



ILLUMINATION

Newsletter

**Department
of
Basic Science & Humanities
Narula Institute of Technology**

Vol. 5

July 2021 – June 2022

Illumination

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Managing Director, JIS Group

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Principal, Narula Institute of Technology

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Dr. Sumit Nandi
Head, Basic Science & Humanities

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Ms. Rajasi Ray
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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 2021-2022, 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 2021-2022, 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 2021-2022 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

Grants Received

- Theoretical and Experimental Studies on few body exotic and atomic systems under confinement conditions
Sanctioned on: 06/10/2021
Period: 2021-2024
Funding agency: DAE
Sanctioned amount: Rs 21,89,850
P.I - Dr. Tapan Mukherjee
- Scheme for Promoting Interest, Creativity and Ethics among Students (SPICES)
Sanctioned on: 25/05/2022
Period: 2022-2023
Funding agency: AICTE
Sanctioned amount: Rs 1,00,000
P.I – Sharmistha Basu, Dept. of BSHU
Co P.I – Dr. Sarbani Ganguly, Dept. of BSHU

Faculty awards/achievements

Name	Details
Dr. Sumit Nandi	Received JIS Innovation award for publication with students in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Dr. Sumit Nandi	Received Innovation award for publication of article in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Dr. Sumit Nandi	Received JIS Innovation award for patents in 2020-21 (Award received on 22 nd April, 2022)
Dr. Sumit Nandi	Received JIS Innovation award for research grant in 2019-20 (Award received on 22 nd April, 2022)
Dr. Rupa Bhattacharyya	Received JIS Innovation award for publication with students in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Dr. Rupa Bhattacharyya	Received JIS Innovation award for publication of article in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Dr. Rupa Bhattacharyya	Received JIS Innovation award for patents in 2020-21 (Award received on 22 nd April, 2022)
Dr. Rupa Bhattacharyya	Received JIS Innovation award for research grant in 2019-20 (Award received on 22 nd April, 2022)
Dr. Rupa Bhattacharyya	Received the JIS Samman at departmental level for highest number of research publications
Dr. Rupa Bhattacharyya	Received the JIS Samman at departmental level for highest number of student publications
Dr. Rupa Bhattacharyya	Received the JIS Samman at departmental level for best video lecture
Dr. Rupa Bhattacharyya	Delivered an Invited Talk on '3R Principle and Waste Management' at GKCEM on 23/09/2021
Dr. Shilpi Pal	Received JIS Innovation award for publication with students in 2019-20 and 2020-21(Award received on 22 nd April, 2022)

Dr. Shilpi Pal	Received JIS Innovation award for publication of article in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Dr. Dhananjay Kumar Tripathi	Received JIS Innovation award for publication of article (2020-21) (Award received on 22 nd April, 2022)
Dr. Dhananjay Kumar Tripathi	Received JIS Innovation award for publication with students in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Dr. Susmita Karan	Received JIS Innovation award for publication of Patent (2020-21) (Award received on 22 nd April, 2022)
Dr. Susmita Karan	Received JIS Innovation award for article publication in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Dr. Susmita Karan	Received JIS Innovation award for publication with students in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Dr. Nikhilesh Sil	Received JIS Innovation award for article publication in Conference Proceeding in 2020-21 (Award received on 22 nd April, 2022)
Dr. Nikhilesh Sil	Received JIS Innovation award for book chapter publication with students 2020-21 (Award received on 22 nd April, 2022)
Dr. Indrani Sarkar	Received JIS Innovation award for publication with students in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Dr. Indrani Sarkar	Received JIS Innovation award for publication of article (2020-21) (Award received on 22 nd April, 2022)
Ms. Sharmistha Basu	Received JIS Innovation award for publication with students in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Ms. Sharmistha Basu	Received JIS Innovation award for publication of article in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Ms. Sharmistha Basu	Received JIS Innovation award for publication of Patent (2020-21) (Award received on 22 nd April, 2022)
Ms. Sharmistha Basu	Completed Post Graduation in English Language Teaching (M.A. PGELT) from Netaji Subhash Open University (NAAC accredited A Grade University, West Bengal, 14th February, 2022)
Ms. Sharmistha Basu	Presented an Invited Talk At Smk Mandin, Malaysia In The Virtual Mode On 30th June 2022

Ms. Rajasi Ray	Received JIS Innovation award for publication of article (2019-20) (Award received on 22 nd April, 2022)
Ms. Rajasi Ray	Received JIS Innovation award for publication with students in 2019-20 and 2020-21 (Award received on 22 nd April, 2022)
Ms. Rajasi Ray	Mentored the paper named “Transformative learning during times of pandemic” which got best paper presenter award (presented by: Prerana Singh and Vishal Kumar) in ICELLP2k22 (May 27-28, 2022)
Ms. Rajasi Ray	Mentored the paper named “Reimagining the role of technology in education” which got best paper presenter award (presented by: Pritam Baidya and Pritam Sarkar) in ICELLP2k22 (May 27-28, 2022)
Ms. Aparajita Paul	Received Certificate of Appreciation for the contribution as 'Master of Ceremonies" of the Webinar on " Early Modern Disability Studies and Shakespeare” (23.04.2022)
Ms. Aparajita Paul	Mentored the paper named “Learning and teaching through arts” which got best paper presenter award (presented by: Arghyadeep Sarkar and Niladri Dey) in ICELLP2k22 (May 27-28, 2022)
Ms. Aparajita Paul	Mentored the paper named “Educational games as a learning method” which got best paper presenter award (presented by: Anikesh Midya) in ICELLP2k22 (May 27-28, 2022)
Ms. Payel Mondal	Received JIS Innovation award for publication with students (2020-21) (Award received on 22 nd April, 2022)
Ms. Debopriya Dey	Received JIS Innovation award for publication with students (2019-20) (Award received on 22 nd April, 2022)
Ms. Sharmistha Basu And Dr. D.K. Tripathi	Mentored the paper named “Hologram technology for effective learning” which got best paper presenter award (presented by: Bishal Chandra Debnath) in ICELLP2k22 (May 27-28, 2022)

Patent Published

1. **Dr. Sumit Nandi and Ms. Debopriya Dey**, published a patent “Jojoba Biodiesel Based Biofuel Composition and Method For Preparation Thereof” on April, 2022

Patent Filed

1. **Ms. Sharmistha Basu and Dr. Sumit Nandi**, Enhancement of cognitive skills of B. Tech students through voice modulation technique, Diary no: 12370/2022-CO/L, Date of filing: 10.06.2022.

Book chapters

1. **Dr. Sumit Nandi, Ms. Debopriya Dey and Dr. Rupa Bhattacharyya**, Prediction of blended fuel characteristic through regression modelling, Proceedings of ICCACCS 2020 (Springer), Vol. 786, November-2021, ISBN 978-981-16-4035-3 (eBook), <https://doi.org/10.1007/978-981-16-4035-3>.
2. **Dr. Susmita Karan and Raktim Dutta** published a chapter on “Illegal, Unreported and Unregulated Fishing and Environmental Crisis” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8
3. **Dr. Susmita Karan and Niladri Ganguly** published a chapter on “Mining and Environmental Crisis” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8
4. **Dr. Dhananjay Kumar Tripathi and Dr. Sumit Nandi** published a chapter on “Solar Cell: The Solution to the Energy Crisis” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8
5. **Dr. Shilpi Pal and Ms. Debopriya Dey** published a chapter on “Rainwater Harvesting: A boon for the Environment” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8
6. **Dr. Nikhilesh Sil, Mr. Sujan Maitra and Arpan Kumar Shill** published a chapter on “Air Pollution: Cause, Effects and Possible Solutions” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8
7. **Dr. Nikhilesh Sil, Avik Ghosh and Pratip Chakraborty** published a chapter on “Solid Waste Management: Problems and Solutions by Using Microbes & Bacteria” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8
8. **Dr. Shilpi Pal, Ms. Debapriya Dey, Suman Samanta and Tamroparni Sarkar** published a chapter on “Population Growth: Its Impact on the Environment” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8
9. **Apurba Ghosh, Ms. Payal Mondal, Christina Hira and Ankita Sen** published a chapter on “Renewable Energy: A Solution to Green and Sustainable Future” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8
10. **Apurba Ghosh, Ms. Payal Mondal, Subhajit Das and Anisha Das** published a chapter on “Overconsumption of Natural Resources: A Threat to Environmental Sustainability” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8
11. **Dr. Sarbani Ganguly, Ms. Payal Mondal, Swapnanil Roy and Pritam Roy** published a chapter on “Application of Nanotechnology in Clean Energy Production” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8
12. **Ms. Rajasi Ray, Dr. Sarbani Ganguly, Shibayan Bakshi and Sayaka Sinha** published a chapter on “Hydraulic Fracking and its Environmental Detriments” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8
13. **Sharmistha Basu, Aparajita Paul, Sudeshna Dey and Anudeepa Gon** published a chapter on “Ozone Layer Depletion: A Brief Analysis on the Consequences and the Alternative Measures

for Protection” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8

14. **Dr. Sumit Nandi and Dr. Rupa Bhattacharyya**, Neelam Haity and Kana Biswas published a chapter on “Waste Plastic to Biodiesel” in ‘Handbook on Present Environmental Challenges: An Overview’ ISBN: 978-93-5515-086-8.

MOU signing of the department with iSPELL India

The English section of Department of Basic Science & Humanities of Narula Institute of Technology, signed a Memorandum of Understanding (MOU) with the Indian Society for the Promotion of English Language & Literature(iSPELL) to foster further the teaching and learning of English language and communication amongst the students and staff members of our institute 23/04/2022.

MEMORANDUM OF UNDERSTANDING
BETWEEN

NARULA INSTITUTE OF TECHNOLOGY,
AGARPARA, WEST BENGAL
(An initiative of English section of Basic Science and
Humanities department)



AND

INDIAN SOCIETY FOR THE PROMOTION OF ENGLISH LANGUAGE &
LITERATURE, (iSPELL)



This MOU is signed by the duly authorized officials of the parties

 Prof. G.A. Ghanshyam Founder & General Secretary, iSPELL	 Prof. (Dr.) M.R. Kanjilal Principal Narula Institute of Technology, Agarpara, W.B.
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In presence of the following witnesses:

<p>1. Dr. Ashok Sachdeva Vice-President, iSPELL</p> <p>2. Dr. Kshamata Chaudhary Coordinator, iSPELL</p>	 1. Dr. Sumit Nandi Associate Professor and HOD, BS&HU Narula Institute of Technology, Agarpara, W.B.
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 Prof. G. A. Ghanshyam General Secretary iSPELL	 2. Ms. Sharmistha Basu Assistant professor BS&HU (English)
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International Journal Publication

1. **Dr. Sumit Nandi** and Swarnendu Mitra, 'Effect of mixing intensity for biodiesel production from coconut acid oil', International Journal of Enhanced Research in Science, Technology & Engineering, Vol. 10, Issue 7, pp. 26-31, July-2021.
2. **Sumit Nandi, Rupa Bhattacharyya** and Swarnendu Mitra, Effect of mixing intensity for biodiesel production from palm fatty acid distillate, Indian Journal of Natural Sciences, Vol: 13 (71), pp. 40317-40322, April 2022.
3. **Dr. Avishek Chakraborty**, 'A New Technique to Solve Transportation Problems Using De-Pythagorean Value in Generalized Interval Valued Pythagorean Environment', International Journal of Fuzzy System Applications (IJFSA), Vol-10 (4), Article- 4, pp: 57-78, 2021.
4. **Dr. Sumit Nandi, Dr. Rupa Bhattacharyya** and Binita Mandal, 'Enzymatic preparation of biodiesel from Mahua oil (*Madhuca Indica*) and its characterization', International Journal of Enhanced Research in Science, Technology & Engineering, Vol. 10, Issue 10, pp. 23-28, October-2021.
5. **Dr. Sarbani Ganguly and Dr. Sumit Nandi**, 'Oil meals: A novel cheap source of prebiotic food materials', International Journal of Enhanced Research in Science, Technology & Engineering, Vol. 10, Issue 10, pp. 33-38, October-2021.
6. **Sumit Nandi, Rupa Bhattacharyya** and Binita Mondal, Blended fuel from Mahua Oil (*Madhuca Indica*) and its characterization, Journal of Environmental Science, Computer Science and Engineering & Technology, Vol: 11 (2), pp.348-354, March 2022- May 2022.
7. **Ms. Sharmistha Basu, Dr. Avishek Chakraborty**, Mr.Suwendu Banerjee, Mr.Atanu Das, Mr.Rajib Bag, Mr.Sumit Kr.Singh, 'Diagnosis of Melanoma Lesion Using Neutrosophic and Deep Learning' Traitement du Signal, Vol. 38 (5), 1327-1338, 2021.
8. **Dr. Sumit Nandi, Dr. Rupa Bhattacharyya**, 'Optimization and kinetics of biodiesel from jojoba (*Simmondsia chinensis* L. Schneider) oil', World Scientific News, Vol: 159, pp. 108-121, July, 2021.
9. **Dr. Avishek Chakraborty**, 'A novel logarithmic operational law and aggregation operators for trapezoidal neutrosophic number with MCGDM skill to determine most harmful virus', Applied Intelligence, Springer.
10. **Rupa Bhattacharyya, Sumit Nandi and Sayantan Bose**, Influence of nano CaCO₃ in mechanical property modification of PVC-poly (ethyl acrylate) blends, Journal of Chemical, Biological and Physical Sciences, Vol: 12 (2), pp. 51-68, Feb-April 2022 (E- ISSN: 2249 –1929).

Papers in International Conference Proceedings

International Conference on “The Future of Women in Technology”

Organized by

The Women Cell of Narula Institute of Technology, 8th and 9th of March 2021

Conference Proceedings ISBN: 978-93-89817-64-5.

1. **Sharmistha Basu** and Nilormee Sarkar (ECE-4) on ‘Challenges of tech-savvy women in the present era’.
2. **Sharmistha Basu** and Sudeshna Dey, (M.Tech CSE) on ‘Tech-women: an indispensable boon to modern era’.
3. **Sharmistha Basu** and Debpuja dhar (IT4) on ‘Plight of women in the IT sector: a study based on the bigotry’.
4. **Rajasi Ray** , Jishnu Roy Chowdhury, Tathagata Sarkar on “The role of education in women Empowerment” .

Papers Presented and Published in National Conference

4th National Conference on Science, Technology and Communication Skills (NCSTCS 2K21)

Organized by

Department of Basic Science and Humanities, 24th & 25th of Sept 2021

Conference proceedings published with ISBN 978-93-89817-63-8.

1. **Dr Sarbani Ganguly**, Nabanita Paul and Jeet Das on ‘Vitamin–D Deficiency In Children During Covid Period’.
2. **Dr Sarbani Ganguly**, Sana Afreen and Ishika Yadav on ‘New Technology for Cyber-Security’.
3. **Dr Sarbani Ganguly**, Swagata Samanta and Soindrila Deb on ‘Prevention of Noise Pollution’.
4. **Dr. Shilpi Pal**, Ankita Sen and Anoushka Dhar on ‘A Study On Lean Six Sigma Management’ ,
5. **Dr. Shilpi Pal**, Suman Samanta and Christina Hira on ‘Study on Just-In-Time’.
6. **Dr. Shilpi Pal**, Ishita Chatterjee and Anisha Das on ‘Was 2020-Lockdown A Boon For The Reduction Of Carbon Emission Or Was It Just A Myth’.
7. **Sharmistha Basu**, Sudeshna Dey and Anudeepa on ‘Studying English Facilitates Employment: A Brief Analysis On Communication Skills’.
8. **Sharmistha Basu**, Anudeepa Gon and Sudeshna Dey on ‘English: An Indispensable Language For Scientific Research Work’.
9. **Sharmistha Basu**, Anisha Das and Anoushka Dhar on ‘Impact of Soft Skills in the Life Of An Engineer’.
10. **Aparajita Paul**, Sujaan Maitra and Bhaskar Ganguly Neogi on ‘Software and the Fun with Language Acquisition’.
11. **Aparajita Paul**, Saswata Dhara and Isshita Ghosh on ‘Ebonics and Black English’.
12. **Aparajita Paul**, Debpuja Dhar and Ankita Sen on ‘Cross-Cultural Communication: A Study on Ethnocentrism’.
13. **Aparajita Paul**, Soindrila Deb and Ayani Banerjee on ‘Overcoming Cultural Clashes’.
14. **Aparajita Paul**, Saptarshi Bal and Shreya Adak on ‘Role Of Non-Verbal Communication In Corporate Communication’.
15. **Rajasi Ray**, Shibayan Bakshi and Santanu Chowdhury on ‘Artificial Intelligence In The Field Of Literature’.

16. **Rajasi Ray** and Karishma Kumari on 'Role of Teacher In Language Acquisition'.
17. **Rajasi Ray**, Sayan Mondal and Ankita Kundu on 'Development of Robot Navigation Based On Gesture Recognition'.
18. **Susmita Karan** and Rohit Shaw on 'Biomass'.
19. **Susmita Karan** and Somak Kundu on 'Mass Energy Equivalence'.
20. **Susmita Karan**, Shipra Singh and Sayaka Sinha on 'Simple Harmonic Motion and Lissajous Figure'.
21. **Susmita Karan**, Niladri Ganguly and Raktim Dutta on 'Nanotechnology: The Technology That Can Bring Revolution'.
22. **Dr. Sumit Nandi**, **Dr. Rupa Bhattacharyya** and Kanya Kumari on 'Blended Fuel from Mahua Oil (Madhuca Indica)'.
23. **Dr. Sumit Nandi**, **Dr. Rupa Bhattacharyya**, Swarnendu Mitra and Moubani Majumder on 'Analysis Of Stirring For Transesterification Reaction'.
24. **Dr. Rupa Bhattacharyya**, **Dr. Sumit Nandi** and Ananya Chakraborty on 'Role of Nano Graphene oxide in sustainability of PVC'.
25. **Dr. Rupa Bhattacharyya**, **Dr. Sumit Nandi**, Sayantan Bose and Debjani Dey on 'Stabilization of PVC using nanosilica as the nanomaterial'.
26. **Dr. Dhananjay Kumar Tripathi** and Priyam Saha on 'Effects of space weather on modern Communication system'.
27. **Dr. Dhananjay Kumar Tripathi**, Rohan Rowson and Arbaj Akhtar Ansari on 'Communication in Antarctica using ANARESAT: A review'.
28. **Dr. Dhananjay Kumar Tripathi** and Sana Asif on 'Limitations of air traffic Control using Radar'.
29. **Dr. Indrani Sarkar**, Debajit Dutta, Ratul Bhattacharjee and Debtosh Panda on 'Bio Sensors and Applications'.
30. **Dr. Indrani Sarkar** Devapriya Manna, Debtosh Panda 'Infrared Plastic Solar Cells'.
31. **Dr. Indrani Sarkar**, Saswata Ghosh, Soma Mukherjee 'Interactive Video Tutorials Can Be Used for Enhancing Problem Solving And'.
32. **Dr. Indrani Sarkar**, Adrija Saha, Sanlap Ghosh, Soma Mukherjee 'Nutritional Dietrics'.
33. **Dr. Sumit Nandi**, Arnab Saha and Yash Raj Singh 'Reasoning Skills of Science and Engineering Students'.

Papers presented in International Conference.

International Conference on English Language and Literature in the Pedagogical Perspective: Embracing the Landscape Shift through Innovative Practices

(ICELLP 2K22) on 27– 28 May, 2022.

Organized by the Department of Basic Science and Humanities (English Section)

1. **Payel Monda, Shilpi Pal, Koyena Paul and Shreya Roy**” The Instructive Capability Of Folk Dance”.
2. **Rajasi Ray, Sayan Karmakar and Maitraya Dey** “National Education Policy 2020 – A Significant Step towards Excellence”.
3. **Aparajita Paul, Dhananjay Kumar Tripathi, Jeet Das and Sayak Sen** “Role of ICT In Language Learning”.
4. **Sharmistha Basu, Mildred De Joya Par and Harsh Kumar** “Academic policies and its accountability”.
5. **Aparajita Paul, Ishita Chatterjee and Anoushka Dhar** “Generation Gap: A Path to Interpersonal Conflicts”.
6. **Apurba Ghosh, Dr. Shilpi Pal, Soham Chakravorty and Antika Mukherjee** “The ‘Production’ Of Education: A Movement from Equity to Efficiency in Education Policy”.
7. **Rajasi Ray, Sayan Karmakar and Maitraya Dey** “National Education Policy 2020 - A Significant Step Towards Excellence”.
8. **Aparajita Paul, Arghyadeep Sarkar and Niladri Dey** “Learning & Teaching through Arts”.
9. **Shilpi Paul, Apurba Ghosh, Soindrila Deb and Ananya Chakraborty** “Innovative Pedagogical Practices”.
10. **Aparajita Paul, Dr. Rupa Bhattacharya, Bhaskar Ganguly Neogi and Saptarshi Bal** “Education-Technology-Earth”.
11. **Rajasi Ray, Lisa Roy and Liza Roy** “Educational Gaming App: A Brief Analysis of Vocabulary”.
12. **Sharmistha Basu, Tashi Dendup and Sayan Saha** “Scrabble: An Effective Game Used in Language Learning”.

13. **Sharmistha Basu, Ponnathota Srinivasulu** and Sayandeep Sharma “Application of ICT in Language Teaching With Special Reference to Language Learning Apps”.
14. **Rajasi Ray** and Saikat Chowdhury “Educational Games as an Effective Learning Method”.
15. **Sharmistha Basu, Ankesh Samanta** and Aritri Chakraborty “Digital Humanities Using Computer Vision: A Way Forward for Humanities Studies”.
16. **Sharmistha Basu,** Manas Moulic, Rishita Saha and Sunidhi Pal “Emergence of ICT: A New Wave in Language Learning”.
17. **Sharmistha Basu,** Ooi Choon Meng, Subham Dubey and Shambhavi Verma “Equity and Inclusion: A Necessary Aspect of Education”.
18. **Sharmistha Basu** and Shantanu Chakravarty and Anisha Das “Holding Lens on Technology Based Learning”.
19. **Sharmistha Basu,** Riya Shaw and Swapnil Sarkar “Learning & Teaching through Arts”.
20. **Payel Mondal** and Pratik Dutta “Covid-19 Pandemic and Its Impact on Education”.
21. **Payel Mondal, DebopriyaDey,** Megha Mandal and Suraj Karmakar “Covid-19 and Digital Education”.
22. **Payel Mondal, Apurba Ghosh** and Subhajit Saha “A Review on Pandemic Driven Teaching and Learning”.
23. **Rajasi Ray,** Aditi Chakraborty and Tanisha Roy “Teaching and Learning Strategies During Pandemic”.
24. **Debopriya Dey, Shilpi Pal,** Devansh Upadhyay and Nilakash Mukherjee “Pandemic Era, an Opportunity for Enhancement of Digital Teaching-Learning Methodology”.
25. **Rajasi Ray** and Sramantak Mitra “A Literature Review on the Impact of Covid-19 Pandemic on Teaching and Learning”.
26. **Rajasi Ray,** Souhardya Saha and Neha Pal “Changing Educational Techniques In The Pedagogical Shift”.

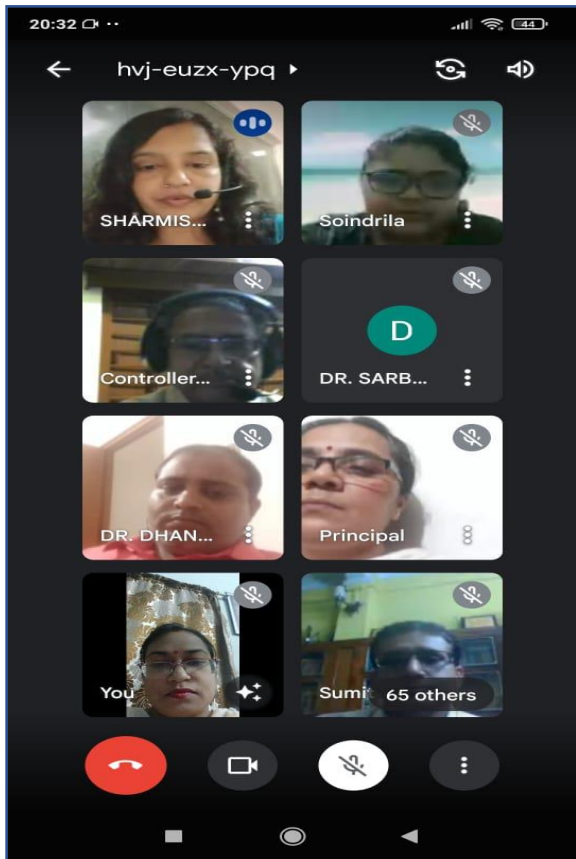
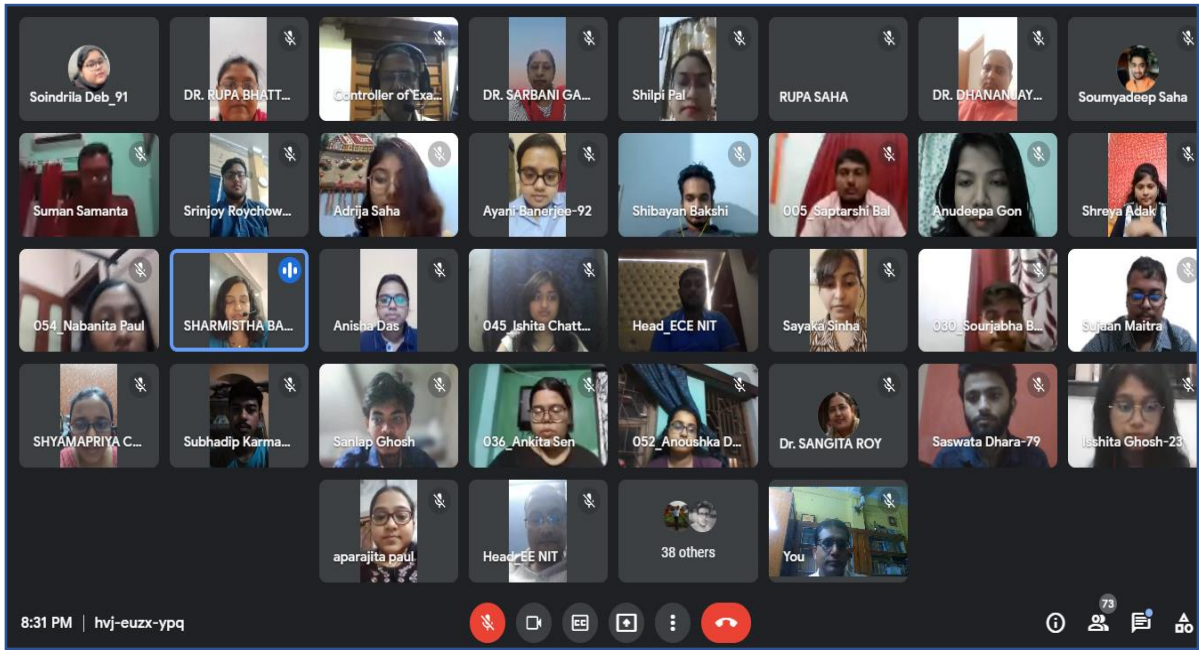
27. **Rajasi Ray**, Anam Ali and Saurabh Kumar “Unembellished Digital Education: A Paradigm Shift for Education In India”.
28. **Rajasi Ray** and Shibayan Bakshi “Offline to Online Transition of Education”.
29. **Rajasi Ray**, Prerana singh and Vishal kumar “Transformative Learning during the Times of Pandemic”.
30. **Sharmistha Basu**, Imtiaz Hussain, Rifa Tasnim and Danish Jamil “The Evolution of Innovative Educational Methodologies during the Pandemic”.
31. **Aparajita Paul**, Pallav Dutta, Ankita Sen and Debpuja Dhar “Reimagining the Role Of Technology In Education”.
32. **Rajasi Ray** and Sameek Das “Technical Innovations in the Education System”.
33. **Shilpi Pal, Payel Mondal** and Saptarshi Basu “Artificial Intelligence in Education System”.
34. **Rajasi Ray, Wooshashi Mukherjee** and Mrinalini Sarkar “Re-Envisioning Technology Imperatives in Education”.
35. **Sarbani Ganguly, Payel Mondal**, Rohandeep Patra and Shibayan Bakshi “Educational Games to Enhance Student Learning”.
36. **Payel Mondal, Shilpi Pal**, Pranab Kumar Paul and Zaid Imam “Innovation in Education”.
37. **Payel Mondal, Shilpi Pal**, Srinjoy Mukherjee Ray and Vivek Kr Singh “Use Of Virtual Reality And Augmented Reality In Education”.
38. **Aparajita Paul** and Sujaan Maitra “Technology and Education: Its Interdependencies and Effects on Each Other”.
39. **Aparajita Paul** and Soindrila Deb “Reimaging the Role of Technology in Education”.
40. **Rajasi Ray**, Diksha Das and Anish Swarnakar “Innovative Digital Model (Idi) and E-Learning.”.
41. **Sharmistha Basu and Dr.Indrani Sarkar** and Dev Jyoti Patra “Technology Enabled interactive Classrooms”.
42. **Rajasi Ray**, Aman shaw and Archi Sinha “New Technology and Education”

43. **Payel Mondal, Debopriya Dey**, Moumita mondal and Rajib Poddar “The Power of Arts in Education”.
44. **Rajasi Ray**, Pritam Baidy and Pritam Sarkar “Reimagining the role of Technology in Education: Design and Implementation of Digital Attendance System Using Facial Recognition”.
45. **Dr. Susmita Karan ad Dr. Nikhilesh Sil**, Deep Sarkar and Samarjit Majumdar “Education and New Technologies”.
46. **Dr. Susmita Karan ad Dr. Nikhilesh Sil**, Saurabh Kumar Sharma and Sujay Samanta “Pandemic Driven Teaching Methodologies”.
47. **Rajasi Ray**, Ayishi Manna and Subham Chanda “Integrating ICT For Effective Teaching And Learning In The Online Pedagogic Environment”.
48. **Dr. Sumit Nandi and Sarbani Ganguly**, Souvik Ghosh and Sk Arif Mondal “Educational Games As A Learning Methods”.
49. **Dr. Sumit Nandi and Rupa Bhattacharyya**, Indranil Pati and Amit Kumar Das “Learning Methodology through New Educational Policy”.
50. **Dr. Sumit Nandi** and Md. Mirja Galib “Learning and Teaching through Arts”.
51. **Dr. Nikhilesh Sil, Dr. Susmita Karan**, Souvik Jana and Tamal Manna “Teaching Learning Process of English In Pre Colonial, Colonial And Post-Colonial Period”.
52. **Sarbani Ganguly, Satyaki Mukherjee**, Abhijit Pasari and Soumili Biswas “Pandemic Driven Teaching Methodology: Molecular Visualization & 3-D Simulation Using Avogadro Software in Chemistry”.
53. **Dr. Nikhilesh Sil, Dr. Susmita Karan**, Arpan Kumar Shill and Chayan Ghosh “Innovative Technologies For Effective Teaching Strategies”.
54. **Shilpi Pal, Debopriya Dey**, DipanwitaSaha and Amit Maji “Development of Technology In Pandemic”.

Events Organized by the Department

Event 1: 4thNational conference on Science, Technology and Communication Skills (NCSTCS 2K21) 24-25 September, 2021

The Basic Science and Humanities Department of Narula Institute of Technology organized a two-days digital conference entitled “4th National conference on Science, Technology and Communication Skills (NCSTCS 2K21)”, during 24-25 September, 2021 using Google Meet platform. This is the fourth consecutive years that this conference was held since 2018. For the last two years this conference was being organized by the Department of Basic Science & Humanities, Narula Institute of Technology in digital mode. The objective of the conference was to illuminate the innovative minds of the students even during this global pandemic. The conference successfully brought the scientific fraternity under one umbrella which enabled them to share their ideas and research work. Eminent speakers from abroad Mr. Edwin Schaeffer, Sr. Sales force Engineer at Integration at Ameren, Illinois, United States and Dr. Chirasree Chatterjee, Senior Data Scientist in Lowe’s Companies, Inc., Charlotte, North Carolina, USA were invited to deliver their lectures and share their insights with us. It provided an opportunity to the students as well as the faculty members to upgrade themselves in different areas of Science and Technologies. More than 70 papers of Science, Technology and communication skills were presented orally by the student as well as faculty researchers of different institutions of our state and other states also. All the presentations were judged on the basis of the quality of the paper and presentation and the best presenters were awarded. The two-day National Conference had a zestful inaugural session in the virtual platform on 23rd September, 2021. The session started with the greeting by Ms. Sharmistha Basu, Asst. Professor, English on behalf of the NCSTCS2K21 organizing team. Prof.(Dr). Maitreyi Ray Kanjilal, Principal of the institute welcomed all the delegates who have joined from the different corners of the nation. Dr. Sumit Nandi, HOD, BS&HU and Programme Coordinator stated the objectives of the conference by mentioning the importance of this conference in integrating the multidisciplinary fields of Science, Technology and Communication Skills on the same platform. Prof. Amlan Chakraborti, Controller of Examination (COE) of the institute appreciated the department for its 2 endeavors and wished the conference a grand success. The session ended with the Vote of Thanks by Dr. Sarbani Ganguly, Convener of the conference.



Event 2: International Conference on English Language and Literature on the Pedagogical Perspective: Embracing the Landscape Shift through Innovative Practices 27-28th May, 2022

The English section of Basic Science & Humanities Department of Narula Institute of Technology organized an International Conference in association with Indian Society for the promotion of English Language & Literature (ispell) on 27-28th May, 2022 in the blended mode. The theme of the conference was English Language and Literature in the Pedagogical Perspective: Embracing the Landscape Shift through Innovative Practices (ICELLP 2K22).

The inaugural session was graced by Prof.(Dr).Indranil SenGupta-Vice Chancellor, JISU, Prof.(Dr).G.A. Ghanshyam-Founder and General Secretary, iSPELL along with other dignitaries of the Institution. The conference started with the Saraswati Vandana and illumination of the lamp by the dignitaries which was followed by the thematic note delivered by Ms.Sharmistha Basu, Conference Secretary.

The Organizing Chair and HOD of Basic Science & Humanities Department, Dr. Sumit Nandi welcomed all at the onset and Prof.(Dr).Maitreyi Ray Kanjilal, Principal-NiT officially declared the commencement of the conference. There was an exclusive session for the delegates who joined from abroad in the virtual mode. Mr. Imtiaz Hussain, Dept. of English, University of Rajshahi, Bangladesh, Ms. Milbred De Joya Par, Poet, Philippines, Ms. Ooi Choon Meng, Lecturer, Institute of Teacher Education, International Languages Campus, Kuala Lumpur, Malaysia, Ms. Zarina Hashim, Faculty of Education, Universiti Kebangsaan Malaysia, Mr. Tashi Dendup, Vice Principal, Jigme Losel Primary School, Thimphu, Bhutan were some of the notable participants who exchanged pleasantries during this session.

The keynote speaker of the conference was Prof. (Dr.) Baishali Hui, Professor & Head, Department of English, University of Kalyani. The plenary speakers were: Dr. Aslam Khan, Academic Director & Vice Chairman, Erican Education Group, Malaysia, Dr. Sharmistha Chatterjee, Professor, Department of English, Aliah University, Dr. Gillian Dooley, Honorary Senior Research Fellow in English at Flinders University, South Australia and Prof.(Dr.) Gautam Sengupta, Former Senior Associate Professor and HOD, Dept. of English, Gurudas College, Kolkata.

The conference proved to be a successful platform in bringing together an interdisciplinary team of researchers. During the two days there were seven parallel paper presentation sessions where one

hundred and fifty three papers were presented by academicians, researchers and students which enlightened all with various innovative teaching-learning techniques.

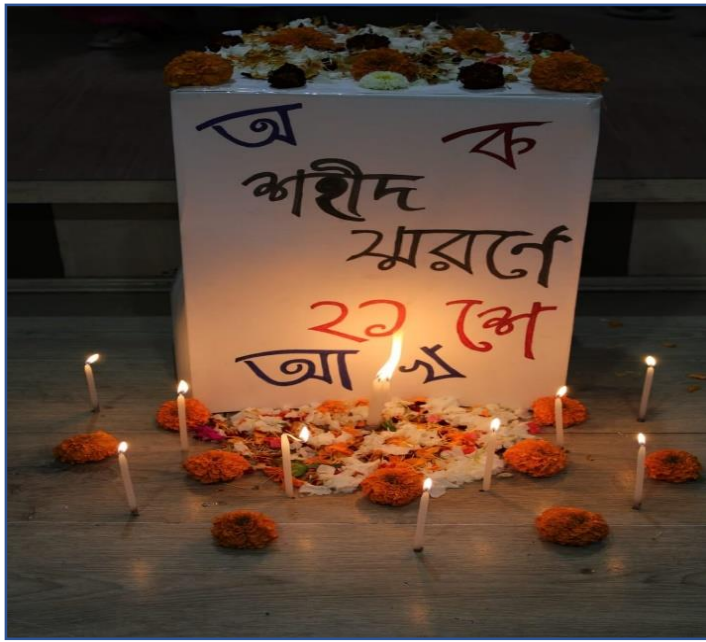




Event 3: International Mother Language Day (21.02.2022)

International Mother Language Day is a worldwide annual observance held on 21 February to promote awareness of Linguistic diversity and cultural diversity and to promote multilingualism. On this day, Narula Institute of Technology organized several events like Debates, Elocution, Creative Writing and cultural programs to commemorate and pay tribute to the martyrs of this revolutionary day.

The event started with the inaugural address by Prof.(Dr). Maitreyi Ray Kanjilal. The program went on for the entire day with enthusiastic students pouring in their passion for their mother tongue. In the evening the cultural programme began shortly after paying homage in front of the "Saheed bedi". The students and staff members of Narula Institute of Technology sang different songs in their own vernacular. The rich and diverse function came to an end with a wonderful folklore performance by the student band of the college. Let this day remind us of our roots and heritage. Let this day be a part of our soul every day.



RESOURCE PERSONS FOR INVITED TALK

Sl. No.	Name of Visitor / Guest Speaker	Designation/ Occupation	Seminar/ Workshop/ Conference Topic	Total Participant	Date	Organized By (Dept. Name/Institute level)
1	Dr. Aslam Khan	Academic Director & Vice Chairman, Erican Education Group, Malaysia	International Conference on English Language and Literature in the Pedagogical Perspective: Embracing the Landscape Shift through Innovative Practices	97	27.05.2022	BSHU
2	Dr. Gillian Dooley	Honorary Senior Research Fellow in English at Flinders University, South Australia.	"International Conference on English Language and Literature in the Pedagogical Perspective: Embracing the Landscape Shift through Innovative Practices"	88	28.05.2022	BSHU
3	Prof. (Dr.) Baishali Hui	Professor & Head, Department of English, University of Kalyani	"International Conference on English Language and Literature in the Pedagogical Perspective: Embracing the Landscape Shift through Innovative Practices"	167	27.05.2022	BSHU
4	Prof.(Dr.) Gautam Sengupta	Former Senior Associate Professor and HOD , Dept. of English, Gurudas College, Kolkata	"International Conference on English Language and Literature in the Pedagogical Perspective: Embracing the Landscape Shift through Innovative Practices"	157	27.05.2022	BSHU
5	Dr. Sharmistha Chatterjee	Professor, Department of English, Aliah University	"International Conference on English Language and Literature in the Pedagogical Perspective: Embracing the Landscape Shift through Innovative Practices"	88	28.05.2022	BSHU