as an Associate Professor in the Department of Master of Business Administration, Gokul P.G. College, Jawaharlal Nehru Technological University, Kakinada, Andhra Pradesh.

Prof. Biswal succeeds Dr Biren Das as the Registrar, who had served in the post since 2013.





Workshop on Bridging the Gap Between Industry and Academia in Electrical Engineering

The Department of Electrical Engineering organised a five-day intensive workshop on “Bridging the Gap Between Industry and Academia in Electrical Engineering” starting from November 04, 2024.

Prabhat Kamal Bezboruah, former Chairman of the Tea Board of India was present on the inaugural event as the Guest of Honour. Speaking on the occasion, he emphasized the need to bridge

the gap between academia and industry.

The workshop featured distinguished speakers from leading research organizations and industries, including Lam Research USA, University of Manchester, UK, Assam Tea industry, IIT Bombay, IIT Guwahati, and others. Eminent industry leaders delivered insightful talks on topics such as power systems, control systems, signal processing, and renewable energy.

Workshop on Legal Research and Publishing

The Department of Law organised a one-day national workshop on “The Art of Legal Research: Writing and Publishing in Law”, on November 05, 2024. Prof. Yashomati Ghosh (virtually) from the India International University of Legal Education and Research, Goa, Prof. Debasis Poddar from the National Law Uni-

versity and Judicial Academy, Assam and Prof. Anjani Singh Tomar from Gujarat National Law University were present as the resource persons. It featured a series of expert-led sessions, with distinguished resource persons from top institutions providing in-depth guidance on various aspects of legal research and publication.



Seminar explores New Perspectives in Assamese Language

The Department of Assamese organized a two-day seminar titled “New Perspectives in Assamese Language, Literature, and Culture,” from November 19, 2024. The seminar aimed to explore the diverse facets of Assamese language, literature, and culture.

Dr. Sanjeev Kumar Nath, Associate Professor, Department of English, Gauhati University, was present on the occasion.

Workshop on Women Empowerment - Career Opportunities in Science Organised



The Department of Physics in association with the Gender in Physics Working Group (GIPWG) of Indian Physics Association organised a two-day workshop “Woman Empowerment -Career Opportunities in Science (WE-COS)”, from November 19, 2024

Noted physicist Prof. Srubabati Goswami from the Physical Research Laboratory, Ahmedabad graced the occasion. Other distinguished guests included Prof. V. Madhurima former director of Internal Quality Assurance Cell, Central University of Tamil Nadu, and Dr. Bulumoni Kalita from Dibrugarh University.

Global Initiative of Academic Networks



The Department of Mass Communication and Journalism from November 4, 2024 organised a 12-day-long workshop on Human Rights Reporting and Development Journalism sponsored by the Global Initiative of Academic Networks (GIAN).

GIAN is a Government of India-approved program in Higher Education aimed at tapping the talent pool of scientists and entrepreneurs, internationally, to encourage their engagement with the institutes of Higher Education in India.

Prof. Hanane El Aissi, an Associate Professor at the Faculty of Letters and Humanities, University of Cadi Ayyad, Morocco, was present as the resource person. Dr Kapou Malakar, faculty, Department of MCJ, was the course coordinator of the program.

Jan Jatiya Gaurav Divas

Tezpur University commemorated Jan Jatiya Gaurav Divas on November 15, 2024, celebrated on the occasion of birth anniversary of Birsa Munda, a tribal leader and freedom fighter. The University also honored the unsung tribal heroes of India's freedom struggle, particularly those from the Northeast India.

The University recalled Sikhna Jawhwlaio, a Bodo freedom fighter, who fought against British during the late 18th Century, Kamala Miri, who participated in the Quit India movement and Bhimbor Deori, a freedom fighter from Deori community.

The event organised by the Centre for Inclusive Development was attended by the Vice Chancellor of the University - Prof. Shambhu Nath Singh.



6th International Conference on Sustainability Education (ICSE) 2024, Address by the Vice Chancellor



The following was the keynote address delivered by Prof. Shambhu Nath Singh, Vice Chancellor, Tezpur University, at the 6th International Conference on Sustainability Education (ICSE) 2024, held in New Delhi on September 19, 2024. The Theme of the Conference was “Greening Education for a Sustainable Future”

It is well understood that learning and education are two pivotal prerequisites for achieving sustainability. By learning, I refer to research. Society must continuously learn and educate in order to stay on the sustainable path.

Let me take you back to the mid-20th century. We celebrated DDT, the versatile pesticide. An Austrian chemist, Zeidler, synthesized DDT in 1874 and many years later a Swiss chemist, Muller, discovered its insecticidal properties in 1937. Muller received the 1948 Nobel prize in Physiology or Medicine for his understanding of the pesticidal properties of DDT! However, with time the society learned that DDT was such a noxious chemical which was persistent in the environment and which was extremely harmful for the living being including humans. This learning led to the banning of DDT. The society has done away with the use of DDT anymore. Similarly, the use of lead in our auto fuel has been phased out.

We have to take note of these examples. While adopting DDT or lead in petrol, society moved away from the path of sustainability but learned and returned to the sustainable path by phasing out DDT or lead. There are several such examples.

The environment is a dynamic entity that has spatial and temporal characteristics and therefore environmental changes are obvious vis-à-vis time and space. And, so are the environmental concerns. The environmental concerns also come in phases. We came across devastations brought in by acid rains in the 1970s and 80s due to indiscriminate use of fossil fuel, which was followed by the threat posed by the discovery of the ozone hole in 1985. The society learned the causes and consequences of acid rain and acted on it. We regulated air pollution and moved from high sulfur fuel to low sulfur fuel and CNG. To tackle with the threat posed by the ozone hole, the world came together and signed the Montreal Protocol and, as an outcome, ozone depleting substances (the CFCs) were phased out systematically.

Today, the whole world is in the grip of the biggest challenge before human beings - climate change - which is the biggest research question for the researcher and the biggest story of the millennium for the journalists and policy makers. Climate change

is a multifaceted problem and its manifestations are multidimensional.

The rising global temperature is just one of the many issues associated with climate change. The rising temperature has cascading effects on other attributes of the climate and the environment as a whole. The increased incidences of extreme events (sudden heavy rainfall/ storm followed by long spell of dry days) are taking a heavy toll on our agriculture leading to poverty and migration, which is also a threat to the food security. The devastation of extreme weather is now visible. Sudden floods in the urban landscape and destruction in the human habitations in the Himalayas are some of the visible effects of extreme events right in front of our eyes. The sea level rise, changing chemistry of the sea water, Coral bleaching, etc. are now well documented outcomes of climate change. More so, climate change is also responsible for biodiversity loss and ecological degradation.

All these changing attributes of the climate are the outcome of increasing levels of greenhouse gases in the atmosphere. Carbon dioxide (CO₂) in the atmosphere is the major player contributing to the warming of the earth's atmosphere. Since 1750 (pre industrial revolution time), CO₂ level has increased from 278 ppm (parts per million) to 417 ppm, which is higher than at any time in human history. This has led to the increase of the earth's average temperature. It has been reported that since 1850, the average global temperature has increased 0.06°C per decade, however, the rate of warming has been more than three times faster since 1982, at 0.20°C per decade. Scientists predict that global temperatures will increase by about 1.5°C by 2050 and 2 to 4°C by 2100.

Since 1850, scientists estimated that human activities have generated a staggering 2.2 million tonnes of CO₂. Besides CO₂, methane and nitrous oxide are two other important greenhouse gases having significant contribution to the warming. In fact, methane and nitrous oxide are much stronger greenhouse gases compared to CO₂.

According to the IPCC, CO₂ makes up three-quarters (that is 76%) of the greenhouse gas emissions generated by anthropogenic activities. If we see the sectoral emissions of CO₂, it follows the order – energy use in the industry (24%), farming and forest destruction (18.4%), energy use in build-

ings (17.5%), energy use in transport (16%), and so on.

Another important factor to mention here is the rate at which forest cover has depleted. Forest is the sink of carbon and 4.2 million km² of forests were lost between 1990 and 2020 (that is in span of 30 years); that is an area 17 times larger than the size of the UK!! This has an indirect contribution to the total carbon in the atmosphere.

The current environmental challenges like climate change demands accelerated learning and education to enable tangible actions for mitigation and to enhance resilience of communities through adaptation. The 2030 Agenda for Sustainable Development, embraced by all UN member states in 2015, represents a collective vision for peace and prosperity for both humanity and the planet for today and tomorrow. The 17 Sustainable Development Goals (SDGs) urge for a global cooperation, with the SDG-4 specifically advocating for inclusive, equitable, and high-quality education that fosters lifelong learning opportunities for everyone.

In light of the current challenges, it is crucial to integrate environmentally focused curricula in our schools and in higher education institutions (HEIs). The tradition of environmental conservation in India is deeply rooted in its cultural and religious heritage, with ancient scriptures advocating for the preservation of natural resources and mindful utilization. The Kothari Commission's report of 1966, Education for National Development, laid the foundation for informal environmental education. Later, the National Education Policy of 1986 built on this by integrating environmental education at all school levels. In 2003, NCERT introduced a model syllabus for environmental education, which was approved for national implementation by the Supreme Court of India. That same year, the UGC created a core module syllabus mandating environmental studies at the undergraduate level, following a directive from the Supreme Court. The National Education Policy (NEP) 2020 further strengthens this commitment by incorporating sustainable development goals into educational curricula. It emphasizes traditional knowledge and interdisciplinary learning as a potential solution for contemporary challenges. The NEP 2020 encourages a comprehensive, multidisciplinary approach to education, fostering environmental awareness to nurture well-rounded, responsible global citizens.

Here, I would like to put forward the following before all present here which, I think, may provide with a direction towards greening our education system:

Review and careful addition:

We need to review the current curriculum and embed sustainability across disciplines. It is to be noted that sustainability demands for an interdisciplinary and multi-disciplinary approaches. In fact, one of the major highlights of NEP 2020 is multi-disciplinary methodology. A multi-disciplinary approach will encourage critical thinking and innovation, and that would help problem solving. I do not think, mere addition of a course such as 'Environmental Studies' will do the job for the current pressing situation of today. The present call in to incorporate environment and sustainability across all disciplines. If there is a course on History, for instance, must also have topics on the history of the earth or for that matter environmental history of India and the world. Historical research today must also address the sustainability issues. I would like to mention here two works of history (2 books) from IIT- Guwahati for example : (i) The Unquiet River, which is written on historical accounts of the Brahmaputra River and (ii) Forest and Ecological History of Assam show how environmental concerns can be addressed together with historical readings. I would like to opine that it is time to orient our programmes and courses to the present ecological needs. It does not really matter whether it is a discipline of Humanities or Sciences in question.

Sustainability education and creating manpower for green jobs:

Our universities and institutes must design programmes and courses to address the market needs in the green sector. Areas like renewable energy and biofuels, solar cells, waste management recycling, climate adaptation technologies, environmental remediation technologies, energy auditing, green building and architecture, environmental financing, climate financing, Environmental Impact Assessment (EIA) etc. demand for specialised manpower, which our universities and institutes must try and fill the need. For that matter, even for teaching environment in our schools and colleges we need specialists. As we all know that Environmental Studies is being taught in the UG programmes of all HEIs, I think, a review is required whether these courses are handled

by someone trained in Environmental Sciences.

More so, development of multi-disciplinary research ecosystem is needed in our higher education institutes to find newer understanding and technologies in the domains of renewable energy, carbon sequestration and storage, cleaner transport, sustainable packaging materials, eco-friendly recycling technologies, climate adaptation, etc. All these issues cannot be addressed by an individual researcher. Therefore, research collaborations within institute, between institutes, multilateral research collaborations within nations and between nations must be encouraged, and to build such research ecosystem heads of the institutions must walk an extra mile to make it happen. The institutions must share and adopt the best practices. We have to find the best practices in the leading universities of the world and may adapt such models of sustainability in our Indian universities. So, partnerships with institutions and universities of excellence, joint research projects, student and faculty exchanges are some of the areas where we need to put our focus.

Creating specialized centres:

We may create specialized centres in our institutes by putting together existing resources and faculty to address the sustainability issues, to begin with. The institutes may already have people working on the environment but they are working "solo". The specialized centres can bring together all the "solo" researchers, which will create synergy for faster appreciation of the problem and finding a solution. As the centres grow in strength, they can find partnering institutions for collaboration. In my university, we have a Centre for Multidisciplinary Research (CMDR), created to pull all the "solo" researchers under one umbrella. At the moment there 43 PhD candidates are working, on various multidisciplinary questions, in that centre.

There is a DST, Govt of India initiative in place. The DST has commissioned several centres of excellence to cater to the specialized needs. At Tezpur university, we have one such Centre of Excellence to study "Climate Change Impacts and Adaptation for a Climate Resilient North East India". This Centre is working with the communities of North East India to build resilience and survive the vagaries of climate change.

Green Campus initiatives:

Our academic institutions must ensure green behaviour. Our campuses must encourage Earth sustaining behaviours and discourage Earth degrading behaviours. Our academic campuses can be a model for sustainable living and, therefore, the institutes must incorporate all possible initiatives to orient towards NET zero. We have a model at Tezpur University, wherein 15 department and hostel buildings are connected to solar power, and I am glad to share here that 11 of these 15 buildings are NET zero buildings. Also, we have rooftop water rainwater harvesting units in all academic buildings. We still have a long way to go, however, we have had a humble beginning.

Green buildings, green classrooms, green spaces, water conservation and waste management facilities are some of the key features of a green campus which academic institutes may adapt and replicate in the communities.

Extension:

The sustainable research outcomes and technical knowhow created by the institutes must reach and benefit the public. The institutions must have an extension wing to transfer the knowledge to the society. To start, the institutes may adopt villages/communities to support develop a sustainable living environment in the villages. My university has adopted 5 villages under Govt. of India's flagship Unnat Bharat Abhiyan and our objective is to develop self-sufficiency in these villages. We all know self-sufficiency is another key attribute of a sustainable society. We need self-sufficiency at every level of administrative divisions – a village, a block, a district, and the state. A self-sufficient community, that does not depend on the resources of others, shall make rational use of resources. Rational resource use in turn will prevent resource depletion. Today migration to cities for livelihood and comfortable living have created overplanted cities in India. Therefore, creating a self-sufficient rural India is one direction our researcher and policy makers must put in their thought.

Before I end, I would like to say that India is seriously engaging with the issues of environment and sustainability. Also, India has always been very serious with the international commitments. It has ratified all international conventions. Following Stockholm summit of 1972, India has made provisions for environmental concerns in its constitution

vide the 42nd Amendment in 1976, and two important clauses were added in the constitution – Article 48A and Article 51A(g). We may question whether simply adding two clauses to the Constitution is enough. But we must understand here that the Article 48A puts the onus of protecting the environment on the State and the Article-48A was very carefully placed in the part IV of the constitution - the Directive Principles of State Policy. We all know that Directive Principles of State Policies are the guidelines for the government, that outline the ideals it should consider when making laws and policies. Therefore, the environment has been given an utmost priority in the process and later the Ministry of Environment and Forests (MoEF) came in to being in 1980. The MoEF is now MoEF-CC to also address climate change.

Then, we had series of environmental legislations in place – the Water Act of 1974, The Air Act of 1981, and the Environment (Protection) Act of 1986. We have a stringent environmental clearance procedure in the country, wherein every project shall have to get an environmental clearance through a well-regulated EIA regime. We have an ozone cell in place to address the commitments of the Montreal Protocol. As a signatory nation of the Earth summit, we have the Biodiversity Act of 2002 in place to ensure biodiversity conservation and equitable sharing of benefits from biological resources and the knowledge associated therein.

These are some of the examples which I wanted to share to highlight India's commitment to environmental protection and our commitment to the international community.

I am sure, India's commitment to NET zero will also be achieved as per the promise. To achieve that every citizen shall have to educate for the service of the planet. The mission LiFE, a movement to mobilize individuals to become 'Pro-Planet People', will definitely reach every citizen of the country and the world, and help achieve the promised NET zero target.

Finally, I would like to reiterate that the success of all these efforts of India lies on how adequately and how fast we can make our education GREEN.

Thank you!







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Published by:

The Registrar
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