Message from Director

Over the last two decades or more there has been growing awareness of improving the quality of the education system in India. With the introduction of epoch-making NEP 2020 and also the ranking system of higher education institutions, it is quite essential and important to adhere the basic principles of Quality assurance. Of course, Higher Education System is considered to be an effective way of rebuilding a knowledge society. The name of Bharat itself indicates that our ancestors were the seekers of both non-secular and spiritual knowledge since time immemorial. The objective of higher education is to empower learners with requisite skills so that they can take forward the society to great heights.

Recently, most higher education institutes have an internal quality assurance cell (IQAC) as it is mandatory for getting approval from the regulatory bodies.

Unfortunately, most of such kinds of cells are not functioning properly as the culture of quality consciousness has not been nurtured. The faculty members should take responsibility for ensuring the quality of the academic programs, of course, in cognizance with the prevailing administrative setups. The willingness of faculty members can nurture the culture of quality provided they work in a more organised manner while exerting extra efforts apart from regular academic assignments. The sense of ownership and responsibility for students and institute can motivate them to develop a quality assurance system in academic institutions which is missing mostly in the majority of both private and public educational institutes of India in recent times. The quality of higher education is suffering due to a lack of commitment among faculty, staff members, administrators and also students. The quality of students and their commitment for learning is decreasing at an alarming rate as the main motivation of most students is to garner high-package jobs. Besides this, the infrastructural facility could not cope with rapid changes in educational technologies and requisite skill sets. Hence the role of faculty members and administration can play crucial roles in shaping the quality of higher education.

Of course, in this regard, NITTTR Kolkata has taken a bold initiative to establish an internal quality assurance cell.

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We have also invited well-versed experts from outside to develop procedures and programs for making this cell fully functional. I would call upon all the faculty and staff members to participate in this cell actively so that we can develop a better ecosystem to cope with the onerous task of establishing the upcoming deemed-to-be university when it will be declared hopefully by the ministry in future. We can rejuvenate ourselves and our institute provided we work relentlessly and courageously as our scripture says that there is nothing unattainable to the one who has courage and who works hard.

अप्राप्यं नाम नेहास्ति धीरस्य व्यवसायिनः।

Prof. Debi Prasad Mishra
Director, NITTTR, Kolkata

ARTICLE

Beauty lies in the Eyes of the Beholder

Prof. Samir Roy, CSE Department

This is a statement widely accepted by people to recognize the fact that beauty is primarily a personal choice rather than some universally valid criterion. There is no formula to decide unambiguously and undoubtedly what is beautiful and what is not. It varies from individual to individual, depending on personal taste, upbringing, culture, age, ideology and so many other factors. A mother may find her child to be the most beautiful creature in the universe while to others the same child may appear to be normal at best, ugly in the worst. You may be fond of Renaissance age art of Michelangelo while I may prefer Van Gogh's impressionist paintings.

In romantic relationships, the beloved appears to be the most beautiful human being in his/her lover's eyes. This is because there is a deep relationship between love and beauty. When we love a person, or object, we find that person or object beautiful. Conversely, as soon as a person or an object appears to be beautiful to us, we immediately fall in love with the person, or object.

Indeed, aesthetic sense is one of the most complex and intricate feelings of human consciousness. The first thing we need to notice about aesthetics is, it does not have any utilitarian value. The second is, it is clearly related to some other fundamental humanitarian elements e.g., truth, love, ethics, etc. Such relationships are nicely manifested in various poetic and philosophical expressions:

i) *Beauty and Truth:*
"Beauty is truth, truth beauty – that is all ye know on earth, and all ye need to know." - John Keats in Ode on a Gracian Urn
ii) *Beauty and Love:*
"Love is the beauty of the Soul." – Saint Augustine
"The man who lives without conflict, who lives with beauty and love, is not frightened of death because to love is to die." – J. Krishnamurthy
iii) *Truth, Goodness and Beauty:*
"Satyam Shivam Sundaram" – Ancient Indian wisdom

Throughout history, philosophers and artists of both Western and Eastern cultures have associated the Good, the Beautiful and the True. These are the so-called Transcendentals of Philosophy. Classical Western philosophers like Plato, Aristotle etc. tried to associate the concept of beauty with some objective criteria, e.g., order, balance etc. For instance, Aristotle applied the concept of the Golden ratio ($\frac{(a+b)}{a} = \frac{a}{b} = 1.618$) to understand beauty as well as morality. So even if beauty lies in the eyes of the beholder, we get some clues about what makes the beholder perceive something as beautiful. Perhaps, the most eloquent assertion of on the interconnectedness of Truth, Goodness and Beauty is the traditional Indian wisdom "Satyam Shivam Sundaram".

Literally, Satyam means the Truth, Shivam means virtue, i.e., Good, and Sundaram means beauty and the underlying state of consciousness – bliss. Taken together, Satyam Shivam Sundaram is the expression of ultimate reality, the Brahman. A somewhat equivalent expression of this triad is "*Sat-Chit-Anand*".

The complexity of human psychology on aesthetics is nicely portrayed in the play "*On the Face of It*" authored by Susan Hill. The protagonist of the play is Derry, a young man with one side of his face distorted by acid. He meets Mr. Lamb, an old man, in the latter's garden. Apparently, Mr. Lamb leads a lonely life, with no one to take care of him except himself. However, he keeps himself busy with his works and maintaining a positive attitude towards life. Derry, on the other hand, is too conscious of his ugly appearance and have completely withdrawn from normal social life. He thinks that people can only hate him due to his distorted face. Even when someone shows sympathy, he interprets it as mere contempt. Mr. Lamb, through sympathetic dialogue with Derry, tries to make Derry realize that beauty is not skin deep. If lies within the character of the person rather than his/her physical appearance. Therefore, it is not appropriate to stop at the outlook of a person. Rather, we should look for the inner beauty of the character to judge his/her worth as a human being.

The fact that beauty is not skin deep can be appreciated if we observe the variety of human expressions where we use the word 'beauty' or 'beautiful'. As stated earlier, beauty does not have any utilitarian value. Still, we find, that every human being has an inherent inclination towards beauty. The eternal human weakness for beauty is utilized by business organizations to promote their products and services. The entire advertisement industry is based on our passion for beauty. It has been found that more beautiful models appearing in an advertisement has a greater chance of selling the product. In fact, analysis of customer behaviour shows that customers are more likely to be convinced about the quality of the product by the appearance of the model in the advertisement than the actual quality parameters of the product. Another billion-dollar industry is the fashion and beauty products industry. The amount of money, effort and time that people spend in beauty parlours proves beyond doubt that the passion for beauty goes far deeper than the skin.

Yes, beauty lies in the eyes of the beholder, but the sense of beauty is as primitive and universal as the other basic features of human consciousness, e.g., Truth, Love and Goodness. At the end, we may conclude by saying that the beauty of beauty is, beauty lies in the eyes of the beholder, but appreciation of real beauty is possible only if the beholder's eyes are adequately educated and sensitive to beauty.

Press Conference on 3 - years of successful implementation of NEP-2020 held on July 26, 2023

Dr. R. Chatterjee
Prof. Computer Science & Engineering

A press conference was organized at NITTTR, Kolkata on successful completion of 3-years of NEP 2020 at Ramakrishna Paramhansa Mini Auditorium on July 26, 2023. A good number of media houses were present at the Press Meet. Delegates from IIIT, Kalyani, IIEST, Shibpur, IISER, Kolkata, IACS, Kolkata, Visva Bharati, Santiniketan, CSTARI, Kolkata, IIM Calcutta and NIT Durgapur were present. Joint Director (M&C) PIB, Kolkata along with her team was also present in the meeting. The press meet was initiated sharply at 3:00 pm as per the schedule.

Professor Debi Prasad Mishra, Director of NITTTR-Kolkata, welcomed all the delegates and dignitaries and highlighted about activities of NITTTR-Kolkata. He explained the members present how NEP 2020 is a

people's policy including highlighting the salient features of NEP 2020. He also informed that some of the features are implemented at NITTTR-Kolkata like sensitization about NCrF, implementation of NEP in Higher educational Institutions, conducting Mentor training program, offering e-STTPs etc.

Professor Santanu Chattopadhyay, Director IIIT-Kalyani also presented his views on NEP 2020 offering programs in local languages, and in this context, he appreciated the efforts taken by AICTE namely E-KUMB portal, where many textbooks in different subjects are written in local languages. He informed that IIIT-Kalyani has already signed MOU with many institutes like, WBNUJS, NIFT, AIIMS- Kalyani etc.

Professor Sudip Kr. Roy of IIEST- Shibpur highlighted issues already taken into consideration by the institute, which are in line with NEP 2020 i.e. preparation of flexible course structure with many electives.

Professor Suhrit Ghosh, Professor of IACS, Kolkata pointed out that even before NEP 2020 they are offering multidisciplinary courses through their interdisciplinary schools. They have introduced flexible course structure as per guidelines of NEP 2020 with many options of major and minor. They also have Technology Research Centre supported by Govt. of India conducted several research projects.

Professor Sarbajit Sengupta of Visva Bharati University proudly announced that Tagore's ideas were taken into consideration while preparing NEP 2020. Integrated multidisciplinary education is normal practice by the university, which are in line with NEP 2020. Environmental education, value based education, inclusive social work are some of the notable activities practices by the university.

Director CSTARI, Kolkata pointed out that that they have conducted many awareness program especially in vocational education sector. All vocational curricula are converted in line with NCrF framework.

Professor Bidisha Sinha, IISER Kolkata and Professor Aditi Bhutoria from IIM Calcutta highlighted the spirit of NEP 2020. Prof. Nirmal Baran Hui from NIT Durgapur pointed out that NIT Durgapur would follow NEP 2020 philosophy in totality.

Light Refreshment and Memento were presented to all the delegates and media personnel present in the meeting.

NITTTR, Kolkata thanks PIB and all media personnel for the press meet.

Report on "The celebration of 9th International Day of Yoga 2023"

Dr. Mithu Dey, Coordinator
Mr. Abhijit Kundu, Member

With reference to the office order no. Ref. No. NITTTR-K/E/5-3/2022-23/1312, dated 16th January, 2023, the undersigned organized the celebration of International Day of Yoga 2023 at our Institute (Netaji Subhash Chandra Bose Auditorium) on Wednesday, 21st June, 2023 to commemorate the importance of yoga in promoting physical and mental well-being. The theme for this year was "Yoga for Vasudhaiva Kutumbakam", which signifies "one world, one family."

Following the common yoga protocol set by the ministry of Ayush, govt. of India, a yoga session was conducted and followed by the yoga practitioner, where all faculty members and staffs participated.

Our honourable Director, Prof. D. P. Mishra, addressed the gathering that provided a comprehensive introduction to yoga, highlighting its ancient origins in India, and its rich history spanning thousands of years. It was emphasized that yoga is not just a physical exercise but a holistic practice that integrates the body, mind, and spirit. The Director encouraged participants to explore these aspects of yoga to deepen their practice and experience the full spectrum of its benefits.

Basic objective of this event was to spread the message about the awareness of the importance of yoga in our daily lives and maintain balance in the mind, body, and spirit while keeping away ourselves from stress, anxiety in this fast paced and stressful world

The program was ended with vote of thanks to the chair.

Some photographs of the Celebration of International Day of Yoga 2023 are provided below.

Yoga is an ancient science and a way of life. Through tranquil poses and conscious breathing, it Promotes positive health, reveals the inner strength that lies within, and empowers the inner energy to gracefully confronts challenges of life.

Yoga is a journey to find balance and harmony between the mind and body. It involves exploring the transformative power of embracing calmness through mindful movement, breath, and introspection.

Yoga serves as a sacred path for profound connection of individual soul to supreame soul. It ignite the inner devine light for nurturing physical and mental wellness. The physical body gain strength and flexibility, the mind becomes clearer and more focused and the emotions find equilibrium and serenity

Yoga is a devine technique that transform our intellect, mind and emotion and provide a comprehensive philosophy for holistic living amidst the fluctuations of life.

Brahma Kumaris "Power of Silence"

On 31st August, 2023, Raksha Bandhan was celebrated on behalf of Prajapita Brahmakumaris at NITTTR Kolkata.

The celebrations for Rakshanbandhan were started by the welcome address of Dr. Kinsuk Giri to the gathering mentioning the significance of the day. Joining as chief guest, Director NITTTR Kolkata, Prof. Debi Prasad Mishra elaborated the spiritual significance of Rakshabandhan. Prof. Mishra said that Rakhi is a sacred thread that binds everyone in God's love. We know the literal meaning of Rakshabandhan – the bondage of protection and as per tradition, the sisters apply "tilak" on the forehead of their NITTTR Kolkata brothers and sisters, tie a colorfully decorated "rakhi' or thread on their brother's and sister's wrist, and offer sweets as a token of their love. The meeting was managed by Brahma Kumaris Baguihati, Kolkata. Around 80 dignitaries participated in the celebration.

"NATIONAL WORKSHOP ON IMPLEMENTATION OF NATIONAL EDUCATION POLICY 2020 (NEP2020)"

Organized by:

Vidyarthi Vikas

National Institute of Technical Teachers' Training and Research (NITTTR), Kolkata

Indian Institute of Engineering Science and Technology (IIEST), Shibpur

Supported by:

Indian Institute of Science Education and Research(IISER) , Kolkata

Date: 15 and 16th July, 2023

Venue:

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

No. of Participants: 148

Who participated: Faculties, Research scholars, students and policy makers

About the Workshop

National Education Policy 2020 proposes the revision and revamping of all aspects of the education structure, including its regulation and governance, to create a new system that is aligned with the aspirational goals of 21st century education, including SDG4, while building upon India's traditions and value systems. The rich heritage of ancient and eternal Indian knowledge and thought has been a guiding light for this Policy.

This National Education Policy envisions an education system rooted in Indian ethos that contributes directly to transforming India, that is Bharat, sustainably into an equitable and vibrant knowledge society, by providing high-quality education to all, and thereby making India a global knowledge superpower.

The vision of the Policy is to instill among the learners a deep-rooted pride in being Indian, not only in thought, but also in spirit, intellect, and deeds, as well as to develop knowledge, skills, values, and dispositions that support responsible commitment to human rights, sustainable development and living, and global wellbeing, thereby reflecting a truly global citizen. This workshop aims to reach out to the stakeholders of higher education especially faculty, students and policy makers who will be directly affected by the NEP2020. Presentations by the eminent professors and experts followed by discussions shall help in better understanding of the NEP2020 and possible ways of implementation at the higher educational level in the country and the state. The deliberations shall pave ways to address the challenges and how to resolve them in due course. The two-day National workshop on "**Implementation of NEP 2020**" will provide platform for the stakeholders to discuss and share their thoughts.

Objectives:

- To enhance the knowledge of the participants about NEP 2020
- To prepare roadmap for implementation of NEP

Major topics of discussion:

- Principle and Philosophy of NEP
- Rediscovery of Indian Heritage and IKS through NEP 2020
- Language issues: subject and medium of instruction in education
- Teachers' education - Professional preparation of teachers across the stages
- Implementation of new UG programme: CBCS, MEME, ABC, etc.
- Vocational and skill education and meeting the demands of the job market
- Research and innovation in education: NRF - Financing of Education
- Present status of NEP implementation and issues of higher education in WB
- Multidisciplinary and Holistic Education - UG and PG programs
- National Credit frame Work
- Present Status of NEP 2020 implementation and issues of higher education in WB.

About Organizers

Vidyarthi Vikas: VIDYARTHI VIKASH, a society registered under the society registration act 1860, is an autonomous body engaged in the field of education, conducting different programs like seminars, group discussions, workshops etc. related to education and skill development and also helping poor students.

NITTTR, Kolkata: National Institute of Technical Teachers' Training & Research (NITTTR), Kolkata was established in 1965 as Technical Teachers' Training Institute (TTTI), Calcutta. This was the first among four such institutes (other three being at Chandigarh, Bhopal & Chennai) established by the Ministry of Education, Govt. of India as fully centrally funded autonomous institutions for providing pre & in-service training to the teachers and staff of Degree and Diploma level training institutions and also for conducting various activities related to quality improvement of the technical education system of the country. The Govt of India, in 2003, accorded national status to this institute, (along with the three sister institutes) in recognition of the contribution of these institutes for the expert service rendered for overall improvement of quality of Technical Education System.

IIEST, Shibpur: IIEST, Shibpur (Erstwhile "Bengal Engineering College") ranks 27th in NIRF-2021 among Engineering Institutes. It is the first college to become Indian Institute of Engineering Science and Technology (IIEST) in India in 2014. The Institute has a rich history. It is empowering the nation since 1856. Considering the year of establishment, it is the 3rd engineering college in India but considering the year of graduation it is the 2nd oldest engineering college in India. It has 16 departments and 8 schools. It has over 250 faculty members and a student strength of over 4000.

Topics of Discussion:

Prof. Milind Marathe, Associate Professor, Department of Electronics Engineering, K.J.Somaiya College of Engineering (Autonomous College affiliated to University of Mumbai), Vidyavihar , Mumbai. 40007

Topic: Critical issues of NEP and implementation roadmap

Dr. Asit Baran Biswas; University of Calcutta

Topic: National Credit Framework (NCrF)

The NCrF will enable transformation of India by providing high quality education opportunities integrated with effective skills to reap the demographic dividend making education and skilling truly aspirational for our youth.The NCrF is an enabling framework and may not be construed as a regulation.

It empowers, facilitates and allows the stakeholders while giving them the required flexibility for catering to their specific academic and skilling needs.National Credit Framework (NCrF) shall act as one single broad enabling frameworks for all regulatory organizations, and autonomous institutions who may, wherever required, notify their detailed implementation guidelines within this Framework.

Prof. B. B. Parida, The University of Burdwan, West Bengal

Topic: Vocational & Skill Education

Vocational education will be integrated into all school and higher education institutions in a phased manner over the next decade. By 2025, at least 50% of learners through the school and higher education system shall have exposure to vocational education, for which a clear action plan with targets and timelines will be developed.

Both Vocational Education (VE) and Higher Education (HE) are embedded in a commonly decided policy to modernise the education system and boost innovations. It will increase **attractiveness** of VE, facilitate the recognition and transferability of qualifications covering both VE and general (secondary and **higher**) **education**, based on competences and learning outcomes and **improve permeability within education and training systems**, provide a reference for the validation of informally acquired competences and support the smooth and effective functioning of the labour market.

Prof (Dr.) Debabrata Mitra, Department of Commerce, University of North Bengal

Topic: New Education Policy 2020 and Financing of Higher Education in India

The Public expenditure on higher education in many developed countries and few developing countries as a percentage of total expenditure on education indicates the relative importance given to higher education which has social, economic and political externalities. Traditionally, the Human Capital Theory has dealt with the necessity of investment in education with the objectives of enhancing productivity. In Indian context, the National Knowledge Commission has also emphasized the significance of making Indian Society a knowledge society and achieve inclusive growth in the context of pro-market economic reforms. The twelfth Five Year plan target indicates a GER of 25.2% by 2017 which implies an additional intake or enrolment of 10 million students in higher education system. A number of action points/activities for implementation in school education as well as higher education are mentioned in the National Education Policy 2020.

Dr. Rajsharan Sahi, Associate Professor in the Department of Education at Baba Saheb Bhimrao Ambedkar Central University, Lucknow, Uttar Pradesh

Topic: Teachers' education –Professional preparation of teachers across the stages

Dr. Dipankar Das, Dept. of Chemistry, St. Xavier's College, Kolkata

Topic: NEP: 2020 On Teacher Education

It is the teacher who are mainly responsible for implementation of the educational process at any stage. Teacher education is vital in creating a pool of teachers that will shape the next generation. They must think how to include holistic nature, Integration, enquiry driven thoughts, discovery–orientation, learner centred teaching. Teachers must be grounded in Indian values, languages, knowledge, ethos, and traditions including tribal traditions, while also being well-versed in the latest advances in education and pedagogy. In order to improve and reach the levels of integrity and credibility required to restore the prestige of the teaching profession, the Regulatory System shall be empowered to take stringent action against substandard and dysfunctional teacher education institutions (TEIs) that do not meet basic educational criteria, after giving one year for remedy of the breaches. By 2030, only educationally sound, multidisciplinary, and integrated teacher education programmes shall be in force.

Dr Debjyoti Chanda, Rabindra Bharati University

Topic: Language Policy and Medium of Instruction- An Analysis

The National Education Policy 2020 has advocated that "wherever possible, the medium of instruction until at least Grade 5, but preferably till Grade 8 and beyond will be the home language/mother tongue/local language/regional language" for both public and private schools.

Mother tongue or local language in early education, recognizing its role in fostering a strong foundation and cognitive development. It promotes multilingualism and encourages learning of additional languages at later stages including classical languages. Preserving indigenous languages, including tribal languages. Efforts will be made to document, revitalize and teach these languages. Bridge courses and remedial teaching to facilitate one language to another and bridge the language gap with remedial teaching. NEP 2020 encourages use of technology for language learning, including use of digital resources, online courses and language learning apps. It acknowledges the significance of English proficiency, promotes multilingualism, fostering a holistic language learning approach for students in India.

Dr. Manoranjan Roy

West Bengal University of Animal and Fishery Sciences

Topic: Vocational and Skill Education and meeting the demands of the job market Target of Vocational and Skill Education in NEP 2020 is to have at least 50% of students with vocational education by 2025, to equip students with key 21st Century skills, to make students all-rounder, to introduce Vocational Education in the 6th Grade in school and with inclusion of internships, to promote new skills like Metal work, Gardening, Pottery making, Carpentry, Electrical work and Other every day and useful jobs.

National Skills Qualification Framework (NSQF 2013) provides multiple pathways to learners on Horizontal as well as vertical within vocational education, vocational training, general education and technical education. Linking one level of learning to another higher level enable a person to acquire desired competency levels, transit to the job market, at an opportune time return for acquiring additional skills to further upgrade their competencies.

Dr. Pabitra Debnath, St. Xavier's College, Kolkata

Topic: Present status of NEP2020 Implementation and Issues of Higher Education in WB Government of West Bengal has proposed to implement NEP 2020 across the State in the Coming academic session 2023-24. Most of the University has almost completed Structure of the 4 year UG Course and Completed Syllabus of 1st two semesters.

Prof R K Trivedi, West Bengal University of Animal and Fishery Sciences, Kolkata

Topic: Choice Based Credit System (CBCS)

CBCS is a "Food plaza" type approach in which the students can take courses of their choice, learn at their own pace, undergo additional courses, acquire more than the required credits, and adopt an interdisciplinary approach to learning. CBCS transforms the traditional teacher-centered education to a student-centered education. CBCS provides greater flexibility with multiple exits, multiple pathways and vertical mobility. The main objectives of CBCS are to provide broad based education, to provide students with greater flexibility in choice of courses, to provide students multi-disciplinary curriculum, to enable students to choose courses at basic/advanced level/interdisciplinary, to enable students to acquire job oriented skills, to enable students to progress at their own pace, to enable highly motivated students gain extra credits and to Bridge the gap between

professional and social exposure to provide a holistic education.

Dr Riddhi Majumder, St Xavier's College, Kolkata

Topic: Multidisciplinary and Holistic Education (NEP2020)

Major essence of NEP2020 providing better skill-set to students so that they can venture into new avenues i.e. multidisciplinary and holistic education. Industry, government, academia and society interface removing rigid curricular structure with an option for entry and exit.

Multidisciplinary and holistic education is also present today but in bits-and pieces, NEP2020 provides the outline and opportunity to knit together the loose strings. ABC and setting up the concept of HEI that is spread across disciplines will catalyze the process.

Dr. SANJIB NAG, Department of architecture, Jadavpur University, Kolkata.

Topic: Holistic and Multidisciplinary Education – UG and PG Programs.

Holistic education is a comprehensive approach to teaching where educators seek to address the emotional, social, ethical, and academic needs of students in an integrated learning format. Emphasis is placed on positive school environments and providing whole-child supports to stud whereas **Multidisciplinary education is a form of educational strategy that brings together multiple disciplines to create a holistic learning experience.** It is designed to foster an understanding of the interconnectedness of various fields and how they can be integrated for better problem-solving.

India has a long tradition of holistic and multidisciplinary learning. Ancient Indian literary works such as Banabhatta's Kadambari described **a good education as knowledge of 64 Kalaas or arts. The very idea that all branches of creative human endeavour,** including mathematics, science, vocational subjects, professional subjects, and soft skills **should be considered 'arts', has distinctly Indian origins. This notion of a 'knowledge of many arts'** or what in modern times **is often called the 'liberal arts'** (i.e., a liberal notion of the arts) must be brought back to Indian education.

A holistic and multidisciplinary education would aim to develop all capacities of human beings -intellectual, aesthetic, social, physical, emotional, and moral in an integrated manner. **A holistic and multidisciplinary education,** as described so beautifully in India's past, is indeed what **is needed for the education of India to lead the country into the 21st century and the fourth** industrial revolution. **Imaginative and flexible curricular structures** will enable creative combinations of disciplines for study, and would offer multiple entry and exit points and **creating new possibilities for life-long learning. Large multidisciplinary universities and colleges will facilitate the move** towards high-quality holistic and multidisciplinary education. This will be encouraged by increased faculty and institutional autonomy in setting curricula. **Pedagogy will have an increased emphasis on** communication, discussion, debate, research, and opportunities for **cross-disciplinary and interdisciplinary thinking.**

Dr. Sudipta Mukhopadhyay, IIEST SHIBPUR, Howrah, West Bengal

Topic: Research and innovation in education: NRF

Catalyse and energise research and innovation across the country in all academic disciplines, with a special focus on seeding and growing research at universities and colleges - create a conducive ecosystem for research through competitive peer-reviewed funding, mentoring, and facilitation.

Knowledge creation and research are well-known to be centrally critical to growing and sustaining a large and vibrant economy, uplifting society, and continuously inspiring a nation to achieve even greater heights. Some of the most prosperous civilizations throughout history, from ancient times (such as India, Mesopotamia, Egypt, China, and Greece) to the modern era (such as the United States, Germany, Israel, South Korea, and Japan), were /are strong knowledge societies that attained their intellectual and material wealth in large part through celebrated and fundamental contributions to new knowledge - in the realm of science as well as art, language, and culture- that enhanced and uplifted not only their own civilizations but those around the globe.

Research scholars are constantly made aware of the most urgent national research issues of the day, and so that policymakers are constantly made aware of the latest research breakthroughs; this would allow breakthroughs to be brought into policy and/or implementation. The National Research Foundation will catalyze and expand research and innovation in the country.

Dr. Tanmoy Sarkar, Ghani Khan Choudhury Institute of Engineering and Technology, Malda

Topic: Academic Bank of Credit (ABC)

The ABC is a virtual mechanism that will deal with the credits earned by students of Higher Education Institutes in India and which are recognised by UGC. This system empowers students to access their accounts seamlessly. It offers a plethora of choices

when it comes to transitioning between different colleges or universities. The UGC expresses gratitude to all the students and higher education institutions for their registration in the ABC system.

ABC will enable students to open their accounts and give multiple options for entering and leaving colleges or universities. There will be "multiple exits" & "multiple entries" points during the higher education tenure & credits will be transferred through the ABC seamlessly.

The Academic Bank of Credits will be a game-changer in transforming Indian education to a great extent.

Pressure release to students but to create responsible students society to Nation Building in future aspects. The academic bank of credit (ABC) is like same as a carrier saving account. The idea of ABC is to make students "Skillful Professionals" and help their overall growth. The concept of ABC is fuel to boost the efficiency of faculty and help students embrace a multi-disciplinary educational approach.

Faculty Development Programmes (FDPs)

Teachers' Training During the period of May - August 2023: 3540 numbers of Technical Teachers have been trained, through various Faculty Development Programmes (FDP), broadly in the areas of Content Updating, Management, Pedagogy and Professional Skill Development. A total of 70 training programs were conducted for the Teachers and Technicians of different Polytechnic colleges and Engineering colleges all over the Country during the 2nd Quarter of the Year 2023.

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

List of FDPs (May – August, 2023)

Sl. No.	Programme Code	Programme Title	Programme Coordinator	From	To
1	MGT02B	Waste Management Technology	Sailendra Nath Mandal	01/05/2023	12/05/2023
2	CU13C	SCILAB Programming	Kinsuk Giri	08/05/2023	12/05/2023
3	CU14F	Topics in Algorithm	Samir Roy & Ranjan Dasgupta	08/05/2023	12/05/2023
4	CU16C	Refreshers course on Engineering Mechanics	Dipankar Bose	08/05/2023	12/05/2023
5	PS14C	Induction Training	Subrata Mondal	08/05/2023	12/05/2023
6	PS15F	Role of Technical Institutions in Community Development	Sheela Yadav Rai	08/05/2023	12/05/2023
7	SPL02C	Induction Training	Habiba Hussain	09/05/2023	13/05/2023
8	CU18C	MATLAB and its Applications	Prasanta Sarkar	15/05/2023	19/05/2023
9	CU19F	Renewable Energy and Smart Grid	Soumitra Kumar Mandal	15/05/2023	19/05/2023
10	PS17C	NBA Accreditation and SAR preparation	Rayapati Subbarao	15/05/2023	19/05/2023
11	PS18F	Engineering Pedagogy	Nirmal Kumar Mandal	15/05/2023	26/05/2023
12	SPL04C	NBA Accreditation and SAR preparation	Rayapati Subbarao	22/05/2023	26/05/2023
13	PS19F	Assessment, Evaluation and Preparing Question Papers	Sagarika Pal	22/05/2023	26/05/2023
14	CU22C	Refresher Course on Machine Learning & Deep Learning	Chandan Chakraborty	22/05/2023	26/05/2023
15	PS20F	Advanced Pedagogy	Habiba Hussain	22/05/2023	02/06/2023
16	PS21B	Drinking Water Quality and Public Health	Sailendra Nath Mandal	22/05/2023	02/06/2023
17	PS23C	Development of Laboratory Instruction	Subrata Mondal	22/05/2023	26/05/2023

Sl. No.	Programme Code	Programme Title	Programme Coordinator	From	To
		and Manual			
18	PS24C	Holistic and Multidisciplinary Education	Urmila Kar	29/05/2023	02/06/2023
19	CU26F	Data Science in Engineering	Nirmal Kumar Mandal	05/06/2023	09/06/2023
20	PS25C	Induction Training	Sagarika Pal	05/06/2023	09/06/2023
21	SPL05	Pedagogy	Urmila Kar	05/06/2023	08/06/2023
22	PS28C	Student Friendly Methods of Instruction	Uday Chand Kumar	05/06/2023	09/06/2023
23	CU28F	Commentary IS:456-2000 with Expected Modifications In the Forthcoming Revision	Santanu Bhanja	12/06/2023	16/06/2023
24	CU29C	Introduction to Data Analytics with SPSS & Excel	Chandan Chakraborty & Samir Roy	12/06/2023	16/06/2023
25	CU32B	Introduction to Data Science	Indrajit Saha	12/06/2023	16/06/2023
26	PS30C	Research Methodology	Rayapati Subbarao	12/06/2023	16/06/2023
27	PS32B	Soft Skills Development	Habiba Hussain	12/06/2023	16/06/2023
28	CU34C	MATLAB & Simulink	Soumitra Kumar Mandal	19/06/2023	23/06/2023
29	CU36B	Wastwater Treatment – Recent Treands in regulatory norms and techlonogical advancement	Sailendra Nath Mandal	19/06/2023	23/06/2023
30	PS33F	Advanced Pedagogy	Urmila Kar	19/06/2023	30/06/2023
31	CU37C	Artificial Intelligence	Samir Roy	26/06/2023	30/06/2023
32	CU39A	IoT application for sensor technology	Sagarika Pal	03/07/2023	07/07/2023
33	CU41C	Hands on Practices on TIG and MIG Welding	Arpan Kumar Mondal	03/07/2023	07/07/2023
34	CU42B	Data Analytics	Chandan Chakraborty	03/07/2023	07/07/2023
35	PS35C	Drinking Water Treatment Process	Sailendra Nath Mandal	03/07/2023	07/07/23
36	PS36C	Entrepreneurship Development	Subrata Mondal	03/07/2023	07/07/2023
37	CU43C	Introduction to Software-Defined Networking (SDN)	Rajeev Chatterjee	10/07/2023	14/07/2023
38	CU45B	PLC and Industrial Automation	Soumitra Kumar Mandal	10/07/2023	14/10/2023
39	CU46C	Mechanical Workshop Practice	Arpan Kumar Mondal	10/07/2023	14/07/2023
40	PS37F	Induction training	Habiba Hussain	10/07/2023	21/07/2023
41	SPL06A	Advanced Pedagogy	Urmila Kar & Sagarika Pal	10/07/2023	21/07/2023
42	PS38B	Effective Teaching and Research	Indrajit Saha	10/07/2023	14/07/2023
43	PS39C	Community Development through Technical Institutes	Sheela Yadav Rai	10/07/2023	14/07/2023
44	PS40C	Curriculum design approaches	Sukanta Kumar Naskar	17/07/2023	21/07/2023
45	PS42C	NEP 2020: Reforms in HE	Urmila Kar	17/07/2023	21/07/2023
46	PS43C	SAR preparation for NBA	Rayapati Subbarao	17/07/2023	21/07/2023
47	PS44C	Development of Laboratory Instruction and Manual	Subrata Mondal	17/07/2023	21/07/2023
48	CU50B	PLC and Automation	Sagarika Pal	24/07/2023	28/07/2023
49	CU53B	Fundamentals of Data Security	Indrajit Saha	24/07/2023	28/07/2023
50	CU55F	Biomedical Engineering	Chandan Chakraborty	24/07/2023	28/07/2023
51	PS45F	Waste Water Treatment: Pollution Control and Reuse	Subrata Mondal	24/07/2023	28/07/2023
52	SPL07C	OBA &NBA	Urmila Kar	24/07/2023	28/07/2023
53	SPL09C	NBA and SAR preparation	Rayapati Subbarao	24/07/2023	28/07/2023
54	CU56F	Air, Water Pollution and Health	Sailendra Nath Mandal	31/07/2023	04/08/2023
55	CU60F	Polymer Composites and Nanocomposites	Subrata Mondal	07/08/2023	11/08/2023
56	SPL12C	Refresher Course on Engineering Mechanics	Dipankar Bose	07/08/2023	11/08/2023
57	PS46C	Student mentorship for holistic development	Habiba Hussain	07/08/2023	11/08/2023
58	PS47C	Innovation and Startup in Higher Education Institutions	Prasanta Sarkar	07/08/2023	11/08/2023
59	PS13B	Effective classroom communication	Habiba Hussain	14/08/2023	18/08/2023
60	PS48B	Language and Presentation of Research Papers	Samir Roy	16/08/2023	18/08/2023
61	CU65B	Applications of MATLAB	Sagarika Pal	21/08/2023	25/08/2023
62	CU68C	Machine Learning & Statistical Computing	Chandan Chakraborty	21/08/2023	25/08/2023

Sl. No.	Programme Code	Programme Title	Programme Coordinator	From	To
		using R Programming			
63	MGT04B	Managerial skills for technical teachers	Sukanta Kumar Naskar	21/08/2023	25/08/2023
64	PS50C	NBA Accreditation and SAR Preparation for Engineering Colleges	Arpan Kumar Mondal &Ranjan Dasgupta	21/08/2023	25/08/2023
65	SPL13C	NBA Accreditation (Pre-qualifier and SAR preparation)	Uday Chand Kumar and Rayapati Subbarao	21/08/2023	25/08/2023
66	SPL14C	Non Traditional Machining Processes	Dipankar Bose	21/08/2023	25/08/2023
67	SPL23C	Word Processing with Latex	Kinsuk Giri	21/08/2023	25/08/2023
68	CU71C	Mobile and Wireless Network	Rajeev Chatterjee	28/08/2023	01/09/2023
69	SPL24C	Advance process Control Using PLC, DCS and SCADA	Subrata Chattopadhyay	28/08/2023	01/09/2023
70	PS51C	Accreditation for Engineering colleges and Polytechnics	Rayapati Subbarao	28/08/2023	01/09/2023

List of programmes in which Prof. Debi Prasad Mishra, Director has delivered a talk

A. In programmes organized by NITTTR, Kolkata

1. Seminar on "Industry 4.0 Revolution based NEP" on 1st May 2023 talk delivered by Dr. Rajiv Kapoor, Professor, Delhi Technical University.
2. Induction Training at GIET University Gunupur on 9th May 2023 by Prof. Habiba Hussain
3. Celebrating Institute International Yoga Day on 21st June 2023

B. In programmes organized by other institutions

1. Keynote Speakers on Low Emission Combustor Technologies for Gas Turbine Engine at Taiwan on 14-18 May 2023
2. Delivery speech on International Symposium on Energy on 20th May 2023 Title; Waste to Energy A Bridge to Renewable Energy Future (Online) organized by School of Sciences, WOXSEN University
3. Chief Guest for NIFT Graduation Seminar on 31-05-2023
4. Chief Guest on Teachers Training program at Vidyarthi Vigyan Manthan (VVM) on 28th June 2023
5. Expert Committee on Traditional and Indigenous Knowledge of Department of Science & Technology and Biotechnology, Government of West Bengal on 17 July 2023 at 4 P.M regarding Traditional and Indigenous Knowledge.
6. Deliver a lecture on Indian Knowledge System (IKS) during Orientation Program- 2023 at IIEST, Shibpur, on 23 August 2023.

Invited Lectures by Faculty Members

- **Dr. Habiba Hussain** delivered invited lecture on 15th June 2023, in a 1-day workshop on FLN, NEP 2020 & G-20, at Kendriya Vidyalaya, Fort William, Kolkata, organised by KV, Fort William, Kolkata.

- **Dr. Habiba Hussain** delivered invited lecture on 24th July 2023 on the topic "Student Mentorship', in a 2-week Faculty Development Program on "Pedagogy (Teaching Learning Process and Assessment)", organised by the Department of Computer Science & Engineering, Brainware University, from 19th – 29th July, 2023.

- **Dr. Habiba Hussain** delivered invited lecture on 26th July 2023 on the topic "Productive Learning Environment and Support for Students", in a Five-Day Faculty Development Program on "Unravelling National Education Policy(NEP)", organized by - Amity Institute of Education, Amity University, Kolkata

- **Dr. Rayapati Subbarao** given invited talk on 'NBA Accreditation' in a workshop conducted by GIET, Bhubaneswar in May 2023.

Publications

Journals

- Modelling of Gas Diffusion Layer (GDL) of Polymer Electrolyte Membrane (PEM) Fuel Cell - A Computational Approach - by Susmita Singh, **Kinsuk Giri**, Adrita Chaudhury, Tanya Nishad, Debasmita Paul and Priya Poddar Journal of Nano-Electron. Phys., Vol. 15, No 3, 3006, 2023

- Sujay Kumar Dolai, Arindam Mondal, **Prasanta Sarkar** (2023). Design and Implementation of Fractional-order controller in delta domain, FACTA

UNIVERSITATIS Series: Electronics and Energetics Vol. 36, No 2, June 2023, pp. 189-208 https://doi.org/10.2298/FUEE2302189D.

- **Rayapati Subbarao**, 'Analysis of the Ability of 'Understanding' in Support of its Measurability', International Journal of Engineering Education, Volume 39 (3), pp. 584-591, 2023. (SCI, Scopus indexed)

- Geetika K. Salwan, **Rayapati Subbarao**, **Subrata Mondal**, 'Investigation on Compaction Pressure and Sintering Temperature Suitable for Nimonic 90 Superalloy', Materials Today: Proceedings, July 2023. (Scopus indexed)

- Shortcomings of shear wall design as per IS:13920–2016, by Anasuya Mondal and Santanu Bhanja in Materials Today Proceedings, https://doi.org/10.101 6/j.matpr.2023.07.36 4 July, 2023.

- Modifications Proposed in Is: 13920 (2016) Regarding Shear Wall Design Following The Limit State Design Philosophy of National and International Standards, by Anasuya Mondal and Santanu Bhanja in Indian concrete journal, Vol 97, Issue 6, June 2023, pp 9-26.

- Compressive stress–strain behaviour of masonry prisms made of low elastic modulus burnt clay bricks, by Prantik Chatterjee, Ambarish Ghosh, Santanu Bhanja in Journal of Building Engineering, Volume 78, August 2023, 107561, https://doi.org/10.1016/j.jobe.2023.107561

- Rajesh Roy and **Subrata Mondal**, Microstructure and properties of graphene reinforced aluminum matrix Nanocomposites, Metal Science and Heat Treatment, 2023, 65 (1-2), 42-46, DOI: https://doi.org/10.1007/s11041-023-00889-z, SCI, Impact Factor: 0.6.

Miscellaneous

Special Workshop: Dr. Rayapati Subbarao has conducted a two-day workshop for 22 polytechnics of Odisha on 'Preparedness for NBA Accreditation', as requested by SCTE &VT, Odisha on 10th and 11th Aug 2023.

Paper Presentation: Dr. Samir Roy presented a paper entitled "A pragmatic approach to Artificial Intelligence (AI) vis-à-vis Evaluation of Machine from the wheels to the super intelligence" In the 4th International Conference on Philosophy of Science July 2023, Lisbon, Portugal

i. **List of educational resources developed/video coverage during the period**
    a) Educational Video Film - 02
    b) Videos recording of the Institutional Program – 07
    c) Videos clippings for on line STTP's-04

ii. **Photography of events during the said period**
During this period (1st May-31st August, 2023) following Thirteen (13) events were covered:
    a) Seminar on Industry 4.0 Revolution based NEP on May 01, 2023
    b) Inauguration of Institute WiFi(service provider BSNL) on May 15, 2023
    c) Celebrating World Cycle Day on June2 2023
    d) Observing World Environment Day on June05, 2023
    e) Observing International Yoga Day on June21, 2023
    f) National Work Shop on National Education Policy held on July15 &16, 2023
    g) Visit of Shri Amit Khare, Retd. IAS, Advisor to Prime Minister on July25, 2023
    h) Press Conference on 3Yrs of Successful Implementation of NEP 2020 on July26, 2023
    i) Har Ghar Tiranga to celebrate "Azadi ki Amrit Mahotsav" on August14, 2023
    j) Observing Independence Day on August 15, 2023
    k) Live streaming of Chandrayan-3 on August23, 2023
    l) 2Day Workshop NCrF Aug28-29 2023
    m) Brahma Kumaris special session on 'Power of Silence to deal with Challenges' on Aug30, 2023

iii) **Any other news item worth publishing.**

During this period (May-August 2023) Four (4) nos on-line/ hybrid mode STTP and Fourteen (14) nos meeting (online and off-line) conducted from e-Classroom.

Awards

Dr. Kinsuk Giri: Best Application Paper Award (Under Faculty Category) for presented paper titled "Identifying Outliers using Voronoi Circles" in 12th SocPros jointly organized by IIT Roorkee and Liverpool Hope University during August 11-13, 2023. The sponsors of the conferences were IIT Roorkee, Liverpool Hope University, Deloitte., Springer and DRDO.

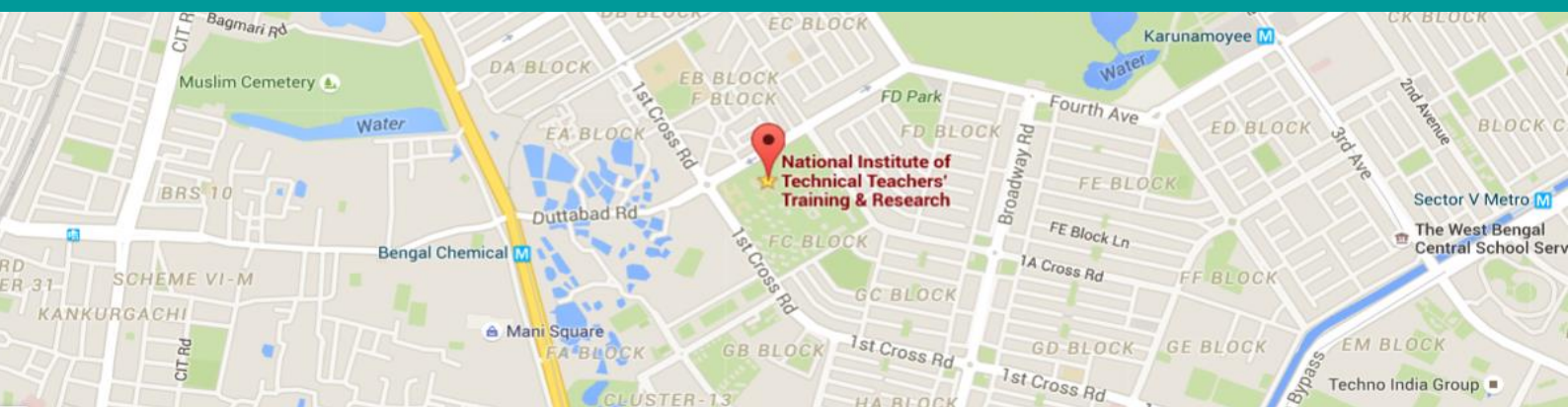**NATIONAL INSTITUTE OF TECHNICAL TEACHERS' TRAINING AND RESEARCH, KOLKATA**
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Visit us at www.nitttrkol.ac.in

> "You are what your deep, driving desire is. As your desire is, so is your will. As your will is so is your deed. As your deed is so is your destiny."
> – *Brihadaranyaka Upanishad*

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