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Message from the Director

Dear Readers,
Greetings!!

It is a matter of great pride and satisfaction to present Volume 17, Issue No. 03 of the *NITTTR Kolkata Newsletter*. This edition reflects a period of intense academic activity, institutional outreach, research progression, and meaningful national and international engagements that collectively reinforce the Institute's commitment to advancing the quality of technical teacher education in the country.



During the period from September to December 2025, the Institute continued to fulfil its core mandate through a wide range of Faculty Development Programmes, training initiatives, scholarly contributions, and collaborative academic engagements. The academic vibrancy of the campus, the professional engagements of faculty members, and the Institute's active participation in national missions related to sustainability, wellbeing, and educational transformation reflect the dynamic and forward-looking environment at NITTTR Kolkata.

Key Highlights of this Issue

- Conduct of 68 Faculty Development and Short-Term Training Programmes, benefitting 1,466 technical teachers and technicians from across the country.
- Significant emphasis on AI, Machine Learning, Sustainability, Outcome-Based Education, Indian Knowledge Systems, and Advanced Pedagogy in training programmes.
- Active national and international academic engagements of faculty members through invited talks, keynote addresses, conferences, and collaborative visits, including interactions in China and with reputed global institutions.
- Publication of high-impact research papers, conference proceedings, and a patent publication on AI-enabled predictive workforce performance analysis.
- Organisation and observance of programmes such as *EcoNext: Gen Z for Zero Waste*, *Swachhata Pakhwada*, *Cyber Security Awareness Week*, *Constitution Day*, and other socially relevant institutional activities.
- Valuable contributions of the Learning Resource Centre in MOOC video production, educational films, smart classroom support, and comprehensive event documentation.

- Inclusion of a scholarly article on *Climate Resilience and Viksit Bharat@2047*, aligning technical education with national sustainability priorities.

Equally noteworthy is the Institute's holistic orientation towards wellbeing, environmental responsibility, digital awareness, and community engagement, which finds expression through various institutional programmes and observances documented in this edition. Such initiatives strengthen the academic ecosystem by nurturing responsible, aware, and socially committed educators.

As we progress, NITTTR Kolkata remains committed to strengthening its role as a centre of excellence by aligning training, research, and academic practices with emerging technologies, sustainability principles, Indian Knowledge Systems, and national educational priorities. The Institute will continue to expand its academic footprint through collaborations, innovation-driven programmes, and capacity-building initiatives for the technical education community.

I place on record my sincere appreciation to all faculty members, staff, students, and the Newsletter Committee for their dedicated efforts in bringing out this issue. I trust that our readers will find this edition informative, enriching, and reflective of the Institute's continuous pursuit of excellence.

With best wishes,

Prof. V. M. S. R. Murthy
 Director (Additional Charge)
 NITTTR Kolkata

ARTICLE

Building Climate Resilience in India: Disaster Risk, Development, and the Road to Viksit Bharat@2047

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Abstract

We are living on a warming planet. The evidence is no longer in distant scientific charts but in the floods that drown our streets, the heat that cracks our earth, and the cyclones that batter our coasts. This article tells the story of this change and its brutal impact on India. It details the rising human and economic cost, asking a critical question: In the face of this, can India still achieve its dream of becoming a developed nation by 2047?

The answer lies in resilience. This article explores India's multi-layered response - from high-tech early warnings to the wisdom of ancient water systems. It highlights a uniquely Indian approach: fighting climate change not just with policy, but by changing lifestyles, empowering local communities, and relearning how to live with nature. The path to a prosperous "Viksit Bharat" is now inseparable from the mission to build a climate-smart, sustainable India.

1. Introduction: A World of Locked-In Warming, India on the Frontlines

The science is unequivocal. The Sixth Assessment Report (AR6) of the Intergovernmental Panel on Climate Change (IPCC, 2021-2023) presents an urgent reality: *human activities have unequivocally warmed the atmosphere, ocean, and land.* What we are witnessing today is not a natural cycle, but a direct consequence of atmospheric greenhouse gas concentrations now at levels unseen in at least two million years. The fundamental conclusion is stark: *for every increment of global warming, climate extremes will continue to intensify.*

2. India's Crossroads: A Future Shaped by Global Choices

Table-1 indicated five climate pathways defined by the IPCC represent five starkly different futures for India as well. Each scenario translates into specific, escalating impacts on India's economy, ecology, food security, and human well-being. The nation's journey toward **Viksit Bharat 2047** will unfold under the conditions of one of these pathways, making their implications a matter of urgent national planning.

Table-1: Projected Impacts on India Across IPCC AR6 Scenarios

Scenario & Warming Level	Key Climate Stressors for India	Sectoral & Human Impacts	Macroeconomic & Developmental Consequences
SSP1-1.9 (1.5°C)	<ul style="list-style-type: none"> • Moderate increase in heatwave intensity & duration • Increased heavy precipitation events • Moderate sea-level rise (0.2-0.3m by 2050) • Slowed Himalayan glacier loss 	<ul style="list-style-type: none"> • Agriculture: 10-15% yield loss for wheat & maize in rainfed areas; manageable with adaptation. • Water: Seasonal water stress in peninsular India; manageable via improved management. • Health: Heat-related deaths increase but are largely preventable with robust Heat Action Plans. • Coasts: Cities like Mumbai & Kolkata face increased flooding but can adapt with upgraded defenses. 	<ul style="list-style-type: none"> • GDP Impact: 1-2% annual drag by 2050, manageable through planned investment. • Adaptation Cost: High but feasible (0.5-1.5% of GDP annually). • Development Pathway: Viksit Bharat 2047 remains achievable with climate-informed planning and green growth.
SSP1-2.6 (2°C)	<ul style="list-style-type: none"> • Severe heat-waves become 2x more frequent 	<ul style="list-style-type: none"> • Agriculture: Yield losses of 20-30% for key staples; requires major systemic adaptation. • Water: Chronic water 	<ul style="list-style-type: none"> • GDP Impact: 2-4% annual loss by 2050, threatening growth targets. • Adaptation

Scenario & Warming Level	Key Climate Stressors for India	Sectoral & Human Impacts	Macroeconomic & Developmental Consequences
	<ul style="list-style-type: none"> Heavy rainfall intensity increases 20-30% Sea-level rise: 0.3-0.5m by 2050 Accelerated Himalayan glacier retreat 	scarcity in 40% of districts; conflicts likely. <ul style="list-style-type: none"> Health: 50% increase in heatstroke risk; vector-borne diseases expand. Coasts: Annual flood risk affects 15-20 million people; requires massive relocation/defense. 	Cost: Very high (2-3% of GDP annually). <ul style="list-style-type: none"> Development Pathway: Viksit Bharat delayed & more costly; requires significant diversion of resources to adaptation.
SSP2-4.5 (2.7°C)	<ul style="list-style-type: none"> Extreme heat exceeds human survivability limits for 50-100 days/year in northern plains Monsoon becomes highly erratic; "dry spells & deluges" pattern Sea-level rise: 0.5-0.7m by 2050 Himalayan glaciers lose 40-60% of mass 	<ul style="list-style-type: none"> Agriculture: Rainfed agriculture becomes non-viable in central & western India; food imports rise sharply. Water: 60% of districts face acute water scarcity; groundwater collapse in major states. Health: Public health emergencies from heat, dengue, and malnutrition become common. Coasts: Cities like Chennai & Surat face existential threats; partial abandonment begins. 	<ul style="list-style-type: none"> GDP Impact: 4-7% annual loss by 2050; poverty reduction reverses. Adaptation Cost: Exceeds 4% of GDP annually, approaching limits of feasibility. Development Pathway: Viksit Bharat 2047 likely unattainable; development shifts to crisis management.
SSP3-7.0 (3.6°C)	<ul style="list-style-type: none"> Permanent drought conditions in NW India Collapse of predictable monsoon rhythm Sea-level rise: 0.7-1.0m by 2050 High risk of cascading Himalayan disasters (GLOFs, landslides) 	<ul style="list-style-type: none"> Agriculture: Large-scale crop failure becomes frequent; subsistence farming collapses. Water: National water crisis; conflict over river resources intensifies. Health: Healthcare system overwhelmed by climate-induced diseases and malnutrition. Coasts: Major displacement from coastal zones (50+ million people). 	<ul style="list-style-type: none"> GDP Impact: 8-12% annual loss by 2050; economic fragmentation. Adaptation Cost: Surpasses 6% of GDP—largely unaffordable. Development Pathway: Development collapse; focus shifts to humanitarian response and managed retreat.
SSP5-8.5 (>4°C)	<ul style="list-style-type: none"> Large regions of India become uninhabitable for parts of the year due to wet-bulb temperature >35°C Complete disruption of monsoon system Sea-level rise >1m by 2050, possibly 2m by 2100 Near-total loss of Himalayan glaciers 	<ul style="list-style-type: none"> Agriculture: Complete failure of current cropping systems; famine risks emerge. Water: Perennial rivers become seasonal; civilizational-scale water crisis. Health: Mass mortality from direct heat exposure. Coasts: Loss of major cities and the entire Sundarbans ecosystem. 	<ul style="list-style-type: none"> GDP Impact: Catastrophic economic contraction (>15% annual loss). Adaptation Cost: Adaptation becomes impossible; only triage and survival measures remain. Development Pathway: Civilizational threat; national integrity and security face unprecedented challenges.

3. The Cost of Chaos: Lives, Homes, and a Nation's Wealth

The numbers tell a painful story. Globally, a disaster related to weather, climate, or water occurs nearly every day, taking lives and setting back development (WMO, 2024).

In India, the impacts are visceral and devastating:

- The Human Toll:** From 2013 to 2022, extreme weather events disrupted the lives of over 20 million people in India every single year, on average (EM-DAT, 2024). The 2023 floods in Himachal Pradesh and Uttarakhand were not just news headlines; they were lives washed away, families displaced, childhoods lost.
- A Cycle of Destruction:** Look at the recent years: Cyclone Biparjoy in 2023 led to the evacuation of thousands. The 2021 floods in Maharashtra and the 2020 cyclone Amphan caused damage worth billions of dollars. Homes, roads, bridges, schools, and crops - the very infrastructure of daily life - are being regularly wiped out. The economic loss from such events is estimated to average 1.5% to 2% of India's GDP every year (MoEFCC, 2024), a massive drain on resources needed for schools, hospitals, and growth.
- The Silent Crisis:** Beyond the sudden disasters lie the slow, grinding ones. Heat-waves are becoming India's silent killer. In 2023, over 100 people died due to extreme heat, and this is likely a vast undercount (NDMA, 2023). They reduce crop yields, slash the hours labourers can work, and overwhelm our hospitals. Similarly, erratic monsoons mean farmers don't know when to sow, and cities like Bengaluru face the spectre of running out of water.

This is the shaky ground on which we must build our future.

3. India's Blueprint: From Global Promises to Ground-Level Action

India is not standing still. It has built a robust framework to manage this risk, aligning its national plans with global promises.

- The Sendai Framework:** After the tragic 2004 tsunami, India radically overhauled its disaster management. Today, we have a professional National Disaster Response Force (NDRF), admired worldwide. Our focus has shifted from just picking up the pieces after a disaster (response) to trying to prevent the damage in the first place (prevention). Early warning systems for cyclones have dramatically reduced deaths. For instance,

the "Zero Casualty" goal for cyclones is now a measurable target, thanks to timely evacuations.

- **The Paris Agreement Commitments:** On the world stage, India has made bold pledges. It has committed to getting 50% of its electricity from renewable sources like solar and wind by 2030 and to reducing the carbon intensity of its economy by 45% (MoEFCC, 2022). It is launching massive missions for green hydrogen and increasing forest cover. This is India's contribution to mitigating the global problem.

4. Viksit Bharat 2047: Development That Withstands the Storm

The vision for 2047 is being rewritten with climate at its core. A developed India must be a resilient India. This means:

- **Building Smarter:** New highways and railways are being designed to survive stronger floods and higher temperatures. The concept of "sponge cities" is being explored to let urban areas absorb rainwater instead of flooding.
- **Farming with Foresight:** The government is promoting drought-resistant seeds, micro-irrigation to save water (the "Per Drop More Crop" initiative), and crop insurance to protect farmers from ruin.
- **Cooling Our Cities:** Over 20 states have now implemented **Heat Action Plans** (NDMA, 2023). These include issuing early heat warnings, setting up cooling shelters, and changing school timings to protect the most vulnerable.

5. The Indian Way: Life, Local Wisdom, and Living with Nature

What makes India's fight unique is its embrace of cultural and social strengths.

- **LIFE (Lifestyle for Environment):** Prime Minister Narendra Modi has championed this idea globally. LIFE argues that the fight against climate change cannot be won only in conference rooms or with giant projects. It must be fought in our homes and daily choices. Turning off unused lights, using water wisely, reducing waste, and choosing sustainable products - when millions do this, it creates a powerful collective force for change.
- **Local to Global:** India understands that a plan made in Delhi cannot solve a water problem in a Rajasthan village. The most effective solutions are local. This is why:
 - **MGNREGA (renamed as G RAM G),** the rural jobs scheme, now focuses on creating water

conservation assets like ponds and check dams that boost local climate resilience.

- Community forest rights are being granted, recognising that tribal communities are often the best protectors of forests.
 - Village-level disaster management plans are being created, empowering local leaders to act first and fastest.
- **Indian Knowledge Systems (IKS):** Our ancestors lived sustainably for centuries. We are now relearning that wisdom. Traditional water-harvesting structures - like Rajasthan's *johads* or Karnataka's *katas* - are being revived to combat water scarcity. Ancient agricultural practices for soil health are being studied. Vernacular architecture, designed for natural cooling, is inspiring modern green buildings.

6. Nature as Our Strongest Ally: The Power of Green Solutions

Perhaps the most beautiful part of India's strategy is its renewed partnership with nature. Instead of just building higher concrete walls against the sea, we are planting mangroves. These "bio-shields" break the force of cyclonic waves, protect coasts, and provide a nursery for fish—all while sucking carbon out of the air. This is the essence of **Nature-Based Solutions (NbS)**.

- From the mangroves of Odisha and the Sundarbans to the watershed management in the Himalayan foothills, NbS are proving to be cost-effective, long-lasting, and beneficial for both people and biodiversity.
- The "Green India Mission" aims to restore forest quality and increase tree cover outside forests, creating vast natural carbon sinks and stabilising the soil.

7. The Road Ahead: Weaving a Tapestry of Resilience

The challenge is immense, but the path is clear. To secure its future, India must:

1. **Go Faster and Further:** Accelerate the shift to solar and wind energy. Make every single new infrastructure project climate-resilient by design.
2. **Invest in the Green:** Direct more public and private money towards adaptation projects, especially nature-based and community-led ones.
3. **Leave No One Behind:** Ensure that the poor, the marginalised, and women—who are most affected - are at the centre of all resilience planning.

4. **Live the Promise:** Make the LiFE movement a true mass movement, embedding sustainability into our culture.

The quest for Viksit Bharat and the fight for climate resilience are the same fight. By combining the power of technology with the wisdom of tradition, and global commitments with local action, India is attempting something extraordinary: to build a future that is not only richer, but safer, greener, and more secure for every citizen. In this endeavour, the whole world is watching and learning.

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Seminar / Workshop

Research Workshop Report – Nalanda Central Library

1. Introduction

The **Nalanda Central Library**, in collaboration with the Office of the Dean, Research, Planning & Development, successfully organized a one-day research workshop titled "**Excellence in Scholarly Writing and Publishing**" on Friday, 22 August 2025, at the Sri Ramakrishna Paramhansa Mini Auditorium, Sarvepalli Radhakrishnan Bhavan. The workshop aimed to enhance research communication competencies and introduce participants to internationally recognized best practices in academic writing, publishing, and research dissemination.

2. Objectives

The primary objectives of the workshop were:

- To enhance participants' skills in crafting and structuring high-impact research manuscripts.
- To provide guidance on strategic journal selection (Scopus, Web of Science, UGC-CARE, etc.) for maximising research visibility and citations.
- To familiarise participants with the end-to-end publishing workflow, from submission to acceptance.
- To discuss best practices in book publishing and proposal writing.
- To highlight global publishing trends, Open Access opportunities, and ethical considerations in scholarly communication.
- To enable researchers to avoid common pitfalls leading to manuscript rejection.
- To foster direct engagement with leading professionals from Taylor & Francis Group and Elsevier.

3. Inaugural Session

The workshop commenced with the inaugural session at 10:30 AM. The programme was led by Prof. Chandan Chakraborty, Dean of Research, Planning & Development (DRPD), on behalf of the Honourable Director of the Institute, who delivered the Inaugural Address. He emphasised the Institute's commitment to advancing research excellence and strengthening scholarly contributions at both national and global levels.

The session was graced by Prof. Gayadhar Panda, Dean, Faculty and Academic Affairs (DFAA), NITTTR Kolkata, and Mr. Rajesh Dey, Senior Commissioning Editor, Taylor & Francis Group, who joined the dais.

The Welcome Address and Introductory Note were delivered by Dr. Shivakumar T. C., Librarian & Workshop Coordinator, who highlighted the significance of scholarly writing and publishing as a critical component of academic and research growth. The inaugural session concluded with brief remarks by the Dean (Research, Planning & Development), who encouraged faculty, research scholars, students & other participants to leverage this opportunity for enhancing their publishing success.

4. Technical Sessions

The workshop featured a series of interactive and knowledge-rich technical sessions conducted by Taylor

& Francis and Elsevier experts. The major themes included:

- **Crafting and Structuring Research Manuscripts** – Guidelines for clarity, coherence, and academic rigour.
- **Strategic Journal Selection** – Insights into Scopus, Web of Science, and UGC-CARE-listed journals.
- **Publishing Workflow** – Understanding the process from submission to peer review and acceptance.
- **Book Publishing Practices** – Proposal drafting, manuscript preparation, and compliance with editorial styles.
- **Copyright, Plagiarism, and Ethics** – Legal and ethical dimensions of publishing.
- **Open Access and Global Trends** – Opportunities for wider dissemination and greater research impact.
- **Common Reasons for Manuscript Rejection** – Practical advice to avoid errors and strengthen submissions.

The sessions were highly interactive, with participants engaging in Q&A rounds, discussions, and practical insights shared by the publishing experts.

5. Participation

The workshop witnessed enthusiastic participation from faculty members, research scholars, and postgraduate students across various disciplines and as well as external participants from other institutions. A total of **71 participants** registered and actively contributed to the deliberations.

All attending participants were awarded **e-Certificates of Participation**.

6. Valedictory Session

The Valedictory Session was held at 4:30 PM, chaired by Prof. Chandan Chakraborty, Dean of Research, Planning & Development (DRPD), and also Prof. Soumitra Kumar Mandal, Department of Electrical Engineering, NITTR Kolkata, and Dr. Nitin Ghoshal, Customer Success Manager, Elsevier, graced the stage.

The participants who expressed deep appreciation for the relevance, quality, and practical value of the workshop. Several participants highlighted that the insights provided by the editors would substantially improve their chances of successful publication in reputed journals.

The Vote of Thanks was proposed by the Workshop Coordinator, Dr. Shivakumar T. C., who acknowledged the support of the Director, Director's Secretariat, the

Dean (Research, Planning & Development), Administration, the support team, i.e., IWS, ICC, Media Cell, Library staff, others, the resource persons, and all participants for making the workshop a grand success.

7. Key Outcomes

- Enhanced awareness of international publishing standards and practices.
- Strengthened the capacity of faculty and scholars in writing impactful research papers.
- Greater understanding of ethical issues and compliance in scholarly publishing.
- Exposure to global publishing trends, Open Access models, and indexing criteria.
- Direct interaction and networking with publishing professionals.

8. Conclusion

The one-day research workshop on *“Excellence in Scholarly Writing and Publishing”* was a resounding success, providing participants with practical tools, strategies, and confidence to elevate their research communication and publishing outcomes. The event marked an important step in bridging the gap between robust research and impactful publication. The Nalanda Central Library and the Office of the Dean, Research, Planning & Development reaffirm their commitment to organising similar academic enrichment programmes in the future to promote a culture of research excellence and global scholarly engagement.

Glimpses of the Research Workshop



Report of Seminar on Advanced Engineering Applications with MATLAB & SIMULINK

The Seminar on Advanced Engineering Applications with MATLAB & SIMULINK was organized at NITTTR, Kolkata on 11th September 2025, with the objective of familiarizing faculty members, research scholars, and students with modern engineering workflows, industry-oriented tools, and advanced computational techniques using MATLAB and SIMULINK. The seminar aimed to bridge the gap between academic learning and industry practices, particularly in the context of Industry 4.0, artificial intelligence, and system-level engineering design. The programme was conducted from 04:00 PM to 05:30 PM and witnessed active participation from faculty members, students, and research scholars of various engineering disciplines. The seminar commenced with a welcome address by Dr. Indrajit Saha, Associate Professor, Department of Computer Science and Engineering, NITTTR Kolkata, who also served as the Coordinator of the event. In his address, he highlighted the growing importance of MATLAB and SIMULINK in modern engineering education, research, and industrial applications, and emphasized the need for hands-on exposure to such tools for capacity building.



Invited lecture on "Advancement of Engineering Application with METLAB and SIMULINK" by Mr. Picon Majumdar, Sept 11, 2025

The technical sessions were delivered by Mr. Picon Majumdar, Software Application Engineer, Elmax Systems and Solutions, and Mr. Prasun Banerjee, National Sales Account Manager, The MathWorks. The speakers provided in-depth insights into modern MATLAB features such as the Live Editor, built-in apps, and toolboxes, along with SIMULINK-based system



modeling and simulation. They discussed applications across diverse domains including artificial intelligence workflows, deep neural network training, control systems, smart manufacturing, embedded systems, and hardware integration with code generation. The speakers also elaborated on the role of MATLAB and SIMULINK in modern research and Industry 4.0 environments, demonstrating short projects and practical examples to illustrate real-world engineering applications. The seminar included an interactive question-and-answer session, during which participants actively engaged with the speakers and sought clarifications on curriculum integration, research usage, and industrial relevance.

Overall, the seminar was highly informative and well-received by the participants, contributing significantly to awareness and understanding of advanced engineering applications using MATLAB and SIMULINK. The programme concluded with a vote of thanks, marking the successful completion of the seminar. The event was efficiently coordinated by Dr. Indrajit Saha, whose efforts ensured smooth organization and effective knowledge dissemination.

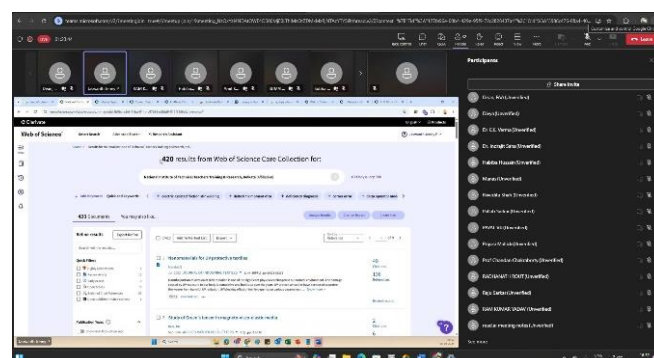
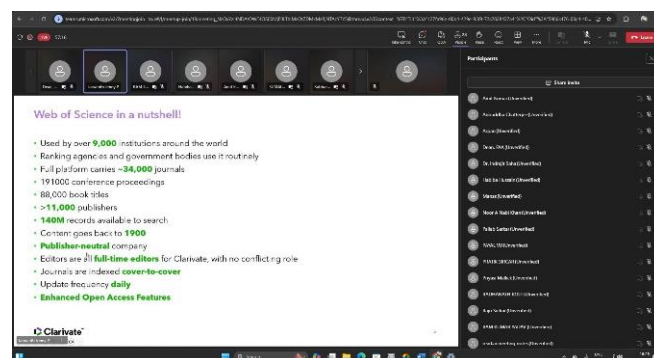
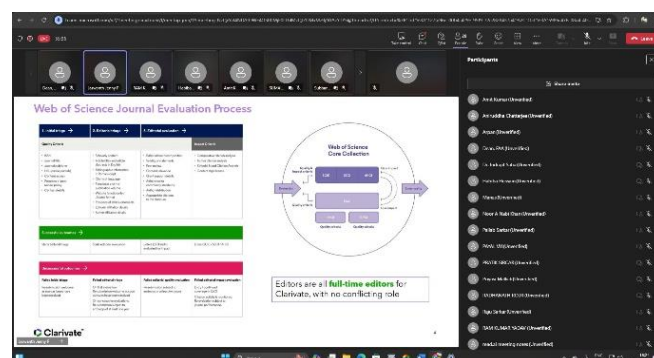
Report on the Webinar on “Web of Science and EndNote”

The Nalanda Central Library, National Institute of Technical Teachers’ Training and Research (NITTTR), Kolkata, successfully organized a webinar on “Web of Science and EndNote” on 8th October 2025 (Wednesday) from 4:00 PM to 5:30 PM. The webinar aimed to enhance the research and publication competencies of faculty members, research scholars, and postgraduate students by familiarizing them with advanced research tools and reference management systems. The session was coordinated by Dr. Shivakumar T. C., Librarian, Nalanda Central Library, and witnessed enthusiastic participation from across the Institute community.

The programme commenced with a warm inaugural address by Prof. Gayadhar Panda, Dean, Faculty and Academic Affairs, who emphasized the growing importance of bibliometric tools and reference management software in scholarly communication and academic integrity. Following his insightful address, the session was handed over to the Resource Person, Dr. Jaswanth Jenny P., Solution Consultant at Clarivate, who conducted an engaging and practice-oriented session.

Dr. Jenny delivered an in-depth demonstration on effectively utilizing the Web of Science platform for literature discovery, citation analysis, and journal evaluation, as well as managing references using EndNote Online. The key learning highlights included understanding the role of Web of Science in research workflows, setting literature alerts, identifying retractions, measuring citation impact, selecting quality journals, integrating Web of Science with EndNote, and linking researcher profiles through Publons and ORCID. The participants appreciated the clarity, depth, and relevance of the session, describing it as both *insightful and timely*.

Below are a few photographs of the webinar



The webinar concluded with an interactive question-and-answer session, where participants actively sought clarifications on various research and citation-related aspects. The engaging discussions reflected the participants' keen interest in applying these tools to their academic and research pursuits. The session concluded with a formal Vote of Thanks proposed by the webinar coordinator and librarian, Dr. Shivakumar T. C., who expressed sincere appreciation to the Hon'ble Director, Dean, Resource Person, supporting staff, and participants for their valuable contributions to the success of the webinar. The webinar proved to be a highly enriching experience, equipping the attendees with essential digital research skills and reinforcing the Library's commitment to fostering a culture of research excellence at NITTTR Kolkata.

Report on celebration of the birth anniversary of Mahatma Gandhi



Our Institute celebrated the day 2nd October 2025 as 156th birth anniversary of Mahatma Gandhi, the 'Father of the Nation'. The programme was conducted in the Shri Ramakrishna Paramahansa Mini Auditorium in offline mode. Dr. Sagarika Pal and Mr. Netai Kumar Sarkar jointly organised the programme. Dr. Sagarika Pal delivered the welcome address highlighting the teachings of Mahatma Gandhi as well as the universal relevance of his principle of non-violence in today's scenario. Prof. Gayadhar Panda, Dean, Faculty and Academic Affairs, shared the thoughts of Gandhiji in education today. Prof. Chandan Charaborty, Dean, Research Planning and Development, elaborated the meaningful idea of Nonviolence which is essential today all over the world. Prof. Habiba Hussain, very nicely correlated the teachings of Mahatma Gandhi with the present education system, NEP 2020 and the activities of NITTTR, Kolkata after becoming the Deemed to be University. Prof. Sukanta Kumar Naskar

also highlighted the necessity of implementing the principle and philosophy of Mahatma Gandhi all through our activities everywhere including our Institute. Finally the programme was concluded with the Vote of Thanks by Mr. Avijit Kundu. Some glimpses of the programme are shown below.



Report on Teachers' Day Celebration 2025

The **Teachers' Day Celebration** was organized on **4th September 2025** from **4:30 PM** at the *Shri Ramakrishna Paramahansa Mini Auditorium*. The event was attended by students, faculty members, and staff members of the Institute. The programme was coordinated by **Dr. Arpan Kumar Mondal**, Assistant Professor, Department of Mechanical Engineering, with the support of **Shri Utpal Chakraborty**, PG Cell. At the outset, **Prof. Chandan Chakraborty**, Dean, Research Planning & Development, and **Prof. Urmila Kar**, Professor, Technical Education and Management, were welcomed to grace the dais. The Hon'ble Director, **Prof. V.M.S.R. Murthy**, NITTTR Kolkata, could not attend the programme due to his busy schedule, but conveyed his best wishes on the occasion. The celebration began with a **Welcome Address** by Dr. Arpan Kumar Mondal. This was followed by an

inspiring address by **Prof. Chandan Chakraborty**, Dean, Research Planning & Development. **Prof. Urmila Kar** then shared her thoughtful reflections on her journey as a teacher and the lessons it brings, while **Dr. Habiba Hussain** provided her valuable insights on the role of teachers in shaping society.

The programme also featured a vibrant **Cultural Segment** with active participation from PG students and PhD scholars. The performers included **Sayanava, Soumalya, Arnab, Madhubanti, Subhadip, Saptarshi, and Rahul Deo Barman**. From the staff members, **Mr. Avijit Kundu** and **Mr. Dasarath Mandi** contributed delightful performances, adding charm to the occasion.

The celebration concluded with a heartfelt **Vote of Thanks** delivered by **Shri Utpal Chakraborty**, PG Cell, expressing gratitude to all dignitaries, participants, and attendees for making the programme a grand success.

Some glimpse of the event



Teachers' Day 2025 celebration

Report on Hindi Pakhwada 2025

This is to inform you all that like every year, Hindi cell at NITTR, Kolkata celebrated Hindi Pakhwada during the month of September, 2025. During this period Hindi Pakhwada was commemorated with two events namely Hindi Essay Competition and Hindi Debate Competition. The topic for Hindi essay competition was “विकसित भारत में राजभाषा का उपयोग” and the topic for Hindi Debate competition was “राज भाषा का उपयोग तकनीकी शिक्षा में”.



Hindi Pakhwada Celebration during September 2025

A good number of participants participated in both the events among the staff members and student at this Institute. Sri Radhanath Rout, JSA, stood first for both Hindi Essay Competition and Hindi Debate Competition. Miss Riya Bhattacharya M Tech first year student from CSE Department stood second for the Hindi Essay Competition and Dr. K. Raghavendra Singh, Associate Professor, Civil Engineering Stood second for Hindi Debate Competition. An amount of Rs. 1000/- was provided to first position holder and Rs. 500/- provided to second position holder from the Institute for both events respectively. The chairman Hindi Cell thanks all the participants and other members of

faculty and staff for their immense support. The certificates were distributed during 62nd Foundation Day Celebration function on Jan 11, 2026.

Swachhata Pakhwada- Swachhata Hi Seva during 15th Sept to 30th Nov 2025

As per the directives and guidelines issued by the Government of India and in accordance with the D.O. letter received from the Ministry, *Swachhata Pakhwada 2025* was observed at NITTTR, Kolkata with great enthusiasm and active participation from faculty, staff, and students. Various activities were organized in two phases to spread awareness and promote the spirit of cleanliness, hygiene, and environmental sustainability.

The details of the activities undertaken during the observance are as follows:

(i) Swachhata Pledge (in Hindi and English)

- Date & Time: 17th September 2025, 12:00 – 12:30 p.m.
- Venue: Mini Auditorium

(ii) Swachhata Marathon

- Date & Time: 22nd September 2025, 4:00 – 4:30 p.m.
- Route: From FC Campus to EC Kalibari

(iii) Ek Ped Maa Ke Naam (Tree Plantation Drive)

- Date & Time: 23rd September 2025, 4:00 p.m.
- Venue: FC Block, NITTTR Kolkata

(iv) Ek Ghanta Shramdaan for Swachhata

- Date & Time: 24th September 2025, from 11:00 a.m. onwards

(v) Safai Mitra Suraksha Shivir

- Date & Time: 26th September 2025, 4:00 – 5:30 p.m.
- Venue: Mini Auditorium, 3rd Floor, SRK Bhavan

(vi) Clean Green Utsav (Eco-friendly and Zero-Waste Celebration)

- During the festive period of *Durga Puja, Dussehra* special initiatives were undertaken to maintain cleanliness and hygiene around the campus and nearby public places. Efforts were made to ensure *eco-friendly* and *zero-waste* celebrations through proper waste segregation and disposal.



Swachhata Pakhwada- Swachhata Hi Seva during 15th September to 30st November 2025

The observance of *Swachhata Pakhwada 2025* at NITTTR, Kolkata successfully instilled a sense of responsibility among all stakeholders towards maintaining cleanliness and environmental sustainability. The collective efforts of faculty, staff, students, and Safai Mitras significantly contributed to reinforcing the message of “*Clean Campus, Green Campus*” in alignment with the objectives of the *Swachh Bharat Mission*.

EcoNext: Gen Z for Zero Waste

As part of the observance of “*Swachhata Pakhwada – Swachhata Hi Sewa (SHS) 2025*”, the Wellness Cell organised a programme titled “*EcoNext: Gen Z for Zero Waste*” on 14th November 2025. The programme was aimed at engaging both our institute students and participants from nearby senior secondary schools and colleges to foster awareness, innovation, and collective action towards a sustainable, zero-waste future.



EcoNext Gen Z for Zero Waste November 14, 2025

Report of Cyber Security Awareness



The Cyber Security Awareness Program is a globally recognized initiative aimed at strengthening cyber resilience by promoting safe and responsible digital practices. In alignment with this objective, Cyber Security Awareness Week was observed at NITTR, Kolkata from 26th October to 1st November 2025, with the goal of educating and motivating citizens in the digital age to become cyber-aware and secure netizens. As part of the observance, a cyber security awareness banner was published on the Institute's official website and social media platforms to reach a wider audience. In addition, a dedicated awareness programme was organized on 30th October 2025, with active participation from the Director, faculty members, students, expert speakers, and staff of the Institute. The programme commenced with a welcome address by Dr. Indrajit Saha, Associate Professor, NITTR Kolkata, and the Coordinator of the event, who highlighted the relevance and necessity of cyber security awareness in today's digitally connected world. The technical sessions were delivered by expert speakers Mr. Samrat Ghosh and Mr. Sayantan Shome from the Cyber Security Centre of Excellence, Weibel, along with Mr. Chandan Roy from the Indian School of Ethical Hacking (ISOEH), Kolkata. The experts discussed and demonstrated various cyber security threats, best practices, and preventive measures, thereby enhancing awareness among the participants. To encourage engagement and reinforce learning, the experts conducted a quiz session and distributed cyber security awareness booklets. An interactive discussion session followed the presentations, during which faculty members, students, and staff actively participated and shared their queries and perspectives. The programme was further enriched by an address from the Prof. V.M.S.R. Murthy, Director, NITTR Kolkata, who emphasized the growing importance of cyber security and its critical role in safeguarding individuals and institutions in the present digital era. The event concluded with a vote of thanks, marking the successful completion of the programme. The event was efficiently coordinated by Dr. Indrajit Saha, with valuable assistance from Mr. Debashis Shaw, whose support contributed significantly to the

smooth and successful organization of the programme.



Observation of Cyber Security Awareness Week on October 30, 2025

Observation of the Vigilance Awareness Week & Rastriya Ekta Diwas Oct31 2025

The Central Vigilance Commission (CVC) observes Vigilance Awareness Week every year to promote vigilance awareness and reaffirm the commitment to uphold integrity. This year, the CVC has decided to observe Vigilance Awareness Week, 2025 from 27th October to 2nd November 2025, with the theme: "Vigilance Our Shared Responsibility".



Observation of the Vigilance Awareness Week & Rastriya Ekta Diwas October 31, 2025

As per the directives and guidelines issued by the Ministry of Education, Government of India and in accordance with the D.O. letter received from the Ministry, NITTR, Kolkata observed the Vigilance Awareness Week- "Our Shared Responsibility" on 31st October, 2025 with five initiatives in the area of preventive vigilance such as, Disposal of pending

complaints, Disposal of pending cases, Capacity building programs, Asset management and Digital initiatives.

On 31st October, 2025 NITTTR, Kolkata observed the Rashtriya Ekta Divas. All staffs, faculty members, students, trainees actively participated in Rashtriya Ekta Divas Pledge.

Report on Celebration of Janjatiya Gaurav Divas 2025

This institute 14th November 2025 has celebrated the 150th Birth Anniversary of Bhagwan Birsa Munda as Janjatiya Gaurav Divas. The occasion marked the birth anniversary of the brave tribal freedom fighter Birsa Munda, who is revered as a God by tribal communities across India.

The objective of the celebration was to recognize the efforts of tribal communities in preserving cultural heritage and promoting Indian values of national pride, valour, and hospitality. The programme was coordinated by Dr. Mithu Dey, Assistant Professor, and Shri Shyamapada Mandi, SSA of the Institute.



Jayantiya Gourav Diwas 2025 on November 14, 2025

Prof. Gayadhar Panda, Dean (Faculty and Academic Affairs), discussed the role of tribal communities in India's freedom struggle and the development of tribal societies. He emphasized the importance of providing equal opportunities to all sections of society. Prof. Anil Kumar, Professor of Practice, highlighted the contributions of tribal communities in carrying forward the legacy of ancient Indian culture. He also elaborated on various tribal movements across different regions of India against British colonial rule, with special reference to Jharkhand, his home state.

Additionally, Prof. S. K. Naskar, Prof. R. Subha Rao, and one M.Tech student, Mr. R. D. Barman, delivered speeches on the occasion, with special emphasis on tribal movements across India during the freedom struggle against British colonial rule.

The programme concluded with a vote of thanks.

Report: Participation in Turnitin's Roundtable Event

Turnitin organised a prestigious roundtable event titled "Navigating the Future: Innovation and Integrity in the Era of AI" on Friday, 14 November 2025, at Middleton Chambers (Garden Courtyard), Middleton Street, Kolkata. The program brought together distinguished academic and research leaders from reputed institutions to deliberate on emerging trends in research integrity, academic writing, and the responsible integration of Artificial Intelligence in scholarly communication.

Turnitin extended special invitations to Prof. Chandan Chakraborty, Dean (Research, Planning & Development), as an *Expert Speaker*, and Dr. Shivakumar T. C., Librarian, as a *Delegate*, to represent the National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata, at the event.

Key Highlights of the Event

Prof. Chandan Chakraborty delivered an insightful and highly engaging talk on "Artificial Intelligence & Machine Learning in Enhancing Student Learning & Performance."

His session stood out for its depth, clarity, and forward-looking perspective. Prof. Chakraborty elaborated on the transformative role of AI and ML in reshaping teaching-learning ecosystems, improving student engagement, and supporting evidence-based academic decision-making. He also highlighted the

emerging challenges of AI-generated content and the need for robust research integrity frameworks.

His talk received **wide appreciation** from fellow speakers, delegates, and program organisers. The audience lauded his comprehensive understanding of AI, his clear articulation of complex concepts, and the practical relevance of the examples he shared. His address made a **remarkable positive impact**, contributing significantly to the overall success of the event.

Participation as Delegate

Dr Shivakumar T. C., Librarian, attended the roundtable as a delegate and actively engaged in discussions on the responsible use of AI in academic writing, institutional research practices, and future directions for AI-supported scholarly workflows. The event provided an opportunity to explore collaborative avenues with Turnitin and other academic institutions.



Photos at the Event

Conclusion

The participation of NITTR Kolkata in this high-profile event strengthened the institute's visibility in the domain of research integrity and AI-enabled academic advancement. Prof. Chandan Chakraborty's impactful contribution as an expert speaker further reinforced the institute's leadership in research, innovation, and academic excellence.

5-day Training Programme on Women empowerment

A 5-day Women empowerment training programme titled, 'EmpowerHER: Leading Change in Higher Education' was conducted for Women teachers in Higher education at NITTR Kolkata during 10th to 14th November 2025. The programme was conducted by

the coordinator, Dr. Habiba Hussain and, a total of 10 participants successfully completed the training.



Inauguration of the FDP on Women Empower HER: Leading Change in Higher Education Nov 10, 2025



The focal areas of the programme were work life balance, stress management, change management, legal & constitutional rights for women and cyber security.

Report on NITTR Kolkata Participation in 2nd National Wellbeing Conclave (NWC-2025) at IIT Bombay

The National Institute of Technical Teachers' Training and Research (NITTR), Kolkata participated in the 2nd National Wellbeing Conclave (NWC-2025) organized by IIT Bombay during 22–23 November 2025. The objective of the conclave was to foster awareness, share best practices, and develop institutional strategies aimed at improving mental, emotional, and digital wellness among students and academic communities.

Delegation Details

The following members represented NITTR Kolkata:

Name	Designation / Programme	Department / Office
Prof. G. Panda	Professor & Dean (Faculty and Academic Affairs)	Electrical Engineering
Dr. Deepak Mehra	Associate Professor	Mechanical Engineering
Mr. Raju Sarkar	M.Tech (2nd Year) Student	Mechanical Engineering
Ms. Chitrita Barman	M.Tech (2nd Year) Student	Civil Engineering

Conclave Activities Attended

The conclave consisted of keynote sessions, expert interactions, and awareness initiatives on:

- Mental wellness and stress management
- Emotional intelligence and behavioural wellbeing
- Digital wellness and responsible technology usage
- Peer mentoring and student support frameworks
- Holistic institutional policies for wellbeing

The delegates attended all scheduled sessions to gain knowledge and exposure to contemporary wellbeing practices.

Exhibition and Institutional Showcase

NITTR Kolkata installed a presentation and awareness stall at the VMCC campus of IIT Bombay. The stall exhibited:

- Current wellbeing practices at the Institute
- Student counseling initiatives
- Community engagement and awareness activities
- Institutional framework for supporting mental health



The efforts of the institute were well received by visitors and the event organizers.

Student Competitions and Achievements

The student representatives participated in multiple group activities such as:

- Talk Show on Increasing pressures faced by the youth of today
- Slogan writing, Poem writing, and Poster making on Wellbeing Awareness

Their participation and teamwork were commended by the jury.

Outcomes and Benefits

- Enhanced understanding of national-level wellbeing initiatives
- Exposure to innovative and student-centric health and support models
- Opportunities for collaboration with other institutions
- Strengthened commitment to wellness practices on campus

The participants expressed their willingness to translate the learnings into actionable initiatives at NITTTR Kolkata to promote a positive, supportive, and mentally healthy academic ecosystem for students, faculty, and staff.

NITTTR Kolkata's involvement in NWC-2025 proved highly beneficial, enabling a deeper understanding of wellbeing frameworks and reinforcing the institutional mission of ensuring a conducive learning environment. The institute intends to implement improved strategies and organize wellbeing-focused programmes in alignment with national guidelines and best practices.

1-Day Rashtriya Karmayogi Large Scale Jan Seva Programme

Dr. Habiba Hussain acted as the Master Trainer and conducted 1 – Day Rashtriya Karmayogi Large Scale Jan Seva Programme on 5th December 2025. The purpose of the programme was to disseminate the message of Seva Bhaav among the employees of NITTTR Kolkata. Out of 34 registered participants (including both teaching and non-teaching employees), 25 participants completed the programme successfully. The co-trainer was Shri Achintya Kumar Mandal, Joint Registrar (F&A), Indian Institute of Technology Kharagpur, W.B. Besides, the Nodal Officer of the programme, Shri Subir Basak, Sr. Administrative Officer had also played a pivotal role in making the programme a success.



Rastriya Karmayogi Training Program Dec 05, 2025



Invited Talk

By Prof. Naveen B. P.

- “Smart Solid Waste Management in the Built Environment” on 15 November 2025, as part of the AICTE-sponsored One-Week Online Faculty Development Programme on “Digital Construction and Green Design: Pathways to Net-Zero,” organized by the Institution Innovation Cell, NICMAR Delhi-NCR.
- Prof. Naveen B. P. delivered a keynote address on “Physico-Chemical Characteristics of Leachate from Mavallipura Landfill and Its Environmental Implications” at the 15th International Conference on Environmental Pollution and Public Health (EPPH 2025) held in Xiamen, China, from November 28–30, 2025.



- Prof. Naveen B. P. delivered an expert presentation on “A Study of Leachate and Geotechnical Properties of Municipal Solid Waste”



A study of leachate and geotechnical properties of municipal solid waste

Prof. Naveen BP
Professor & Head of Civil Engineering at National Institute of Technical Teachers' Training & Research (NITTTR) Kolkata, India.

Abstract
Solid Waste Management is one of the essential services provided by local bodies to keep the urban areas clean. Often it is poorly rendered as it is unscientific, outdated and inefficient. With the rapid increase in population, rising standards, the generation rates of solid waste are increasing drastically. The landfill waste includes both organic and inorganic wastes as it is not often effectively segregated before disposal. The problem is acute in developing countries such as India. Bangalore city, with a population of about 10.18 million and more than 2000 industries, generates about 4,500 TPD of municipal solid waste. Of this presently, various municipal solid waste processing units in Bangalore can handle only about 2100 TPD of waste. Mavallipura landfill developed and operated by M/s. Ramay Environmental Engineers, located 48 km away from Bangalore, is being used for disposing of about 1000 TPD. The installed capacity being only 600 TPD of waste. There are also a few dumps in

NJTLU HEALTH AND ENVIRONMENTAL SCIENCE TALK

Date: 2 December, 2025
Time: 14:00-15:00
Location: ES354, SIP, XJTU
Tencent ID: 979-1135-5376
Host Chair: Dr Ankit Garg

Join the talk

Brief Bio
Dr. Naveen is Professor & Head of Civil Engineering at National Institute of Technical Teachers' Training & Research (NITTTR) Kolkata, India. His expertise spans Geotechnical and Environmental Engineering, safety, and research focus on sustainable waste management and pollution control, as evidenced by his publications in high-impact journals like Environmental Pollution. An accomplished scholar, he has published over 90 papers, received prestigious awards including the Young and Emerging Researcher Award of India (CER), Teachers' Association for Research Excellence (TARE) and Sri M. Visweswaraiah Award, and was selected to represent India at the 9th Asian Young Geotechnical Engineering Conference (AYGEC). A dedicated educator and innovator, he has developed a Fire Modeling Design Kit and established a Centre of Excellence. His significant project experience includes the Sanyo Motors and a critically acclaimed library for the Chinese Bridge (highest outdoor bridge). Dr. Naveen actively bridges academia and industry through seminars and MoUs, and he leads initiatives like the

at the Department of Health and Environmental Sciences, Xi'an Jiaotong-Liverpool University (XJTU), Suzhou, Jiangsu, China, on December 2, 2025. The event provided a valuable platform for engaging with leading professionals and academics in the field, fostering discussions on sustainable waste management and advancing knowledge in environmental and geotechnical engineering.

By Prof. K. Venkata Rao

- “Application of artificial intelligence in 3D Printing” at AICTE-ATAL sponsored offline FDP Challenges of 3D Printing in Biomedical Applications, organized by Sir CR Reddy College of Engineering, Eluru, Andhra Pradesh, on 29th December 2025.
- Keynote address titled “Mechanical Engineering in the Age of AI, Automation, and Digital Twins” at the 1st International Conference on Mechanical Engineering Technology & Advanced Learning (METAL-2025), organized by NIT Raipur, On 6th December 2025.

By Dr. Kunwar Raghendra Singh

- “Integrating Sustainable Development Goals into Higher Education and Research Practices” organized by the IEEE MDC Kolkata Section from 10th to 14th November 2025, a 5-day online Faculty Development Programme (FDP)

PARTICIPATION

Prof. Naveen B.P.

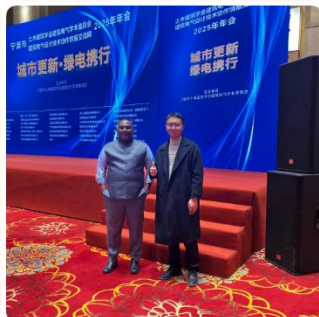
- Prof. Naveen B. P. attended as Chief Guest for the STEM Teacher Training Program for PM Shri Jawahar Navodaya Vidyalayas, organized by NIT Durgapur on 25th November 2025.



- Prof Naveen BP attend the Valedictory Function of the International Conference on Industrial Sustainability and Intelligent Infrastructure (ICISII-2025) as the Guest of Honour, organized by the Department of Civil and Mechanical Engineering at Adamas University on 14th November 2025.



- Prof Naveen BP participated in the Urban Renewal – Green Power Portable program at the 2025 Annual Meeting of the Jianqiu Electrical Academic Mission Association, jointly organized by the Ningbo Civil Engineering Society and the Electrical Design Technology Association, held on 5th December 2025 in Ningbo, China.

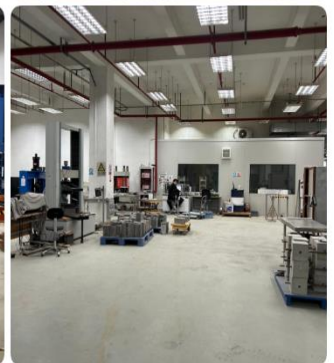


- Prof. Naveen B. P. had the privilege of hosting Prof. Krishna R. Reddy, Director of the Geotechnical & Geoenvironmental Engineering Laboratory, University of Illinois, USA, at NITTTR Kolkata on 15th December 2025. The visit marked a

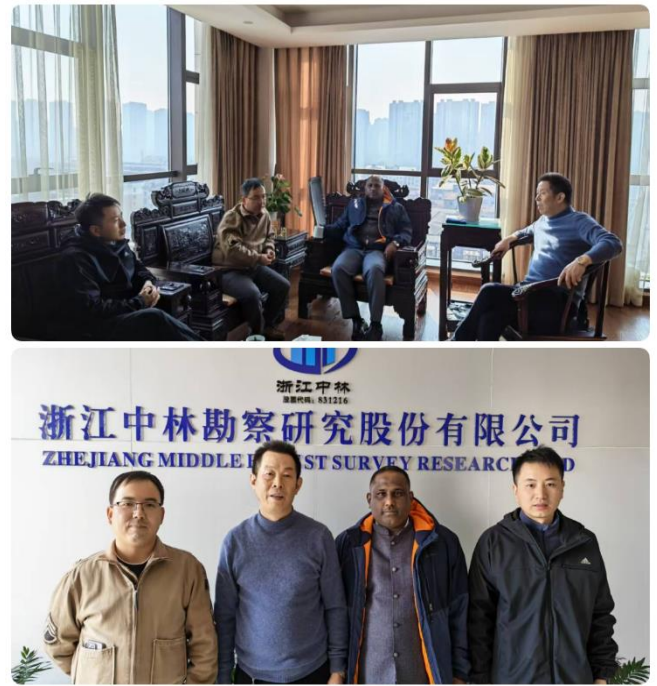
significant step in fostering international academic engagement and research collaboration.



- Prof. Naveen B. P. interacted with Prof. Ominda Nanayakkara, Head of the Department of Civil Engineering, along with Prof. Ankit from Xi'an Jiaotong-Liverpool University (XJTLU) for exploring Academic and Research Collaboration between NITTTR Kolkata and XJTLU, China.

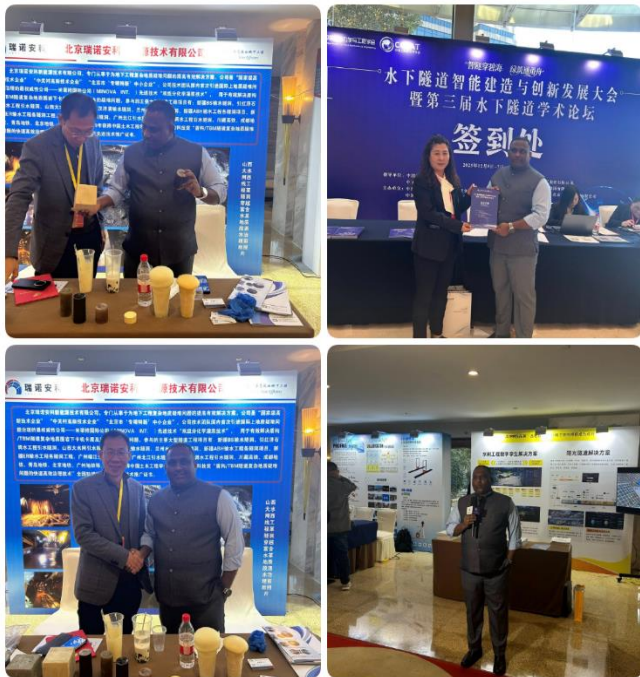


- The Industry-University-Research Innovation Platform of Earth Sensing and Disaster Intelligent Controlling in China is a groundbreaking initiative designed to foster collaboration between industry, academia, and research institutions to address critical challenges related to disaster management, environmental monitoring, and intelligent control systems. This platform integrates cutting-edge technologies in earth sensing, geospatial data collection, and disaster response management with innovations in artificial intelligence, big data, and IoT (Internet of Things).



Dr. S. K. Naskar

On behalf of NITTTR, Kolkata Dr. S. K. Naskar has attended the **14th Meeting of the State Council for Technical Education (SCTE), Assam**, on **December 24, 2025**, at the Rohika AAU-International Guest House, Guwahati.



14th Meeting of the State Council for Technical Education (SCTE), Assam

- Prof. Naveen B. P. participated in “The Underwater Tunnel Intelligent Construction and Innovative Development Conference and Third Underwater Tunnel Academic Forum” held from December 5–7, 2025, at the Ningbo Sunshine Howard Johnson Hotel, Zhejiang Province, China.

- Prof. Naveen B. P. engaged in detailed discussions with Mr. Shang, Chairman of Zhejiang Zhonglin Survey and Research Co., Ltd., and his team to explore potential collaborations between industry and academia. The interaction focused on identifying opportunities for joint research, knowledge exchange, and practical implementation of advanced civil engineering and geotechnical solutions, aiming to bridge the gap between academic expertise and industry needs.

Faculty Development Programmes (FDPs)

Teachers' Training During the period of September - December 2025: 1466 numbers of Technical Teachers have been trained, through various Short-Term Training Programmes, broadly in the areas of Content Updating, Management, Pedagogy and Professional Skill Development. A total of 68 training programs were conducted for the Teachers and Technicians of different Polytechnic colleges and Engineering colleges all over the Country during the 3rd Quarter of the Year 2025.

Newsletter, National Institute of Technical Teachers' Training and Research, Kolkata, Block-FC, Sector-III, Salt Lake City, Kolkata-700106 India.

List of Training Programmes (September-December, 2025)

Sl. No.	Prog. Code	Programme Title	Programme Coordinator	From	To
1	SPL18C	Introduction to Indian Knowledge System	Deepak Mehra	28/08/2025	01/09/2025
2	MGT06C	Disaster Risk Management	Anil Kumar and Kunwar R Singh	08/09/2025	12/09/2025
3	CU105C	Design Using CAD Tools	Niladri Pratap Maity	08/09/2025	12/09/2025
4	CU108C	Bio-Medical Instrumentation	Subrata Chattopadhyay	08/09/2025	12/09/2025
5	CU109C	Drinking Water Pollution and Public Health	Sailendra Nath Mandal	08/09/2025	12/09/2025
6	PS40C	Student Mentorship	Habiba Hussain	15/09/2025	19/09/2025
7	CU122B	DC/DC Power Conversion and its Applications	Papia Ray	15/09/2025	19/09/2025
8	CU127C	Modeling and Optimization techniques	K Venkata Rao	15/09/2025	19/09/2025
9	CU112C	Fundamentals of Machine Learning and Deep Learning	Indrajit Saha	15/09/2025	19/09/2025
10	CU131C	Data Analytics with Python	Jagadeesh M S	15/09/2025	19/09/2025
11	CU114A	MATLAB & LABVIEW Applications in Engineering	Sagarika Pal	15/09/2025	26/09/2025
12	CU115C	Application of AutoCAD in Engineering & basic sciences	Mithu Dey	22/09/2025	26/09/2025
13	CU141C	Data Structures and Algorithms with Python	MS Jagadeesh	06/10/2025	10/10/2025
14	CU211B	Electrical Machine and Drives Control	Papia Ray	06/10/2025	17/10/2025
15	PS70C	Essentials of Outcome based Education	Habiba Hussain	06/10/2025	10/10/2025
16	PS46C	Induction Training Phase-I	Sukanta Kumar Naskar & Sagarika Pal	06/10/2025	17/10/2025
17	PS50A	Advanced Pedagogy	Arpan Kumar Mondal and Sukanta Kumar Naskar	06/10/2025	17/10/2025
18	SPL26A-ITP	Sustainability in Energy Environment and Education	Gayadhar Panda and Kunwar R Singh and Deepak Mehra	13/10/2025	31/10/2025
19	CU206C	Overview of Green Manufacturing	Nirmal Kumar Mandal	13/10/2025	17/10/2025
20	CU143C	Application of MATLAB for Mechanical Engineering	Saurabh Kumar Yadav	13/10/2025	17/10/2025
21	CU144C	Fundamentals of Soft Computing	Indrajit Saha	13/10/2025	17/10/2025
22	PS49C	Development of Life Skill	Sukanta Kumar Naskar	20/10/2025	24/10/2025
23	MGT08C	Management Practice for Safety Engineering	Saurabh Kumar Yadav	27/10/2025	31/10/2025
24	CU219C	Industrial visit to Drinking and Wastewater Treatment Plant	Sailendra Nath Mandal	27/10/2025	31/10/2025
25	CU220C	Engineering Mechanics with MATLAB	Nirmal Kumar Mandal	27/10/2025	31/10/2025
26	CU147C	Fundamentals of Image Processing	Indrajit Saha	27/10/2025	31/10/2025
27	SPL27C	EmpowerHer-Leading Change in Higher Education	Habiba Hussain	27/10/2025	31/10/2025
28	CU149C	Sustainable Energy and Environment in Manufacturing	Deepak Mehra	27/10/2025	31/10/2025
29	PS76C	NBA and NAAC Accreditation	Rayapati Subbarao	03/11/2025	07/11/2025
30	PS68A	Advanced Pedagogy	Urmila Kar	10/11/2025	21/11/2025
31	CU153C	Sensors and IoT Applications	Sagarika Pal	10/11/2025	14/11/2025
32	CU154C	Sustainable Energy Engineering	Kunwar R Singh, Anil Kumar and Gayadhar Panda	10/11/2025	14/11/2025
33	CU212B	Assessment of wide area measurement systems by computational intelligence techniques	Papia Ray	10/11/2025	14/11/2025
34	CU221C	Artificial Neural Network and It's Applications	Nirmal Kumar Mandal	10/11/2025	14/11/2025
35	SPL-MGT07C	Institutional Management and Administrative Procedure	Arpan Kumar Mondal and Sukanta Kumar Naskar	10/11/2025	21/11/2025
36	SPL-IHP-SIET	Artificial Intelligence and Machine Learning	K Venkat Rao and Jagadeesh M S	10/11/2025	14/11/2025
37	PS51C	Research Methodology, Ethics and Research Funding Opportunities	Niladri Pratap Maity	10/11/2025	21/11/2025
38	CU155C	Drinking Water Quality Parameters & Public Health	Sailendra Nath Mandal	10/11/2025	21/11/2025
39	CU157C	PLC Programming and its Applications	Sagarika Pal	17/11/2025	21/11/2025
40	PS52B	Outcome-Based Education (OBE) and Accreditation	Deepak Mehra and Arpan Kumar Mandal	17/11/2025	21/11/2025
41	SPL-KIST	AI/ ML/ DL and Generative AI Algorithm	Chandan Chakraborty	17/11/2025	21/11/2025

Sl. No.	Prog. Code	Programme Title	Programme Coordinator	From	To
42	PS53C	ICT, AI Tools and Digital Pedagogy for Teaching Learning	Arpan Kumar Mondal	24/11/2025	05/12/2025
43	CU160C	Finite element Based Solution by using MATLAB	Saurabh Kumar Yadav	24/11/2025	28/11/2025
44	CU161C	Introduction to Machine Learning and Deep Learning	Indrajit Saha	24/11/2025	28/11/2025
45	PS41C	Waste Water Treatment: Pollution Control and Reuse	Subrata Mondal	24/11/2025	28/11/2025
46	SPL(IHP-UCET)	AI-Driven Approaches to Pedagogy and Research	Kaki Venkata Rao	24/11/2025	28/11/2025
47	CU213A	Design of Power plants and Digital Protection of Power Systems	Papia Ray	24/11/2025	05/12/2025
48	PS81C	Induction Training Phase-II	Sukanta Kumar Naskar & Sagarika Pal	24/11/2025	05/12/2025
49	SPL(Colaboration6- RASTA)	Pattern Recognition and Applications in Civil Engineering	Naveen B P	22/09/2025	26/09/2026
50	SPL(Colaboration5- RASTA)	Basic Principles of Pile Foundations	Naveen B P	29/09/2025	03/10/2025
51	SPL(Colaboration4- RASTA)	Limit State Method of Short Span Bridge Design	Naveen B P	18/08/2025	22/08/2025
52	SPL(Colaboration3- RASTA)	Waste to Wealth	Naveen B P	28/07/2025	01/08/2025
53	SPL(Colaboration2- RASTA)	Importance of Soil Investigation in Construction	Naveen B P	14/07/2025	18/07/2025
54	SPL(Colaboration1- RASTA)	AI & Its Applications in Civil Engineering	Naveen B P	21/04/2025	02/05/2025
55	PS82C	Induction Training	Subrata Mondal	01/12/2025	12/12/2025
56	CU165B	Robotics Operating Systems	K Venkata Rao	08/12/2025	12/12/2025
57	SPL(IHP - GITA)	OBE AND NBA	Rayapati Subbarao	08/12/2025	12/12/2025
58	CU224C	Overview of Method Time Measurement and Works Study in modern manufacturing	Deepak Mehra	08/12/2025	12/12/2025
59	CU166C	Refresher Course on Power Electronics and Electric Vehicles	Soumitra Kumar Mandal	08/12/2025	19/12/2025
60	CU204C	Advanced Teaching For Modern Teachers	Mithu Dey	15/12/2025	26/12/2025
61	CU168C	Application of Python in Mechanical Engineering	Saurabh Kumar Yadav	15/12/2025	19/12/2025
62	CU169B	Machine Learning With Python	Jagadeesh M S	15/12/2025	19/12/2025
63	PS57C	Effective Teaching and Research	Indrajit Saha	15/12/2025	19/12/2025
64	MGT09C	Institutional Management	Sukanta Kumar Naskar	15/12/2025	19/12/2025
65	CU171C	Air and Water Pollution Analysis	Sailendra Nath Mandal	15/12/2025	19/12/2025
66	SPL31C	Research Methodology	Habiba Hussain	15/12/2025	19/12/2025
67	CU214C	Design, Development and Control of Micro Grids	Papia Ray	22/12/2025	26/12/2025
68	CU210C	AI For Everyone	Nirmal Kumar Mandal	22/12/2025	26/12/2025

Publications

JOURNAL

- 1) Kapoor, J. B. Srivastava & Naveen BP, "Behavior of Pile Foundations Built on Dynamically Compacted Liquefaction-Susceptible Soil," *Soil Mechanics and Foundation Engineering*, Springer, 62, 429–436, 2025. <https://doi.org/10.1007/s11204-025-10077-1>
- 2) Niladri Pratap Maity et. al., "Analysis of a micromachined vibrating beam accelerometer for early earthquake warning system," *Journal of Computational Electronics (Springer)*, vol. 24, Article No. 196, Oct. 2025, <https://doi.org/10.1007/s10825-025-02420-4>, Published on 4th October 2025.
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- 9) Vinod Kumar Kushwah, **Kunwar Raghvendra Singh**, Dharmendra Singh and Gaurav Sharma, "Assessment of Ground Water Quality with Fluoride Contamination and Its Risk Quantification", *Science & Technology Asia*, Vol. 30(3), 232-242, Sept., 2025

BOOK CHAPTERS

- 1) Sayon Dey and **Rayapati Subbarao**, "Impact of Welding Speed and Tool Rotational Speed of Friction Stir Welded Magnesium Alloy (AZ31B) to Analyze the Heat Generation", *Advanced Welding Technologies*, Chapter 8, pp. 191-208, 2025.
- 2) N. Mahato and **Rayapati Subbarao** "Heat transfer and failure analysis in a Ti-6Al-4V gas turbine compressor stator blade", *Recent Trends in Engineering, Science and Technology*, CRC Press, 2025, 161-165, 2025.
- 3) S. Dey and **Rayapati Subbarao**, "Numerical modeling of thermal phenomena and optimization of process parameters in friction stir welding of ZE42 magnesium plates", *Recent Trends in Engineering, Science and Technology*, 156-160, 2025.

PATENT PUBLICATION:

- **Dr. Deepak Mehra** et. al., AI enabled dashboard for predictive workforce performance analysis, publication date : 17/10/2025, Application No.202541087343 A

PAPERS PRESENTED IN CONFERENCES & CONFERENCE PROCEEDINGS:

- Anil Soharu, Naveen BP, Kriti Vaid (2025) "Influence of using waste plastic as coarse aggregates-based sustainable concrete Available to Purchase", *Proceedings of the Institution of Civil Engineers - Waste and Resource Management*, ICE publisher, pp1-10. <https://doi.org/10.1680/jwarm.25.00017>
- **Niladri Pratap Maity et. al.**, "Analysis on Device Performance of Capacitive Micromachined Ultrasonic Transducer for Medical Imaging System," *5th International Conference on Signal and Data Processing (ICSDP 2025)*, 27th -28th November 2025, Bhopal.
- **Niladri Pratap Maity et. al.**, "Analysis on the Impact of Mechanical Stress on Micromachined Ultrasonic Transducer," *6th International Conference on Recent Developments in Control, Automation and Power Engineering (RDCAPE 2025)*, 18th -19th September, 2025, Noida.
- **Niladri Pratap Maity et. al.**, "A Proposed Multimodal Learning Framework with ABC learning Model Mapping for Children with Autism Spectrum Disorder in Rural India," *16th International Conference on Intelligent Multimodal Communication and Learning Technologies | Artificial Intelligence in Education*, 19-21 November 2025, Bengaluru.
- **Niladri Pratap Maity et. al.**, "Beyond Dichotomy: AI-Driven Synthesis of Empirical and Interpretive Approaches in Social Science Research," *Symposium on Re-examining the Social Sciences through the Lens of AI & IT Innovative Intersections: Charting the Future of Social Inquiry in the Digital Age*, 8th -9th October, 2025, New Delhi.
- **Niladri Pratap Maity et. al.**, "A Proposed Framework to Integrate Indian Knowledge System and Artificial Intelligence for Autism Spectrum Disorder," *International Conference on Transforming Higher Education for Future: Education 4.0*, September: 26-27, 2025, Patiala, Punjab.
- **Dr. Kunwar Raghvendra Singh** presented a paper (Title- Advancing Sustainability in Higher Education Institutions Campuses: A Comprehensive Perspective) in the National Sustainability Convention 2025 on "Fostering a Sustainable and Resilient Future: For Planet, For All", scheduled to be held on 13-14 December 2025 at Patna.

Miscellaneous

ACTIVITIES OF LEARNING RESOURCE CENTRE

i. List of educational resources developed/video coverage during the period

- MOOC video recording – 13nos
- Educational Video Film -- 04nos

ii. Photo coverage of the events during 1st

September- 31st December, 2025

During the above-mentioned period following Fourteen (14) events were covered:

- Teachers' Day 2025 celebration
- Hindi Pakhwada Celebration during September 2025
- Invited lecture on "Advancement of Engineering Application with METLAB and SIMULINK" by Mr. Picon Majumdar September 11, 2025
- Viswakarma Puja September 17, 2025
- Swachhata Pakhwada- Swachhata Hi Seva during September 15 to November 30, 2025
- Celebration of Gandhi Jayanti 2025
- Observation of Cyber Security Awareness Week October 30, 2025
- Observation of the Vigilance Awareness Week & Rastriya Ekta Diwas October 31, 2025
- Celebration of the 150th of Vande Mataram Anthem on November 7, 2025.
- Inauguration of the FDP on Women EmpowerHER: Leading Change in Higher Education November 10, 2025
- EcoNext Gen Z for Zero Waste November 14, 2025
- Jayantiya Gourav Diwas 2025 on November 14, 2025
- Celebration of Constitution Day 2025 on November 26, 2025
- Rastriya Karmayogi Training Program – December 05, 2025

Beside this, during this period, hybrid mode M Tech classes (each of 1Hr duration) conducted from two Smart –Classrooms of LRC on regular basis.

AWARD:

Dr. Niladri Pratap Maity:

Best Paper Award: Research Paper Title: "Analysis on Device Performance of Capacitive Micromachined Ultrasonic Transducer for Medical Imaging System," received **Best Paper Award** at **5th International Conference on Signal and Data Processing (ICSDP 2025)**, 27th -28th November 2025, Bhopal.

COMPLETION OF REFRESHER COURSE / TRAINING PROGRAMME

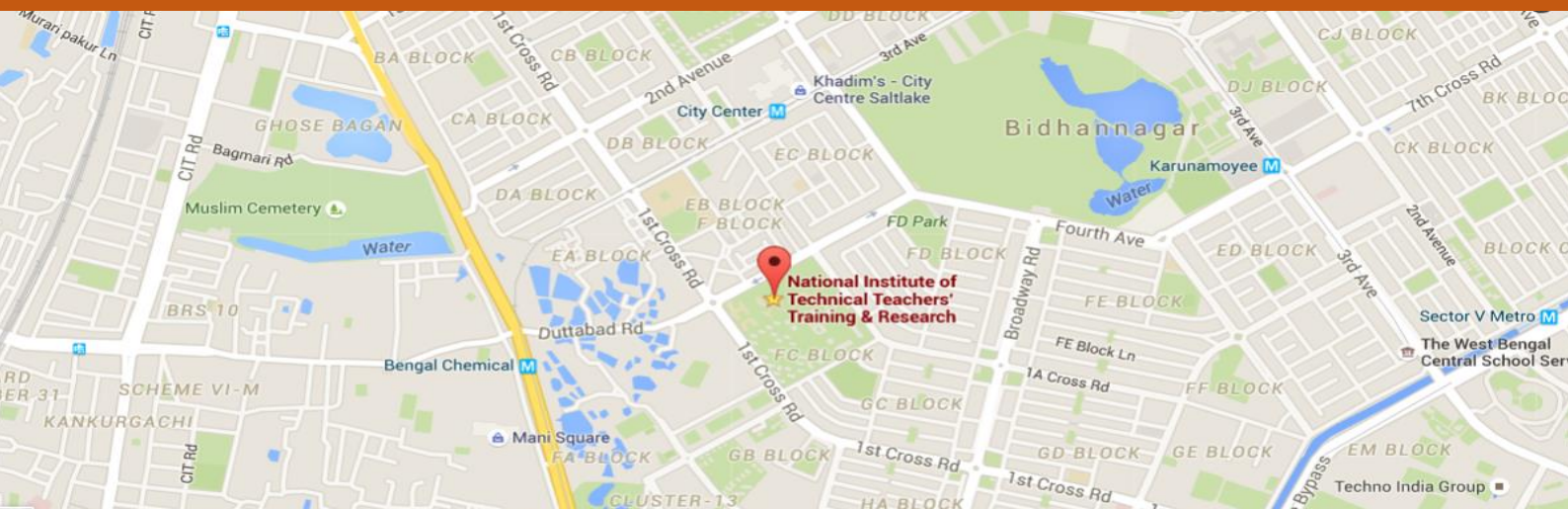
- Dr. Kunwar Raghvendra Singh** participated in the 5th Comprehensive Course on Disaster Risk Management, a two-week residential training programme scheduled from 6th October to 17th October 2025 at the NIDM Campus, New Delhi.
- Dr. Shivakumar T C**, Librarian, NITTR Kolkata, successfully completed the UGC-Sponsored Refresher Course on "Smart Libraries: Leveraging AI-Based Technologies" organized by the Malaviya Mission Teacher Training Centre (MMTTC), Dr. Harisingh Gour Vishwavidyalaya (A Central University), Sagar (MP) from 26th June to 9th July 2025. He achieved an outstanding Grade A+ in the refresher course.





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**“Our human knowledge is a candle burnt
On a dim altar to a sun-vast Truth”**
- Sri Aurobindo



Distance:

- From Howrah Railway Station: **42 min** (8.1 km) via Maniktala Main Road
- From Sealdah Station: **26 min** (7.4 km) via Beliaghata Main Road and Broadway Road
- From Kolkata Railway Station: **16 min** (4.8 km) via Canal Circular Road
- From Shalimar Station: **38 min** (18.8 km) via Parama Island Flyover
- From Netaji Subhas Chandra Bose International Airport: **27 min** (11.5 km) via Kazi Nazrul Islam Sarani/VIP Road

Google map link: <https://goo.gl/maps/F7gssJoeqxSvffqf9>



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