

# TEZPUR UNIVERSITY NEWSLETTER

(Volume 17-Issue-1)

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Tezpur University celebrates its 31<sup>st</sup> Foundation Day



# **VC'S CORNER**



s we embark on another year filled with promise and potential, let me highlight some of the activities that were carried out during the period of January to March 2024. As the Vice Chancellor, it fills me with immense pride to witness the celebration of 31st Foundation Day on 21st January 2024. This significant milestone marked three decades of excellence in academics and research. In order to recognize and appreciate the hard work of our students and alumni, from this year onwards the University has started giving away two awards, viz. Distinguished Alumnus Award and Distinguished Student Achiever Award.

In today's rapidly changing world, where challenges are as diverse as they are complex, the role of higher education institutions like ours becomes increasingly significant. Therefore, the University has introduced 07 innovative academic programmes for the students, which are set to commence from this academic session 2024-25.

The programmes are- Bachelor of Design (B. Des.), Bachelor in Chinese, M.Tech in Electrical Engineering, M.Tech in Data Sciences, MA in Women Studies, Master of Education (M. Ed.) and Ph.D. in Law. In addition to these seven programmes, the University has opened Ph.D. for industry personnel and professionals. The Undergraduate programmes of TU are as per the Four Year Undergraduate Programme (FYUGP) of National Education Policy.

I urge each one of you to actively participate in the growth story of Tezpur University. Let us seize every moment to learn, grow, and make a positive impact on the world around us.

# **EDITORIAL**

T's with great pleasure that we present the January to March 2024 edition of the Tezpur University Newsletter. This period has been marked by significant strides and accomplishments across various facets of our esteemed institution. The University celebrated its 31st Foundation Day on its premises on January 21, 2024. The ceremony was graced by Prof. Virander Singh Chauhan, Padma Shri, an eminent Indian scientist and former Chairman of the University Grants Commission and National Assessment and Accreditation Council.

26<sup>th</sup> Annual Sports & Cultural Meet, the much-awaited celebration brought together students from various disciplines of the University and featured various sporting & cultural events during the month of February.

The University organised a series of pivotal workshops and events, each bearing substantial academic significance. These gatherings paved the way for intellectual exchange, deliberations and collaborations across diverse disciplines. With topics ranging from advanced scientific methodologies to societal challenges, the period was significant for the academic community of the University. Details of these events are highlighted in this issue.

We hope that this edition of the Newsletter will help spread the word about our qualities. Editorial Team



# Tezpur University opens admissions for the Academic Year 2024-25

The University has launched the TU admission portal for registration of Tezpur University Entrance Examination 2024/Common University Entrance Test 2024 (CUET)-both for Postgraduate and Undergraduate programmes.

The University, which is Northeast India's only university with NAAC accredited A+ grade is currently offering 79 academic programmes for various UG/PG/PhD/Certificate and Executive programmes offered across multiple disciplines.

Prospective students can explore a wide range of programmes in the fields of Science, Engineering, Humanities & Social Sciences and Management. Tezpur University has already started Four Year UG programmes in synchronisation with the Integrated programmes as per the National Education Policy (NEP) 2020.

While the University shall participate in CUET UG & PG - 2024 conducted by National Testing Agency, for some programmes, TUEE will hold Computer Based Test (CBT) in 39 designated centres across the country and in five foreign countries, i.e Nepal (Kathmandu), Bangladesh (Dhaka), Bhutan (Thimphu), Myanmar (Yangon) and Thailand (Bangkok).

These programmes are Lateral entry to 2nd year of all BTech programmes, BDes, MDes, B.Ed,

MCA, Masters in English/Linguistics and Language Technology/Cultural Studies/Sociology/Social Works/ Woman Studies/Law/Education/Hindi/Tourism and Travel Management (MTTM)/Commerce/Mass Communication and Journalism/Assamese/Physics/Chemistry/Mathematics/Environmental Science, MTech in Data Science/Computer Science & Engineering/Civil Engineering/Bioelectronics/Electronics Design and Technology/Energy Technology/Food Engineering and Technology/Mechanical Engineering/Electrical Engineering and all PhD programmes.

TUEE exams are likely to be held from 30th May to 3rd June 2024. Foreign students will also be admitted from this academic session on supernumerary basis.

For admission into Integrated programmes (as per NEP 2020), candidates have to qualify CUET-UG 2024 conducted by NTA. Integrated programmes offered by Tezpur University are Integrated Masters in Commerce/Physics/Chemistry/Mathematics/Life Sciences/English as well as undergraduate programme BSc BEd and BA in Chinese.

For detailed information on programs offered, eligibility criteria, and the admission process, one may visit https://www.tezuadmissions.in/public/

# The University launches seven new academic programmes from academic year 2024-25

In order to bring innovative academic programmes for the students of Tezpur University (TU), the University has launched 07 new academic programmes, which are set to commence from the upcoming academic session 2024-25.

The programmes are- Bachelor of Design (B. Des.), Bachelor in Chinese, M.Tech in Electrical Engineering, M.Tech in Data Sciences, MA in Women Studies, Master of Education (M. Ed.) and Ph.D. in Law. In addition to these seven programmes, the University has opened Ph.D. for industry personnel and professionals. The Undergraduate programmes of TU are as per Four Year Undergraduate Programme (FYUGP) of National Education Policy.

Admission to B.Des will be based on valid Undergraduate Common Entrance Examination for Design, JEE (Main) or TUEE 2024 test score. For BA in Chinese, candidates are required to appear in the CUET-UG-2024 to be conducted by NTA, New Delhi. For M.Tech in Electrical Engineering and M.Tech in Data Sciences - GATE Candidates with valid GATE score in relevant discipline will be admitted directly on merit basis. For Non-GATE Candidates, they need to appear for TUEE 2024 or CUET-PG for admission into the programmes. For admission into MA in Women Studies, candidates will be selected based on the performance in the TUEE-2024 to be conducted through Computer Based Test mode across India by the University. For M.Ed, it would be through TUEE 2024 and CUET-PG. For Ph.D. in Law, candidates will be selected based on their performance in TUEE 2024 followed by Personal Interview.

In the Ph.D. for industry personnel and professionals, the University already has enrolled 5 candidates under the working personnel category. Out of which, two are fellow members of the Institute of Chartered Accountants of India, one is Fellow Cost & Management Accountant, one is Fellow Member of The Institute of Company Secretaries of India, and one is Machine Learning expert.

"The newly introduced programmes encompass a diverse range of disciplines, catering to the evolving needs of students and the demands of the modern world. Each program has been meticulously crafted to provide students with a comprehensive education, equipping them with the knowledge and skills necessary to thrive in their respective fields", Prof Shambhu Nath Singh, Vice Chancellor, TU said.

All details are available at https://www.tezuad-missions.in/public/

# Home Minister Amit Shah graces University's cultural event organized in memory of Bharat Ratna Dr. Bhupen Hazarika

ezpur University was honored to host the esteemed Home Minister of India, Shri Amit Shah, at its campus on January 20, 2024 for a vibrant cultural event organized in memory of Bharat Ratna Dr. Bhupen Hazarika. The event, organized at the KBR auditorium of the University, showcased the rich diversity and talent of the region. Shri Shah was welcomed by Prof Shambhu Nath Singh, Vice Chancellor of the University.

The cultural event featured mesmerizing performances encompassing various art forms, including traditional music and dance captivating the audience with the richness of Assamese culture and heritage.

Dr. Himanta Biswa Sarma, Hon'ble Chief Minister of Assam also graced the event.





# **Tezpur University celebrates** 31<sup>st</sup> Foundation Day

The University celebrated its 31st Foundation Day on its premises on January 21, 2024. The ceremony was graced by Prof. Virander Singh Chauhan, Padma Shri, an eminent Indian scientist and former Chairman of the University Grants Commission and National Assessment and Accreditation Council.

Delivering the 31st Foundation Day oration, Prof. Chauhan, in his speech outlined the university's transformative journey and its crucial role in shaping the future of higher education. His insightful remarks touched upon several key aspects that highlight the university's commitment to societal progress and academic excellence. He emphasized on the privilege of higher education, stressing that it provides a unique opportunity to success, independent thinking, and realization of one's own right. Explaining the role of a university, the veteran academician said that it is the responsibility of a university to disseminate good quality education to its students. "The role of a University has gone through changes but the primary responsibility of a University is to provide quality education". Highlighting the seriousness of adverse climate change, Prof. Chauhan said that humans need not be more greedy than they are today.

Speaking on the occasion, Prof Shambhu Nath Singh, Vice Chancellor congratulated everyone who has been an integral part of the development of Tezpur University. Highlighting the impressive journey of the University, he emphasized the institution's dedication towards delivering quality education, research, international collaborations and ongoing projects.

Initiating for the first time, the University felicitated Mr. Chayan Dutta, notable alumnus of from the Dept. of Electronic and Communication with Distinguished Alumnus Award 2023. Mr. Dutta was given the award for successfully overseeing the launch operations of the Chandrayan-3 mission.

Mr. Janmejoy Sarkar, Senior Research Fellow (SRF) of the Department of Physics was felicitated with Distinguished Student Achiever Award 2023 for his contribution in developing SUIT module of India's space mission ADITYA-L1. The other Distinguished Student Achiever Award 2023 was conferred to Ms. Reema Borah, a PhD scholar of Dept. of Cultural Studies for receiving the 69th National Film Awards for her Assamese film 'Anunaad – the Resonance. The category was Best Film on Social Issues (Feature Films category).

During the occasion, three students of the Department of Commerce were given Institute of Company Secretaries of India gold medal. Also, a total of 32 faculty, researchers and students were honoured for their achievements on the occasion. During the occasion, Dr. Juri Dutta, Head, Dept. of Assamese and alumna of the University donated Rs. 50,000/- to the alumni fund.

Earlier, the Vice Chancellor inaugurated a 100 feet high mast National Flag in front of the administration building to kick start the Foundation Day celebrations.





# Urban Affairs Minister addresses on Nasha Mukt Bharat Initiative

The University on February 07, 2024 organised a mega program on Nasha Mukt Bharat (Drug Free India Campaign) at the KBR auditorium of the University. Shri Kaushal Kishore, hon'ble Minister of State for Housing and Urban Affairs attended the program as Chief Guest and delivered a compelling address on the transformative initiative "Nasha Mukt Bharat" on the occasion.





# Food Engineering and Technology Department wins MSME Academia Excellence Award

The Food Engineering and Technology Department has been conferred with the prestigious Micro, Small & Medium Enterprises (MSME) Academia Excellence Award by the Chamber for Advancement of Small & Medium Businesses (CASMB).

# State NSS Award to TU student

r. Arjun Roy, a student from the Department of Electrical Engineering has received the prestigious State NSS Award, Assam 2021-22 in the Republic Day celebration held on January 26, 2024 at Guwahati. The award was given to him by Hon'ble Governor Shri Gulab Chand Kataria and Hon'ble Chief Minister of Assam, Dr. Himanta Biswa Sarma.



# NEWS/EVENTS/CONFERENCES/SEMINAR



# 75th Republic Day celebrated

The University celebrated the 75th Republic Day with a display of patriotism and unity. The campus came alive with the spirit of the nation as students, faculty, and staff celebrated the significant day. Addressing the gathering, Prof Shambhu Nath Singh, Vice Chancellor emphasized the importance of upholding democratic values, inclusivity, and contributing to the nation's progress. The day was marked by various cultural events performed by the students.

# **International Mother Language Day observed**

n order to respect the spirit of Mother Language, the University joined the rest of the world to celebrate International Mother Language Day on February 21, 2024. To observe this momentous day, Department of Assamese and Hindi organised a day long event at the Council Hall of the University.

Dr Ananda Bormudoi, noted Assamese writer and former Head, Dept. of English, Dibrugarh University and Dr Joram Yalam Nabam, Assistant Professor, Dept. of Hindi, Rajiv Gandhi University, Arunachal Pradesh graced the occasion and delivered insightful lectures. Prof Shambhu Nath Singh, Vice Chancellor, Tezpur University delivered the inaugural address of the programme.

During the occasion, Dept. of Assamese also



launched their e-magazine "Kisholoy" and a book "Xorise Xorok Akou Fulibo" written by Luit Kiran Das, a student of Dept. of Assamese were also released.



Tezpur University in collaboration with Department of Higher and Professional Education, National Institute of Educational Planning anad Administration (NIEPA), New Delhi organised a national workshop on Leadership Development for Deans of

# Certificate Course on Prior Art Search And Patent Specification Drafting

PIIT IPR Chair, Tezpur University in collaboration with DPIIT IPR Chair Gujarat National Law University, Gujarat organised an online certificate course on prior art search and drafting of patent specifications Feb 26 to March 1, 2024. The 5-day long course was designed with a view to imparting essential knowledge about relevant patent laws, teaching how to search for prior art before filing a patent application, and giving practical training on how to effectively draft patent specifications.

## TU Empowers Academic Leaders through National Workshop

Faculty and Heads of Departments of Universities in North-East India from February 21, 2024. The workshop, which is the first of its kind in Northeast India was organised by Dept. of Education at the Conference Hall, Dept. of Education. Prof. Sudhanshu Bhushan, Programme Director and Head, Department of Higher and Professional Education, NIEPA, New Delhi and Prof. Debabrata Das, Vice-Chancellor, Assam Rajiv Gandhi University of Cooperative Management were present on the occasion as resource persons. Around 35 academic leaders from different states of northeast such as Assam, Meghalaya, Tripura, Nagaland and Manipur are participating in this workshop reflecting true representation.

## Workshop on Elements of Style in Technical Communication

epartment of Mechanical Engineering on February 03, 2024 organized a workshop focussing on enhancing the skills of students and professionals in the field of technical communication. The workshop, titled "Elements of Style in Technical Communication," was attended by Prof Anoop Kumar Dass of Department of Mechanical Engineering from IIT Guwahati. Prof Dass shared his expertise on various aspects of writing in the technical domain during the workshop.

# 26<sup>th</sup> Annual Sports & Cultural Meet held

6<sup>th</sup> Annual Sports & Cultural Meet, a celebration that brings together students from various disciplines of the University and features various sporting & cultural events was organised from February 22, 2024. During the inaugural event, Shri Devajit Saikia, Advocate General, Govt. of Assam & Joint Secretary, Board of Control for Cricket in India (BCCI) graced the occasion as the Chief Guest. The event started with lighting of the Olympic Torch, followed by flag hoisting by the Vice Chancellor of the University, Prof Shambhu Nath Singh followed by the university song.

Addressing the participants and the enthusiastic crowd, Prof Singh said that Annual Meet serves not only an opportunity for the students to demonstrate their co-curricular activities, but it is also an occasion to learn camaraderie, community spirit and a sense of belonging.

Speaking on the occasion, Shri Saikia urged the students to take up co-curricular activities. He said



that BCCI has started the Women's Premier League (WPL), a Twenty20 cricket franchise league in India, where women cricketers have opportunity to excel. He urged the TU students to pursue a career in sports as well. Shri Saikia also appreciated the March past contingent of the University for their disciplined display of skill.

# One-Day Workshop on "Ensuring Equal Opportunity among students and other stakeholders"



he Centre for Inclusive Development organized a One-Day Workshop on "Ensuring Equal Opportunity among students and other stakeholders" in consonance with United Nations' Sustainable Development Goal no. 10, i.e., "Reduce inequality within and among countries", on March 4, 2024. A total of 70 participants from Tezpur Law College and the Departments of Sociology and Social Work, Tezpur University, participated in the Workshop.

# Keys to India's growth in the electronic device revolution discussed

epartment of Electronics and Communication Engineering in collaboration with Institute of Electrical and Electronics Engineers (IEEE) Electron Devices Society (EDS) Kolkata section March 08, 2024 organised a Colloquium on Electronic Devices and Sensors. Dr Ajit Kr. Panda, Vice President - Engineering RF at VVDN Technologies was present on the occasion. Other notable experts present on the occasion were-Prof Navakanta Bhat, Centre for Nano Science and Engineering (CeNSE), IISc Bangalore, Prof. K. S. Chang Liao, National Tsing Hua University, Taiwan, Prof. Benjamin Iniguez, University Rovira I Virgili, Spain, Prof. Chandan. K. Sarkar, Jadavpur University.



# **Workshop on Design Thinking and Innovation**



epartment of Design on March 07, 2024 organised a two-day workshop on Design Thinking and Innovation. The workshop was focused on Product Design, Interaction Design, and Communication Design. Prof Ravi Mokashi Punekar and Dr Pankaj Upadhyay of Department of Design, IIT Guwahati were present on the occasion as Resource Persons.



# Invest in Women: Accelerate Progress-International Women's Day

The University proudly joined the rest of the world in celebrating International Women's Day on March 08, 2024. The University organised two events to celebrate the day. School of Humanities and Social Sciences of the University organised a daylong event with the theme "Invest in Women: Accelerate Progress." The other event was organised by the Intellectual Property Rights Cell (IPR), TU along with Chandraprabha Saikiani Centre for Women Studies (CSCWS). The theme of the later event was "Celebrating Women in Innovation and Creativity".

Speaking on the occasion, Prof Shambhu Nath Singh, Vice Chancellor, TU said that International Women's Day is an occasion for engaging conversations, insightful discussions, and celebratory activities. He said that this year's theme rightly emphasizes the urgent need to allocate resources, opportunities, and support towards the empowerment of women, recognizing them as key catalysts for progress.

Addressing the gathering, Prof Farheena Danta, Dean, Humanities & Social Sciences pointed out the STEM gap. She explained that men vastly outnumber women in science, technology, engineering, and math (STEM) field. Prof Danta spoke of resilience in women to withstand pressure. She advocated for a space where women need not to assert themselves to demand something. "Authority should recognize the importance of having a space for pregnant and nursing women", Prof Danta further said.

In another event organised by the IPR cell & CSCWS, several self-help groups, alongwith women local weavers and women entrepreneurs exhibited their products. Speaking on the occasion, Dr Madhurima Goswami, Head, CSCWS lauded the efforts of self-help groups. She called them torch bearers of empowerment and classic example of invest in women.

Speaking on the occasion, Prof. Pritam Deb, IPR Chair Professor of the University said that from windshield wipers, life rafts, mobile X-ray unit to the first computer program, Wi-Fi, GPS and Bluetooth etc. are either invented or developed by women. "Hence, this year we have planned to celebrate this year's IP Day together with Women's Day", said Prof Deb.

Various programmes were conducted on the occasion, such as an inhouse Quiz on IP, a skit and poem recitation.

## Issues related to endangered languages of Northeast discussed

Technology (LLT) on March 12, 2024 organized a day long National Conference on Language and Linguistics to mark its second anniversary.

Prof. C. Yashwant Singh, noted academician of Linguistics & formerly Dean of Arts, Manipur University was present on the occasion. In conjunction with the programme, the students displayed wall posters on various topics in about 11 languages of the Northeast.



# Current Trends of Research in Chemistry Towards Sustainability discussed



pepartment of Chemical Sciences organised a two-day International Conference titled "Sus-ChemHeca-2024, i.e Current Trends of Research in Chemistry Towards Sustainability, Health Care, and Forensic Analysis during March 14-15, 2024. The conference brought together leading minds from academia, industry, and research institutions across the globe. The Conference was graced by speakers from various eminent international institutions like University of Alabama, USA; Prairie Research Institute, USA; Kyushu University, Japan; KU Leuven, Belgium.

# National Seminar on Travel Writing in Foreign Languages held

epartment of Foreign Languages organised a two-day National Seminar from March 06-07, 2024 on "Wanderlust: Travel Writing/Narratives in Foreign Languages. Prof Madhu Sahni, Centre for German Studies, Jawaharlal Nehru University (JNU) and Prof Abhijit Karkun, Centre for French and Francophone Studies, JNU and Prof Avijit Banerjee of Cheena Bhavana, Viswa-Bharati were present on the occasion as resource persons. The seminar explored multifaceted realm of travel writing through different sessions featuring experts in foreign languages and linguistics.



# **Workshop on ADITYA L1 explores Solar Mysteries**



epartment of Physics on March 06, 2024 organised a workshop on "SUIT Science and Data Analysis" directed towards understanding the Solar Ultraviolet Imaging Telescope (SUIT) on board Aditya-L1 and to train scientists and students

on using the capabilities of the payload. Noted scientist, Prof Durgesh Tripathi, specializing in solar physics & Prof A. N. Ramaprakash, specializing in astronomy instrumentation of the Inter-University Centre for Astronomy and Astrophysics (IUCAA), Pune were present on the occasion. Mr Janmejoy Sarkar, a PhD scholar of Department of Physics, Tezpur University and a Senior Research Fellow of IUCAA, Pune who under the guidance of Prof Tripathi & Prof Ramaprakash had earlier developed IUCAA's Solar Ultraviolet Imaging Telescope payload on-board Aditya-L1 was also present on the occasion.



# InSCIgnis: National Science Day

n account of the National Science Day, Tezpur University organised its Annual Science Fest- 11th edition of inSCIgnis 2024 from 28th February to 29th February. This year the theme highlights "Unravelling the Mysteries of the Universe", "वर्जिञानस्य अज्ञाते अन्वेषणम्:" (Vigyansya Agyate Anveshanam). Dr. Arup Kumar Misra, Chairman of Pollution Control Board was invited as the Chief Guest of the occasion. Guest of Honour Dr. G Parathasarthy. INSA senior scientist, National Institute of Advanced Studies also graced the inauguration ceremony along with Dean Academic Affairs, Prof. Mrinmay Kumar Sarma, Dean, School of Sciences Prof. Robin Kumar Dutta, Dean, Student's Welfare Prof. Manabendra Mandal and Faculty Coordinator Prof. Nayanmoni Gogoi and other dignitaries who came together to celebrate "Indigenous Technologies for Viksit Bharat."

# Changing Generations of India discussed

epartment of Sociology organised a three-day program titled Changing Generations of India: Developing collaborative indigenous research methods to understand young lives in India from February 16-18, 2024. The program was organised in collaboration with Queens University, Belfast. The aim of the program was to re-examine issues concerning young lives located in the Indian subcontinent.







# Various aspects of New Criminal Laws discussed

The Department of Law on March 14, 2024 organized a one-day colloquium on New Criminal Laws. Noted academician, Prof Vageshwari Deswal, Faculty of Law, Delhi University was present on the occasion as the resource person. Prof Shambhu Nath Singh, Vice-Chancellor, TU graced the occasion as the Chief Guest, and Prof Farheena Danta, Dean, School of Humanities and Social Sciences, TU, was the Guest of Honour.

Speaking on the occasion as Chief Guest, Prof Shambhu Nath Singh, Vice Chancellor, TU shared insights from a recent discussion with the Home Minis-

# Industry experts Al → discuss Al forSupply Chain Management

n a bid to bridge academia and industry, the Department of Mechanical Engineering organised an online lecture series on "Artificial Intelligence (AI) for Supply Chain Management" on March 13, 2024. Mr. Utkarsh Mittal, the Manager of Machine Learning & Automation at GAP Inc., USA. Delivered a lecture on transformative potential of Generative AI in revolutionizing supply chains. ter, Shri Amit Shah, when the Minister visited TU on January 20, 2024. He also discussed on new criminal laws pertaining to the Northeast region. He further said that the announcement of new legislations, viz. Bharatiya Nyaya Sanhita, Bharatiya Nagarik Suraksha Sanhita and Bharatiya Sakshya Adhiniyam represents a monumental shift in our legal landscape.

Dr. Madhumita Acharjee, Head, Department of Law, provided a brief introduction highlighting the significance of the colloquium in light of the evolving landscape of criminal law. She expressed gratitude towards the resource person and encouraged active participation from students for fruitful deliberations.

Speaking on the occasion, Prof Farheena Danta delivered the welcome speech, emphasizing the necessity for laws that can effectively address the complexities of society.

Interacting with the students and faculty members, Dr Vageshwari Deswal, who has contributed significantly to various social causes including animal welfare and prison reforms discussed the rationale behind the changes in the nomenclature of criminal laws. Dr Deswal highlighted the shift from penal provisions towards a more holistic approach to justice. She emphasized how these changes reflect a departure from colonial-era laws and embraced a democratic approach towards the well-being of both victims and offenders.

Overall, the colloquium provided an invaluable platform for academic discourse on the emerging trends in criminal law, fostering collaboration and learning among students and faculty members alike.

# Climate Change threat to Northeastern region discussed



epartment of Science and Technology's (DST) Centre of Excellence (CoE) at the Department of Environmental Science at Tezpur University hosted a two-day event on "North-East Conclave on Climate Change: Adaptation and Resilience (NC-CCAR-2024)" from March 14-15, 2024.

The inaugural function was graced by the Vice Chancellor, TU, Prof. Shambhu Nath Singh, Dr. Anita Gupta, Advisor and Head, Climate, Energy and Sustainable Technology (CEST) Division at DST, Dr. Susheela Negi, Senior Director/Scientist F, CEST Division at DST. Prof K. Marimuthu, Head, Dept. of Environmental Science and Prof Ashalata Devi, DST's CoE Principal Investigator (PI) and Convenor of the event were also present on the occasion.

Delivering the inaugural address, Prof Shambhu Nath Singh, said that reality of climate change looms larger and its impacts are becoming increasingly evident. He further said that in the case of northeast, these effects are particularly pronounced due its delicate ecosystem.

Speaking on the occasion as Chief Guest, Dr. Anita Gupta said that the aim of the conclave is

# C- to policy makers, each has a role to play in shaping a more sustainable and resilient future for generations to come. Dr. Speaking as Guest of Honour, Dr. Susheela Negi said that the conclave is an initiative towards fostering dialogue and collaboration in addressing the pressing challenges posed by climate change in

region. During the inaugural ceremony, a book on 'Compendium on Climate Change: Adaptation and Resilience in North East India was released by the dignitaries on dais.

the vulnerable ecosystem of the eastern Himalayan

to provide a common platform for the exchange of

knowledge and discussion to address significant cli-

mate change related issues in the northeast region.

Dr. Gupta urged that from academician to scientist

Dr. N.H. Ravindranath, Retd. Professor from the Centre for Sustainable Technologies, IISC, Bangalore; and Dr. B.K. Tiwari, Retd. Professor from Department of Environmental Science, NEHU, Shillong was also among the dignitaries gracing the inaugural function.

#### Tezpur University joins 'India's Techade: Chips for Viksit Bharat' programme

The University actively participated in the live streaming event organized for the laying of the foundation stone for three semiconductor facilities in India. The event, which marked a significant milestone in the nation's technological advancement, was attended by Prof Shambhu Nath Singh, Hon'ble Vice Chancellor of the University, Deans of various schools, Registrar, Controller of Examinations, Finance Officer, students, faculty and staff members of the University.





Memorandum of Understanding (MoU) was signed between Tezpur University and Dr. Ambedkar Foundation, Ministry of Social Justice & Empowerment, Govt. of India, in New Delhi, on January 24, 2024, for implementing the Free Coaching Scheme for SC and OBC(NCL) Students for UPSC-CS / APSC-CC exams. at Tezpur University.

# Faculty Development Programme on the Use of ICT Tools for Teaching-Learning

MTTC conducted a faculty development programme on the Use of ICT Tools for Teaching-Learning from March 18-22, 2024. The program provided training through various tutorials on use of LMS, Creation of e-learning materials, online content sharing, interactive learning tools etc. Around 100 participants joined the program in online mode.

#### One-Day Workshop on Forensic Accounting Standards

The Department of Commerce hosted a one-day workshop on "Forensic Accounting Standards" on February 17, 2024. This event aimed to address the growing interest in and professionalization of forensic accounting, a multifaceted field encompassing investigation, legal, and advisory roles. As the business environment becomes increasingly complex, skilled professionals equipped with a thorough understanding of relevant standards are crucial. The workshop attracted 86 participants. alaviya Mission Teacher Training Centre (MMTTC), Tezpur University organised three NEP Orientation & Sensitization Programme between January and March broadly covering the following 8 themes:

(I) Holistic and Multidisciplinary Education (II) Indian Knowledge Systems (III) Academic Leadership, Governance, and Management (IV) Higher Education and Society (V) Research and Development (VI) Skill Development (VII) Student Diversity and Inclusive Education (VIII) Information and Communication Technology

The Centre also organised a monthlong faculty induction program from February 15- to March 15, 2024. It was conducted as part of the UGC and MoE Guidelines. The program imparted skills for the new faculty members. The program saw 86 participants.

# **Financial Literacy Program**

midst the growing importance of financial education, Reserve Bank of India, Guwahati, and the Department of Commerce, Tezpur University collaborated to conduct a Financial Literacy program on February 27, 2024. The program was led by Mr Dhritabrata Jyoti Bharadwaz, Faculty Coordinator and Mr Mousam Banerjee, AGM at FIDD,



RBI with an objective to impart Financial Awareness to the University Students. The event was attended by over 150 students along with the Head and Faculty Members, Department of Commerce and Assistant General Manager and Assistant Managers from FIDD, RBI.

# Workshop on "Artificial Intelligence and Data Sciences

Five-Day transformative Workshop on "Artificial Intelligence and Data Sciences: The Future of Technology" was organised by the Department of Computer Science & Engineering (CSE) during 04th - 08th March 2024, in order to introduce researchers, students, and faculty members to the fields of cutting-edge technologies of Artificial Intelligence and Data Science. This workshop provided an overview of the tools and technologies used in data science and to equip the audience with the necessary knowledge to get the complete essence during the hands-on sessions.





# Inaugural Edition of Vaanigyam

The Department of Commerce, on the auspicious occasion of completing 10 years since its inception at Tezpur University organized and hosted the first edition of 'Vaanigyam'-an annual commerce fest. The event was envisioned towards celebrating and nurturing curiosity and knowledge among the Tezpur University students in various areas of Commerce such as Finance, Marketing, Economics, Entrepreneurship, and soon. The events were conducted from 5th to 8th March, 2024.



# TRAINING & PLACEMENT ACTIVITIES

The Training & Placement Cell organized a Capsule session on February 3rd, 2024, aimed at assisting students in preparing for the prestigious Assam Public Service Commission (APSC) and Union Public Service Commission (UPSC) exams. Sessions were handled by the experienced resource persons like Mr. Hiranya Madhab Saikia, Former Assistant Accounts Officer at the Comptroller and Auditor General (CAG), Government of India; Mr. Lalan Kumar, Managing Director at LALAN's IAS; and Ms. Arpana Sarma (ALRS), Circle Officer, Paschim Nalbari (Alumna TU).

The Cell also organized an Alumni Talk on February 9th, 2024, focusing on Preparation Strategies for APSC and UPSC Examinations. Mr. Prabuddha Mishra, who achieved All India Rank 18 in the UPSC Central Armed Police Force (CAPF) Assistant Commandant 2022 Examination, served as the resource person.



#### National Symposium on Emerging trends in Multidisciplinary Research

entre for Multidisciplinary Research (CMDR) at Tezpur University on 18-03-2024 organised a one-day National Symposium on Emerging trends in Multidisciplinary Research. Dr Pradip S. Mohurl of Northeastern Institute of Ayurveda and Homoeopathy (NEIAH), Shillong and Dr Darpa S Jyethi, Theoretical and Applied Sciences Unit, Physics and Earth Sciences Division, Indian Statistical Institute, North-East Centre, Tezpur were present on the occasion as Resource Persons. Various participants during the symposium presented posters covering diverse areas of research viz climate change mitigation, mental health and well-being, technology disruption, gender and inclusive development, public policy and management. Around 100 participants from more than 25 institutes across India and abroad registered for the symposium comprising of academicians, research scholars, career professionals and students.

# 31<sup>st</sup> Foundation Day oration by Prof. V.S. Chauhan



#### 21 January, 2024

amaskar. Good morning to everyone. When Professor Shambhu Nath Singh asked me whether I would agree to come for the Foundation Day lecture, I said I would like to come to the University. I've been here before, but before I say anything else I really want all of us to remember people who were involved in the establishment of this University.

This is a relatively young university, and as Prof Singh said that it started with 57 students and only three departments. I was born in 1950 and at that time the size of higher education was small, and I've seen many universities come up and grow, both private and from the states and central government. I don't think any university has been established as well as where I'm standing in front of it today.

Therefore, it's important to appreciate and think about those who really must have spent time in a small place like this and develop the University. There has been a debate where should universities grow. India took the right decision and universities are established in places where local people have access, for example this university. I was teaching in St. Stephens when NEHU was planned in 1973-74, or 1975. Many people took a conscious decision of leaving to go and set up a university in Assam. There are a couple of friends from my age who agreed to come. So, this Foundation Day, I really congratulate, admire, and want you to remember those who contributed to bring Tezpur University to this level. Just now, Prof. Singh mentioned that the University probably will have a huge expansion and, I think those things have to be done very carefully. But knowing how this University grew I have absolutely no doubt that you will do your best and this will become perhaps one of the largest universities and will become a really good education hub.

I was involved in the establishment of NIRF. I don't want to get into the story why India started NIRF but the ranking business itself began in 2006-2007 worldwide and some of the younger staff and students may not know this; there were no rankings before 2004-2005. Only two universities and their colleges almost like a joke used to rank. Let me not ramble into ranking and mention that Tezpur University ranked very high in the first and second rankings. Once you get into that frame then I think it's very important to stay in that frame as much as you can. I'd been talking to some of you last time I came here and given the way you set up this University it's very much possible to stay ahead of many of your competitors.

So, what Prof Singh said about expansion into programs in pharmaceutical sciences and other departments are well thought of and I wish you luck. Hopefully we will be involved in the process through higher education funding agencies. These are the right times to do so, but I just want to spend two minutes talking about the education system; what the universities were supposed to do worldwide, what the universities were asked to do.

University systems are about 250-270 years old as a concept. Some of you might see Oxford or others which are more than thousand years old. They are, but they were not supposed to be doing what they are doing today. So, it is only in Germany when Hamburg started and gave a structure which everybody's following. The university has become the place where independent research should be done. There was no research done in the University before the German model.

For example. Michael Faraday or Lavoisier, or many other French, their research was done in garages labs. By early 1900, university system became very strong, and the best physics, chemistry, mathematics, and natural biology research was done. If you are in Planning Commission, you'd look at, let's say we want the money and we want to expand, and you would look into which countries have done extremely well. And you would find without any exception the countries which have done extremely well were investing in higher education. One can have debates about what does it mean a country doing well. But the traditional idea of 'well' is that living standards are high, they have health and education in place, transportation, etc. Then you will find in the last 100 years those countries who have invested in higher education and invested massively in science research.

The charter of Tezpur University, if you read it would say that this university in this location to address the local problems through scientific means. Universities were not asked to do this let's say in Europe. Universities were supposed to just let a researcher do what a researcher thought he or she should do.

By 1980s, 1985 universities became so powerful places and became symbols. I talk of science and technology, but I just want to add that the best service to society came from social sciences, philosophy, through languages and through understanding behaviour through psychology. So sometimes we in this rush of science and technology solving problems and finding solutions to the problems, role of social sciences is forgotten.

As I was saying, University systems became so strong that they became symbols in the 1980s and 1990s. Especially in England and in the US they became symbols of national pride. Some of the universities became as big as having the budgets of some small African countries. The point I'm making is that all the ideas for driving the economy, for driving solutions to the problems, whether these are vaccines or health related issues or cancer drugs all of them began to come from the universities. In India, when British left, we were in very bad state. Certainly, in education and health we still are struggling after so many years. I think India has done extremely well, where we are today. It is amazing that 120,000 students in higher education then versus 4 crore students in higher education today. Of course, I don't want to debate about the quality but the sheer number of universities now which is about 1,300, when you had only 20 universities or so then. Some of us who went to universities were fortunate to go to. If you receive higher education of almost any kind is your ticket to success, ticket to independent thinking, ticket to realizing your rights.

If we discuss higher education in India and those of you who come to this University, I think I must put it across to you that you are extremely fortunate. Those who come to teach them should be proud of coming and contributing to higher education. There is still a long way to go but coming to places like this, producing good quality research, producing good quality students is what I think is really the way forward for India in the future. So those of us, who are fortunate to have received higher education, therefore must remember that we are privileged, extremely privileged. And those who are not as privileged as you and I are, I think it's our responsibility to help others.

I want to discuss something on how we should be informed, how much should we be informed, and how much information should be guiding us to take our decision. For knowledge, information is absolutely necessary. If you don't have information then you can't produce knowledge.

Only last week I saw a report where two things, unrelated, I don't want to become very serious here but I must say that two unrelated things: the rise in silent heart attacks among the young from 18 to 40 has jumped from 13% to 19%. The report was published in Nature, and they cited that it is due to lifestyle. Of course, Covid was unusual times, and it increased our screen time.

The other point I want to make is the environmental degradation and climate change. The year 2021, 2022 and 2023, each was hotter than the previous year, so even nonbelievers just have to look at the data year on year basis. Canada currently reported the longest, coldest wave that lasted in Canada with temperatures of  $-45^{\circ}$ ,  $-46^{\circ}$ .

The climate change has led to drier lands therefore less production of food. Then followed by rivers overflowing and then extreme cold so is it something that should worry scientists and governments. But many are saying there is no tangible proof that fossil fuels really are responsible for rising temperature. So, in 2023-24 the point I'm making is about the individual responsibilities. Those of us who ponder about, or worry should the issue, should take up individual responsibilities of how much energy should be consumed. We should be involved in behaviour change.

After the pandemic, I think India probably the only country which has rapidly come out from the recession. The Western economies are still low, their interest rates are still going up, the inflations are still much higher, double than what used to be before. Why do viruses keep appearing, and the answer is very simple. It is because of the human activity and greed for space. Human expansion for its own kind has decreased the space of birds, of animals and so on. Animals are not our enemy. We humans have taken this to an extreme end that since 1969, 1970 we are seeing these pandemics at every 10 years.

If I were to address young faculty and young students in this crowd, only one more thing to say. Universities have changed, but what has not changed and should not change is appreciation for quality work and continuous hard work. Some say luck is important. Maybe. Do no believe too much in God given talent. of course there's a difference between Tendulkar, Kohli and ordinary Ranji players, so are the gifts of Mohammad Rafi or Lata Mangeshkar. Those are gifts, yes, but there is no substitute for you and I in the quality of work that you put in. Honest hard work will take you wherever you want to be.

And finally, I just hope humans as a race will not be greedier than what we are, that our killer instincts will be lesser than what they are. I once again would like all of us to remember those who set up this university. I think we should be very proud of this day, so once again I congratulate all of you for your Foundation Day.

# 31<sup>st</sup> Foundation Day Address by the Vice Chancellor



#### 21 January 2024

Respected Chief Guest Prof. VS Chauhan Ji, Respected Madam Chauhan, Registrar, Deans, Controller of Examinations, Heads of Departments and Centres, Faculty and staff Members, Guests, Friends from Media, And Dear Students,

I feel privileged and honoured to stand here, as we gather to celebrate the 31st Foundation Day of Tezpur University. Foundation Day should not be treated as a regular event. This is an occasion of celebration of three decades of Tezpur University's existence. This is an occasion of pride and accomplishment.

Starting from a modest beginning with 57 students in 03 Departments, we have evolved into an institution of excellence and a hub of intellectual discourse. At present our university is offering 76 academic programmes in UG, PG, PhD, Certificate and Executive Programme across 28 departments and 13 centres under four school of studies. We have more than 4,700 students with a healthy female to male ratio of 45: 55.

All the departments offer open elective (OE) as per the mandate of NEP 2020. The University has also

introduced Value Added, Skills Enhancement, Multidisciplinary and Ability Enhancement Courses. It is my pleasure to inform the august house that the University is gradually receiving international students from Southeast Asia, Middle East, and African nations. Our journey has been challenging; but it has been shaped by the relentless pursuit of academic excellence and a commitment to nurture the bright minds.

Tezpur University's vibrant research ecosystem is symbolized by the current year's publication record which include: 558 journal papers, 30 books, 155 book chapters, and 63 conference proceedings among other forms of publications. Many of our teachers are members of national and international prestigious academic and research bodies. They have been engaged as editors, members of the editorial board, and reviewers of several highly acclaimed journals and publication houses.

I am happy to inform that the University is experiencing a notable surge in the filing of patents, indicating a robust culture of innovation and research within its academic community. The University has so far published 53 patents, granted patent stands at 28, granted design is 4 and technology transfer is 11.

The alumni and our students are our source of strength. As they grow, the institution grows in stature.

From this year onwards, the University has decided to honour our alumni and students by acknowledging their outstanding work. We are instituting two awards-Distinguished Alumnus Award and Distinguished Student Achiever Award. Distinguished Alumnus Award shall recognise the outstanding work of our alumni and Distinguished Student Achiever Award shall recognise and appreciate the work of our students/researchers.

This year Distinguished Alumnus Award is given to Mr. Chayan Dutta, an alumnus of Department of Electronics & Communication Engineering. Mr. Dutta had successfully overseen the launch control operations of Chandrayaan-3 mission.

Distinguished Student Achiever Award is given to two students of ours- Mr. Janmejoy Sarkar and Ms. Reema Borah. Mr. Janmejoy Sarkar, a Senior Research Fellow (SRF) of the Department of Physics has been given the award for his contribution in developing SUIT module of India's space mission ADITYA-L1 of ISRO.

Ms. Reema Borah, a Phd scholar of Dept. of Cultural Studies has bagged 69th National Film Awards for her Assamese film Anunaad – the Resonance. The category was Best Film on Social Issues (Feature Films category).

I am happy to inform that we are also honouring a total number 32 faculty, researcher and students during this Foundation Day.

In the rapidly changing landscape of higher education, Tezpur University has not only kept pace but has also set new standards. We have embraced diversity, inclusivity, and adapted to the dynamic needs of the global academic community. We have started global, national and international collaborations to excel in quality research and innovations. Notable among them are collaborations with Dalhousie University, Canada, University of Auckland, Queen's University Belfast, Mongolian National University of Education and Universiti Teknologi Malaysia, Malaysia.

We have also signed MoUs with Bodoland Territorial Council and IIT-Guwahati to fulfil regional aspirations. The University has Department of Promotion of Industry and Internal Trade (DPIIT) instituted IPR Chair that is providing quality IP based research. Bodofa Upendra Nath Brahma Chair is in the final stage for implementation and establishment of Dr. Bhupen Hazarika chair is under process. Proposals for some more chairs are under consideration.

During three decades of existence, the University has not merely been a place of learning; but a place for groundbreaking research. However, we need a concrete plan for the future.

I am happy to inform that Govt. of Assam has given us additional plot of 260 acres to extend our campus. We are proposing to establish thirteen (13) new Departments, such as Pharmaceutical Sciences, Petroleum Technology, Tourism Management, Yoga and Sports Science, Economics, Statistics, Psychology, Library and Information Science etc. in the new campus.

Further, we are mulling to start a Centre for Defence Studies named after Ahom General Lachit Borphukan to fulfil the geopolitical need of this region.

I am extremely delighted to announce that our university has successfully implemented NEP 2020. Several departments have started Four Year Undergraduate Programmes (FYUGP) with the provision facility of Multiple Entry & Multiple Exit. We are working to align the Masters programmes as envisioned in NEP.

As skill enhancement has been a key component of NEP 2020, our university is planning to offer dual degree programme.

As we celebrate this Foundation Day, it is crucial to acknowledge the contributions of all those who have been an integral part of our journey—the faculty, staff, alumni, and, of course, the students. Let us dream with passion and perseverance to make this University an institution of global repute.

Thank You.

Jai Aai Axom Jai Hind (We are introducing a new feature of including one selected research/seminar paper on different domains in each issue. This is the inaugural effort.
 The current paper was presented in the National Seminar on "Yoga for Human Excellence, Peace, and Holistic Well-Being" organised by Centre for Yoga and Sports Sciences, Tezpur University held on 10.06.2023)



# Stress management with Yoga in digital age: A systematic analysis

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## Abstract

Net is a product of the digital age and has significantly impacted people's lives. The increasing popularity of smartphones and social media platforms such as Facebook, Instagram, Youtube, and other technological advancements have significantly influenced various aspects of human life, including work and socialization. Excessive usage of the Internet and other digital devices has adverse impacts on an individual's psychological health. Stress has emerged as a significant adversary for people in modern time and is increasingly recognized as a global health concern. Anxiety, depression, poor physical health, insomnia, a decrease life span, and a higher risk of heart disease are all outcomes of stress. In pursuit of sound mind and body is a universal aspiration, yet contemporary lifestyles present challenges that impede its attainment. The modern age has brought long working hours, poor dietary habits, reduced physical exercise etc. The COVID-19 pandemic has expedited the onset of work-related stress, social isolation, physical and psychological health concerns. This systematic review aimed to discover how Yoga can manage stress in a digital age where people depend more on technology, like smartphones, and how Yoga help in alleviating technological and work stress.

In today's world, effectively managing stress levels is a significant challenge. Multiple studies have shown that practicing Yoga has innumerable health benefits and help in reducing stress in the digital age.

Keywords: technology, stress, Yoga, Internet, covid, digital era

# Introduction Stress

The challenges of modern living are immense. Stress, anxiety, and depression have all been associated with long work hours, bad eating habits, inactivity, and rising social isolation in the digital era. Pandemic COVID-19 has added to the layers of challenges like work from home, social distancing and virtual life which have resulted in sedentary lifestyles, stress and frustration. Stress is considered to be a global public health issue in modern societies. It adds to diseases, including lower quality of life, decreased mental health cognition and peace, reduced work productivity, insomnia, heart diseases of various types, hypertension, diabetes etc. The symptoms associated with stress thus encompass a range of manifestations, such as heightened agitation, an inability to achieve a state of relaxation, diminished energy levels, persistent headaches, exaggerated emotional responses, increased worry and melancholy, frustration, sleep disturbances, chest discomfort, high heart rate, and challenges in maintaining focus and concentration. These health challenges have only added to global pressures on healthcare systems and reduced quality of life of people.

#### Acute stress

Acute stress is commonly viewed as a negative experience. Acute stress is a short form that does not inflict the same harm as chronic stress due to its brief duration. Chronic stress is characterised by prolonged duration and have detrimental health consequences like memory impairment, spatial recognition impairment, and reduced appetite drive. Chronic stress can manifest in physical symptoms such as aches and pains, sleep disturbances, and changes in social behaviours. It can also cause low energy, emotional withdrawal, altered emotional responses, and difficulty concentrating. It is also linked to medical conditions, including hypertension, heart disease, diabetes, obesity, and arthritis. While acute stress can be considered to be a short spike in levels of stress resulting from sudden developments in behaviour or external environment.

#### Role of Technology in stress generation

In contemporary times, individuals are inclined to ambition and strive to pursue all feasible avenues for professional advancement. The frequent prevalence of anxiety, despair, irritation, and discontent has caused individuals to view these experiences as intrinsic elements of the contemporary work setting. Depression, as stated by the World Health Organisation (WHO), is the prevailing mental condition with a global impact on more than 300 million individuals. The significance of this matter has led many health researchers to focus their study on this field.

According to Young, there are negative consequences associated with excessive use of technology and internet addiction. Bianchi and Phillips (2005) posited that excessive utilisation of the Internet might result in various disorders such as anger, tension, or depression in situations where the technology is inaccessible, as well as tolerance, which refers to the requirement for superior equipment, more advanced technology, and increased usage.

Scholars have emphasised the growing influence of technology in our daily lives, which subsequently regulates our patterns of behaviour, cognition, and habits. Furthermore, technology has been found to impact fundamental activities such as eating and sleeping (Smahel et al., 2012). Extensive research has been conducted on the influence of technology on mental health, with numerous scholars emphasising the repercussions of excessive technology usage (Shaw & Black, 2008; Weinstein, 2010; Young, 2009). Excessive utilisation of technology has significant implications for individuals across various domains hat are emotive, cognitive, and behavioural aspect (Flisher, 2010). The effects of technology on individuals' lives may manifest in multiple ways, such as heightened stress levels, reduced emotional intimacy, diminished self-worth, divided attention, decreased empathy, weakened ability to establish limits, and amplified desire for instant gratification. These outcomes may be linked to several psychological and personality disorder.

Considerable scholarly attention has been devoted to investigating the utilisation of the Internet (Carr, 2011; Flisher, 2010). The outcomes of these studies can be extrapolated to address concerns associated with diverse connectivity technologies, including smartphones and other digital gadgets, which are progressively occupying a more significant proportion of individuals' technological engagement time (e.g., email, texting, and social media). The prevailing consensus is that the issue of excessive technology usage is on the rise in contemporary society.

# **Technology Addiction**

The phenomenon of mental illness arising from the misuse of technology has been the subject of scholarly inquiry, with a particular emphasis on what has been termed "Internet addiction" by a number of researchers (Flisher, 2010). Young (2009) posits that Internet addiction is a newly recognised psychiatric disease that can lead to a range of relational, occupational, and social complications.

According to Griffiths and Hunt's (1998) perspective, a wider perspective of technological addictions is necessary. This type of addiction is considered a subcategory of behavioural addictions that involves the interaction between humans and machines, and does not involve chemical substances.

#### Yoga as a stress management

Yoga has been found to have significant relevance in the realm of stress management. Previous studies have shown that a regular yoga practice can reduce anxiety, stress, and feelings of depression (Atkinson, 2009). The practise of yoga is intended to mitigate stress levels in the contemporary era of technology. Yoga is currently been treated as a form of mind-body medicine which integrates three key components (physical, mental, and spiritual) to treat different stress-related illnesses (ibid.). Apart from lifestyle related disease such as heart ailment, diabetes, obesity etc., yoga is also being utilized to treat certain mental illnesses, including anxiety and depression (Sulenes, 2016). Various postures of Yoga have been clinically proven to alleviate symptoms of the mind and anxiety. With the popularity of Yoga rising gradually in the West, a lot of interest in studies and experiments on its usefulness have been conducted. So much so that it is beginning to be regarded as a valid alternative form of treatment. Yoga is inexpensive, promotes physical activity and creates healthy lifestyle choices for the individual. It is in this context Yoga's efficacy in holistic treatment has to be understood and interpreted.

# Indian Cultural Communication Paradigm

Communication as we understand today has majorly developed in the western academia. Western understanding is majorly dependent on technologies that communicate. This understanding is problematic and parochial in a sense that it fails to consider basic human communication. These structural method or models prescribed by the western scholars became more and more complex (narrow) and fails to grasp local realities or diverse realities across and didn't take into histories of communities that are rich in traditional values and wisdom.

In the Indian cultural communication paradigm there have been plenty of such forms and literature that form the backbone of our understanding communication from a local perspective. For example, The holy scriptures-Upanishads, Bhagwat Gita, Vedas etc. espouse this form of knowledge that we talk about. In ancient Sanskrit and other literature like Natya Shastra, Edicts, Manu Smritis or the mystic traditions such as Kabir, Mirabai, tantricism and so on we find enough references to a rich tapestry of indigenous knowledge that can help us in understanding our contemporary society better. In the same breathe, we can talk about the examples of the folk and traditional arts of India which have been used in ancient times for communicating moral, religious, and socio-political messages. Cultural forms thus arise as a response to the struggle for social existence against the hostile forces of society and in the Indian context we find enough evidences such as cited above.

The six schools of Indian philosophy- Mimansa, Vedanta, Samkhya, Yoga, Vaisesika and Nyaya form an important part of communicative paradigm in the Indian context. Yoga, particularly is seen as an important tool for intra-personal communication. Whereas in the western context communication is generally understood as transfer of meaning and to affect the receiver in a certain manner. In the Indian model it is generally meant as an intra- personal meaning making process. An external stimuli which makes the receiver make sense of her/his internal self-awarenes, we might term it as 'enlightment'. In the folk tradition, the entertainer, audience and community are rolled into one. Enlightenment can be better explained as liberation from ignorance, from illusion of the material world, and artificial categories all around us. It is expression oriented versus interpretation oriented, thus creating a separate cultural way of looking into communication as something more than a functional approach. This search for meaning is an internal one, a search for a deeper meaning or truth. The realisation or arriving at the truth is achieved neither by language or logic. It is arrived through an intuitive process and in this paper the argument is Yoga helps the human mind to escape this illusion- the end purpose of cultural communication. The cycle of communication is then complete- the state of universalization. The argument in this paper is that Yoga is a means to lift us from the perils of technology and induces stress to a state of enlightenment. The argument is the mode of connecting to self through the various asanas in Yoga is a means of a deeper understanding of the self and thus - release from stress and anxiety.

The earliest documented instances of this approach can be traced back to approximately 200 BC, as evidenced by the Yogasutra of Patanjali. The Yoga Sutras of Patanjali delineate eight different types or disciplines thatare integral to yoga practice. The asanas train the mind and body for meditation and spiritual growth (Collins, 1998). Yama, Niyama, Asana, Pranayama, Pratyahara, Dharana, Dhyana, Samadhi are the eight limbs or ashtangs as outlined by Patanjali. The first of the limbs Yama, can be translated into codes for self-righteousness, abstinence and regulation. It can be assumed as the communicative idiom of Yoga sutra, which forms the core value of spiritual communication in the Indian tradition. The concept of the self, and man-nature relationship is at the core of Yoga philosophy, and the various asanas are physical manifestations of that philosophy.

Currently, a significant number of individuals are encountering psychological strain in conjunction with occupational strain. The prevalence of stress is widespread in contemporary society, resulting in a range of physiological and psychological complications. The practise of yoga serves to integrate the mind and body aspects. Whether Yoga is employed for spiritual metamorphosis or for the purposes of stress management and physical wellness, its advantages are manifold. Yoga is a therapeutic practise that has been found to alleviate symptoms of anxiety and depression in individuals with mental health concerns.

The present study elucidates the potential benefits of Yoga and meditation in mitigating stress and anxiety.

#### Yoga for stress relief

Pranayama, a constituent of Yoga, encompasses diverse techniques of controlled breathing. The objective of pranayama is to invigorate, convey, govern, and harmonise the vital energy within the physical body. These processes are reliant on the act of breathing through the nasal passages. Respiration is a fundamental aspect of human existence.

The practise of Surya Namaskar has been found to have numerous benefits, including the reduction of mental stress. It enhances cognitive focus. Moreover, it enhances the flexibility of the body, enhances skin luminosity, fortifies the bones, improves digestive function, and alleviates cranial tension.

Meditation is a practise that offers numerous advantages for the mind and body aspects of an individual. The level of relief attained through meditation surpasses that of deep sleep, with the degree of relaxation achieved being directly proportional to the efficacy of our work. It facilitates the alleviation of stress in the mind-body complex. In contemporary times, meditation has been found to offer various advantages such as enhancing personality development, improving concentration, and reducing stress levels. Tadasana, Dharana, and Dhyana are effective techniques for enhancing concentration. The meditative aspects of yoga have also been found to have a positive effect on people suffering from mental disorders, including anxiety (Gangadhar, 2013).

The practise of yoga has been efficacious in both the prevention and stress reliver, as well as stress-induced disorders such as anxiety and depression. According to Becker (2000), Patanjali's Yoga sutras provide a proficient approach to leading a balanced life that promotes temperance and concord. A positive correlation between the practice of yoga and an increase in the functioning of the nervous system has been observed in various studies that have been conducted. (Streeter et al., 2010; Van der Kolk, 2012)

Bhole (1997) explicated various facets of Yoga, specifically the Yoga is a way of life, in his theoretical discourse. According to Bhole (1997), hatha-yoga practises, including asanas (postures), pranayama (breathing practises aimed at influencing vital forces), kriyas (cleansing processes), mudras (specific internal attitudes), and bandhas (neuromuscular locks), are primarily taught as physical exercises.

Numerous scholars observed the advantages of physical activity in reducing the stress reaction & a plethora of investigations have corroborated these findings. Yoga, suggested as a potential method for mitigating stress and has been the subject of research. However, some scholars have noted that the studies on this topic could benefit from greater scientific replicability. Despite this limitation, a number of researchers have reported significant positive outcomes associated with the practise of Yoga in reducing stress and its associated symptoms. The topic of stress management was explored by Nagendra and Nagarathna (1988) in their publication titled New Perspectives in Stress Management.

In a research, Pande and Naidu (1986) focused on a singular facet of Yoga philosophy, specifically the emphasis on effort rather than outcome. Their findings indicated a favourable impact on the stress-strain relationship.

## Significance

The digital age is determined by the long working hour, poor food habits, stress, poor sleep etc. Stress is the biggest enemy of health. Managing stress is the most influential art in the digital age and can be reduced by practising Yoga daily.

The primary objective of this paper is to conduct a comprehensive evaluation of the role of Yoga in stress management within the context of the digital age. This study examines the relationship between stress and digital gadgets, as well as the potential benefits of Yoga in managing both acute and chronic stress.

# Theoretical Framework Technological determination

Technological determinism is a theoretical framework that asserts the role of technology as the principal catalyst for societal and cultural transformations. According to McLuhan's (1964) concept of technological determinism, technology holds a significant influence in shaping our existence, and the use of mediated technologies has the potential to transform the world into a global village. While the importance of technology is only going to increase, its effects are mostly now revealing itself in the form of health challenges. Mediation of information, and increasingly progress to artificial intelligence based society will indeed push society towards a technology dependent future.

#### Cox's theory on stress

As per Cox's (1978, 1985) theory, an individual experiences stress when there is a mismatch between their perceived capacity to cope with and respond to stressful demands and their perceived level. Cox asserts that the process of perceiving stimuli is crucial in identifying stressors. The emphasis is also placed on an individual's capacity to manage environmental "threats" or unfavourable circumstances. The purpose of the paper is to identify stress in relation to engagement with digital technologies. The higher the dissonance of the mind the higher is the stress denominator. Digital technologies have acquired a disruptor in the normal functioning of the human mind, often resulting in unwanted signals that create dissonance. Stephen P. Robbins (2006), argues that stress arises from an opportunity, demand, constraint, threat or challenge, when the outcomes of the event are important and uncertain. Stimuli from digital environment have become increasingly crowded and form territories of chaos.

The capacity of the human mind to process these stimuli in the present times is increasingly at stake.

## Methodology

Content analysis is used to conduct the study. And in depth investigation is done. Keyword and topic related to study were searched on google scholar database and other database.

Given below criteria were included.

## **Inclusion criteria**

Research articles included following criteria

1. Full-text availability.

2. Keywords

3. Articles focusing on only stress, Yoga and technology4. A book focusing on stress management and Yoga

## Study selection

After conducting a comprehensive review of over 314 articles and other books, a subsequent phase involved the selection of 180 articles that specifically focus on stress, Yoga, the digital era, and stress management. The final stage of selection involved applying specific criteria to research articles and books that focused exclusively on the topics of stress, Yoga, and digital devices. This process resulted in the identification of a total of 18 articles and five books that were deemed suitable for inclusion in the study.

#### Result

Stress is a drawback of contemporary life. In today's world, individuals are confronted with a multitude of stresses that have the potential to impact their well-being across various domains, amidst an environment characterised by rapid change and intense competition. The term stress was originally introduced by Hans Selye in 1936. Selye posits that stress is a multifaceted phenomenon and a pervasive issue that has an impact on the overall quality of life. The impact of unmanaged stress on health is negative and can lead to the development of various diseases such as diabetes, hypertension, and insomnia.

The therapeutic benefits of yoga in alleviating stress have been widely acknowledged for a considerable period of time. Yoga has gained significant traction as a body-mind therapy in recent times, with its potential to address a range of ailments such as depression, eating and sleeping disorders, diabetes, and facilitate lifestyle modifications.

Here a list of studies conducted on management of various ailments induced by stress and its reduction through regular yoga practice has been reviewed. Multiple such clinical studies exist and this is not an exhaustive list:

1. Reduction in hypertension and anxiety (Hagins, Rundle, Consedine, & Khalsa, 2014),

Reduction in symptoms of depression (Shapiro et al., 2007; Uebelacker et al., 2017)

3. Stress and coping mechanism change (Kinser, Goehler, & Taylor, 2012; Streeter, Gerbarg, Saper, Ciraulo,

# & Brown, 2012). 4. Drop in anxiety levels (Li & Goldsmith, 2012)

Cardiovascular diseases affect the heart and causes heart disease. According to World Health Organization, Cardiovascular diseases are a one of the leading cause of death worldwide. Effective prevention and management strategies are crucial in reducing the burden of cardiovascular diseases on individuals and society.

Currently, cardiovascular disease is widespread. In COVID-19 pandemic, a number of renowned Indian individuals have succumbed to heart attacks or heart-related ailments. The primary factor contributing to the onset of cardiovascular diseases is stress. Elevated levels of cholesterol in the bloodstream are a significant contributing factor to the development of chronic cardiovascular disease. Having a healthy heart is essential for overall physical well- being. One way to promote heart health is through the practise of prayanam.

# Diabetes

In the current digital era, diabetes poses a significant health threat. It exerts an impact on nearly all bodily organs, including vital organs such as the kidneys, heart, and liver. Elevated levels of stress have been found to cause an increase in glucose levels within the body, ultimately resulting in the development of both type 1 and type 2 diabetes, as well as disruption of the normal functioning of the pancreas.

India is commonly known as the global epicentre of diabetes, owing to its disproportionately high prevalence of the disease. The regular practise of yoga postures and breathing exercises, also known as asanas and pranayama respectively, has been found to aid in the management of type II diabetes mellitus. This complementary approach can be used in conjunction with conventional medical treatment. The practise of yoga has been found to have a positive impact on cognitive brain functions. As a result, it may be a valuable addition to conventional medical treatments aimed at enhancing cognitive brain functions in individuals with type 2 diabetes.

Hypertension, also known as high blood pressure, is a significant health concern for individuals. Moreover, stress is the primary cause. Meditation has been identified as a leading approach for managing hypertension. The practise of yoga has been found to be a beneficial therapy for hypertension.

Anxiety and depression are co-morbid conditions often associated with stress, whereby individuals experience a diminished sense of well-being and, ultimately, adverse health outcomes. Anxiety and depression can lead to a reduction in self-esteem, social withdrawal, and other related symptoms. Managing these challenges can be pretty challenging. Individuals may seek assistance from medical professionals and engage in Yoga practises to mitigate the effects of stress, anxiety, and depression. Chong et al (2011) concluded in their review that yoga had a positive effect on the mitigation of stress in healthy adult populations.

The prevalence of overweight and obesity is widespread in contemporary society. These factors are significant contributors to the development of diabetes, hypertension, and cardiovascular disease. The practice of yoga is beneficial in managing obesity.

Insomnia, a condition characterised by difficulty falling or staying asleep, is a common manifestation of stress. Sleeplessness can also be attributed to stress. The utilisation of mobile phones has been observed to have an impact on our sleeping patterns. According to several researchers, technology has been found to disturb sleep patterns. Stress is widely regarded as a significant contributor to various illnesses and is also known to be a leading cause of insomnia. Insomnia is a condition characterised by the inability of individuals to fall or stay asleep. Effective stress management is imperative in addressing and alleviating insomnia.

# Role of digital devices on increasing stress

The utilisation of digital devices yields numerous advantages in our daily existence. The excessive utilisation of digital devices such as smartphones, laptops, the Internet, Twitter, YouTube, and others can lead to various mental health issues, such as stress, anxiety, and depression. Digital technology has brought about significant changes in human life, including communication, information access, and socialisation. The utilisation of digital technology offers uninterrupted services. However, it is also associated with various mental and physical problems. Contemporary individuals strongly rely on technology, mainlydigital devices such as smartphones, computers, and the Internet. Undoubtedly, technology has facilitated our daily routines, yet it has also constrained our physical mobility. In the end, various illnesses find their abode within our physical well-being. Yoga and physical exercise can effectively mitigate stress levels and promote physical well-being.

Stress is a prevalent global issue that has garnered significant attention. Individuals worldwide, regardless of their country's level of development, have experienced stress either directly or indirectly. The World Health Organisation emphasises the importance of stress- free, nutritious diets and healthy lifestyles and has implemented several initiatives in support of this objective.

The phenomenon of stress related to gender is not exclusive to a particular gender. Both acute and chronic stress can impact individuals of any gender. In contemporary times, we find ourselves situated within the era of digital technology, wherein the significance of excessive utilisation of mobile phones and the internet cannot be underestimated. The present era of technology has brought about a significant increase in the prevalence of stress among individuals. As such, the need for effective stress management strategies has become more pressing than ever before. Several techniques for managing stress include engaging in yoga, reducing anxiety, practising meditation, enhancing interpersonal communication, controlling anger, maintaining a healthy diet, and increasing physical activity.

#### Conclusion

The issue of stress has been recognised as a significant global concern. Yoga is beneficial in managing stress amidst the prevalence of technology in contemporary society. The proficient handling of stress is one of the individuals' initial difficulties in modern-day society. Yoga offers many advantages for both physical and mental well-being, with a particular focus on mitigating stress in the contemporary digital age. Currently, many individuals are encountering psychological strain in conjunction with occupational stress. In modern society, stress is commonplace due to the demands of a fast-paced lifestyle, resulting in physiological and psychological complications. Meditation is associated with numerous advantages for human beings' physical, mental, and spiritual aspects. The level of relief attained through meditation surpasses that of deep sleep, with the extent of relaxation directly proportional to our work's efficacy. Meditation offers two notable advantages. The COVID-19 epidemic has accelerated the advent of work-related stress, social isolation, and physical and mental health issues. Diverse techniques are frequently employed to manage or mitigate stress. According to the WHO, psychological and physical well-being are critical to good health.

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