

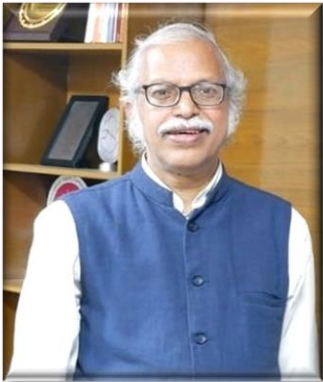


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September – December 2024

Message from Director



Namaskar. After becoming a budding university, the scope of NITTTR Kolkata's developmental activities is expanding with an intensive manner for fostering a culture of academic excellence, skill development, and innovative & entrepreneurship. In

alignment with the vision of the institute, and the mandate of NEP 2020, we have embarked on a significant initiative for launching of the **Apprentice Training Programme** in collaboration with the **Board of Practical Training (BoPT) Kolkata** as a part of the **National Apprenticeship Training Scheme (NATS) of Government of India**. This initiative marks a new dimension in our efforts to bridge the gap between academic learning and practical industrial exposure.

Through this Apprentice training programme, young students of various technical institutions covering degrees, diplomas, vocational and science streams holders can avail to have hands-on experience, enhance their technical expertise, and develop critical workplace competencies. Besides this, the students while attaining various courses can also participate in this training

programme as per the new norms of NATS. Furthermore, by integrating structured training with real-world applications, the trainees can be empowered with the help of industry-relevant skills that will not only enhance their employability but also open up promising career opportunities.

At NITTTR Kolkata, we firmly believe that the Creditization of this Apprenticeship training programme should go beyond the classroom, equipping the students with the requisite aptitude and skills in a dynamic professional landscape. We are confident that it will significantly contribute to the development of India as an emerging nation on the part of development with empowering youth in view of Viksit Bharat 2047. After successful completion of their training, the students will be awarded a certificate with credits, which will be quite useful for leading a prosperous, progressive and peaceful life by contributing for the overall development of emerging Bharat.

We look forward to witnessing the positive impact of this programme and will continue to explore more such initiatives that align with our mission of academic excellence and professional growth.

ॐ असतो मा सद्गमय ।

तमसो मा ज्योतिर्गमय ।

मृत्योर्मा अमृतं गमय ।

ॐ शान्तिः शान्तिः शान्तिः ॥

Prof. Debi Prasad Mishra
Director, NITTTR, Kolkata

Ancient Indian Wisdom vs. Modern Indian Sustainability: Bridging Traditional Practices with Contemporary Environmental Solutions

Dr. Deepak Mehra

Asso. Prof., Dept. of Mechanical Engg.

Sustainability, defined as meeting the needs of the present without compromising the ability of future generations to meet their own needs, is a concept deeply rooted in many cultures. In India, this idea has been intertwined with both ancient traditions and modern innovations, shaping the nation's approach to environmental stewardship. Ancient Indian wisdom passed down through millennia, offers profound insights into sustainable living, offering solutions that align closely with the goals of contemporary sustainability practices. By bridging these traditional and modern approaches, India can create a harmonious and effective model for sustainability that respects both its heritage and its future.

Ancient Indian Wisdom and Sustainability

Ancient India's approach to sustainability was deeply embedded in religious, philosophical, and cultural practices, many of which emphasized the interconnectedness of all life. From the Vedic texts to Ayurvedic traditions, sustainability was a core principle in preserving the balance of the natural world.

- 1. Sacred Groves and Natural Conservation:** The concept of sacred groves in ancient India served as a prime example of community-based conservation. These groves were considered sacred and protected by local communities, ensuring the preservation of biodiversity. For example, in the Western Ghats and parts of Rajasthan, communities have historically revered forests and trees, prohibiting their destruction. This reverence extended to animals and insects, with religious beliefs promoting non-harm (Ahimsa) toward all living beings.
- 2. Water Management Techniques:** Ancient India also developed sophisticated methods for water management, necessary in a land where

monsoons are unpredictable. Step wells (Baolis), tanks, and intricate irrigation systems are evidence of the sustainable water conservation practices of the time. In cities like Jaipur and Madurai, these systems not only helped manage water scarcity but also worked as architectural marvels. Ancient texts, such as the *Arthashastra* by Kautilya, emphasize the importance of water bodies in sustaining agricultural societies, showcasing a long tradition of resource management.

- 3. Agriculture and Crop Diversity:** Agriculture was practiced in ancient India in an ecologically sound and sustainable manner. Crop rotations and natural fertilizers like cow dung and compost were employed, avoiding the use of chemical fertilizers that would later be introduced. Mixed cropping systems and biodiversity in agriculture helped to preserve soil health and prevent resource depletion. This approach created food security without compromising the integrity of the environment.
- 4. Sustainability from Vedic and Ayurvedic Perspectives:** The Vedic literature and the Ayurvedic system advocate for a life that is in balance with nature. Ayurveda, being holistic, is based on the belief that human health and environmental health are closely interlinked. Sustainability in Ayurveda includes the cultivation of medicinal plants, the ethical treatment of animals, and prevention of overconsumption activities.

Modern Indian Sustainability: Challenges and Innovations

There are many contemporary issues in India, including rapid urbanization, pollution, resource depletion, and climate change. However, the country is also inventing new solutions by combining both old knowledge and modern technology.

- 1. Renewable Energy and Advances in Technology:** India's thrust in renewable energy is remarkable, especially solar and wind energy. It ranks among the leaders in solar power production, with massive solar farms developing in Rajasthan, Gujarat, and other States. India's ambitious targets in renewable expansion through renewable energy come under the umbrella of India's National Action Plan on Climate Change (NAPCC). For example, one of India NAPCC target includes increase in solar power capacity to 100 GW by 2022. Thus, along with progress in battery storage and smart grid technologies, here is India to rely less on fossil fuel and transport toward sustainable energy sources.

2. **Sustainable Urbanization:** With an ever-increasing urban population, India is focusing on sustainable urbanization as a priority. Smart city projects better combine technology with sustainability objectives, especially in waste management, energy, and water savings. The demand also increases for green buildings-as defined by environmental criteria such as LEED (Leadership in Energy and Environmental Design), which have fewer environmental footprints in cities. Innovations in public transportation, such as electric buses and metro rail systems, also reduce the carbon footprint of cities.

3. **Renewable Energy and Technological Advancement:** India is indeed pushing renewable energy on a whole new level. The use of solar energy and wind energy indeed holds some prominence at this stage in India, as it actively seeks to become one of the top producers of solar energy through established mega solar farms in Rajasthan, Gujarat, and other States. The country's ambitious targets of renewable expansion through renewable energy come under India's National Action Plan on Climate Change (NAPCC)- for example, the one increasing India's solar capacity to 100 GW by 2022. Thus, with the progress of smart grid technology and battery storage, here comes India to rely on less fossil fuel and move toward more sustainable energy sources.

4. **Urbanization in a Sustainable manner:** With an increasing urban population, one of India's priorities is to speed up the pace of sustainable urbanization. Smart city projects focus more on the amalgamation of technology into sustainability targets, particularly in waste management, energy efficiency, and water savings. Similarly, the demand for green buildings, defined through environmental criteria such as Leadership in Energy and Environmental Design (LEED), is soaring in cities. Innovations in exhaust collection systems are electric buses or metro rail projects that minimize a city's carbon footprint.

Bridging Ancient Wisdom with Modern Sustainability

Fusing ancient Indian knowledge into modern-day sustainability is capable of yielding powerful solutions. For example, ancient water management practices could be utilized to combat contemporary challenges of water scarcity in rural and urban settings. Reviving traditional rainwater harvesting systems like kunds (rainwater harvesting ponds in Rajasthan) could truly boost efforts in water conservation.

Besides, an ancient understanding of biodiversity and organic farming could blend with some modern methodologies in farming. Traditional approaches, like

rotating crops and using organic fertilizers, can reduce the environmental impact of industrial agriculture even more by harmonizing with the agricultural technologies of today: precision farming.

Last but not least, the sacred reverence for nature ingrained in Indian consciousness may move individual citizens and communities toward sustainable living. Concepts of nature's reverence in Hinduism, Jainism, and Buddhism may thus initiate a journey away from consumerism toward conscious consumption, creating an all-encompassing culture of sustainability in society.

Conclusion

The age-old Indian science offers ageless knowledge of living sustainably, striving for balance and conservation, and respecting Mother Earth. Infused with modern abilities and a burgeoning sense of responsibility towards sustainability, present-day India is poised to provide services to reconcile ancient practices with modern solutions. By fusing traditional wisdom with modern innovation, India can craft a sustainable future rooted in cultural heritage yet tuned to the global agenda of environmental caretaking. The meeting point of the ancient with the present is thus the key to disarming the environmental crisis of the twenty-first century.

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Orientation Programme for the Academic Year 2024-25

First orientation programme for the M.Tech students and Ph.D scholars for the academic year 2024-25 was held at NITTTR-Kolkata during 3rd September 2025. Almost all the registered students and scholars attended the programme and introduced themselves.



Dr. S.K .Naskar Prof. of Technical Education and Management initiated the programme on behalf of the Academic Section and mentioned the purposes for organizing such programme. This was followed by Sarswati Vandana.

After that Prof. Debi Prasad Mishra, the Director of NITTTR-Kolkata gave the welcomed address. During his welcome address, he mentioned uniqueness of this institute. He also suggested certain good practices for the students for their own benefits. He also share his student life experiences.



As few students and scholars would be using our hostel facilities, hostel Warden, Dr. K.Giri highlighted some rules and regulations to be followed by them along with Dos and Don'ts.



The librarian Dr. Shivakumar T. C. welcomed all the students to use the library facilities. He also shared some important information for using certain dedicated software for using the library facilities.



After that all head of the departments shared their departmental facilities, research opportunities and departmental activities.

The programme ended with a vote of thanks proposed by Dr. S.K.Naskar.

The celebration of Teacher's Day, 5th September 2024



The Teacher's Day Celebration 2024 was organized at the Institute on Thursday, 5th September 2024, at SRK Mini Auditorium to commemorate the birth

anniversary of Dr. Sarvepalli Radhakrishnan, a distinguished scholar, philosopher, and the second President of India. His birthday is celebrated as Teacher's Day across the country to honor the invaluable contribution of teachers to society. The event witnessed the participation of all faculty members, staff, and students of the institute. The celebration was further enriched by the presence of our esteemed Chief Guest, Dr. Pradip Dey, Director, ICAR-Kolkata, along with Sister Prerna and her team from the Brahmakumari Center.



The event featured speeches highlighting the significance of teachers in shaping society, cultural performances by students, and words of wisdom from the distinguished guests. The celebration concluded with a vote of thanks, followed by an interactive session with the guests.

The event was a grand success, fostering a sense of gratitude and respect towards teachers among the attendees.



The program began with a warm welcome address by the coordinator. This was followed by an address from our honourable Director, Prof. D. P. Mishra, who shared his insights on the vital role of teachers in guiding students towards both academic and personal growth. The highlight of the event was a lecture by the

Chief Guest, who provided an enlightening discourse on the teachings of Vedanta and the Upanishads. The talk explored the deep philosophical underpinnings of these ancient texts, shedding light on their relevance to modern life.

Following this, Sister Prerna from the Brahma Kumaris delivered an inspiring speech on "Managing Stress in Everyday Life." She discussed practical strategies for dealing with stress, including meditation, and positive thinking. She encouraged the audience to adopt a balanced approach to life, focusing on inner peace and self-care.

Consultation Workshop for Deliberation on Draft Faculty Regulation (Degree)-2024-NITTTR Kolkata

AICTE has organized second workshops towards broader outreach and discussed with stakeholders on the draft amended Faculty Regulation (Degree) 2024 in association with National Institute of Technical Teachers' Training and Research, Kolkata - 13th September, 2024 (Degree Norms) on 10. A.M. in which around 150 participants from different parts of the country participated.

The programme started at 10:30 am with the welcome address by Dr. Sunil Luthra, Director, Training and Learning Bureau of AICTE, in his address, he talk about formulated regulations for standardizing appointment, pay, promotion, advancement of career, service condition of the faculty of AICTE approved technical institutions. Chief Guest of the program was Dr. Rajul K Gajjar, Gujrat Technical University Gujrat. In the addresses of Chief Guest Madam, she talked about importance of Innovation Ecology and Research component of draft faculty regulation.

The primary aim of organizing this workshop was to outreach and improve the draft regulation. A pre-session amongst the faculty members has been held to deliberate on the draft regulation and to provide valuable feedback to the committee constituted for the purpose. Small groups (5-6 faculty) has been formed to interact & deliberate on the specific section of the draft in their Area of Interest. The group has present a 5 min PowerPoint note on the day of the workshop. The feedback from the group has been summarized objectively and will be placed to the high power committee at a later stage to further improve upon the regulation.

Final concluding remarks was given by Dr. Sanjoy Das, Assistant Director, AICTE.

Academic Industry Conclave 2024 at Women's Polytechnic, Hapania, Tripura



Inauguration of Academic Industry Conclave 2024

The Academic Industry Conclave (AIC) 2024 took place on 26th and 27th of September, 2024 organized by NITTTR Kolkata in association with Women's Polytechnic, Hapania, Tripura, with the aimed to bridging the gap between academia and industry to promote entrepreneurship, innovation, employability, and skill development among students and professionals. The event saw participation from leaders in academia, government, and industry, along with faculty members and students, all striving to foster collaboration and mutual growth.

The inauguration was graced by notable dignitaries, including Prof. Debi Prasad Mishra, Chairman, AIC 2024 and Director of NITTTR Kolkata, Shri Raval H. Kumar, IAS Secretary of Education (Higher), Govt. of Tripura as Chief Guest, Shri Animesh Debbarma, TCS(SSG), Director, Education (Higher) Dept., Govt. of Tripura as Special Guest, Shri S. Prabhu, IFS, Director, Skill Development, Govt. of Tripura as Guest of Honour. Initially Coordinator, Dr. Indrajit Saha of the Academic Industry Conclave 2024 stated the objectives of the Conclave and welcomed all in the programme. The inaugural session emphasized the importance of harnessing entrepreneurship to drive economic growth and development. The guests stressed the need for leveraging India's knowledge-based systems and fostering a culture of innovation, deeply rooted in India's traditions and values. Prof. Mishra underscored the importance of academia-industry linkages to create a "Viksit Bharat" (Developed India), aligning with the government's vision for a prosperous and self-reliant India. After that

Local Coordinator, Dr. Tirtharaj Sen, FIE, Principal Women's Polytechnic, Hapania delivered the vote of thanks.



Visit to the stalls

The first technical session was on the Role of Entrepreneurship in Nation-Building. The eminent speakers like Prof. Prasun Chakraborti, NIT Agartala and Shri Beerbal Prasad Meena, MSME, Govt. of India discussed involvement of academic institute in order to foster innovation by developing incubation centers and providing robust support to MSMEs (Micro, Small, and Medium Enterprises). Therefore, a panel discussion on the topic Establishing a Startup Ecosystem: The Part of Industry and Academics was held. In the panel discussion, Shri Sanjay Laskar, Sr. Manager (Civil Engineering) NEEPCO and Shri Beerbal Prasad Meena were present with other participants. Discussions were held on how to remove barriers to collaboration between industry and academia, and how to use research and development (R&D) as a tool

to advance innovation and create products for local and global markets.



Interaction with the participants



Distribution of Certificates

On the second day, the focus shifted to enhancing employability and entrepreneurship through skill development and industry-relevant training. Speakers like Mr. Ayan Biswas, Indian Institute of Entrepreneurship, Tripura Centre and Prof. Priyanath Das, NIT Agartala delivered into how educational institutions can collaborate with industries for R&D, knowledge transfer, and the creation of new technologies. They emphasized the importance of equipping students with industry-ready skills, which would not only enhance their employability but also contribute to the growth of India's entrepreneurial ecosystem. Thereafter, Prof. Debi Prasad Mishra, the Director of NITTTR Kolkata, Prof. Ratan Kumar Saha, Vice Chancellor of Techno India University, Tripura, Dr. A. Ranganath, Registrar, ICFAI University, Tripura and Mr. Rajesh Debnath, Marketing Executive, Technomate Edubotics Pvt. Ltd., Agartala. were present in the panel discussion. It explored the utilization of Indian Knowledge Systems (IKS) for

product development and innovation, with a special focus on eco-friendly, sustainable technologies. The speakers advocated for the need to embed sustainable practices into product development, encouraging students and entrepreneurs to adopt green technologies and innovative solutions to global environmental challenges.

The conclave also hosted a scientific model and poster competition, encouraging students to showcase their innovative ideas and solutions. The event culminated with the distribution of prizes to the winners of the competitions judged by Dr. Subhadeep Bhattacharjee, NIT Agartala and Dr. Sukanta Roy, NIT Mizoram, followed by closing remarks from the dignitaries, Prof. Debi Prasad Mishra and Chairman, AIC 2024, Prof. Ratan Kumar Saha, Vice Chancellor of Techno India University as Chief Guest, AIC-2024 and Dr. Dibakar Deb, Principal, Techno College of Engineering Agartala as Guest of Honour, AIC-2024. They reiterated the importance of organizing such conclaves to foster collaboration, enrich the learning experience of students, and create pathways for meaningful partnerships between academia and industry.

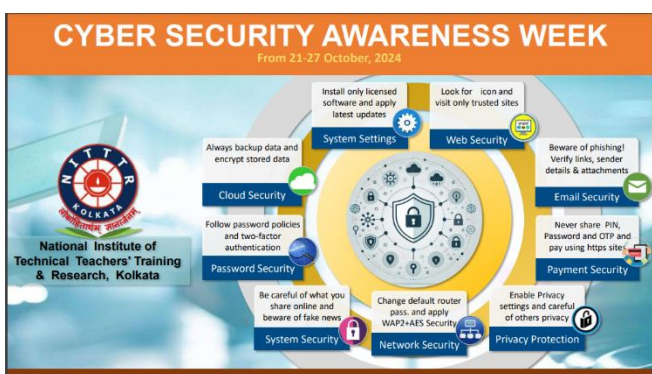
The conclave ended with the ceremonial Vote of Thanks by the coordinator, AIC 2024, Dr. Indrajit Saha. Everyone applauded the efforts and contribution of each other with big hands.

Gandhi Jayanti Celebration

Like the previous years, on 2nd October, 2024, NITTTR Kolkata celebrated the birth anniversary of Mohandas Karamchand Gandhi, fondly known as the 'Father of the Nation'. Students, staff and teachers gathered virtually to mark them with patriotic fervor. The director of the institute Prof. Debi Prasad Mishra addressed the gathering. He emphasized to follow the footsteps of Gandhiji and to be self-reliant like him. The celebration is wrapped up with a vote of thanks given by Dr. Kinsuk Giri, the coordinator of the program.



Cyber Security Awareness Programme



Cyber Security Awareness program is a global event in order to increase the cyber resilience. This activity aims to educate, promote and motivate the digital age citizens of our country, to be cyber aware and secured netizens. Keeping this in view, Cyber Security Awareness Week was observed from 21st to 27th October 2024 at NITTTR, Kolkata. In this regard, a banner related to cyber security awareness was published through Institute website and social media of the institute. Moreover, an awareness program was organised with Director, Faculty, Student, Expert and Staff members of this institute on 23rd October, 2024. In this program, Dr. Indrajit Saha, Assistant Professor of NITTTR Kolkata and the coordinator of this even welcomed the faculty, student, expert speaker and staff members and discussed the relevance of this program. As expert speakers, Mr. Zeeshan Khan, OSD IT&E Department and Administrative Officer of Cyber Security Centre of Excellence, Weibel and Mr. Samyajit Mukherjee, Indian School of Ethical Hacking (ISOEH, Kolkata) discussed and demonstrated various aspects of security issues and disseminate the awareness among participants. The faculty, student and staff members were also involved in the discussion session after the presentation of Mr. Khan and Mr. Mukherjee. Thereafter, Director, NITTTR Kolkata addressed the gathering by stating the importance of cyber security

and its requirement in current times. Finally, the programme ended with vote of thanks. From the staff members, Mr. Kallol Modak assisted Dr. Indrajit Saha to organise this even successfully.

Launching of Samarth e-Gov and YouTube channel



Inauguration of e-SAMARTH portal

Samarth e-Gov is a comprehensive digital governance platform designed to enhance the efficiency and transparency of higher education institutions in India. Developed under the National Mission on Education through ICT (NMEICT) by the Ministry of Education, it offers automated workflows, digital records management, and integrated services to streamline administrative processes. The platform supports universities and colleges in managing admissions, academics, finance, HR, and other institutional operations through a centralized and secure system. On the other hand, a YouTube channel is a dedicated space on YouTube where individuals, organizations, or businesses can upload, organize, and share videos with a global audience. It serves as a platform for content creation, education, marketing, entertainment, and community engagement. Considering the current demand and requirement of the institute, Samarth e-Gov and youtube channel was launched on 22nd October, 2024 at NITTTR, Kolkata. This program was coordinated by Dr. Indrajit Saha, Nodal Officer, Samarth e-Gov and Prof. Chandan Chakraborty, FIC, Learning Resource Centre (LRC). Dr. Saha welcomed the Director, faculty, student and staff members and demonstrated the basic features of Samarth e-Gov while Prof. Chakraborty showed the Youtube channel of NITTTR Kolkata with recent videos. Thereafter, Director, NITTTR Kolkata addressed the gathering by stating the importance of Samarth e-Gov and youtube channel NITTTR Kolkata so that all the stakeholders

can get the benefit from these. Finally, the programme ended with vote of thanks.



Launch of YouTube Channel

Celebration of Constitution Day

As per the directive of the Ministry of education, Govt. of India, through letter, D.O No. M. 11014/02/2024-CDN, dated 04.11.2024, different programmes were arranged in the institute to celebrate the importance of Constitution Day. Consequently, NITTR Kolkata organized 'Quiz', 'Essay writing' and 'Seminar', prior to the main programme on 26th Nov 2024.

1. Conducting of Quiz and Essay writing for students

On 11th November, notification for the essay writing competition on 'Importance of Indian Constitution in the current scenario' was given with a deadline of 22nd Nov 2024. Only hand written essays with a maximum of 750 words were allowed. Later, 'Quiz' was conducted by Dr. Rayapati Subbarao on 15th November in Sri Ramakrishna Paramahansa Auditorium of the institute. Students enthusiastically participated in it as shown in Fig. 1. Questions covered the aspect of constitution, current affairs and general knowledge. First year civil engineering students of the institute fared well among all.



'Quiz' competition for students.

2. Interactive seminar about the importance of Constitution Day

On 25th Nov, 2024, Interactive seminar about the importance of Constitution Day was organized by Dr. Rayapati Subbarao. The topic of the seminar was 'Rights and Duties of the employees in line with the Constitution of India'. Staff and Students of all branches along with few Faculty participated in the seminar. Initially, the importance of the Indian constitution was discussed. Students of CE department gave their opinion on how to benefit from it. Later, Dr. Subbarao explained the importance of celebrating the 'Constitution Day' and talked about the preamble to the Constitution. It was all about being proud to be an Indian. Also, the unity and integrity of the nation has to be taken care during the days of trouble.



Dr. Rayapati Subbarao delivering his lecture



Discussion in the seminar by students and staff.

3. Main Programme on 26th November, 2024

On the 'Constitution Day', i.e. on the 26th November 2024, NITTR Kolkata conducted the main program as 'Celebration of Samvidhan Diwas(Constitution Day)' at 12 noon. The programme started with 'Vandemataram'. Then, the welcome address about the importance of Constitution Day was given by Dr. Rayapati Subbarao. 'The main aim of celebrating this day is to create awareness among the citizens about the Constitution and its values. And also, to bring awareness of the importance of the Indian Constitution and the people behind its evolution. Mainly, to impart constitutional values among the citizens of the country. It was on this 26th

November, the Indian Constitution was adopted by the constituent assembly in 1949 and came into effect from 26th January 1950. If constitution is not framed we would be fighting among ourselves' he said.

This followed by the main address of the institute Director, Prof. Debi Prasad Mishra. He covered the aspects of Dharma, Constitutional values, Contributors in the framing of the constitution. Also, the possibility of equality among the citizens and about freedom of speech. He identified that India has been a land of unity and diversity. 'We must take care of the responsibilities so that the institute and nation gets stronger' he added.



Glimpses of the program on 'Constitution Day'

4. Reading the Preamble



Reading the Preamble.

Then, the faculty, staff and students participated in the reading of the preamble to the constitution, coordinated by Dr. Rayapati Subbarao. Preamble was read in both Hindi and English languages. After that the result of the essay writing completion was announced. The coordinator stressed for more active participation from the students. The programme

ended with all singing the national anthem, '*Janagamana adhinayaka jayahe bhārata bhāgya vidhata.*

Overall, the 'Celebration of Constitution Day' in NITTTR Kolkata for the year 2024 was successful and eventful.

Ancient Indian Science and Technology (AIST) 2024

The 13th National Seminar on Ancient Indian Science and Technology (AIST 2024) was held at NITTTR, Kolkata on November 09, 2024 by National Institute of Technical Teachers' Training and Research Kolkata (NITTTR Kolkata). In the session, Dr. Kinsuk Giri of NITTTR Kolkata, the convenor of the seminar mentioned the objectives of the seminar. Prof. Debi Prasad Mishra, Director of NITTTR, Kolkata and seminar chair welcomed all participants of the seminar and highlighted the important issues about the subject matter of the seminar.

In the first keynote speech Prof. Debi Prasad Mishra honourable director of NITTTR Kolkata has shared his knowledge on Temple Architecture in Ancient India. The second speech was delivered on Superiority of Vedic Physics Over Modern Physics by Mr. Basudeba Mishra, an eternal learner. The second half of this seminar started with a speech on Highlights of scientific temper in ancient and medieval India delivered by Dr. V. Ramanathan. Next, there was a panel discussion with The Employability and Traditional Bharatiya Knowledge. Finally, the seminar ended with closing remarks and a vote of thanks given by Dr. Kinsuk Giri, the convenor of AIST 2024. More than 100 participants joined the seminar.

National Education Day

National Education Day was observed on 11th November 2024. The programme was held in the hybrid mode and was attended by the members of faculty, staff, students, trainees and research scholars. Honourable Director, Prof. Debi Prasad Mishra addressed the gathering emphasizing upon the importance of quality education at all levels. He reiterated the major tenets of NEP 2020 and the pressing need for multidisciplinary and holistic education in the present times. The event was coordinated by Dr. Habiba Hussain, Associate Professor in the Deptt. of Education & Management.



Celebration of Janajatiya Gaurav Divas

The Institute celebrated Janajatiya Gaurav Divas during 15th November to 26th November 2024 to commemorate 149th birth anniversary of Bhagwan Birsa Munda and also to honor all the tribal freedom fighters and for remembering and acknowledging their contribution to the freedom struggle and cultural heritage.



The programme commenced with the welcome address by Dr. Sailendra Nath Mandal, Nodal Officer for organizing the programme. During the inaugural

speech Dr. S. N. Mandal, Prof & Head, CE Department and Co-ordinator informed that Govt. India has declared 15th November, birth anniversary of Birsa Munda as Janajatiya Garav Divas and apprised all present about his role in freedom struggle and development of Tribal communities. Prof. Debi Prasad Mishra, Director of the Institute chaired the programme. Hon'ble Director highlighted the contribution of the tribal to carry out the legacy of the ancient Indian culture. Also highlighted details about the tribal movements across different regions of India against the British colonial rules. A series of activities were held during the period. A quiz competition was held on 15th November, 2024 by Dr. S. N. Mandal. The topic of the quiz competition was Janajatiya Gaurav Divas, and Life of Bisha Munda. Faculty member, Staffs, Research Scholar, STTP/FDP Trainees, and PG Students of the institute participated in the event.

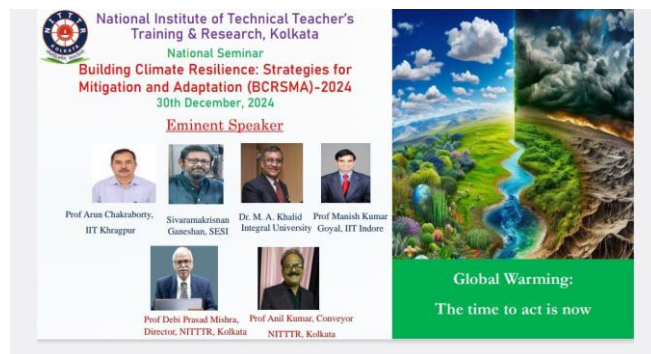


Miss Nabanita Hembram, 1st year student of Master Degree of Rabindra Bharati University recited a poem in Santal language. Faculty member, Staffs, Research Scholar, STTP/FDP Trainees, and PG Students of the institute participated in the event. Residents of the campus also attended the programme. Shri Shyamapada Mandi, Senior Secretariat Assistant and Joint Coordinator of the programme offered vote of thanks. As extended programme, on 26th November 2024, plantation ceremony was held in the Institute

campus with active participation from Faculty member, Staffs, Research Scholar, STTP/FDP Trainees, and PG Students. The event commenced with a brief introduction about the importance of

Plantation on Janajatiya Gaurav Divas and Tribal culture. Trees were planted along designated areas with a focus on specific native. Various type of trees were planted with aim of promoting biodiversity and enhancing the ecosystem. Shri Shyamapada Mandi, Senior Secretariat Assistant given vote of thanks.

communities, and ecosystems to reduce vulnerabilities and ensure sustainability.



ATAL FDP on “Waste to Wealth Innovation”

Prof. Naveen BP organized a six-day online ATAL FDP on “Waste to Wealth Innovation” under the theme “Energy, Sustainability, and Climate Change.” sponsored by AICTE, from 02nd to 07th Dec 2024.



National Seminar on “Building Climate Resilience: Strategies for Mitigation and Adaptation” (BCRSMA-2024)

The National Seminar on "Building Climate Resilience: Strategies for Mitigation and Adaptation" (BCRSMA-2024) was held on 30 December 2024 in an online format, organized by the Department of Education and Management, NITTTR Kolkata. The seminar focused on the urgent need for developing comprehensive strategies that integrate both climate change mitigation and adaptation, emphasizing the importance of resilience in infrastructure,

The event covered a wide range of sub-themes, including resilient infrastructure, renewable energy, water resource management, nature-based solutions, and policy frameworks. Leading experts shared their insights on these topics, including:

- Prof. Debi Prasad Mishra, Director, NITTTR Kolkata, delivered the **keynote address**, highlighting the role of resilience engineering in climate action.
- Prof. Arun Chakraborty from IIT Kharagpur discussed the importance of **nature-based solutions** for climate mitigation.
- Shri Sivaramakrishnan Ganeshan from the SESI Council presented on **de-carbonization in the energy sector** and strategies for reducing carbon emissions.
- Dr. Monowar Alam Khalid shared his views on the potential of **nature-based solutions for enhancing climate resilience**.
- Prof. Manish Kumar Goyal from IIT Indore focused on **water resource management and drought resilience**, with insights on climate variability, hydrology, and glaciology.
- Prof. Anil Kumar from NITTTR Kolkata discussed **climate resilience building in Bihar** and regional adaptation strategies.

A panel discussion on the topic “*Global Target of Restricting to 1.5°C Warming by 2100 – Preparedness of India*” featured Prof. Arun Chakraborty, IIT Kharagpur, Prof. Anil Kumar, NITTTR Kolkata, Prof. Gayadhar Panda, Dean (FAA), NITTTR Kolkata, and Dr. K.R. Singh, NITTTR Kolkata who addressed India’s preparedness for meeting global climate goals.

The seminar concluded with a strong emphasis on interdisciplinary collaboration and innovative solutions to build climate resilience at local, national, and global levels.

Invited Talk

- Global Academy of Technology's Department of Civil Engineering, in association with IGS Bengaluru Chapter, unlocked a new dimension of learning with an expert talk by **Dr. Naveen B.P** on "Pile Design & Construction Practice for Metro Projects".
- **Prof. Naveen BP** delivered talk on " Pile Design & Construction Practices for Metro Projects " Uma Charan Pattnaik Engineering School (UCPES) previously known as Berhampur Engineering School, named after the great freedom fighter and eminent parliamentarian Late Uma Charan Patnaik, was established in the year 1956.
- **Prof. N. P. Maity** acted as a Keynote Speaker in the International Conference on "Advances in Communication, Medical Electronics and Smart Grid Automation (ACMESGA 2K24)" 22nd-23rd November, 2024, Organized by JIS College of Engineering, Kalyani, West Bengal.
- **Dr. Kinsuk Giri** delivered lecture on "Research Methodologies and Methods", Training Program for Newly Recruited IES, October 24, 2024, CSTARI, Kolkata, India
- **Dr. Kinsuk Giri** delivered lecture on "Application of Computational Geometry in ML", Half Day Workshop, September 07, 2024, Indian Centre for Space Physics (ICSP), Kolkata, India
- **Dr. Kinsuk Giri** delivered lecture on "Introduction to ML", Half Day Workshop, September 07, 2024, Indian Centre for Space Physics (ICSP), Kolkata, India

Faculty Development Programmes (FDPs)

Teachers' Training During the period of September - December 2024: 1266 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 66 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 2024.

List of Training Programmes (September-December, 2024)

Sl. No.	Program Code	Programme Title	Programme Coordinator	From	To
1	CU89B	Analysis and Design of Shallow Foundations	Naveen BP	02/09/24	06/09/24
2	CU90C	CAD/CAM	Nirmal Kumar Mandal	02/09/24	06/09/24
3	SPL (BCE Bhagalpur)	NBA Accreditation and SAR Preparation	Rayapati Subbarao	02/09/24	06/09/24
4	CU94B	Polymer Composites and Nanocomposites	Subrata Mondal	02/09/24	06/09/24
5	CU95C	Problem Solving with PYTHON	Kinsuk Giri	09/09/24	13/09/24
6	PS43B	Designing tools for outcome based assessment (OBA)	Habiba Hussain	16/09/24	20/09/24
7	CU98B	Analysis and Design of Deep Foundations	Naveen BP	16/09/24	20/09/24
8	PS44C	Effective Training	Sukanta Kumar Naskar	16/09/24	20/09/24
9	PS45B	Experiential Learning	Dipankar Bose	23/09/24	27/09/24
10	CU100B	Laboratory Practice on Civil Engineering Materials	Mithu Dey	23/09/24	27/09/24
11	SPL14C	Applications and Modelling of Smart Materials	Nirmal Kumar Mandal	23/09/24	27/09/24
12	PS46C	Research and Publication Ethics	Niladri Pratap Maity	23/09/24	27/09/24
13	CU101C	Environmental Pollution and Climate Change	Sailendra Nath Mandal	23/09/24	27/09/24
14	CU91C	Fundamentals of Machine Learning and Deep Learning	Indrajit Saha	23/09/24	27/09/24
15	PS47C	Green Energy and Environment	Gayadhar Panda	23/09/24	27/09/24

16	CU102C	Development of Laboratory Instruction and Manual	Subrata Mondal	23/09/24	27/09/24
17	PS48B	Academic Writing and Tools	K Giri, S Roy & R Subbarao	23/09/24	04/10/24
18	SPL (Inhouse Dhanbad Poly.)	Managerial Skills of Technical Teachers	Sukanta Kumar Naskar	23/09/24	27/09/24
19	SPL(Inhouse GIM)	Utilization of Instructional Media and CAI in Effective Teaching	Subrata Chattopadhyay	23/09/24	27/09/24
20	SPL17C	Mentorship	Sukanta Kumar Naskar	14/10/24	18/10/24
21	PS69C	Ethics for Teachers	Mithu Dey	14/10/24	18/10/24
22	PS51C	Effective Teaching and Research	Indrajit Saha	21/10/24	25/10/24
23	MGT07C	Laboratory Management Issues	Dipankar Bose	21/10/24	25/10/24
24	PS52C	Classroom communication & student engagement	Habiba Hussain	21/10/24	25/10/24
25	SPL(Inhouse AIEMP)	Outcome based accreditation and NBA	Urmila Kar	21/10/24	25/10/24
26	MGT08B	Engineering Laboratory Management	Sagarika Pal	21/10/24	25/10/24
27	PS54B	Holistic and Multidisciplinary Education	Urmila Kar	04/11/24	08/11/24
28	CU111C	Guiding Innovative student project work	Dipankar Bose	04/11/24	08/11/24
29	CU112B	Fundamentals of Image Processing	Indrajit Saha	04/11/24	08/11/24
30	PS55B	Research Methodology	Niladri Pratap Maity	04/11/24	08/11/24
31	PS70C	Advanced Teaching for Modern Teachers	Mithu Dey	04/11/24	15/11/24
32	CU141C	Intelligent Control in Industrial Drives and Renewable Energy Systems	Gayadhar Panda	04/11/24	15/11/24
33	SPL18B	Education for mental well-being of youth	Habiba Hussain	11/11/24	13/11/25
34	CU113C	Problem Solving with R	Kinsuk Giri	11/11/24	13/11/25
35	PS56C	Fundamentals of Outcome based education (OBE)	Habiba Hussain	18/11/24	22/11/24
36	PS57C	NBA and NAAC Accreditation	Rayapati Subbarao	18/11/24	22/11/24
37	CU115B	AutoCAD for Engineers	Mithu Dey	18/11/24	22/11/24
38	CU116C	Digital Logic with CMOS IC Design	Niladri Pratap Maity	18/11/24	22/11/24
39	CU119C	Drinking Water Quality and Public Health	Sailendra Nath Mandal	18/11/24	22/11/24
40	CU120B	Introduction to Neuro-Fuzzy-Genetic Algorithms	Samir Roy	18/11/24	29/11/24
41	CU143C	Geotechnical Investigation Field and Laboratory Testing	Naveen BP	25/11/24	29/11/24
42	PS58B	Teaching Methodology & Digital Tools for Education	Chandan Chakraborty	25/11/24	29/11/24
43	PS59C	Induction Training	Habiba Hussain	25/11/24	06/12/24
44	CU121C	Introduction to Machine Learning and Deep Learning	Indrajit Saha	25/11/24	29/11/24
45	PS60B	Active learning – An innovative technique for teaching learning system	Sagarika Pal	25/11/24	29/11/24
46	CU122C	Industrial Automation and LABVIEW	Soumitra Kumar Mandal	25/11/24	29/11/24
47	PS62A	Outcome Based curriculum design in line with NEP 2020 for autonomous higher educational institutes(HEIs).	Urmila Kar	25/11/24	29/11/24
48	CU140C	State-Of-The-Art Manufacturing Technologies	Deepak Mehra	25/11/24	29/11/24

49	CU125B	MATLAB & LABVIEW applications in engineering	Sagarika Pal	02/12/24	13/12/24
50	CU126B	Earthquake resistant structures (special emphasis will be given on FEMA-356, IS 1893-2016 and IS 13920-2016)	Mithu Dey	02/12/24	06/12/24
51	PS63A	Advanced Pedagogy	Urmila Kar	02/12/24	13/12/24
52	PS64A	Fundamentals of Problem Based Learning	A. K. Mondal, I. Saha, K. Giri, S. Pal	09/12/24	20/12/24
53	PS65B	Writing Skills on Project and Scientific Paper	Chandan Chakraborty	09/12/24	13/12/24
54	PS72B	Digital Supply Chain and Logistics Management	Deepak Mehra	09/12/24	13/12/24
55	CU131C	MATLAB and SIMULINK	Soumitra Kumar Mandal	09/12/24	20/12/24
56	CU132B	Laboratory Practice on cvil concrete Materials	Mithu Dey	16/12/24	24/12/24
57	CU128C	Bio-Medical Instrumentation	Subrata Chattopadhyay	16/12/24	24/12/24
58	CU147B	Resilient Futures: Mastering Climate Mitigation and Adaptation	Anil Kumar and Kunwar R Singh	16/12/24	24/12/24
59	PS66B	NBA Accreditation for polytechnic institutes	Rayapati Subbarao	16/12/24	24/12/24
60	CU145C	Environmental Impact Assessment Of Infrastructure Projects	Kunwar R. Singh	16/12/24	20/12/24
61	MGT10B	Institutional Management	Sukanta Kumar Naskar	16/12/24	20/12/24
62	SPL (In-house Dhanbad Poly)	Advanced Pedagogy for Modern Teachers	SK Naskar and A K Mandal	11/12/24	20/12/24
63	SPL (In-house Katihar Poly)	Green Energy and Environment	Gayadhar Panda and Kunwar singh	09/12/24	13/12/24
64	SPL (In-House CSJM)	Research Methodology	Habiba Hussain	16/12/24	20/12/24
65	SPL BIMT, Balasore)	Human Resource Management	Sukanta Kumar Naskar	20/11/24	22/11/24
66	SPL(Collaborative BBSR)	Microgrid System Monitoring and Control with LabVIEW	Gayadhar Panda	18/12/24	20/12/24

Details of Workshop/ Seminar/ Conference

Sl. No.	Title	Date	Mode	Venue	Co-ordinator
1	Workshop on Faculty Induction Program	30/09/2024	Contact	NITTTR-Kolkata	Dr. Urmila Kar
2	IKS Seminar on Stress Management & Bhagavat Gita	30/09/2024	Hybrid	IEST, Shibpur, Horwah, West Bengal	Prof. Debi Prasad Mishra
3	IKS Seminar on Saga of Traditional Iron Making in Bharat	25/10/2024	Online	NITTTR-Kolkata	Prof. Debi Prasad Mishra
4	International Conference on Bharatiya Traditional Knowledge System (BTKS 2024)	09/11/2024	Online	NITTTR-Kolkata	Dr. Kinsuk Giri
5	International Conference on Mechanical, Aerospace and Metallurgical Engineering (INCOMAME 2024)	22/11/24 to 23/11/2024	Contact	NITTTR-Kolkata	Dr. Subrata Mondal
6	Workshop on NAAC	02/12/2024	Contact	BCET, Balasore, Odisha	Dr. Rayapati subbarao
7	National Seminar on "Building Climate Resilience: Strategies for Mitigation and Adaptation" (BCRSMA-2024)	30/12/2024	Online	Kolkata	Dr. Anil Kumar

Lectures delivered by Prof. Debi Prasad Mishra, Director, NITTTR Kolkata

INVITED LECTURES

1. Delivering Lecture on **“Bharat Janani Ek Hriday Ho”** on celebration of Hindi Divas Samaraho at Hindu Training Institute, Cuttack, NEP 2020 on 14th September, 2024.
2. Delivering Lecture on **“Role of Engineers to compete climate change”** at Odisha Technological Conclave, 2024 on 15th September, 2024.
3. Delivering an invited lecture in the UGC sponsored National seminar on **“Science and Spirituality: The Need of the Hour”** at Departments of Science, Municipal College, Rourkela on 15th & 16th September, 2024.
4. Delivering Lecture on **“Relevance of Bharatiya Paramparik Gyan”** at Dr. Ambedkar Memorial Institute of Information Technology and Management Science at Rourkella on 17th September, 2024.
5. Delivering Lecture on **“The Glimpses of Mechanical Engineering in Ancient India”** at NIT, Rourkella on 17th September, 2024.
6. Delivering lecture on **“Stress Management through Bhagavad Gita”** at B.E. College, Shibpur, Howrah, on 20th September 2024.
7. Delivering lecture on **“Changing concepts of Byabosay (Business)”** at the Academic Industry Conclave 2024 at NIT Tripura on 26th September, 2024.
8. Delivering Lecture in **“Relevance of Indian Knowledge System in Modern Times”** at Girls’ Polytechnic College, Guwahati on 03rd October, 2024.
9. Delivering Lecture in **“Environmental Consciousness in Bhagvad Gita”** at International Conference on Unraveling Indian Knowledge Across Asia (UNIKAA-2024) organized by Indian Institute of Technology Guwahati on 05th October, 2024.
10. Delivering Lecture in **“Vikasit Bharat Bananeke liye Sanskrit Vasha ki Bhumika”** at the international conference on **Sanskrit-based Studies: Origin,**

Development and Proliferation (ICONSS-2024), at MAKAUT in collaboration with Samskrita Bharati. on October 6, 2024.

11. Delivering Lecture in **“The Relevance of Bharatiya Traditional Knowledge in modern Times”** at GLA University, New Delhi on 08th November, New Delhi.
12. Delivering Lecture in **“The Relevance of Ancient Indian Knowledge In Today’s World”** at GL Bajaj, Institute of Technology & Management, New Delhi on 08th November, 2024.
13. Delivering Lecture in **“The Relevance of Bharatiya Traditional Knowledge in modern Times”** at GLA University, New Delhi on 08th November, New Delhi.
14. Delivering Lecture in **“Saga of Tradition Knowledge”** JSS University, New Delhi on 08th November, 2024.
15. Delivering Lecture in **‘New Age Teaching Methodology and Pedagogy’**- FDP- at Dadhichi College of Pharmacy- Cuttack on 18th & 19th November, 2024.
16. Delivering lecture in **“Ancient Indian Temple Architecture”** at NIT Calicut on 30th December, 2024
17. Delivering lecture in **“Saga of Bharatiya Traditional Knowledge”** at NIT Calicut on 30th December, 2024.

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18. Delivering Lecture on **“Relevance of Bharatiya Paramparik Gyan in Modern Times”** on 1st International Conference on Bharatiya Traditional Knowledge System (BTKS 2024), NITTTR Kolkata 2024 on 26th July, 2024
19. Delivering Lecture on **“An Introduction to Indian Traditional Temple Architecture”** on 1st International Conference on Bharatiya Traditional Knowledge System (BTKS 2024), NITTTR Kolkata 2024 on 26th July, 2024
20. Delivering inaugural speech on **1st International Conference on Mechanical Aerospace and Metallurgical Engineering 2024**, NITTTR Kolkata 2025.
21. Delivering Lecture in the celebration of **“National Education Day”** on the theme of **“Building a**

Brighter Tomorrow Through Education” at NITTTR Kolkata, on 11th November, 2024.

22. Delivering lecture in **“Energy, Sustainability and climate Change”** at workshop on ‘Waste to Wealth Innovation’ online AICTE ATAL sponsored FDP conducted by NITTTR Kolkata on 2nd December, 2024.
23. Delivering lecture in **“Earth Energy Budget and Climate Change”** at the National Conference, online mode, on Building Climate Resilience: Strategy for Mitigation and Adaptation - BCRSMA2024A, organized by Department of Education and Management, National Technical Teacher's Training and Research (NITTTR), Kolkata on 30th December, 2024.

Publications

JOURNALS

1. Naine Tarun Bharat, **Debi Prasad Mishra**: Propagation of non-adiabatic heterogeneous solid combustion waves with effect to internal microstructure and heat release: Combustion Science and Technology: 2024.0909: Volume 196, Issue 12, Pages 1905-1932.
2. Abhishek Verma and **Debi Prasad Mishra**: Insights Into the Role of Anti-Counter Rotating Vortices on Film Cooling Efficiency: Journal of Thermal Science and Engineering Applications: 2024.12.01: Volume: 16, Issue 12
3. Jalan, S. K., Baladhandautham, C. B., Sridharan, K., & **Panda, G.** (2024). Power quality advancement of grid-tied photovoltaic system: using optimal phase locked loop based control strategy. Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, 46(1), 9077–9096. (Publication date:2024/12/31)
4. C. J. Jena, P. K. Ray, **G. Panda** and S. Nandkeolyar, “Power Quality Enhancement and Power Management of PV-HESS based Grid-tied Microgrid using Model Predictive Control Approach”, in IEEE Transactions on Industry Applications, doi: 10.1109/TIA.2024.3523876. (Publication date: 2024/12/30)
5. Bharatee, Anindya, Ray, Pravat Kumar, Ghosh, Arnab and **Panda, Gayadhar**. “Implementation of SOC-based power management algorithm in a grid-connected microgrid with hybrid energy storage devices” International Journal of Emerging

Electric Power Systems, 2024. (Publication date: 2024/9/23)

6. Rath, Shanti S., Ray, Prakash K., **Panda, Gayadhar**, Mohanty, Asit and Panigrahi, Tapas K. “Optimal over-current relay coordination in distribution network using grey wolf optimization” International Journal of Emerging Electric Power Systems, 2024. (Publication date: 2024/9/2)
7. Geetika Salwan, **Rayapati Subbarao** and **Subrata Mondal**, ‘Experimental Studies on Microscopic and Mechanical Properties of Nimonic 90 Superalloy Synthesized Using Powder Metallurgy’, Journal of Materials Engineering and Performance, <https://doi.org/10.1007/s11665-024-10093-6>, Sept 2024.
8. **Niladri Pratap Maity et. al.**, “Investigation and analysis of MEMS based capacitive sensor’s characteristics with the effect of electrode pattern”, Microsystem Technologies (Springer), online published on 4th Oct., 2024, <https://doi.org/10.1007/s00542-024-05756-2>.
9. **Niladri Pratap Maity et. al.**, “A Novel Adiabatic Logic Technique for Low- Power Circuit Applications”, Microsystem Technologies (Springer), Accepted on 20th Dec., 2024, Submission ID: fee43adf-408c-4de0-9ad2-3cb3687a138e.
10. “Conductive Islands Assisted Resistive Switching in Biomimetic Artificial Synapse for Associative Learning and Image Recognition” by Rajesh Jana, Ritamay Bhunia, Swapnamoy Paramanik, **Kinsuk Giri** and Avijit Chowdhury, Advanced Functional Materials, 2412804, Nov, 2024, Impact Factor:**18.5**

CONFERENCE

1. Abhishek Verma and **Debi Prasad Mishra**, Effect of Velocity ration on film cooling and turbulence characteristics with circular Injection-September 12, 2024
2. Amit Kumar Tiwary, Swarnambuj Suman and **Debi Prasad Mishra**, A Hybrid Strategy for Monitoring of Measured Critical Parameters for a Steel Ingot Manufacturing Facility, 22nd November, 2024, INCOMAME 2024 at NITTTR Kolkata.
3. Imran Rasheed and **Debi Prasad Mishra**, Characteristics of a Hydrogen Jet in Supersonic Crossflow, 23rd November, 2024, INCOMAME 2024 at NITTTR Kolkata.

4. S. K. Dalai, K. P. Panda and **G. Panda**, "Three-Phase Switched-Capacitor Common-Grounded Multilevel Inverter for EV Application," 2024 IEEE Industrial Electronics and Applications Conference (IEACon), Kuala Lumpur, Malaysia, 2024, pp. 53-58, doi: 10.1109/IEACon61321.2024.10797343. (Publication date: 2024/11/4)
5. Nityanando Mahato and **Rayapati Subbarao**, 'Static Structural Analysis of Gas Turbine Compressor Stator Blades Made of Different Alloys', 45, International Conference on Mechanical, Aerospace and Metallurgical Engineering (INCOMAME 2024), NITTTR Kolkata, Nov 2024.
6. Sayon Dey and **Rayapati Subbarao**, 'Thermal analysis on different Aluminium alloys using friction stir welding', 28, International Conference on Mechanical, Aerospace and Metallurgical Engineering (INCOMAME 2024), NITTTR Kolkata, Nov 2024.
7. **Rayapati Subbarao** and **Debi Prasad Mishra**, Analysis on the practical importance of various customs followed in ancient India, 19, International Conference on Bharatiya Traditional Knowledge System (BTKS), NITTTR Kolkata, India, 2024.
8. **Niladri Pratap Maity et. al.**, "Fringing Effects in a Capacitive Micromachined Ultrasonic Transducer with a SiC actuation layer insulated by High dielectric material", *IEEE EDKCON 2024*, 30th Nov. - 1st Dec. 2024, pp. 252-257, <https://doi.org/10.1109/EDKCON62339.2024.10870794> (IEEE Xplore).
9. **Niladri Pratap Maity et. al.**, "Analysis of Membrane Yield in Insulated Air-Patched Capacitive Transducers for High-Frequency Applications", *IEEE EDKCON 2024*, 30th Nov. – 1st Dec. 2024, pp. 720-725, <https://doi.org/10.1109/EDKCON62339.2024.10870620> (IEEE Xplore).
10. **Niladri Pratap Maity et. al.**, "The Parametric Studies of a Clamped-to-Clamped Resonant Beam Accelerometer", *IEEE EDKCON 2024*, 30th Nov. – 1st Dec. 2024, pp. 1-7. <https://doi.org/10.1109/EDKCON62339.2024.10870823> (IEEE Xplore)
11. **Niladri Pratap Maity et. al.**, "Finite Element Method Study of Acoustic Pressure Effect on MEMS Based Micromachined Ultrasonic Transducer," *International Conference on Computing, Communication and Sensor Network-2024 (CCSN 2024)*, Kolkata, 27th -28th Sept. 2024.

12. **Niladri Pratap Maity et. al.**, "Analysis on the Collapse Voltage using Different Structural Parameters of Ultrasonic Micromachined Transducer," *International Conference on Computing, Communication and Sensor Network-2024 (CCSN 2024)*, Kolkata, 27th -28th Sept. 2024.

BOOK CHAPTER

- **Mehra, D.**, Dave, V., & Harsha, S. P. (2024). e-Waste Generation: A Journey from e-Device to e-Waste. Global Waste Management, 63-83, scrivener Publishing LLC, WILEY
- Zvikomborero Lazarus Duri, Rajesh Arora & **Naveen BP** (2024) "Application of Dry Grinding as an Optimisation Tool for the Surface Area Development in Geopolymer Cement Manufacture", Recent Advances in Building Materials and Technologies, Lecture Notes in Civil Engineering 456, Springer, <https://doi.org/10.1007/978-981-99-9458-8-33>.

RESEARCH ARTICLE

- Sanaz Soltaninejad , Mohammad Sina Abdollahi, **Naveen BP** ,Seyed Morteza Marandi Marziyeh Abdollahi & Saranaz Abdollahi (2025) "Toward Sustainable Infrastructure: Advanced Hazard Prediction and Geotechnical Risk Management in the Jiroft Dam Project, Iran "Sustainability, MDPI Publisher, 17, 1465 (Impact Factor 3.6).

Activities of Learning Resource Centre

Activities of LRC during 1st September- 31st December, 2024 are jotted below-

- i. **List of educational resources developed/video coverage during the period**
 - a) MOOC- NATS video-22nos
 - b) MOOC-DRRM video recording-09nos
 - c) Educational Video Film-10nos
- ii. **Photo coverage of the events during 1st September- 31st December, 2024**

During the above-mentioned period following Thirteen (23) events were covered:

- a) Plantation on Sept05 2024

- b) Observing Teachers' Day Sept5 2024
- c) Swachhata Pakhwada Rally Sept9 2024
- d) Swachhata Pakhwada Cleanliness Sept10 2024
- e) Semicon India 2024 Conference Sept11 2024
- f) Swachhata Pakhwada Seminar Sept11 2024
- g) AICTE Workshop SEpt13 2024
- h) Swachhata Pledge Sept19 2024
- i) Swachhata Hi Seva Sept20 2024
- j) Cleaning at Public Place Sept23 2024
- k) Eak Ped Maa Ki Naam Sept24 2024
- l) Safai Mitra Suraksha Shibirs Sept27 2024
- m) Induction Program Sept30 2024
- n) Observing Gandhi Jyanti Oct02 2024
- o) Inauguration Samarth e Gov Oct22 2024 and LRC YouTube Channel
- p) Cyber Security Week Oct23 2024
- q) Observation of National Education Day Nov11 2024
- r) Inauguration of renovated Rabindranath Tagore Hostel on Nov14 2024
- s) Observing Janjatiya Gaurav Divas Nov15 2024
- t) INCOMAME 2024
- u) Constitution Day Nov26 2024
- v) ATAL-FDP NBP Dec02-07 2024
- w) Launching of Institute Sop Dec23 2024

iii) Any other news item worth publishing.

Beside this, during this period, hybrid mode M Tech classes (approx. 194 classes each of 1Hr duration) conducted on regular basis from two Smart Classrooms of LRC.

Miscellaneous

MoU Signed Between NITTTR, Kolkata & RASTA

A Memorandum of Understanding (MoU) has been signed between the National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata, and RASTA – Centre for Road Technology (Resource Centre for Asphalt and Soil Training Academy).

This partnership aims to strengthen collaboration in Training, Education, and Research & Development (R&D) in the fields of Geotechnical and Highway Engineering. The MoU will facilitate knowledge exchange, skill development, and joint research initiatives in these crucial domains.



The entire process was coordinated by Prof. Naveen B.P., ensuring a seamless and successful agreement between the two institutions.

Participation

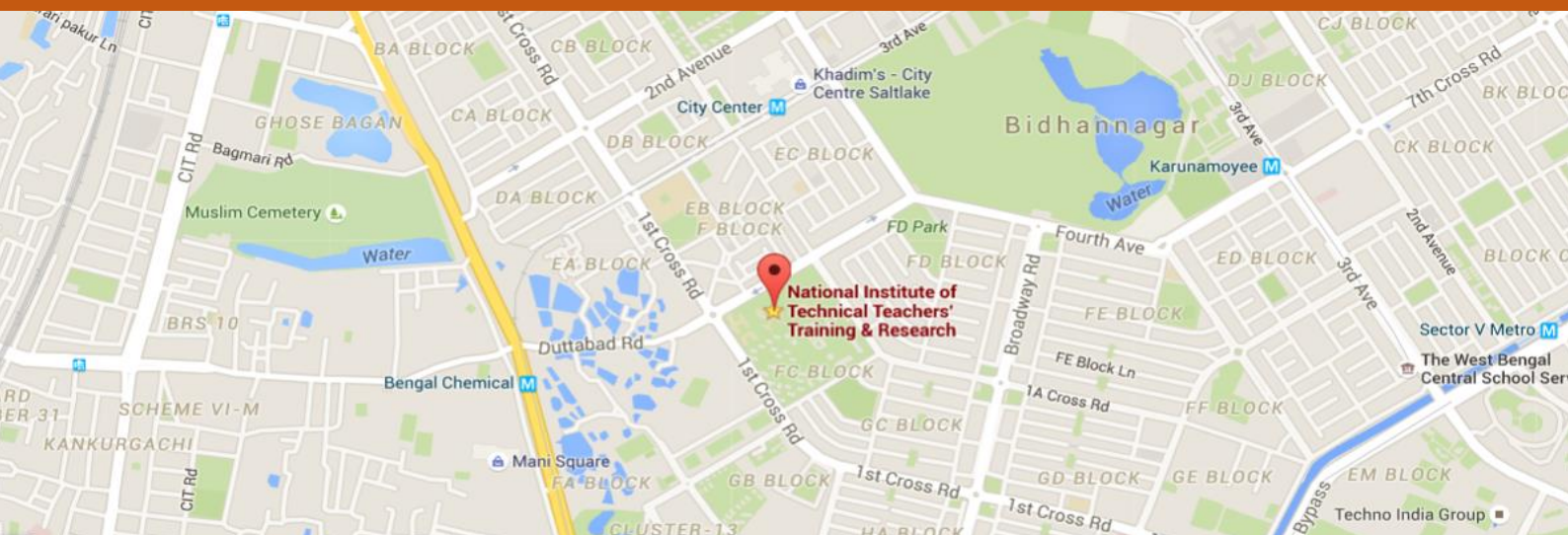
Prof. Naveen BP attended as a Chief Guest and Inaugurated the AICTE Sponsored One Week Faculty Development Programme (ATAL) on “Artificial Intelligence and Machine Learning Applications in Civil Engineering” organized by Department of Civil Engineering, Dr. Mahalingam College of Engineering and Technology, Pollachi on 9th December2025.



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“Many of life's failures are people who did not realize how close they were to success when they gave up.”

-Thomas A. Edison



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>



Newsletter Committee, NITTTR Kolkata

- Dr. Habiba Hussain, Chairperson
- Dr. Deepak Mehra, Member
- Shri Utpal Chakraborty, Member
- Layout and cover design and DTP work, Shri Utpal Chakraborty
- Photo coverage, Learning Resource Centre