



ILLUMINATION

Newsletter

**Department
of
Basic Science & Humanities**

Vol. 4

July 2020 – June 2021

Illumination

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MESSAGE FROM MANAGING DIRECTOR



My father Sardar Jodh Singh dreamt to enrich the level of knowledge and education for the future generation and he sowed the seed which was “The JIS Educational Initiative”. It is now one of the leading private educational service providers in India. Presently, “The JIS Educational Initiative”, nurtures over 37000 students in 30 Institutes, with 140 Programs enrolled in the diverse academic courses. JIS Group has been successful in creating new standards in quality self-financed education and laid the foundation of the JIS University

In this respect I take this opportunity to congratulate all the faculty and staff members of the Department of Basic Science and Humanities, Narula Institute of Technology for their diligent efforts to publish the annual newsletter “**Illumination**” for the academic session 2020-2021, as a signature of their achievements in diversified fields and taking the pledge to be the conveyer of the dreams of their founder fathers.

Mr. Taranjit Singh

MESSAGE FROM PRINCIPAL



A newsletter aims to publicize information, inspire presentations, promote unity, improve morale and supplement institutional records. By publishing a newsletter, an organization spreads its word about their accomplishments and successes. A newsletter exhibits the hidden talent, affluence and growth of a department, which is also very important to show gratitude and recognition.

In this respect, I want to congratulate all the members of the Department of Basic Science & Humanities for their tireless effort to take the initiative to publish the fourth departmental newsletter “**Illumination**” for the session 2020-2021, after the continued publication of their very informative and precisely assembled third edition. This newsletter portrays the departmental multidimensional capacities both qualitatively and quantitatively. I wish a grand success to the Department.

Prof. (Dr.) M. R. Kanjilal

MESSAGE FROM HOD (BASIC SCIENCE AND HUMANITIES)



It is my honour to owe my thanks and gratitude to our respected Managing Director, for giving us an opportunity to publish the fourth departmental newsletter “**Illumination**” for the academic session 2020-2021 of Basic Science & Humanities Department (BS&HU). I would also like to take the privilege to thank our respected Principal Madam, Prof. (Dr.) Maitrayei Ray Kanjilal whose continuous inspiration made this newsletter a reality. The BS & HU department comprises of Physics, Chemistry, Mathematics and English which merged on 01.01.2016.

The Department of Basic Science & Humanities aims to provide a comprehensive knowledge of Physics, Chemistry, Mathematics and English to the new aspirant engineering students with a view to enrich their understanding towards their core subjects. The knowledge of the basic subjects which the department offers intensely enriches them in encountering practical problems in their engineering careers, keeping a balance between applications and the basic principles behind them. The department is dedicated to achieve academic excellence in teaching and scholarly endeavors, as well as serving the academic community and the society as a whole with highly qualified faculty members.

I also take the opportunity to acknowledge all the faculty and staff members of BS & HU towards their contribution in publication of the fourth issue of this newsletter.

Dr. Sumit Nandi

Faculty awards/achievements

- **Dr. Sumit Nandi** delivered an Invited talk on ‘Biodiesel-A future fuel’ at the International Conference on Environment and Sustainable Development (ICESD-2021) organized jointly by Dept. of ASHU and BHM, GNIT during 27-28 February, 2021.
- **Dr. Sumit Nandi** delivered an Invited talk on “Future and our environment” organized by NSS unit of Shree Agrasen Mahavidyalaya, Dalkhola, Uttar Dinajpur, on June 5, 2021.
- **Dr. Sumit Nandi** chaired a session on 27th February, 2021, in the International Conference on Environment and Sustainable Development (ICESD-2021) organized jointly by Dept. of ASHU and BHM, GNIT during 27-28 February, 2021.
- **Dr. Nikhilesh Sil** delivered lecture as a resource person on "Swachhata Bharat Abhijan and Social awareness on COVID-19" organised by NSS unit , Bajkul Milani Mahavidyalaya , Purba Medinipur , West Bengal , India.
- **Dr. Avishek Chakraborty** was awarded PhD degree in Applied Mathematics from Indian Institute of Engineering Science and Technology, Shibpur (IESTS), Howrah on 23rd March, 2021.
- **Dr. Sumit Nandi** received the ‘JIS Samman’ for ‘Highest number of patents’ category in February, 2021.
- **Dr. Rupa Bhattacharyya** received the departmental 'JIS Samman 2020' in ‘Maximum number of student publication’ category in February, 2021.
- **Dr. Rupa Bhattacharyya** received the departmental 'JIS Samman 2020' in ‘The best video lecture’ category in February, 2021.
- **Dr. Avishek Chakraborty** received the ‘Excellent Reviewer Award’ from the International Journal of Neutrosophic Science (IJNS).
- **Dr. Avishek Chakraborty** received the ‘Young Researcher Award’ from the Institute of Scholars (InSC), Bengaluru (registered under MSME, Govt. Of India).
- **Dr. Avishek Chakraborty** received the ‘Excellent Reviewer Award’ from ‘Asian Journal of Research in Computer Science’.
- **Dr. Avishek Chakraborty** received ‘JIS Samman 2020’ in the ‘Highest number of publication in Scopus/ WOS’ category in February, 2021.

- **Dr. Shilpi Pal** went to Kolkata Doordarshan on 12.03.2021 for the programme 'Ki Hote Chai'.
- **Dr. Rupa Bhattacharyya** went to Kolkata Doordarshan on 02.04.2021 and 09.04.2021 for the programme 'Ki Hote Chai'.
- **Dr. Avishek Chakraborty** received the 'Best Article Award' from Neutrosophic Sets and System Journal (UNM, Gallup, New Mexico) in June, 2021.
- **Dr. Avishek Chakraborty** was selected as an editor of International Journal of Neutrosophic Science (IJNS), American Scientific Publication Group (ASPG) Journals.
- **Dr. Avishek Chakraborty** was selected as an Editorial Board Member of the International Journal 'American Journal of Mathematical and Computer Modelling (AJMCM)', Science Group Publication House.
- **Dr. Sumit Nandi** and **Dr. Rupa Bhattacharyya** completed the NPTEL course on 'Effective Engineering Teaching in Practice' in April 2021.
- **Dr. Sarbani Ganguly** completed the NPTEL course on 'Nanotechnology in Agriculture' in November 2020.
- **Dr. Nikhilesh Sil** completed the Coursera course on 'Business Application of Hypothesis Testing and Confidence Interval Estimation' in June 2021.
- **Dr. Dhananjay Kumar Tripathi** completed the ATAL FDP on 'Environmental Geotechnology' by SBSSTC, Ferozepur September, 2020.
- **Dr. Dhananjay Kumar Tripathi** completed the ATAL FDP on 'Climate Change' in November, 2020.
- **Debopriya Dey** completed the AICTE sponsored QIP Short Term Course on 'Differential Equations: Solution Techniques and Applications' in September, 2020.

Patents Published

1. **Dr. Sumit Nandi and Dr. Rupa Bhattacharyya** published a patent “Production of biodiesel from palm fatty acid distillate using Biohydrolysis and Bioesterification reaction” on 11th June, 2021.
2. **Dr. Rupa Bhattacharyya and Dr. Sumit Nandi** published a patent “Mechanical property modification of PVC-Polyethyl acrylate blend by incorporation of nano calcium carbonate” on 11th June, 2021.
3. **Sharmistha Basu, Rajasi Ray and Dr. Sumit Nandi** published a patent “A novel technique for betterment of listening & writing skills” on 11th June, 2021.
4. **Dr. Sarbani Ganguly and Dr. Sumit Nandi** published a patent “A novel cheap source of prebiotic food material” on 11th June, 2021.
5. **Dr. Susmita Karan** published a patent “Green route of preparation of PVA-cellulose nanocomposite” on 11th June, 2021.

Book chapters

1. **Dr. Sumit Nandi and Dr. Rupa Bhattacharyya** published a chapter on “Utilization of Industrial Wastes for Societal Benefits” in ‘Handbook of Environmental Crisis and its Management’ published by Ideal International E-publication, pp. 30-36, June 2021, ISBN: 978-93-89817-51-5.
2. **Dr. Rupa Bhattacharyya and Dr. Sumit Nandi** published a chapter on “Recycling of Plastics and Environmental Sustainability” in ‘Handbook of Environmental Crisis and its Management’ published by Ideal International E-publication, pp. 37-43, June 2021, ISBN: 978-93-89817-51-5.
3. **Sharmistha Basu, Sudeshna Dey, Anudeepa Gon and Tanmoy Ghosh** published a chapter on “Holdin Lens on Urbanization: A Brief Analysis on Urban Ecology” in ‘Handbook of Environmental Crisis and its Management’ published by Ideal International E-publication, pp. 37-43, June 2021, ISBN: 978-93-89817-51-5.
4. **Dr. Shilpi Pal** published a chapter on “A study on the effect of COVID-19 pandemic in Carbon Management” in ‘Handbook of Environmental Crisis and its Management’ published by Ideal International E-publication, pp. 37-43, June 2021, ISBN: 978-93-89817-51-5.
5. **Dr. Nikhilesh Sil and Mr. Sujan Maitra** published a chapter on “Development of Clean and Smart Campus in India” in ‘Handbook of Environmental Crisis and its Management’ published by Ideal International E-publication, pp. 37-43, June 2021, ISBN: 978-93-89817-51-5.
6. **Dr. Dhananjay Kumar Tripathi** published a chapter on “Numerical Weather Prediction” in ‘Handbook of Environmental Crisis and its Management’ published by Ideal International E-publication, pp. 37-43, June 2021, ISBN: 978-93-89817-51-5.
7. **Dr. Susmita Karan** published a chapter on “Applications of Scientific Tools in Eradicating COVID-19” in ‘Handbook of Environmental Crisis and its Management’ published by Ideal International E-publication, pp. 37-43, June 2021, ISBN: 978-93-89817-51-5.
8. **Dr. Indrani Sarkar** published a chapter on “Use of Nanotechnology for Environmental Sustainability” in ‘Handbook of Environmental Crisis and its Management’

published by Ideal International E-publication, pp. 37-43, June 2021, ISBN: 978-93-89817-51-5.

9. **Dr. Susmita Karan** published a chapter on “Present Environmental Crisis and its Management using Nanotechnology” in ‘Handbook of Environmental Crisis and its Management’ published by Ideal International E-publication, pp. 37-43, June 2021, ISBN: 978-93-89817-51-5.
10. **Dr. Sarbani Ganguly** published a chapter on “Green Recovery of Metals from E-waste” in ‘Handbook of Environmental Crisis and its Management’ published by Ideal International E-publication, pp. 37-43, June 2021, ISBN: 978-93-89817-51-5.
11. **Rajasi Ray, Raktim Pratihar and Bansari Deb Majumder** published a chapter on “Effect of Environmental Parameters on the Water Quality of Narmada River, Hussain Shah Lake, The Ganges, and Some Water Samples Collected from North-East India: A Study” in ‘Handbook of Environmental Crisis and its Management’ published by Ideal International E-publication, pp. 37-43, June 2021, ISBN: 978-93-89817-51-5.

International Journal Publication

1. **Sumit Nandi and Sougata Mallick**, Parametric optimization of biodiesel synthesis and property modification of biodiesel-diesel blends using palm fatty acid distillate, *Indian Journal of Natural Sciences*, Vol., 10 (61), 26939-26945, August, 2020.
2. **Sumit Nandi, Rupa Bhattacharyya and S. Das**, Oil to biodiesel from two potential sources – A 360 degree comparative study, *Asian Journal of Applied Science and Technology*, Vol., 4(3), pp. 91-99, July-September 2020.
3. **Sumit Nandi, Rupa Bhattacharyya and Sougata Mallick**, Studies on Physico-chemical Properties of Waste Cooking Oil Biodiesel-Diesel Blends in Different Ratios, *Journal of Chemical, Biological and Physical Sciences, Section A*, Vol., 10 (4), pp. 419-427, August-October 2020.
4. **Sumit Nandi and Rupa Bhattacharyya**, A comparative alcohol efficacy for the synthesis of sustainable fuel. *Journal of Environmental Science, Computer Science and Engineering & Technology*, Vol., 9 (4), pp.739-747, September 2020- November 2020.
5. **Sumit Nandi and Rupa Bhattacharyya**, Biodiesel from coconut acid oil using *Candida rugosa* and *Candida antarctica* lipases, *World News of Natural Sciences*, Vol., 34, pp. 72-81, November, 2020.
6. **Sumit Nandi, Rupa Bhattacharyya and Swarnendu Mitra**, Neem (*Azadirachta indica* A. Juss.) oil: A source of alternative fuel through enzyme technology, *World Scientific News*, Vol., 154, pp. 76-88, February, 2021.
7. **Sumit Nandi, Rupa Bhattacharyya and Binita Mandal**, Optimization and kinetics of biodiesel from jojoba (*Simmondsia chinensis* L. Schneider) oil, *World Scientific News*, Vol., 159, pp. 108-121, July, 2021.
8. **P. Amaro, J. P. Santos, S. Bhattacharyya, Tapan Mukherjee and J. K. Saha**, Stabilization method with the relativistic configuration-interaction calculation applied to two-electron resonances, *Physical Review A (SCI)*, Vol., 103(1), January, 2021.
9. **Tapan Mukherjee, S. Dutta, J. K. Saha and S. Bhattacharyya**, Resonance States of Hadronic Three-Body Ions: Stabilization Method, *Journal of Atomic Molecular and Condensed & Nano Physics*, Vol., 7(1), pp. 51-60, April, 2020.

10. Tipu Sultan Haque, **Avishek Chakraborty**, Sankar Prasad Mondal and Shariful Alam, A New Exponential Operational Law for Trapezoidal Neutrosophic Number and Pollution in Megacities Related MCGDM Problem, *Journal of Ambient Intelligence and Humanized Computing*, Springer, DOI: 10.1007/s12652-021-03223-8, May, 2021.
11. **Avishek Chakraborty**, Sankar Prasad Mondal, Shariful Alam and Arindam.Dey, Classification of Trapezoidal Bipolar Neutrosophic Numbers, De-Bipolarization and Implementation in Cloud Service Based MCGDM Problem, *Complex and Intelligence System (SCI)*, Springer, Vol-7(1), pp: 145-161, DOI: 10.1007/s40747-020-00170-3, August, 2020.
12. Sapan Kumar Das and **Avishek Chakraborty**, A New Approach to Evaluate Linear Programming Problem in Pentagonal Neutrosophic Environment, *Complex and Intelligence System, (SCI)*, Springer, Vol., 7(1), pp: 101-110, DOI: 10.1007/s40747-020-00181-0, July, 2020.
13. Shubhendu Banerjee, Sumit Kumar Singh, **Avishek Chakraborty**, Atanu Das and Rajib Bag, Melanoma diagnosis using deep learning and fuzzy logic, *Diagonostics, MDPI, (SCI)*, Vol., 10(8), pp: 577, August, 2020.
14. Nidhi Singh, **Avishek Chakraborty**, Soma Bose Biswas and Malini Majumdar, Impact of Social Media in Banking Sector under Triangular Neutrosophic Environment Using MCGDM Technique, *Neutrosophic Sets and System, (SCOPUS)*, Vol., 35, pp: 153-176, DOI: 10.5281/zenodo.3951653, September, 2020.
15. Nidhi Singh, **Avishek Chakraborty**, Soma Bose Biswas and Malini Majumdar, A Study of Social Media Linked MCGDM Skill under Pentagonal Neutrosophic Environment in the Banking Industry, *Neutrosophic Sets and System, (SCOPUS)*, Vol., 35, 119-141, DOI: 10.5281/zenodo.3951649, July, 2020.
16. Najeeb Alam Khan, Oyoon Abdul Razzak, **Avishek Chakraborty**, Sankar Prasad Mondal and Shariful Alam, Measures of Linear and Nonlinear Interval Valued Hexagonal Fuzzy Number: Linear and Nonlinear Interval Valued Hexagonal Fuzzy Number, *International Journal Of Fuzzy System Application (SCOPUS)*, Vol: 9(4), article 2, IGI Global, pp: 21-60, DOI: 10.4018/IJFSA.2020100102, August 2020.
17. **Avishek Chakraborty**, S. Maity, S.P Mondal and S. Alam, Hexagonal Fuzzy Number and its Distinctive Representation, Ranking, Defuzzification Technique and Application in Production Inventory Management Problem, *Granular Computing, Springer, (SCOPUS)*, Vol: 6 (3), pp: 507–521, DOI: 10.1007/s41066-020-00212-8, 2020.

18. **Shilpi Pal and Avishek Chakraborty**, Triangular Neutrosophic Based Production reliability model of deteriorating item with ramp type demand under shortages and time discounting, Neutrosophic Sets and System, (SCOPUS), Vol.,35, pp: 347-367, DOI: 10.5281/zenodo.3951684, December 2020.
19. **Avishek Chakraborty**, Triangular Neutrosophic Based Production reliability model of deteriorating item with ramp type demand under shortages and time discounting, Neutrosophic Sets and System, (SCOPUS), Vol., 35, pp: 347-367, DOI: 10.5281/zenodo.3951684, July 2020.
20. **Avishek Chakraborty, Shilpi Pal, Sankar Prasad Mondal and Shariful Alam**, De_i_fuzzification of Linear Interval_Valued Intuitionistic Fuzzy Number, and its Application in Operation Research Arena. International Journal of Operational Research, DOI:10.1504/IJOR.2020.10038562 December 2020.

Papers in International Conference Proceedings

1. **Rupa Bhattacharyya, Pampi Majumdar, Bhaskar and Sarbani Ganguly**, Water hyacinth incorporated PVC compound for optimized performance applications, 4th International Conference on Biotechnology and Biological Sciences (Biospectrum 2020), at University of Engineering and Management, Kolkata during 19-21 November, 2020. (ISBN: 978-93-5426-025-4)
2. **Sumit Nandi and Rupa Bhattacharyya**, Parametric optimization of biodiesel using *Candida antarctica* and performance characteristics of biodiesel-diesel blends, 4th International Conference on Biotechnology and Biological Sciences (Biospectrum 2020), at University of Engineering and Management, Kolkata during 19-21 November, 2020. (ISBN: 978-93-5426-025-4)
3. **Rupa Bhattacharyya, Sumit Nandi and Sukanya Chatterjee**, Influence of Nano CaCO_3 on PVC-Poly(methyl methacrylate) blends for enhanced environmental stability, 4th International Conference on Biotechnology and Biological Sciences (Biospectrum 2020), at University of Engineering and Management, Kolkata during 19-21 November, 2020. (ISBN: 978-93-5426-025-4)
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Papers in National Conference Proceedings

1. **Sumit Nandi, Rupa Bhattacharyya**, Moubani Majumder and Swarnendu Ghosh, Alcohol Efficiency for Biodiesel Conversion from Palm Fatty Acid Distillate, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
2. **Sumit Nandi, Rupa Bhattacharyya**, Binita Mandal and Swarnendu Ghosh, Blended fuel, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
3. **Rupa Bhattacharyya, Sumit Nandi** and Prerana Saha, Mechanical Property Modification of PVC by Nano Graphene Oxide, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
4. **Rupa Bhattacharyya, Sumit Nandi** and Deblina Sarkar, Use of silica nanoparticles in modifying the mechanical properties of PVC, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
5. **Rupa Bhattacharyya, Sumit Nandi** and Sandipa Roy, Influence of PMMA on Nano Graphene Oxide Incorporated PVC, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
6. **Sarbani Ganguly** and Sana Afreen, Recovery of Nickel and Cadmium for E -waste, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
7. **Rupa Bhattacharyya** and Rudraraj Ghosh, Art and the Future of Artificial Intelligence, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20), Narula Institute of Technology organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
8. **Avishek Chakraborty** and Sayantan Bose, Aggregation Operator Based Multi Criteria Group Decision Making Model in PNN Environment, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
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 11. **Susmita Karan**, Soham Mukhopadhyay and Rudraraj Ghosh, E-Waste Management and Recycling in India, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
 12. **Susmita Karan**, Sukanya Chatterjee and Pallavi Reddy, Artificial Intelligence and Covid-19 Pandemic: Comparative Study, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
 13. **Dhananjay Kumar Tripathi** and Swarnendu Mitra, Effect of space weather on radio communication: A review, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20), Narula Institute of Technology, 27th-28th September, (ISBN: 978-93-89817-42-3).
 14. **Debopriya Dey**, **Payel Mondal** and Ayushi Gupta, Stability analysis of a prey-predator with a Holling Type I functional response, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
 15. **Debopriya Dey**, **Payel Mondal** and Yash Kumar Singh, Are Black Hole limited to our Knowledge or beyond that, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
 16. **Shilpi Pal** and Soindrila Deb, EOQ Model with Delay in Payment under Inflation as Triangular Fuzzy Number, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).
 17. **Bikramanya Das** and **Shilpi Pal**, Impact on India's GDP Growth Rate by Increasing the Production Rate and Efficiency of the Management Operations of the Indian PSUs, Proceedings of 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology (ISBN: 978-93-89817-42-3).

Papers presented in International Conferences

1. **Sumit Nandi, Rupa Bhattacharyya**, Parametric optimization of biodiesel using *Candida antarctica* and performance characteristics of biodiesel-diesel blends – 4th International Conference on Biotechnology and Biological Sciences (Biospectrum 2020), at University of Engineering and Management, Kolkata during 19-21 November, 2020.
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4. **Sumit Nandi, Debopriya Dey, Rupa Bhattacharyya**, Prediction of blended fuel characteristics through regression modeling - 3rd International Conference on Computational Advancement in Communication Circuit and System digitally organized by Narula Institute of Technology during 17-19 December, 2020.
5. **Rupa Bhattacharyya, Pampi Majumdar, Bhaskar, Sarbani Ganguly**, Water hyacinth incorporated PVC compound for optimized performance applications, 4th International Conference on Biotechnology and Biological Sciences (Biospectrum 2020), at University of Engineering and Management, Kolkata during 19-21 November, 2020.

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3. **Rupa Bhattacharyya, Sumit Nandi** and Prerana Saha, Mechanical Property Modification of PVC by Nano Graphene Oxide, 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology on 25-26 September, 2020.
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11. **Susmita Karan**, Soham Mukhopadhyay and Rudraraj Ghosh, E-Waste Management and Recycling in India, 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology on 25-26 September, 2020.
12. **Susmita Karan**, Sukanya Chatterjee and Pallavi Reddy, Artificial Intelligence and Covid-19 Pandemic: Comparative Study, 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology on 25-26 September, 2020.
13. **Dhananjay Kumar Tripathi** and Swarnendu Mitra, Effect of space weather on radio communication: A review, 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology on 25-26 September, 2020.
14. **Debopriya Dey**, **Payel Mondal** and Ayushi Gupta, Stability analysis of a prey-predator with a Holling Type I functional response, 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20), Narula Institute of Technology, 27th-28th September.
15. **Debopriya Dey**, **Payel Mondal** and Yash Kumar Singh, Are Black Hole limited to our Knowledge or beyond that, 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology on 25-26 September, 2020.
16. **Shilpi Pal** and Soindrila Deb, EOQ Model with Delay in Payment under Inflation as Triangular Fuzzy Number, 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology on 25-26 September, 2020.
17. **Bikramanya Das** and **Shilpi Pal**, Impact on India's GDP Growth Rate by Increasing the Production Rate and Efficiency of the Management Operations of the Indian PSUs, 3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2k20) organized by Basic Science and Humanities, Narula Institute of Technology on 25-26 September, 2020.

Seminar/ Workshops/FDP attended

Name of the faculty	Seminar/ Workshop/ FDP	Duration		Sponsored/ Organized by
		From	To	
Dr. Sumit Nandi	Attended International webinar on "Cancer Genomics"	08.07.2020		Organised by Satyabhama Institute of Science and Technology, Chennai
	Attended International webinar on "Handling and Management of Biomedical Waste - Pre & Post COVID-19"	10.07.2020		Organised by Satyabhama Institute of Science and Technology, Chennai
	Webinar on 'The future of online teaching in India - Challenges and Solutions'	24.07.2020		Organized by Business Standard Learning
	Attended webinar on Idea on Innovations and Startup During Covid 19 by Mr. S Mukhopadhyay, Assistant Director (DG&C), MSME	27.07.2020		MHRD IIC
	Webinar on 'Teaching online effectively with Olympus digital campus'	08.08.2020		Organized by Great Learning
	FDP on 'Entrepreneurship Development'	10.08.2020	17.08.2020	Organized by Sathyabama University, Chennai
	One week FDP on 'Computational Techniques in Chemistry & Materials Science: How to use contemporary software tools' organized by the The Department of Applied Science & The Department of Materials Science & Technology School of Natural & Applied Sciences, MAKAUT	14.09.2020	19.09.2020	Self
	Organized and attended NCSTCS 2k20 as the	25.09.2020	26.09.2020	Organized by the Department of Basic

	Programme Coordinator of the conference			Science & Humanities, Narula Institute of Technology
	Attended and presented a paper at the International Conference 'Biospectrum 2020' organized by UEM, Kolkata	19.11.2020	21.11.2020	Organized by UEM, Kolkata
	Organized and attended the International Conference on Computational Advancement in Communication Circuits and Systems (ICCACCS 2020) as Jt Convener	17.12.2020	19.12.2020	Narula Institute of Technology
	FDP on Effective engineering teaching in practice.	Jan, 2021	Feb, 2021	Ministry of HRD, Govt. of India (NPTEL)
	5 days FDP on "Impact of Covid 19 on Research Initiatives and Innovation"	1 st June	5 th June	Greater Kolkata College of Engineering and Management
	5 days FDP on "Technological Leadership for Inclusive Digital Society"	1 st June	5 th June	Sikkim Manipal Institute of Technology
Dr. Sarbani Ganguly	Webinar on "Contributing to India's Development" by "Unnat Bharat Abhiyan"	11.07.20		AICTE
	Handling and Management of Biomedical Waste - Pre & Post COVID-19	10.7.20		Satyabhama Institute of Technology
	Educational Summit by JIS Group Initiatives	11.08.20	13.08.20	
	Week long Webinar on "Role of Engineers in Make in India" - The Talk show, by Narula Institute of Technology	16.08.20	21.08.20	
	Webinar on AICTE - AQIS schemes on Faculty Development	17.08.20	17.08.20	

	Webinar on Rural Technology and Development by IIT, KGP under UBA	8.10.20		IIT, KGP
	Attended and presented a paper at the International Conference 'Biospectrum 2020' organized by UEM, Kolkata	19.11.2020	21.11.2020	Organized by UEM, Kolkata
	Awareness Program on Outcome Based Education and Accreditation for the Engineering Colleges in West Bengal	15.12.20		MAKAUT
	National Mathematics Day	22.12.20		Narula Institute of Technology
	Understanding various modes of tribal development protecting their indigenous culture from external influence	12.12.20		IIT, Delhi
	FDP	08.06.2021	12.06.2021	GNIT
Dr. Rupa Bhattacharyya	Conducted and attended the webinar on 'Idea on Innovations & Startup during Covid-19' under MHRD IIC as coordinator of the event	27.07.2020	-	MHRD IIC
	Conducted and attended the webinar on 'Managing Intellectual Property during Covid - 19' under MHRD IIC as Coordinator of the event	30.07.2020	-	MHRD IIC
	Webinar on Risk proofing the future for education	03.07.2020	-	Organized by AICTE and Institute of Risk Management
	Webinar on Handling and management of Biomedical waste - Pre and Post Covid 19	10.07.2020	-	Organized by Sathyabama University, Chennai

Webinar on Antibiotic Application in Food Animal: Implication to Eggs, Chicken, Meat Safety and Environment	13.07.2020	-	Organized by Sathyabama University, Chennai
Webinar on Learning and Research Opportunities and Career Advancement at JISIASR, Kolkata and Fundamentals of Data Science and its Applications	16.07.2020	-	Organized by JISIASR
Webinar on Misconduct in teaching and research	21.07.2020	-	Organized by University of Calcutta
Webinar on ' The future of online teaching in India - Challenges and Solutions'	24.07.2020	-	Organized by Business Standard Learning
Webinar on 'Covid-19 and our responsibility'	05.08.2020		Organized by GNIDSR
Webinar on 'Teaching online effectively with Olympus digital campus'	08.08.2020		Organized by Great Learning
FDP on 'Entrepreneurship Development'	10.08.2020	17.08.2020	Organized by Sathyabama University, Chennai
Educational Summit	11.08.2020	13.08.2020	JIS Group Educational Initiative
Webinar on 'Technical Insight of NBR & NVC'	20.08.2020		Organized by Apcotex Industries Ltd.
Live workshop on 'Foldscope Microscope - sample preparation and Digital Documentation'	25.08.2020		Organized by Sathyabama University, Chennai
FDP on 'Computational Techniques in Chemistry & Materials Science: How to use contemporary software tools' organized by the The Department of Applied Science & The Department of Materials Science & Technology	14.09.2020	19.09.2020	Self

	School of Natural & Applied Sciences, MAKAUT			
	Organized and attended NCSTCS 2k20 as the Secretary of the conference	25.09.2020	26.09.2020	Organized by the Department of Basic Science & Humanities, Narula Institute of Technology
	Attended the meeting on 'The Art of Creating Instructional Videos' organized by JISCE	06.11.2020	06.11.2020	Organized by JISCE
	Attended and presented a paper at the International Conference 'Biospectrum 2020' organized by UEM, Kolkata	19.11.2020	21.11.2020	Organized by UEM, Kolkata
	Organized and attended an MHRD session on 'Identifying Intellectual Property component at the early stage of Innovation: Intelligence in Io' by Mr. Atanu Roy Chowdhury, Founder, Capsulelabs as the Coordinator.	16.12.2020		MHRD, IIC, Narula Institute of Technology
	Organized and attended the International Conference on Computational Advancement in Communication Circuits and Systems (ICCACCS 2020) as Jt Secretary	17.12.2020	19.12.2020	Narula Institute of Technology
	Attended the webinar on 'My Story' by Nilanjana Mukherjee, Universal Solutions	10.12.2020		MHRD, IIC, Narula Institute of Technology
	FDP on Effective engineering teaching in practice.	Jan, 2021	Feb, 2021	Ministry of HRD, Govt. of India (NPTEL)
	5 days FDP on "Impact of Covid 19 on Research Initiatives and Innovation"	1 st June	5 th June	Greater Kolkata College of Engineering and Management
	5 days FDP on "Technological Leadership"	1 st June	5 th June	Sikkim Manipal Institute of Technology

	for Inclusive Digital Society”			
Dr. Dhananjay K Tripathi	Online F.D.P. organised by Electrical Engineering Department	29.06.2020	04.07.2020	NIT
	Online panel discussion on "Weather and Climate Research and Services in India organised by India meteorological society	11.07.2020	11.07.2020	IMS
	Online leadership talk by Mr. Shashi Shekhar, C.E.O., Prasar Bharati organised by MHRD Innovation Cell.	11.07.2020	11.07.2020	MHRD IIC
	Webinar "Smart Cities : Economy, Governance & Health as Critical Pillars in Pandemic Management" by Pearson.	14.07.2020	14.07.2020	Pearson
	Webinar 'Future of Manufacturing Industry in the country - learning from COVID 19', organised by Pearson	23.07.2020	23.07.2020	Pearson
	Webinar on Idea on Innovations and Startup During Covid 19 organised by MHRD, IIC	27.07.2020	27.07.2020	MHRD IIC
	Webinar on Managing Intellectual Property during Covid-19	30.07.2020	30.07.2020	MHRD IIC
	Webinar "Hands on training on Apache HADOOP and Apache Spark" organised by JISIASR	03.08.2020	03.08.2020	JISIASR
	Attended the JIS Education Summit.	11.08.2020	13.08.2020	JIS GROUP
	Webinar on Role of Engineers in make in India	17.08.2020	21.08.2020	Department of ME, NIT
A.I.C.T.E. funded STTP organised by EE department.	24.08.2020	29.08.2020	Department of EE, NIT	

	ATAL F.D.P. "Environmental Geotechnology by SBSSTC, Ferozepur.	14.09.2020	18.09.2020	SBSSTC, Ferozepur
	HR CONCLAVE 20 organised by JIS GROUP.	19.09.2020	19.09.2020	JIS GROUP
	NCSTCS 2020	25.09.2020	26.09.2020	BS&HU, N.I.T.
	ATAL FDP on Climate Change	09.11.2020	13.11.2020	ATAL Academy
	International Conference ICCACCS 2020	17.12.2020	19.12.2020	NIT
	Webinar on New Education Policy by Prof. A. K. Ray.	24.12.2020	24.12.2020	IIC, MHRD, NIT
	Motivational Session by Successful Innovator	10.12.2020	10.12.2020	IIC, MHRD, NIT
	Webinar on Identifying Intellectual Property Component at the early stage	17.12.2020	17.12.2020	IIC, MHRD, NIT
	Webinar on Process of Innovation Development	26.12.2020	26.12.2020	IIC, MHRD, NIT
Dr. Susmita Karan	One-week faculty development on " Research and Technical Challenges in Energy and Power System (RTCEPS 2020)	29.06.2020	04.07.2020	Department of EE, NiT
	WEBINAR ON " Learning and Research Opportunities and Career Advancement at JIS Institute of Advanced Studies and Research Kolkata, by Padma Shri (Prof.) Ajoy Kumar Roy	16.07.2020	16.07.2020	JIS Group
	WEBINAR ON Fundamentals of Data Science and its Applications, by Padma Shri (Prof.) Ajoy Aumar Roy	16.07.2020	16.07.2020	JIS Group
	Special session on video lecture preparation &	23.07.2020	23.07.2020	NiT

	editing by Kaushik Sarkar, faculty, ECE Dept, NiT			
	Webinar on Idea on Innovations and Startup During Covid 19 by Mr. S Mukhopadhyay, Assistant Director (DG&C), MSME.	27.07.2020	27.07.2020	MHRD IIC Section, NiT
	Webinar on Managing Intellectual Property during Covid-19 BY Prof. (Dr.) Samir Chandra Das System Manager & In-charge, BCW Cell, University of Calcutta, Kolkata	30.07.2020	30.07.2020	MHRD IIC Section, NiT
	Webinar on biotechnology & bioinformatics in health & medicine: research and career prospects TOPIC 1: Newton's Law to Drug Design: An Overview of Molecular Modeling Speaker: Debabani Ganguly	04.08.2020	04.08.2020	JIS Institute of Advanced Studies & Research Kolkata, JISIASR
	Webinar on biotechnology & bioinformatics in health & medicine: research and career prospects Topic 2: Bacterial Signaling and Infectious Diseases Speaker: Kamakshi Sureka	05.08.2020	05.08.2020	JIS Institute of Advanced Studies & Research Kolkata, JISIASR
	Webinar on biotechnology & bioinformatics in health & medicine: research and career prospects Topic 3: Human Microbiome and its Influence on Health and Diseases Speaker: Rachana Banerjee	06.08.2020	06.08.2020	JIS Institute of Advanced Studies & Research Kolkata, JISIASR
	Webinar on biotechnology & bioinformatics in health & medicine: research and career prospects	07.08.2020	07.08.2020	JIS Institute of Advanced Studies &

	<p>Topic 4: Microbial Evolution, Infectious Diseases, and Computational Genomics</p> <p>Speaker: Sujay Chattopadhyay</p>			<p>Research Kolkata, JISIASR</p>
	<p>Educational Summit</p>	<p>11.08.2020</p>	<p>13.08.2020</p>	<p>JIS Group Educational Initiative</p>
	<p>International FDP on Advances in technologies, evolving new dimensions in e-society</p>	<p>02.09.2020</p>	<p>06.09.2020</p>	<p>JISCE</p>
	<p>National Seminar on Science, Technology & Communication Skills (NCSTCS 2K20)</p>	<p>25.09.2020</p>	<p>26.09.2020</p>	<p>BSHU, NiT</p>
	<p>AICTE - AQIS schemes on Faculty Development to include National Initiative for Technical Teachers Training</p>	<p>29.09.2020</p>	<p>---</p>	<p>AICTE</p>
	<p>WEBINAR on KOMOR BEDHE CORONA TARANGER</p>	<p>06.05.2021</p>		<p>JIS GROUP</p>
	<p>WEBINAR</p>	<p>04.06.2021</p>		<p>NIT</p>
	<p>IA Online Training Sessions in Advanced Level (I&E Initiatives & Programs of MoE for HEIs)</p>	<p>30.06.2021</p>		<p>MHRD</p>
<p>Dr. Indrani Sarkar</p>	<p>National Conference on Multidisciplinary Research (online conference)</p> <p>Received Best Original Paper Award in Health Science Related Topics</p>	<p>10.07.2020</p>	<p>11.07.2020</p>	<p>JISU</p>
	<p>Webinar by MHRD,IIC</p>	<p>30.07.2020</p>		<p>NIT</p>
	<p>Webinar by Hazards of EM radiation</p>	<p>29.07.2020</p>		<p>Bhowanipur colleg</p>

Webinar by Dr Nabarun Bhattacharya, CDAC	28.07.2020		NIT
Webinar by MHRD,IIPC on innovation and start up	27.07.2020		NIT
Webinar on Digital Eye care	25.07.2020		GNIPST
Webinar on Cloud and Information security by Dept of Industry Alliance	14.07.2020		Pearson Education
Webinar by Dr Anindya Basu, on Antimicrobial surfaces at GNIPST	1.08.2020		GNIPST
Webinar by Prof Suman Sengupta , JISIASR	03.08.2020		JISIASR
Webinar by Dr Debabani Ganguly on Drug design , JISIASR at 3 pm	04.08.2020		JISIASR
Webinar by Dr K. Surekha on Bacterial Signaling , JISIASR	05.08.2020		JISIASR
Webinar by Dr Rachana Banerjee on Human miccibiome , JISIASR	06.08.2020		JISIASR
Webinar by Dr Sujay Chattopadhyay , JISIASR	07.08.2020		JISIASR
7 Day FDP on Entrepreneurship Development by Sathyabama Institute of Science and Technology	10.08.2020	17.08.2020	Sathyabama Institute of Science and Technology
International Webinar on "Selenium: Health Benefits and Risk	10.08.2020		GNIPST
Webinar on Density functional theory for localized and extended systems Confirmation organised by CHeST, JISIASR Kol, Speaker Dr. Amrita Bhattacharya, Assistant Professor, Dept. of Metallurgical Engineering and Materials	29.08.2020		JISIASR

	Science, IIT Bombay, India.			
	FDP on IPR	10.08.20	17.08.20	Sathyabama Institute of Technology, Chennai
	Webinar on Awareness and Research Progress in Alzheimer Disease by GNIPST	21.09.2020		GNIPST
	International Webinar Industry needs Academia	20.10.2020		JISCE, Kalyani
	International Conference of Chemistry & Biology Lecture by Dr Ada E Yonath	11.10.2020		JISIASR
	Advances in Technologies evolving New Dimensions in E Society	02.09.2020	06.09.2020	JISCE, CSE
	FDP on Non volatile Memory and Nano Bio Sensor	17.11.2020	24.11.2020	GNIT
	FDP on AI	16.11.2020	21.11.2020	Sri Sai Ram College
	National Seminar on Ancient Indian Education System	11.11.2020	12.11.2020	NITTTR Kolkata
	Enterpreneuership Development	10.08.2020	17.08.2020	Satyabama Institute of Science and Technology , a Deemed to be University
	WINSOME 2021	08.03.2021	12.03.2021	Women Cell, NIT
	FDP	1.06.2021	05.06.2021	SIMT/AICTE
	STTP	21.06.2021	26.06.2021	JISCE/AICTE
	WORKSHOP	24.03.2021	25.03.2021	JISIASR
Dr. Nikhilesh Sil	Attending the online workshop on Swachhta Action Plan organised by Mahatma Gandhi National Council of Rural Education	25/07/2020		Mahatma Gandhi National Council of Rural Education in Collaboration with MAKUT

	in Collaboration with MAKAUT			
	Attending the webinar on Idea on Innovation & Startup During Covid-19 organised by NiT	27/07/2020		Narula Institute of Technology
	FDP on 'Entrepreneurship Development'	10.08.2020	17.08.2020	Organized by Sathyabama University, Chennai
	FDP "Research and Technical challenges in Energy and Power System"	29.06.2020	04.07.2020	Organised by EE department, Narula Institute of Technology.
	Attending the Meeting of 13th Edition of Annual Environment and Energy Conclave	26.08.2020	26.08.2020	organised by The Bengal Chamber
	Attending the Workshop on NEP 2020, Social entrepreneurship, Swachhata and Rural Engagement for Higher Educational institute.	22.09.2020	22.09.2020	Organised by MGNCRE
	Attending the Workshop on NEP 2020, Social entrepreneurship, Swachhata and Rural Engagement for Higher Educational institute	23.09.2020	23.09.2020	Organised by MGNCRE
	Attending the Workshop on NEP 2020, Social entrepreneurship, Swachhata and Rural Engagement for Higher Educational institute	24.09.2020	24.09.2020	Organised by MGNCRE
	Attending the 2nd Edition of the Annual Conference - New Power Dynamics - Greening the Grid and RTM of The Bengal Chamber of Commerce and Industry on 8th October 2020	08.10.2020		Organised by The Bengal Chamber of Commerce and Industry
	FDP	1.06.2021	5.06.2021	SMIT

	ATAL FDP	07.06.2021	11.06.2021	AICTE
	STTP	21.06.2021	26.06.2021	JISCE/AICTE
Ms. Payel Mondal	FDP on RTCEPS.	29.06.2020	04.07.2020	Department of EE, NIT
	Webinar on "Setting New Standards in Financial Management Services in Creating Holistic Sustainable Development".	03.07.2020	03.07.2020	ASSOCHAM
	Webinar on "Building Green & Resilient Hospitals - Post Covid-19".	04.07.2020	04.07.2020	ASSOCHAM
	Web seminar on "Decoding Equalisation Levy 2.0: India's Digital Service Tax in making".	07.07.2020	07.07.2020	ASSOCHAM
	Attended international webinar on "Mathematical Models and Wavelets in Covid-19	07.07.2020	07.07.2020	Prasanta Chandra Mahalanabish Mahavidyalaya
	Webinar on "Cyber security, Its need in the present world and career opportunity".	10.07.2020	10.07.2020	Narula Institute of Technology
	FDP on "FUZZY Mathematics and its application" organised by Government College Daman, webinar on "livelihood Challenges in India".	11.07.2020	13.07.2020	BARASAT GOVERNMENT COLLEGE
	Webinar on "1. Learning and Research Opportunities and Career Advancement at JIS Institute of Advanced Studies and Research Kolkata, 2. Fundamentals of Data Science and its Applications" organised by JISIASR Kolkata	16.07.2020	16.07.2020	JISIASR Kolkata
	Webinar on "1. AI in Healthcare. 2. Machine	17.07.2020	17.07.2020	

	intelligence using Python with case studies".			JISIASR Kolkata
	Webinar on "1. Data Analysis using Apache HADOOP and Apache Spark, 2. Machine intelligence using Python with case studies".	18.07.2020	18.07.2020	JISIASR Kolkata
	Session of Video Lecture preparation and editing	23.07.2020	23.07.2020	Narula Institute of Technology
	JIS GROUP Training	25.07.2020	25.07.2020	JIS Group
	Webinar on "Idea on Innovations and Startup During COVID-19".	27.07.2020	27.07.2020	Narula Institute of Technology
Dr. Shilpi Pal	Webinar	03.07.2020	03.07.2020	Adamas University
	Webinar	07.07.2020	07.07.2020	Prasanta Chandra Mahalanobis Mahavidyalaya.
	Webinar	12.07.2020	12.07.2020	Mahendra College of Engineering, Salem, Tamil nadu.
	FDP	11.07.2020	13.07.2020	Department of Mathematics, Government College Daman
	Webinar on "Recent trends of mathematics and its application in Real life situation"	16.08.2020	16.08.2020	Malda college
	Webinar on "Automotive electronics development process"	17.08.2020	17.08.2020	GMIT
	"Electronic Devices And Its Utilization: From Basic To Advanced Level	17.08.2020	17.08.2020	PAILAN GROUP
	Webinar "The Exciting Exoplanets - are we alone?"	16.08.2020	16.08.2020	Skywatcher association

	“Application of Mathematics on Epidemiology”	21.08.2020	21.08.2020	Vivekananda Satavarshiki Mahavidyalaya,
	International Webinar on Algebra, Analysis & Topology	13.08.2020	14.08.2020	Bankura University
	“Design and Control Aspects of Induction Motor Drive with LC Filter”	22.08.2020	22.08.2020	GMIT
	STTP ON on Recent Trends in Internet of Things (IoT) and Embedded System Based Monitoring and Control of Distributed Generation	24.08.2020	29.08.2020	NIT
	One day subcontinental level webinar on recent advances of Applied mathematics	31.08.2020	31.08.2020	vivekananda Mahavidyalaya, Purba burdhaman
	5-Day FDP on applied mathematics skills for science and engineering using contemporary software tools	14.09.2020	18.09.2020	MAKAUT, WB
	NCSTCS 2K20	25.09.2020	26.09.2020	NIT(BSHU)
	STTP	24.05.2021	28.05.2021	AICTE
	STTP	21.06.2021	26.06.2021	AICTE
Ms. Debopriya Dey	Webinar on "Mathematical Models and Wavelets In Covid-19"	07.07.2020	07.07.2020	BY PCMM COLLEGE
	webinar on “Cybersecurity: A brief overview”	12.08.2020	12.08.2020	By The Heritage college
	STP on 'Differential Equations: Solution Techniques and Application” at IIT Guwahati during September 7 - 12, 2020	07.09.2020	12.09.2020	by IIT Guwahati

	5-Day FDP on applied mathematics skills for science and engineering using contemporary software tools	14.09.2020	18.09.2020	MAKAUT, WB
	NCSTCS 2K20	25.09.2020	26.09.2020	NIT(BSHU)
	Attended and presented a paper at the International Conference 'Biospectrum 2020' organized by UEM, Kolkata	19.11.2020	21.11.2020	Organized by UEM, Kolkata
	attended and presented a paper at the International conference on computational advancement in communication circuits and systems organized by Narula Institute of Technology	17.12.2020	19.12.2020	organized by Narula Institute of Technology
	STTP	21.06.2021	26.06.2021	AICTE
Dr. Avishek Chakraborty	One Week FDP on "Research and Technical Challenges in Energy and Power System (RTCEPS 2020)"	29/06/2020	04/07/2020	EE, NiT
	Webinar on 'Pandemic, Cyclone, Economic Decline : Present Multidimensional Problem of Bengal'	03/07/2020	03/07/2020	Khidirpore College
	One Week FDP on "Advancement in Mechanical Engineering"	04/07/2020	10/07/2020	GATES Institute of Technology
	National Webinar on "Gender Justice and Human Rights"	04/07/2020	04/07/2020	Government Degree College, Gosaikheda, Unnao, U.P.
	Webinar on "Building Green & Resilient Hospital Post COVID 19"	04/07/2020	04/07/2020	ASSOCHAM
	Webinar on	07/07/2020	07/07/2020	

	Digital Curtain Raiser of GEM West Bengal State Chapter			ASSOCHAM
	National Seminar on “Journey from Biofortification in food crops to including nutritional traits in varietal identification and release in Pearl millet”	09/07/2020	09/07/2020	Bioingene
	Webinar on Higher Education: Transform the COVID-19 threat into a New Model of Education	09/07/2020	09/07/2020	ASSOCHAM
	National Webinar on “Underground Structure for rapid transport”	10/07/2020	10/07/2020	Vivekananda Institute of Technology, Karnatak
	National Webinar on “Home fitness hits & the reset button: during covid lockdown”	10/07/2020	10/07/2020	Chirist College, Kerala
	Webinar on New Mindset in Revival of Real Estate Industry in India	10/07/2020	10/07/2020	ASSOCHAM
	Workshop on “FUNDAMENTALS OF PHOTOGRAPHY”	11/07/2020	11/07/2020	GNIT
	Webinar on "Expectations of Industries and Preparedness of Educational Institutions"	11/07/2020	11/07/2020	ASSOCHAM
	Webinar on ‘Antibiotic Application in Food Animal: Implication of Eggs, Chicken, Meat Safety and Environment’	13/07/2020	13/07/2020	Sathyabama Institute of Science and Technology, Chennai.
	One Week FDP on “Recent Trend in Management”	13/07/2020	19/07/2020	GATES Institute of Technology

	Webinar on ‘Covidity and Mobility: Reinvigorating Future Urban Transport’	18/07/2020	18/07/2020	Khidirpore College
	Webinar on Atmanirbhar Bharat – Role of Higher Education Institutions	20/07/2020	20/07/2020	ASSOCHAM
	Webinar on “High Frequency Applications Of Communication”	21/07/2020	21/07/2020	Department of ECE, EEE, Pailan College of Management & Technology
	National Webinar on “Climate Smart Rice Hybrids”	21/07/2020	21/07/2020	Bioingene
	Webinar on Master Class for Startups on Intellectual Property Rights (IPR)	21/07/2020	21/07/2020	ASSOCHAM
	National Webinar on “CRISPR-Cas Precision Genome Engineering”	24/07/2020	24/07/2020	Bioingene
	Webinar on "Mathematics For Epidemiology"	24/07/2020	24/07/2020	MAKAUT
	Webinar on Future of Manufacturing Industry in the country - learning from COVID 19	24/07/2020	24/07/2020	Pearson Academy
	One Week FDP on “Emerging Trend in Civil Engineering”	25/07/2020	29/07/2020	GATES Institute of Technology
	Webinar on “Knowledge Management Virtual Meet Sustainability – A Dress Rehearsal COVID 19 The way forward: Challenges and Opportunities”	25/07/2020	25/07/2020	ASSOCHAM
	Webinar on Idea on “Innovations and Startup During Covid 19”	27/07/2020	27/07/2020	MHRD IIC Cell, NiT

	One Week FDP on "Artificial Intelligence and machine learning in healthcare"	27/07/2020	31/07/2020	BIT, MESRA
	Webinar on "Landscape Illumination - Celebration of Nature's Night"	29/07/2020	29/07/2020	ASSOCHAM
	Webinar on "Managing Intellectual Property during Covid-19"	30/07/2020	30/07/2020	MHRD IIC Cell, NiT
	Webinar on "Annual Pump Performance Test for Fire Pumps" by ASSOCHAM, 2. Webinar on "Design of Analog Filters using OPAMP & Different Current Mode Building Blocks"	04/08/20	04/08/20	Pailan Engineering College
	Webinar on "Mainstreaming underutilized crops: The story of foxtail millet"	06/08/20	06/08/20	Biogene
	"Illness to Wellness- Building Immunity Through Nutritious Food During COVID 19"	07/08/20	07/08/20	ASSOCHAM
	One Week Staff Development Program on "Technical Skill Grooming and the Art of Living"	10/08/20	14/08/20	Nit (M.E)
	Webniar on "Strategies of survival: An overview of healthcare during present pandemic situation"	11/08/20	12/08/20	A.K.P.C.Mahavidyalaya
	Webniar on ""Interfacing solar power plants with the power grid: technological challenges and mitigation"	14/08/20	14/08/20	GMIT COLLEGE
	Webinar on electronic devices and its utilization: from basic to advanced level	17/08/20	17/08/20	PCMT COLLEGE
	Webinar title "Eutomotive electronics development process"	17/08/20	17/08/20	GMIT COLLEGE

	Webinar on 'SUPERCOMPUTING' Organized by Master of Computer Applications	20/08/20	20/08/20	Regent Education & Research Foundation Group of Institutions
	Webinar title “Design and control aspects of induction motor drive with LC filter”	22/08/20	22/08/20	GMIT
	One Week AICTE Sponsored Short Term Training Programme on Recent Trends in Internet of Things (IoT) and Embedded System Based Monitoring and Control of Distributed Generation	24/08/20	29/08/20	EE, NiT
	National webinar on “Tourism in Space: A Mathematical Overview”	03/09/20	03/09/20	Applied Sciences, Galgotias College of Engineering and Technology, Greater Noida
	One-Day National Level Webinar on History of Mathematic	06/09/20	06/09/20	Calcutta Mathematical Society, Kolkata
	National Webinar on Fractional Calculus and Dynamical Systems	12/09/20	12/09/20	Jaysingpur College Jaysingpur (Maharashtra)
	5-Day FDP on “Applied Mathematics Skills For Science & Contemporary Software Tools”	14/09/20	18/09/20	Organized by- MAKAUT, WB
Ms. Rajasi Ray	A three day online FDP on “Creating a paradigm shift: strategies and adaptations to encourage quality teaching.”	6.07.2020	8.07.2020	Saranathan College of Engineering, Trichy.
	Teaching Grammar In Context Using Digital Platform By Shefali Ray	30.07.2020	30.07.2020	Oxford University Publication
	Sure Fire Methods To Teach Vocabulary By Kate Galton	31.07.2020	31.07.2020	Oxford University Publications
	Attended and played a role as organizing team member in the smooth conduction of	25.09.2020	26.09.2020	Narula Institute of Technology, Departmen

	National Conference on Science Technology and Communication Skills			t of Basic Science & Humanities
Ms.Sharmistha Basu	Attended a FDP on Teaching, Learning and Research in Literature and Language	1.07.2020	5.07.2020	Govt. V.Y.T.PG.Autonomous College, Durg Chhattisgarh
	Attended an Online FDP on DEEKSHARAMBH	10.8.2020	14.8.2020	NIT Patna
	attended the weeklong Webinar on "Role of Engineers in Make in India" - The Talk show	17.08.2020	20.08.2020	Narula Institute of Technology, Department of Mechanical Engineering
	Presented a paper titled Necessity of Social Work Intervention to nullify the Adversities Caused by COVID19 Pandemic in the International Webinar on Pandemic and Social Work Profession	28.08.2020	29.08.2020	Department of Social Work, Bankura University
	Attended and played a role as organizing team member in the smooth conduction of National Conference on Science Technology and Communication Skills	25.09.2020	26.09.2020	Narula Institute of Technology, Department of Basic Science & Humanities
Ms. Kathakali Mandal	Attended IDEOMETER, masterclass by Sabarna Roy	02.09.2020	02.09.2020	Asansol Engineering College
	Attended HR Conclave Webinar	19.09.2020	19.09.2020	JIS University
	Played role as an organizer, Attended and presented 4 papers in NCSTCS 2K20	25.09.2020	26.09.2020	Narula Institute of Technology, BSHU Department.
	"3rd National Conference on Science, Technology and Communication Skills" (NCSTCS 2K20)	26.09.2020		Narula Institute of Technology, BSHU Department.
	Attended Webinar on Indian Knowledge Systems	05.11.2020	06.11.2020	IIT KGP
	National Conference on Midnight Soiree	17.03.2021	18.03.2021	Siter Nivedita University

Events organized by the faculty members

Sl.No.	Name of the Activity	Date	Participants	Organized by	Programming Highlights/ Objective
1	Judgement of prototype models for Hackathon under MHRD IIC by Dr. Rupa Bhattacharyya	25.07.2020	30	MHRD IIC, Narula Institute of Technology	Online innovation prototype models were presented by students for Hackathon under MHRD-IIC
2	Dr. Rupa Bhattacharyya conducted the webinar on 'Idea on Innovations & Startup during Covid-19' under MHRD IIC as coordinator of the event	27.07.2020	100	MHRD IIC, Narula Institute of Technology	Webinar on 'Idea on Innovations & Startup during Covid-19' by Shri Sitanath Mukhopadhyay, Assistant Director (G&C), MSME, Kolkata
3	Dr. Rupa Bhattacharyya organized and conducted the webinar on 'Managing Intellectual Property during Covid - 19' under MHRD IIC as Coordinator of the event	30.07.2020	91	MHRD IIC, Narula Institute of Technology	Webinar on 'Managing Intellectual Property during Covid - 19' by Prof. (Dr.) Samir Chandra Das, System Manager & In Charge, BCW Cell, University of Calcutta
4	Ms.Sharmistha Basu has presented a Talk on Communication Skills in the Staff Development Programme	11.08.2020	42	Department of Mechanical Engineering, Narula Institute of Technology	One Week Staff Development Program on "Technical Skill Grooming and the Art of Living"
5	Ms.Sharmistha Basu introduced and summarized the session at the Edu Chat:rendezvous with EIE Department	2.09.2020	it was made LIVE on Social Media	Admission Cell, Narula Institute of Technology	this event was a promotional activity to highlight the scopes, opportunities and facilities of EIE DEPARTMENT of the institute
6	Ms.Sharmistha Basu coordinated the students for Technical Project Display on the	16..09.2020	20	Narula Institute of Technology	this event focussed to highlight the technically innovative creations of the students during the lockdown period.

	occasion of Engineer's Week celebration				
7	Dr. Nikhilesh Sil delivered lecture as a resource person on "Swachhata Bharat Abhijan and Social awareness on COVID-19" organised by NSS unit , Bajkul Milani Mahavidyalaya , Purba Medinipur , West Bengal , India	02.10.2020	70	NSS unit , Bajkul Milani Mahavidyalaya , Purba Medinipur , West Bengal , India	Session on "Swachhata Bharat Abhijan and Social awareness on COVID-19"
8	Dr. Nikhilesh Sil organize a NSS activity as a convener of NSS on "Jan Andolan on COVID-19"	10.10.2020 - 15.10.2020	1350	NSS UNIT Narula Institute of Technology, Agarpara, Kolkata 700109	Awareness program on unlock of COVID-19
9	Dr. Nikhilesh Sil organize The Workshop on " Social Entrepreneurship" by Avishek Ranjan Resource Person at MGNCRE organised by NSS UNIT, Narula Institute of Technology as Convener NSS	17.10.2020	101	NSS UNIT Narula Institute of Technology, Agarpara, Kolkata 700109	Workshop on " Social Entrepreneurship
10	Ms.Sharmistha Basu Moderated the Day 3 of the weeklong Webinar on "Role of Engineers in Make in India" - The Talk show, by Narula Institute of Technology	19.08.2020	55	Department of Mechanical Engineering, Narula Institute of Technology	Session on Entrepreneurship delivered by MrArijit Bhattacharyya,Founder & CEO,Virtual Infocom Angel Investor
11	Ms.Sharmistha Basu was one of the speakers in the Edu Chat:Creative Corner of the students leading to their holistic development at NiT	2.09.2020	it was made LIVE on Social Media	Admission Cell,Narula Institute of Technology	this event was a promotional activity to highlight the co-curricular facilities of the institute
12	Ms.Sharmistha Basu Designed the concept	5.09.2020	11(it was made LIVE	Cultural Team,Narula	the cultural programme was in the form of a small video where the

	and participated in the Teachers' Day digital cultural programme as per the instruction of JIS HO		on Social Media)	Institute of Technology	faculty and staff members showcased their teaching journey during the lockdown
13	Ms.Sharmistha Basu organized the Technical quiz Contest along with other faculty members	17.09.2020	22(it was made LIVE on Social Media)	Narula Institute of Technology	to encourage the students in the scientific and technical know-how
14	Ms.Sharmistha Basu moderated the session of Chhatra Vishwakarma Award Ceremony on the occasion of Engineers' Day	18.09.2020	32(it was made LIVE on Social Media)	Narula Institute of Technology	to felicitate the budding engineers for their success in innovative project display and research publications
15	Ms.Sharmistha Basu organized an event titled a Shakti Ru pe na sansthita with the underprivileged young girls on the occasion of Mahalaya	17.09.2020	17(the programme was later published in the social media)	Narula Institute of Technology	to encourage the economically challenged girls of the locality to showcase their hidden talents in the performing arts.
16	Dr. D. K. Tripathi organized an online session on Process of Innovation development	26.12.2020	100	IIC, MHRD, NIT	To enlighten the students about the innovation and process of innovation development in all the respective fields.
17	Dr. Sumit Nandi organized the International Conference on Computational Advancement in Communication Circuits and Systems (ICCACCS 2020) as Jt Convener	17.12.2020 – 19.12.2020	100	Narula Institute of Technology	To enhance and encourage the research activities and present research papers in front of many academicians and researchers

18	Dr. Rupa Bhattacharyya organized the International Conference on Computational Advancement in Communication Circuits and Systems (ICCACCS 2020) as Jt Secretary	17.12.2020 – 19.12.2020	100	Narula Institute of Technology	To enhance and encourage the research activities and present research papers in front of many academicians and researchers
19.	Dr. Sumit Nandi performed as Programme Coordinator in 3 rd National Conference on Science, Technology and Communication Skills (NCSTCS 2K20)	25-09-2020 – 26-09-2020		BS & HU, NiT	To enhance and encourage the research activities and present research papers in front of many academicians and researchers
20.	Dr. Sumit Nandi performed as Jt. Convener in the 3 rd International Conference on Computational Advancement in Communication Circuit and System	17-12-2020 – 19-12-2020		Narula Institute of Technology	To enhance and encourage the research activities and present research papers in front of many academicians and researchers
21.	English section has organized a Seminar on "Poetry Today as a medium of English Language Learning"	23.04.2021	100	Narula Institute of Technology	To enhance the knowledge of English Poetry

Event organized by the Department

3rd National Conference on Science, Technology and Communication Skills (NCSTCS 2K20)

In this age of the new normal due to the global pandemic situation, Basic Science and Humanities Department of Narula Institute of Technology organized a two-days online 3rd “National conference on Science, Technology and Communication Skills (NCSTCS 2K20)”, during 25-26 September, 2020 using Zoom platform. The focus of the conference was to bring the scientific fraternity at one platform after this lockdown situation throughout the world and also to boost the research work. As from the previous record this conference always aims to give the national platform to the students to present their innovative work and ideas to the world and expose them to the scientific world. Eminent speakers from India and abroad delivered lectures in the conference. It provided an opportunity to the faculty members as well as students to upgrade themselves with the new developments in different areas of Science and Technologies. The Program was helpful for the young researchers. More than 50 papers from Science, Technology and communication skills were presented orally by the researchers of different institutions of the state and outside the state and there were four Plenary sessions by the different invited experts of different fields of science, technology and humanity.

The program was inaugurated with a highly motivating and enlightening speech by honorable Principal, Prof. (Dr.) M. R. Kanjilal, Principal, NiT who also welcomed all the respected dignitaries and participants and emphasized the benefits of a National Conference after this pandemic situation. Prof. (Dr.) S. C. Konar, Dean (R&D) explained briefly the necessity of organizing this conference and also declared the conference open. Prof. (Dr.) P. K. Banerjee, Advisor, NiT enlightened the importance the multidisciplinary research in the present situation through this type of conference. Dr. Sumit Nandi, Programme coordinator and HOD of Basic Science and Humanities explained elaborately the need and exposures of the National Conference along with the student’s encouragement for participation in this conference. He mentioned that in this conference a total of 79 papers have been submitted initially. After review, 55 papers have been selected for presentation in this conference. Ms. Nidhi Singh, Registrar, NiT discussed about the impact of this type of conference and its benefit in the future innovative research areas. The inauguration ceremony was graced by all HODs, Ms. Punita Gaba, Admin Executive, NiT and all other dignitaries’ present. The inauguration ceremony ended with a vote of thanks by Dr. Sarbani Ganguly, Convener, NCSTCS 2K20.



Session I (25/09/2020):

Invited Talk by **Dr. Abhisek Ghosal**, Senior Scientist, Research Dx, California, USA.

Dr. Ghosal has updated the participants on COVID 19 vaccine. He beautifully explained the mechanism of vaccination on human body. Dr. Ghosal described the gathering about the responding of our body to infections and also explained about the precautions to be taken. All the queries of students, teachers and scientists about Corona virus were answered by Dr. Ghosal. He alerts about precautions to be taken at individual level to avoid the infection further at community level.



Pathogenesis: continued

Let us take a look what happens in lungs

- Virus infects the type2 cells pneumocytes
- Calls in Macrophages
- Cytokines released
- Neutrophils called in
- Releases other chemicals like ROS, protease
- The cellular lining are damaged
- Collapsing of the alveolar sacs, we don't get enough oxygen exchange
- Cytokines causes high fever, low BP, and septic shock

Recording...

bhisek Ghosal's screen

Track I (25/09/2020): Science

In this track nearly 15 research papers have been presented. There was a lucid interactive session after each presentation. Students have learnt a lot by interacting with the paper presenters.

Recording...

Shoindrita Deb_91's screen

Sandipa Roy_CSE_46's screen

Session II (25/09/20):

Invited talk by **Prof. (Dr.) G. A. Ghanshyam, Officer on Special Duty, Directorate of Higher Education, Chhattisgarh, Raipur.**

Dr. Ghanshyam highlighted that Communication facilitates the environment we live in and the people around us. The art of communication leads to create a community of learners which becomes congenial, safe and supportive. The art of communication could be mastered only by maintaining a strong relationship with the society we live in which ultimately is the biggest laboratory of the world. Our body comprises of hardware and software. Hardware of the body relates to 'head ware' and the software relates to 'heart ware.' Communication is carried out with both head ware and heart ware. The heart of communication is "Communicating from the heart." One has to open the heart which makes a lot of difference

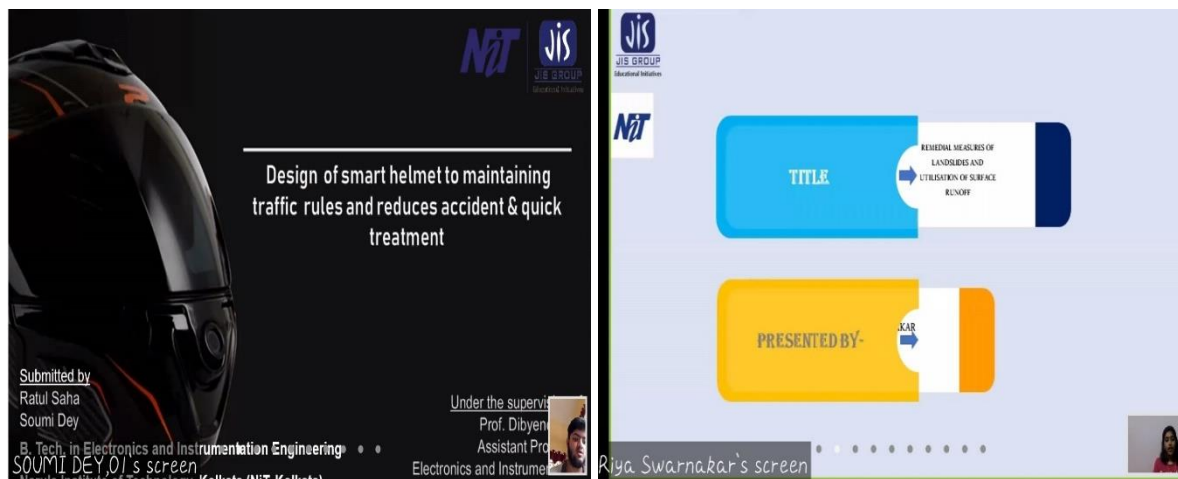
in communication. We all are 'human beings' and the way we communicate leads us to 'being human.'



He further stressed that Emotional intelligence plays a vital role in shaping communication. Whenever we communicate, we need to understand the emotions of the other person we are speaking to and must provide a space to him/her for better communication which facilitates and elevates the essence of communication.

Track II (25/09/2020): Technology

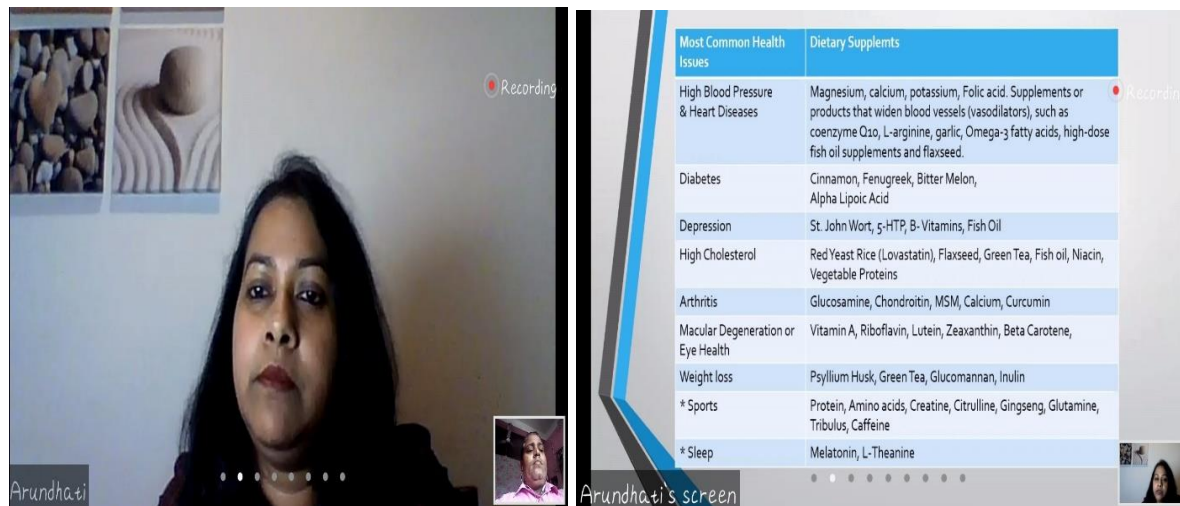
In this track about 25 research papers were presented. The session was highly interactive session.



Session III (26/09/20):

Invited talk by **Dr. Arundhati Biswas, Manager, Technical Affairs, Pro Tab Laboratories, California, USA**

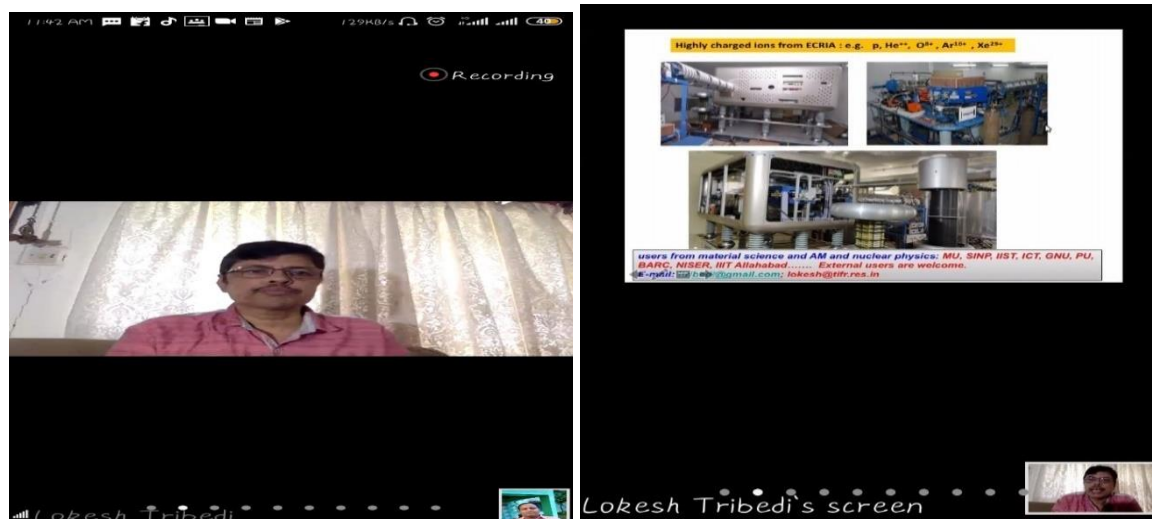
Dr. Biswas explained about the need of dietary supplements. She has warned not to take any dietary supplements without the dietician's or doctor's prescription. She also enumerated the idea of dietary supplements.



Dr. Biswas also gave the idea about the elements to be taken in our food for some common deficiency disease. The participants have enjoyed the session and found the answers of all their queries about the dietary supplements.

Invited talk by Prof. (Dr.) L.C. Tribedi, Senior Professor, Department of Nuclear and Atomic Physics, Tata Institute of Fundamental Research, Colaba, Mumbai

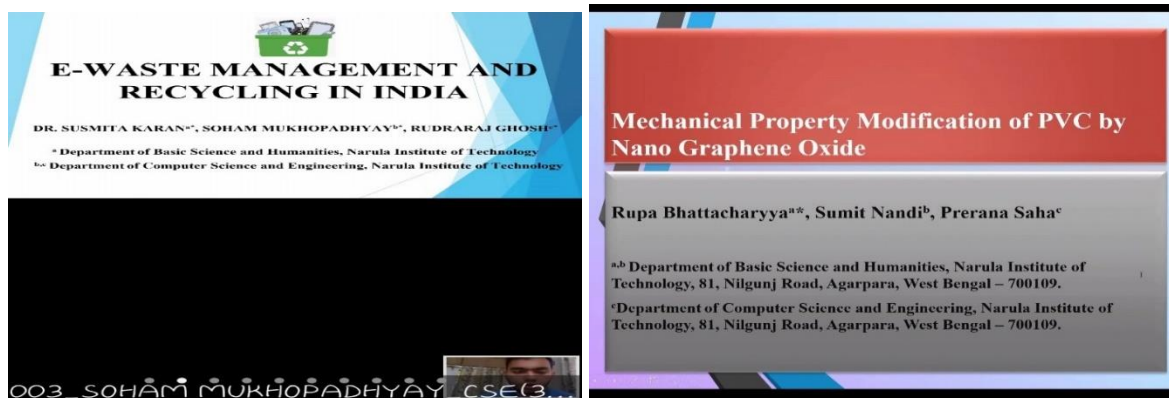
Prof. Tribedi elaborately dealt the atomic collisions involving meso -nano-bio systems. He introduced the infrastructure built by his team at TIFR along with its working. Prof. Tribedi explained in detail about the various applications of atomic collisions in the field of medical science.



He discussed how the atomic collisions can be used in treatment of different types of cancer without destroying the healthy cells. The participants have interacted with Prof. Tribedi and learned a lot about the development in atomic Physics and its applications for treatment of cancer. Prof. Tribedi invited all the interested participants to carry out any research work at TIFR under his supervision and also expressed that he would help at his best effort for this purpose. Conference committee thanked him for his aspiring thinking in this situation.

Track III (26/09/2020): Science

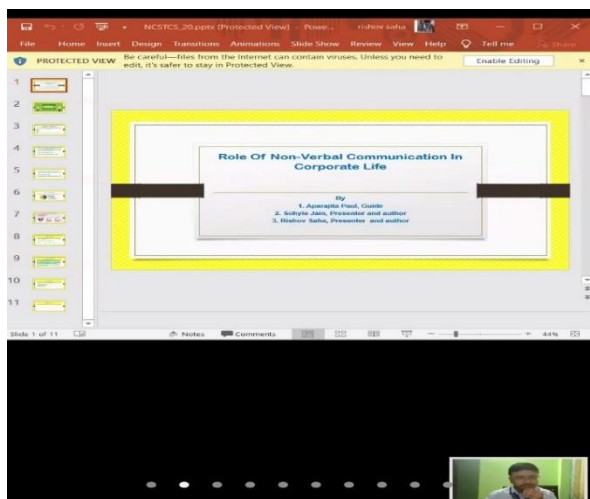
In this track nearly 5 papers were presented apart from the previous paper presentation session.



Session IV (26/09/20):

Track IV (26/09/2020): Humanities

In this track nearly 20 papers were presented. This session was also highly interactive. Young scientists have exchanged their ideas with each other. The students came to know the development in humanities subjects due to the technology.



Valedictory Session: The Programme Coordinator and HOD, Basic Science and Humanities thanked everyone who participated and worked for this conference. He announced that the online certificate for participation/presentation will be mailed to the participants. He congratulated the team of Basic Science and Humanities for successful completion of NCSTCS 2K20. Dr. Nandi thanked the management and college officials for their constant support for the success of the national conference.

