

Research Publications (Conference Paper)

Department of Chemical Engineering

2025-26

1. **Siddhartha Sankar Boxi**, “Visible Light-Induced Degradation of Paracetamol with Semiconductor Nanomaterials”, International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech – 25)”organized by School of Chemical Engineering, Food Technology, and Biotechnology, at Haldia Institute of Technology, In association with IQAC, HaldiaHaldia Institute of Technology, Haldia, WB, India, 11-12th September, 2025. **ISBN Index:** 978-81-978408-5-2
2. Sk Sakil Hossain, Sk Samim, **Siddhartha Sankar Boxi**, “Urine to Electricity: A Sustainable Approach Using Microbial Fuel Cells”, International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech – 25)”organized by School of Chemical Engineering, Food Technology, and Biotechnology, at Haldia Institute of Technology, In association with IQAC, HaldiaHaldia Institute of Technology, Haldia, WB, India, 11-12th September, 2025. **ISBN Index:** 978-81-978408-5-2
3. Sk Sahin Rahaman, Sayan Pramanik, **Siddhartha Sankar Boxi**, “Algae to Petroleum – Turning Green Slime into Green Energy”, International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech – 25)”organized by School of Chemical Engineering, Food Technology, and Biotechnology, at Haldia Institute of Technology, In association with IQAC, Haldia, Haldia Institute of Technology, Haldia, WB, India, 11-12th September, 2025. **ISBN Index:** 978-81-978408-5-2
4. Sayan Mahapatra, Soumyadip Manna, Soumyadip Patra, Sayan Das, **Siddhartha Sankar Boxi**, “Waste to Energy (WTE) Conversion: Technological Methods and Global Advancements”, International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech – 25)” organized by School of Chemical Engineering, Food Technology, and Biotechnology, at Haldia Institute of Technology, In association with IQAC, Haldia, Haldia Institute of Technology, Haldia, WB, India, 11-12th September, 2025. **ISBN Index:** 978-81-978408-5-2
5. Priyansu Chatterjee, AntarikshaPramanik, Krish Kumar Das, **Siddhartha Sankar Boxi**, “Sustainable Biofuel Production from Municipal Sewage Sludge: A Waste-to-Energy”,

International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech – 25)” organized by School of Chemical Engineering, Food Technology, and Biotechnology, at Haldia Institute of Technology, In association with IQAC, Haldia, Haldia Institute of Technology, Haldia, WB, India, 11-12th September, 2025. **ISBN Index:** 978-81-978408-5-2

6. Sujal Kumar Singh, Saikat Jana, Soumyadip Samanta, Soumen Dolai, **Siddhartha Sankar Boxi**, “Carbon Residue Formation of Fuel Oils”, International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech – 25)” organized by School of Chemical Engineering, Food Technology, and Biotechnology, at Haldia Institute of Technology, In association with IQAC, Haldia Haldia Institute of Technology, Haldia, WB, India, 11-12th September, 2025. **ISBN Index:** 978-81-978408-5-2
7. Barnali Bej, **Siddhartha Sankar Boxi**, “Nano Silica Based Gravity Filter for Application in River Water Purification: A Short Review”, International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech – 25)” organized by School of Chemical Engineering, Food Technology, and Biotechnology, at Haldia Institute of Technology, In association with IQAC, Haldia, Haldia Institute of Technology, Haldia, WB, India, 11-12th September, 2025. **ISBN Index:** 978-81-978408-5-2
8. Madhumita Jana, Manisha Khatun, Krishna Mandal, **Barnali Bej**. “Green Building: The Future Aspects for Sustainability” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)”, organized by School of Chemical Engg., Biotechnology and Food Technology, in association with IQAC, Haldia Institute of Technology, Haldia, West Bengal, 11-12th September, 2025. **ISSN No. of Proceeding:** 978-81-978408-5-2
9. Bristi Bera, Debasmita Nanda, **Barnali Bej**. “Biodegradable polymers: Synthesis, Characteristics and future prospects” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)”, organized by School of Chemical Engg., Biotechnology and Food Technology, in association with IQAC, Haldia Institute of Technology, Haldia, West Bengal, 11-12th September, 2025. **ISSN No. of Proceeding:** 978-81-978408-5-2.
10. Sanchita Das, Aritri Pradhan, Soumi Mahapatra, Sneha Das, **Ankita Mazumder**. “Green chemical technologies: Renewal Energy” International Conference on “Advancement of

Green Technology for Sustainable Environment (Green Tech- 25), Haldia Institute of Technology, Haldia, West Bengal, 11 – 12th September, 2025.

ISSN No. of Proceeding: 978-81-978408-5-2

11. Kriti Srivastava, Kumari Anushka, Muskan Kumari Saha, Nishat Fatma, **Ankita Mazumder**. “Green Solvents and Their Role in Sustainable Chemical Processes” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech- 25), Haldia Institute of Technology, Haldia, West Bengal, 11 – 12th September, 2025.

ISSN No. of Proceeding: 978-81-978408-5-2

12. Dibyajyoti Dey, Akash Giri, Arkadip Hait, Agnish Neogi, **Ankita Mazumder**. “Solar Energy A Sustainable Solution to the Global Energy Crisis” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech- 25), Haldia Institute of Technology, Haldia, West Bengal, 11 – 12th September, 2025.

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13. Syed Arheena Mehresh, Subhechha Maity, Rikta Jana, Sumona Mahapatra, Priyadarshinee Maiti, **Tanushree Ghosh**. “Process Intensification: Sustainable Solution Approaches In Food Industry” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech- 25)”, organized by the department of Chemical Engineering, department of Biotechnology, & Department of Food Technology, Haldia Institute of Technology, West Bengal, 11- 12th September, 2025. **ISBN Index of Proceeding: 978-81-978408-5-2**

14. Sudip Tunga, Udit Manna, Ujjal Mandal, Subrata Samai and **Sonali Samanta**. “An Overview of Agricultural Waste-Derived Nanomaterials for Sustainable Waste Water Treatment by Heavy Metal Removal”. International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)”. School of Chemical Engineering, Biotechnology and Food Technology, Haldia Institute of Technology, In association with IQAC, HIT, Haldia, West Bengal, 11- 12th September, 2025.

ISSN No. of Proceeding: 978-81-978408-5-2

15. Shyam Sundar Samanta, Sujoy Kumar Ghosh, Sudipta Jana and **Sonali Samanta**. “Advancements in Platinum/Carbon Based Cathode Catalysts for Proton Exchange Membrane Fuel Cells”. International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)”. School of Chemical Engineering,

Biotechnology and Food Technology, Haldia Institute of Technology, In association with IQAC, HIT, Haldia, West Bengal, 11 – 12th September, 2025.

ISSN No. of Proceeding: 978-81-978408-5-2

16. Tushar Koley, Tirthankar Jana, Supratik Quila, Triyan Mandal and **Sonali Samanta**. “A Review on Hydrogen Generation from Plastic Waste using TiO₂-Based Photocatalysts”. International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)”. School of Chemical Engineering, Biotechnology and Food Technology, Haldia Institute of Technology, In association with IQAC, HIT, Haldia, West Bengal, 11 – 12th September, 2025.

ISSN No. of Proceeding: 978-81-978408-5-2

17. **Sonali Samanta**, Asit Kumar Saha and Rajat Chakraborty. “Development of Waste Fish Scale/TiO₂/Cu₂O Composite Catalyst for Photocatalysis of Methanol Production”. International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)”. School of Chemical Engineering, Biotechnology and Food Technology, Haldia Institute of Technology, In association with IQAC, HIT, Haldia, West Bengal, 11 – 12th September, 2025.

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18. **Sonali Samanta**, Rajat Chakraborty, Asit Kumar Saha. “Synthesis, Characterization, and Photocatalytic Evaluation of Bio-Derived TiO₂ and TiO₂-Cu Catalysts Supported on Fish Scales and Eggshells”. CHEMCON 2025. IICHE, Annamalai Regional Centre, 27 -30th December, 2025.

19. Ananya Mukherjee, Adreeja Majumdar, Babai Dingal, Debatri Samanta, Sutapa Roy, Biswajit Mandal, **Lipika Das Samanta** “Innovative Colour Spectrum of Hydrogen and Pathways to produce Green Hydrogen towards Carbon Neutrality” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)” 11-12th September, 2025. **ISBN Index:** 978-81-978408-5-2

20. Parinita Santra, Rupanjana Pramanik, ChirashreeNayak, Monami De, Biswajit Mandal, Sutapa Roy and **Lipika Das Samanta** “Power on the Move: Materials and Manufacturing of Flexible Organic Solar Cells” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)” 11-12th September, 2025. **ISBN Index:** 978-81-978408-5-2

21. Arnab Sadhu, BibekAcharjya, JitendraMaity, Ratul Sasmal, Sutapa Roy, Biswajit Mandal, **Lipika Das Samanta** “Emerging Pathways to produce Clean and Green Hydrogen to accelerate the Net-zero Target Achievement and Sustainable Development” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)” 11-12th September, 2025. **ISBN Index:** 978-81-978408-5-2
22. **Monal Dutta**. “Exploring the Potentials of Hybrid Renewable Energy Systems-A Review” 2nd International Conference on Renewable Energy Technologies and Bio Sustainability ICRETBS 2025, Centre for Education Innovation and Entrepreneurship, Kolkata, West Bengal, 22-24rd March, 2025. **ISBN Number:** 978-93-342-2510-5.
23. **Sunil Baran Kuila, Monal Dutta**. “A Comparative Study of Nuclear and Thermal Power Generation: Efficiency, Sustainability, and Environmental Aspects” IChE-CHEMCON-2025, Annamalai University, Annamalainagar-608002, Tamilnadu, India., 27 – 30th December, 2025. P-463
24. Dhara Abheek Ashok, Akash Panja, Anwasha Das, Rajesh Mondal, **Keka Rana**, “Unlocking sugarcane bagasse for second-generation (2G) ethanol is essential for sustainable energy advancement”, International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)”, School of Chemical Engineering, Biotechnology and Food Technology, Haldia Institute of Technology, in Association with IQAC, HIT, Haldia, West Bengal, 11-12th September, 2025, Page. 142, **ISBN Index:** 978-81-978408-5-2.
25. Sukanta Mandal, Suman Mistry, Dipak Das, Sudip Dolai, Soumyajit Shit, **Keka Rana**, “Algae-Based Biofuels: A Sustainable Solution for Future Energy Demands” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)”, School of Chemical Engineering, Biotechnology and Food Technology, HaldiaInstitute of Technology, in Association with IQAC, HIT, Haldia, West Bengal, 11-12th September, 2025, Page. 143, **ISBN Index:** 978-81-978408-5-2.
26. Subhankar Patra, Subhajit Maity, Swati Paul, Satyajit Sahoo, **Keka Rana**, “Review on Formation of Sustainable Organic Fertilizer from Municipality biodegradable solid waste” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)”, School of Chemical Engineering, Biotechnology and Food Technology, Haldia Institute of Technology, in Association with IQAC, HIT, Haldia, West Bengal, 11-12th September, 2025, Page. 151, **ISBN Index:** 978-81-978408-5-2.

27. **Keka Rana**, “Unlocking the Potential of Membrane Technology through Performance Analysis of Nanomaterials”, International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech-25)”, School of Chemical Engineering, Biotechnology and Food Technology, Haldia Institute of Technology, in Association with IQAC, HIT, Haldia, West Bengal, 11-12th September, 2025, Page. 160, **ISBN Index:** 978-81-978408-5-2.
28. **Keka Rana**, Debasish Sarkar, “Precise Hydrodynamic Analysis of Rotating Disk-Membrane (RDM) Module Through Computational Fluid Dynamics Approach”, CUCHE Alumni Conference 2025 on, “The Expanding Horizon of Chemical Engineering”, Department of Chemical Engineering, University of Calcutta, India, 21 -22nd December, 2025, Page. 12.
29. Asit Kumar Saha, **Keka Rana**, “AI-Powered Camera Augmented Stethoscope for Diagnostic Applications”, Indian Institute of Chemical Engineering (IICHE), CHEMCON 2025, IICHE, Annamalai Regional Centre, 27 – 30th December, 2025, Page. 454.
30. Muskan Kumari Saha, Mayank Sharma, **Keka Rana**, “Revolutionizing Drug Delivery: Achieving Safety and Precision with Advanced Nanocarriers”, 21st Annual session of Students’ Chemical Engineering Congress (SCHEMCON 2025)”, organized by IICHE-VIT Student Chapter, School of Chemical Engineering, Vellore Institute of Technology, Vellore, India, 3-4th October, 2025. Page. 133, **ISBN Index:** 978-93-344-6018-6.
31. Aishi Basak, Aritra Changdar, Sunil Baran Kuila, Sucheta Das Maji, Lipika Das Samanta, **Sutapa Roy**, “Synthesis of Novel Antibacterial Aloe Vera-based Biocompatible Polymeric Hydrogels as a Potential Disinfectant” participated the 21st Annual Session of students’ Chemical Engineering Congress, organized by IICHE-VIT Students Chapter, School of Chemical Engineering, Vellore Institute of Technology in association with Indian Institute of Chemical Engineers, Vellore Regional Centre, held from 3rd to 4th October 2025.
32. Manavi Kumari, Kousani Banerjee, Abhinav Maiti, **Sutapa Roy**, Lipika Das Samanta “From Waste to Wealth: The Critical Review of Utilization of Spent Tea Leaves in Oil Spill and Wastewater Remediation” participated the 21st Annual Session of students’ Chemical Engineering Congress, organized by IICHE-VIT Students Chapter, School of Chemical Engineering, Vellore Institute of Technology in association with Indian Institute of Chemical Engineers, Vellore Regional Centre, held from 3rd to 4th October 2025.

33. Prince Kumar Sah, Arpita Halder, Ajay Banerjee, Sunil Baran Kuila, Sucheta Das Maji, Lipika Das Samanta, Biswajit Mandal, **Sutapa Roy**, “Development of a Biocompatible Biodegradable Hydrogel Nanocomposite and Evaluation of the ability to inhibit Microbial Growth” participated the 21st Annual Session of students’ Chemical Engineering Congress, organized by IChE-VIT Students Chapter, School of Chemical Engineering, Vellore Institute of Technology in association with Indian Institute of Chemical Engineers, Vellore Regional Centre, held from 3rd to 4th October 2025.
34. Saranya Paruya, **Sutapa Roy**, Lipika Das Samanta, “Reaction Kinetics and Mechanistic Insights into Supercritical Water Oxidation of Phenol: A Critical Review” participated the 21st Annual Session of students’ Chemical Engineering Congress, organized by IChE-VIT Students Chapter, School of Chemical Engineering, Vellore Institute of Technology in association with Indian Institute of Chemical Engineers, Vellore Regional Centre, held from 3rd to 4th October 2025.
35. **Radharani Das**, Srusti Maity, Sattwik Maity, “Photo-catalytic Degradation of Methylene Blue Dye in Presence of Semiconductor Nano-Materials” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech – 25)”organized by School of Chemical Engineering, Food Technology, and Biotechnology, at Haldia Institute of Technology, In association with IQAC, HaldiaHaldia Institute of Technology, Haldia, WB, India, 11-12th September, 2025. ISBN Index: 978-81-978408-5-2.
36. **Radharani Das** , Subhojit Ash, Suman Kr Patra, Ishita Sinha , “Low-Cost Agro-Waste Derived Bio-Adsorbents for Chromium (VI) Detoxification from Industrial Discharges Towards a Greener Future” International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech – 25)”organized by School of Chemical Engineering, Food Technology, and Biotechnology, at Haldia Institute of Technology, In association with IQAC, HaldiaHaldia Institute of Technology, Haldia, WB, India, 11-12th September, 2025. ISBN Index: 978-81-978408-5-2.
37. **Radharani Das**, Subhojit Ash, Sattwik Maity, & Soumyajit Maity, “Green Synthesis of Nano - Silica from Agricultural Wastes: Waste to Wealth”International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech – 25)”organized by School of Chemical Engineering, Food Technology, and Biotechnology, at

- Haldia Institute of Technology, In association with IQAC, HaldiaHaldia Institute of Technology, Haldia, WB, India, 11-12th September, 2025. ISBN Index: 978-81-978408-5-2.
38. Sudip Karmakar ,Soumyadwip Hazra, Supriya Jana, **Rasdarani Das** “Production of Bio-Plastics from Agricultural Wastes for Sustainable Environment’ International Conference on “Advancement of Green Technology for Sustainable Environment (Green Tech – 25)”organized by School of Chemical Engineering, Food Technology, and Biotechnology, at Haldia Institute of Technology, In association with IQAC, HaldiaHaldia Institute of Technology, Haldia, WB, India, 11-12th September, 2025. ISBN Index: 978-81-978408-5-2.
 39. **Rabindranath Jana**, “Smart Materials for Sustainable Environment”, International Conference on Smart Materials (SMART 2025), Institute of Fire and Safety Engineering, Haldia-721654, p15-19, 27-28th Dec, 2025. (ISBN: 978-93-343-4634-3).
 40. **Siddhartha Sankar Boxi**, Priya Jana, “Parametric Studies of Coir Pith for the Applications as a Plant Growing Medium”, 2nd International Conference on “Advances in Chemical and Material Sciences”, organized by Centre for Education, Innovation and Entrepreneurship (CEIE) Kolkata, 12 – 14th April, 2026.ISSN No. of Proceeding: 978-81-990820-8-3.
 41. Ranit Maity, **Siddhartha Sankar Boxi**, “Production of Biodiesel Using Moringa Oleifera Leaves as a Green Catalyst: A Sustainable Alternative”, 2nd International Conference on “Advances in Chemical and Material Sciences”, organized by Centre for Education, Innovation and Entrepreneurship (CEIE) Kolkata, 12 – 14th April, 2026.ISSN No. of Proceeding: 978-81-990820-8-3.
 42. Barnali Bej, Siddhartha Sankar Boxi, Dwaipaya Roy, Kadrunnisa Khatun. “A Review on Nano Silica Based Filter Medium for River Water Purification” 2nd International Conference on “Advances in Chemical and Material Sciences”, organized by Centre for Education, Innovation and Entrepreneurship (CEIE) Kolkata, 12 – 14th April, 2026. ISSN No. of Proceeding: 978-81-990820-8-3.
 43. **Barnali Bej**, Sayantan Ghosal, Siddhartha Sankar Boxi. “Production of Biodiesel using Aluminium Based Nanocatalyst: A Short Review” 2nd International Conference on “Advances in Chemical and Material Sciences”, organized by Centre for Education, Innovation and Entrepreneurship (CEIE) Kolkata, 12 – 14th April, 2026. ISSN No. of Proceeding: 978-81-990820-8-3.

44. **M. Dutta**, “A Potential Review on Advanced Energy Technologies for Sustainable and Resilient Low Carbon Future,” Proceedings of the Second International Conference on Advances in Energy and Environmental Engineering 2026, Pune, Maharashtra, India: Grinrey Publishing, 30-31st January, 2026. ISBN: 978-81-996627-7-3.
45. **M. Dutta**, B. Pratiharihar, “A Synergistic Pathway for Sustainable Future: Integrating Circular Economy and Supply Chain Justice”, International Conference on “Green Horizons: Redefining Business and Sustainability Paradigms in the Technological Era. D. Y. Patil International University, Akurdi, Maharashtra, India. 2, ISBN: Journal Press India. 27-28th March 2026. DOI: 10.17492/JPI/DYPATIL/2601. E-ISBN: 978-93-49790-57-5.
46. **M. Dutta** and S. B. Kuila, “Integrating safety, health, and environmental management practices for chemical sustainable process industry: A comprehensive review,” in Proc. in Proc. 4th Int. Conf. CHEM-TECHNOVA, HBTU Kanpur, 12-14th March, 2026. ISBN: 978-93-47303-34-0.
47. **M. Dutta** and S. B. Kuila, “Sustainable Solid Waste Management A Potential Review” 2nd International Conference on “Advances in Chemical and Material Sciences”, organized by Centre for Education, Innovation and Entrepreneurship (CEIE) Kolkata, 12 – 14th April, 2026. ISSN No. of Proceeding: 978-81-990820-8-3.
48. **B. Pratiharihar** and M. Dutta, "Plastic Waste-derived Membranes for Water Treatment: Current Status and Future Perspectives," in Proc. in Proc. 4th Int. Conf. CHEM-TECHNOVA, HBTU Kanpur, 12-14th March, 2026. ISBN: 978-93-47303-34-0.
49. S. Mandal, S. S. Hossain, and **K. Rana**, “Sustainable Energy Recovery from Municipal Solid Waste: A Waste-to-Energy Approach for Urban Environments,” 2nd International Conference on “Advances in Chemical and Material Sciences”, organized by Centre for Education, Innovation and Entrepreneurship (CEIE) Kolkata, 12 – 14th April, 2026. ISSN No. of Proceeding: 978-81-990820-8-3.
50. S. Paruya, S. Maity, S. Roy, and **L. Das**, “Phenol Oxidation Kinetics under Supercritical Conditions: A Sensitivity-Based Design Study Using DWSIM,” in 2nd International Conference on “Advances in Chemical and Material Sciences”, organized by Centre for Education, Innovation and Entrepreneurship (CEIE) Kolkata, 12 – 14th April, 2026. ISSN No. of Proceeding: 978-81-990820-8-3.

51. A. Mukherjee, D. Dey, A. K. Saha, **L. Das Samanta**, and S. Roy, "Silk-Fibroin Aerogels for Carbon Dioxide Capture: A Review," in 2nd International Conference on "Advances in Chemical and Material Sciences", organized by Centre for Education, Innovation and Entrepreneurship (CEIE) Kolkata, 12 – 14th April, 2026.ISSN No. of Proceeding: 978-81-990820-8-3.
52. A. Neogi, J. Maity, S. Maiti, S. Midya, S. B. Kuila, S. Das Maji, B. Mandal, **L. Das Samanta**, and S. Roy, "Fabrication of antibacterial hydrogel biomaterial based on chitosan/acrylic acid-co-acrylamide/Aloe Vera/Zinc Oxide for biomedical application," in 2nd International Conference on "Advances in Chemical and Material Sciences", organized by Centre for Education, Innovation and Entrepreneurship (CEIE) Kolkata, 12 – 14th April, 2026.ISSN No. of Proceeding: 978-81-990820-8-3.
53. Debadutta Patra, Ommkar Prasad Das, **Bisweswar Das**, "Ensemble machine learning-based prediction of space time yield for CO₂ hydrogenation to ethanol," in 2nd International Conference on "Advances in Chemical and Material Sciences", organized by Centre for Education, Innovation and Entrepreneurship (CEIE) Kolkata, 12 – 14th April, 2026.ISSN No. of Proceeding: 978-81-990820-8-3.
54. Subhechha Maity, Soumyanil Ganguly, Prabal Sahoo, Sahil Shaw, Sunil Baran Kuila, **Tanushree Ghosh**, "Development of gelatin based polymeric hydrogel as a drug delivery carrier" in 2nd International Conference on "Advances in Chemical and Material Sciences", organized by Centre for Education, Innovation and Entrepreneurship (CEIE) Kolkata, 12 – 14th April, 2026.ISSN No. of Proceeding: 978-81-990820-8-3.

2024-25

1. **Keka Rana**, Sonali Samanta, Asit Kumar Saha, "Implementation of Nanotechnology for Drinking-Water Treatment: A Prospective Review", International Conference on "Nanotechnology for Sustainable Environment (NTSE- 2024), Haldia Institute of Technology, Haldia, 26 - 28 September, 2024. **ISBN Index of Proceeding:** 978-81-978408-3-8.
2. Kaushik Bera, Sudip Nayak, Tanmoy Patra, Sonali Samanta, **Keka Rana**, "Studies on the Recent Trends in Solar-Hydrogen Technologies", International Conference on "Nanotechnology for Sustainable Environment (NTSE – 2024), Haldia Institute of

Technology, Haldia, 26 - 28 September, 2024. **ISBN Index of Proceeding:** 978-81-978408-3-8.

3. Subhadeep Midya, Sohan Giri, **Keka Rana**, Rabindranath Jana, “Zero Disposal of Wastewater Management: Drivers, Technologies and Future Direction.”, International Conference on “Nanotechnology for Sustainable Environment (NTSE – 2024), Haldia Institute of Technology, Haldia, 26-28 September, 2024. **ISBN Index of Proceeding:** 978-81-978408-3-8.
4. Sonali Samanta, **Keka Rana**, Asit Kumar Saha, “Reduced Graphene Oxide and Graphene Oxide: Revolutionary in Dentistry”, International Conference on “Nanotechnology for Sustainable Environment (NTSE – 2024), Haldia Institute of Technology, Haldia, 26-28 September, 2024. **ISBN Index of Proceeding:** 978-81-978408-3-8.
5. Sibsundar Das, Sinchan Maity, Prithwiraj Bera, Sandip Raut, Swarnajit Maity, **Keka Rana**, Sonali Samanta, “Application of Graphene and Graphene Oxide Nano-catalyst for Hydrogen Production: A Review” International Conference on “Nanotechnology for Sustainable Environment (NTSE – 2024), Haldia Institute of Technology, Haldia, 26-28 September, 2024. **ISBN Index of Proceeding:** 978-81-978408-3-8.
6. **Keka Rana**, “Analysis of optimal clearance volume between two concentric cylinders in a Couette flow membrane module using a computational fluid dynamics approach”, International Conference on Health, Safety and Environment(HSE- 2023), organized by Institute of Fire and Safety Engineering, Brajalalchak, Haldia, 23-24, December, 2024. **ISBN Index of Proceeding:** 978-93-341-0234-5.
7. **Keka Rana**, “A Comprehensive Review of Membrane Fouling Control Mechanisms”, International Conference on Health, Safety and Environment (HSE- 2023), organized by Institute of Fire and Safety Engineering, Brajalalchak, Haldia, 23-24, December, 2024. **ISBN Index of Proceeding:** 978-93-341-0234-5.
8. Suvam Maity, Sumit Pattanayak, Sonali Samanta, **Keka Rana**, “Sustainable Approaches in Fabric Manufacturing: Challenges and Innovations”, International Conference on Health, Safety and Environment(HSE- 2023), organized by Institute of Fire and Safety Engineering, Brajalalchak, Haldia, 23-24, December, 2024. **ISBN Index of Proceeding:** 978-93-341-0234-5.

9. Safali Sau, Subhadeep Barai, Sutanika Dhara, **Keka Rana**, “Development of Solar Energy Collection and Conversion for Environmental Improvement”, International Conference on Health, Safety and Environment(HSE- 2023), organized by Institute of Fire and Safety Engineering, Brajalalchak, Haldia, 23-24, December, 2024. **ISBN Index of Proceeding:** 978-93-341-0234-5.
10. Laxmi Kumari, Priya Verma, **Keka Rana**, “Review on the reduction of carbon dioxide (CO₂) from environment by using carbon capturing and storage method”, International Conference on Health, Safety and Environment(HSE- 2023), organized by Institute of Fire and Safety Engineering, Brajalalchak, Haldia, 23-24, December, 2024. **ISBN Index of Proceeding:** 978-93-341-0234-5.
11. Shubhasish Bose, Asimita Bijali, **Anoar Ali Khan**, “Advancing Carbon Capture for a Cleaner Environment: Innovations and Sustainable Solutions” International Conference on Nanotechnology for Sustainable Environment (NTSE – 2024), Haldia Institute of Technology, Haldia, West Bengal, 26th – 28th September, 2024.
ISBN Index: 978-81-978408-3-8
12. Rupayan Das, Sakshi Bhagat, Suman Saha, Anoar Ali Khan, Sourav Poddar, Tanushree Ghosh, Deepak Kumar Samal, **Ankita Mazumder**. “Nanomaterials: Alleviation of fouling and biofouling of membrane-based separation processes (MbSP)” International Conference on Nanotechnology for Sustainable Environment (NTSE-2024), Haldia Institute of Technology, Haldia, West Bengal, 26-28th September, 2024.
ISBN Index of Proceeding: 978-81-978408-3-8.
13. Aniruddha Das, Goutam Jana, Suman Saha, Anoar Ali Khan, Sourav Poddar, Tanushree Ghosh, Deepak Kumar Samal, **Ankita Mazumder**. “Nanotechnology in Food Safety and Biodegradable packaging” International Conference on Nanotechnology for Sustainable Environment (NTSE-2024), Haldia Institute of Technology, Haldia, West Bengal, 26-28th September, 2024.
ISBN Index of Proceeding: 978-81-978408-3-8.
14. Tannistha Rai Gargari, Tanushree Shil, Subham Majumder, Soumyajit Khutia, Suman Saha, **Ankita Mazumder**. “Application of Nanotechnology in the production of Biofuels”

International Conference on Nanotechnology for Sustainable Environment (NTSE-2024), Haldia Institute of Technology, Haldia, West Bengal, 26-28th September, 2024.

ISBN Index of Proceeding: 978-81-978408-3-8.

15. Soumadip Maity, Ujjwal Ghosh, Sharmistha Manna, Shreetama Khanra, Suman Saha, Ankita **Mazumder**. “Advanced Nanotechnology: Revolutionizing Carbon Capture and Environmental Protection” International Conference on Nanotechnology for Sustainable Environment (NTSE-2024), Haldia Institute of Technology, Haldia, West Bengal, 26-28th September, 2024.

ISBN Index of Proceeding: 978-81-978408-3-8.

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Sustainable Solutions (ICRESS 24), Heritage Institute of Technology, Kolkata, West Bengal, 24th – 25th July, 2024. **ISSN No. of Proceeding:** 978-93-340-9021-5

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Biochemical Engineering, Rajiv Institute of Petroleum Technology, Jais, Amethi in association with Indian Institute of Chemical Engineers- Amethi Regional Centre, 20th - 21st September, 2024.pp-86

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60. Dhara Abheek Ashok, Akash Panja, Anwasha Das, Aniket Kumar, Debdyuti Das, **Keka Rana**, “The management of cardboard waste and its diverse applications in energy production”, International Symposium on Computational Intelligence and Research Frontiers (ISCIRF 2025), Department of CSE (Data Science) & IQAC, Haldia Institute of Technology, Haldia, 9th – 10th April, 2025. Page No. 20.
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65. Rupanjana Pramanik, Krishna Mandal, Manisha Khatun, **Lipika Das Samanta**. “An Overview of Development and Use of Nanobiosensors for Sustainable Food and Agriculture Industries”, International Symposium on Computational Intelligence and Research Frontiers (ISCIRF 2025), Dept. of CSE (Data Science) & Internal Quality Assurance Cell, Haldia Institute of Technology, Haldia, West Bengal, 9 – 10 April, 2025, pp 22.
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67. Swarnajit Bhattacharya, **Biswajit Mandal**, Avijit Ghosh, Goutam Kumar Dalapati, Tapotany Pal, “Multi-Stack IoT-Based Air Health Monitoring System with LoRaWAN Encrypted FSO Communication for Industrial and Domestic Applications”, in the The Global Conference on Sensors & Artificial Intelligence Learnin (SAIL 25), Ming Chi University of Technology, Taiwan, 23rd – 27th April, 2025.
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75. Abhinav Maiti, Abhik Dey, Manavi Kumari, Kousani Banerjee, **Aditi Sinha** “An extensive study on the hybrid system that integrates smart nanomaterials with renewable energy

sources for sustainable wastewater treatment” International Conference on Renewable Energy technologies and Bio-sustainability (ICRETBS - 2025), Centre for Education Innovation and Entrepreneurship, Kolkata, West Bengal, 22 - 24 March, 2025.

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77. Debojit Dhul, **Aditi Sinha** “A literature survey on nanomaterial based filtration system: Revolutionizing wastewater treatment and contaminant removal” International Symposium on Computational Intelligence and Research frontier (ISCIRF-2025) , Haldia Institute of Technology, Haldia, West Bengal, 9th to 10th April, 2025

2023-24

1. Subhojit Ash, Ritam Saha, Saptak Mandal, **Radharani Das** presented a paper on Synthesis of Silica Nano powder from Agricultural Wastes like Rice Husk and Sugarcane Bagasse and Received Best Paper Award as (Guide) from Student’s Chemical Engg Congress , SCHEMCON -23 held at Kongu Engg College Coimbatore , India, during 22nd-23rdSeptember 23.
2. Soumyadip Das, Ritu Thaku, Subrata Dasgupta, **Radharani Das**, presented a paper on “Removal of Hexavalent Chromium from Industrial Wastes Using Sugarcane Bagasse” in Student’s Chemical Engg Congress, SCHEMCON -23 held at Kongu Engg College Coimbatore , India, during 22nd-23rdSeptember 23.
3. **Barnali Bej**, Narayan C Pradhan, Swati Neogi, “Dry Reforming of Ethanol Production of Hydrogen Rich Syngas”, International Conference on Energy Transition: Challenges and Opportunity (IICHE-CHEMCON 2023) organized by Indian Institute of Chemical Engineers, Heritage Institute of Technology, Kolkata, 27-30 December, 2023. ISBN No. of Proceeding: 9789310000719.
4. **Siddhartha Sankar Boxi**, Wasim Aktar Sha, “Use of Heterogeneous nano-catalyst for the production of Biodiesel from Sewage Sludge”, International Conference on Energy Transition: Challenges and Opportunity (IICHE-CHEMCON 2023) organized by Indian Institute of Chemical Engineers, Heritage Institute of Technology, Kolkata, 27-30 December, 2023. ISBN No. of Proceeding: 9789310000719.
5. Ritu Thakur, **Siddhartha Sankar Boxi**. “Use of metal oxide nano catalyst for the photo-degradation of antibiotics in aqueous medium” International Conference on Health, Safety

- and Environment (HSE-2023), Institute of Fire and Safety Engineering, Haldia, West Bengal, 23 – 24 December, 2023. ISSN No. of Proceeding: 978-93-100-0256-0.
6. **Siddhartha Sankar Boxi**, Kuntal Choudhury, Soumya Purkayastha. “Extraction of Copper from Electronic Waste (E-waste)” International Conference on Health, Safety and Environment (HSE-2023), Institute of Fire and Safety Engineering, Haldia, West Bengal, 23 – 24 December, 2023. ISSN No. of Proceeding: 978-93-100-0256-0.
 7. Tapanjyoti Goswami, **Siddhartha Sankar Boxi**. “Photocatalytic degradation of Paracetamol in aqueous medium in the presence of nano materials” International Conference on Health, Safety and Environment (HSE-2023), Institute of Fire and Safety Engineering, Haldia, West Bengal, 23 – 24 December, 2023. ISSN No. of Proceeding: 978-93-100-0256-0.
 8. **Siddhartha Sankar Boxi**, Dwaipayan Roy, Kadrunnisa Khatun, Sayantan Ghosal, **Barnali Bej**, “A Review on Nano Silica Based Gravity Filter for Water Purification”, International Conference on Energy Transition: Challenges and Opportunity (IICHE-CHEMCON 2023) organized by Indian Institute of Chemical Engineers, Heritage Institute of Technology, Kolkata, 27-30 December, 2023. ISBN No. of Proceeding: 9789310000719.
 9. **Barnali Bej**, Dwaipayan Roy, Kadrunnisa Khatun, **Siddhartha Sankar Boxi**, “River Water Purification Using Indigenous Nano-Silica-Graphene Oxide (Nano-SGO) Based Gravity”, International Conference on Energy Transition: Challenges and Opportunity (IICHE-CHEMCON 2023) organized by Indian Institute of Chemical Engineers, Heritage Institute of Technology, Kolkata, 27-30 December, 2023. ISBN No. of Proceeding: 9789310000719.
 10. Sayantan Ghosal, Sayantan Maiti, **Barnali Bej**, “A Review on Starch Based Nanocomposites for Bioplastic Materials”, International Conference on Health, Safety and Environment (HSE-2023)” organized by Institute of Fire and Safety Engineering, Haldia Brajalalchak Welfare Organization, Haldia, Purba Medinipur, West Bengal, 23-24 December, 2023. ISBN No.: 978-93-100-0256-0.
 11. Samyabrata Bhattacharjee, **Sunil Baran Kuila**, **Ankita Mazumder**. “Surfactant modified coconut coir powder (SMCCP) as a low cost adsorbent for the treatment of dye contaminated wastewater: Parameters and adsorption mechanism” International Conference on Energy Transition: Challenges and Opportunities at Chemical Engineering Congress (CHEMCON-2023), Heritage Institute of Technology, Kolkata, West Bengal, 27 - 30 December, 2023. ISBN No. of Proceeding: 9789310000719.
 12. Upakatha Jash, Sarnali Roy, **Sonali Samanta**, **Asit Kumar Saha**, presented a paper entitled, “Performance Improvement of a PSA Oxygen Concentrator Using Magnetic Field”

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24. **Radharani Das**, Soumyadip Das, Ritu Thakur, Subrata Dasgupta Presented a paper on “Performance of Activated Neem leave Powder for Removal of Congo-Red Dye from Industrial Wastes for Sustainable Environment” in the Civil Engineering Congress, Organized by Civil Engg Department of Haldia Institute of Technology during November 22 rd – 23 th , 2023 at HIT, Haldia
25. **Radharani Das**, Subhojit Ash, Sattwik Maity, Soumyajit Maity, Sahil Shaw and “Synthesis of Silica Nano-powder from Agricultural Wastes: A Green Approach

Sustainability with Economic growth” in the Civil Engineering Congress, Organized by Civil Engg Department of Haldia Institute of Technology during November 22rd – 23th , 2023 at HIT , Haldia.

26. **Radharani Das**, Soumyadip Das, Ritu Thakur, Subrata Dasgupta , G. Roymahapatra A paper on “Adsorptive Removal of Cr(VI) From Synthetic Wastes Using Agricultural Wastes for Sustainable Environment” is published in the proceedings of International Conference on Health, Safety and Environment, HSE-23 held during December 23 rd -24 th , at Haldia Organized by Institute of Fire and Safety Engg, Haldia.
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32. Samar Samanta, Biswajit Maity, Avijit Ghosh, **Sunil Baran Kuila, Biswajit Mandal** “Synthesis and Characterization of Graphene supported electro-catalysts for PEM Fuel Cells” (IChE-CHEMCON 2023), Department of Chemical Engineering, Heritage Institute of Technology, Kolkata during December 27-30, 2023. ISBN: 9789310 000719
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35. **Radharani Das**, Ishita Sinha, Soumyajit Maity, Subhojit Ash “Adsorption Efficiencies of Indian Neem Leaves for Removal of Congo –Red Dye From Aqueous Solution For Sustainable Environment” presented and Published in the proceedings of 2nd TwiNSol-CECs Workshop on “Advanced Water Treatments in Emerging Contaminants Mitigation with Cutting-Edge Technologies” University of Novi Sad, Faculty of Technology Novi Sad, Novi Sad, Serbia, 6-7 June 2024.
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2022-23

1. Tapanjyoti Goswami, **Siddhartha Sankar Boxi**, “Visible Light Photodegradation of Organic compounds in Aqueous Media using Nanoparticles”, International Conference on Nanotechnology (ICNT-2022), Institute of Fire and Safety Engineering, Brajalalchak, Haldia, West Bengal, India, 23-24 Dec., 2022.

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55. Soumyodeep Chowdhury, Swapnoja Sarkar, Somak Jyoti Sahu, Sutapa Roy, **Lipika Das**. “Feasibility of Membrane Modules in Industrial Water Treatment Processes” BRNS & SERB sponsored National Conference on “Emerging Trends & Application of Green Technologies for Sustainable Development” (Green Tech 2022) organized by School of Chemical Engineering, Biotechnology & Food Technology in association with Indian Chemical Society (ICS) from 21st-22nd November 2022.
56. Sayan Halder, Souvik Roy, Souvik Panja, **Lipika Das**, Somak J Sahu. “Sound: Noise for Someone, Energy for Everyone” BRNS & SERB sponsored National Conference on “Emerging Trends & Application of Green Technologies for Sustainable Development” (Green Tech 2022) organized by School of Chemical Engineering, Biotechnology & Food Technology in association with Indian Chemical Society (ICS) from 21st-22nd November 2022.
57. Rakesh Jana, Sayan Santra, Shuvodip Naskar, **Lipika Das**, Tapas Kumar Manna. “Poly Lactic Acid as an Alternative to Non-Bio Degradable Plastic” BRNS & SERB sponsored National Conference on “Emerging Trends & Application of Green Technologies for Sustainable Development” (Green Tech 2022) organized by School of Chemical

Engineering, Biotechnology & Food Technology in association with Indian Chemical Society (ICS) from 21st -22nd November 2022.

58. **R. Das**, K. Kaustav, A. Das, I. Sinha, Published a paper on “ Adsorptive Removal of Chromium (VI) Using Activated Neem Leave Powder and Neem Saw Dust : A Promising Green Technology For Sustainable Environment ” Published in the Proceedings of National Conference entitled “Emerging Trends and Application of Green Technologies for Sustainable Development” (Green Tech - 2022) during 21st ~ 22nd November, 2022 at Haldia Institute of Technology.
59. **Radharani Das**, Srusti Maity, Tania Karan, Tanmoy Patra, Tapanjyoti Goswmi published a paper on “ Biomedical Waste Management And The Future Aspects of the Modern Eco-friendly Technologies ” Published in the Proceedings of National Conference entitled “Emerging Trends and Application of Green Technologies for Sustainable Development” (Green Tech - 2022) during 21st ~ 22nd November, 2022 at Haldia Institute of Technology.
60. Prabal Sahoo, Kalyan Maity, Anish Adak, Sankalan Das and **Radharani Das**, published a paper on “ Bioethanol Production from Water Hyacinth” Published in the Proceedings of National Conference entitled “Emerging Trends and Application of Green Technologies for Sustainable Development” (Green Tech - 2022) during 21st ~ 22nd November, 2022 at Haldia Institute of Technology.
61. Subhajit Saha, , Subhadeep Saha , **Radharani Das** published a paper on “A Review On Scope Of Wind – Solar Hybrid System As Renewable Energy Sources. Published in the Proceedings of National Conference entitled “Emerging Trends and Application of Green Technologies for Sustainable Development” (Green Tech - 2022) during 21st ~ 22nd November, 2022 at Haldia Institute of Technology
62. New Horizons of Nanotechnology, *International Conference on Nanotechnology (ICNT 2022)*, **Rabindranath Jana**, Institute of Fire and Safety Engineering, Haldia-721654, p14-17, Dec, 23-24, 2022. (ISBN: 978-93-5680-149-3).
63. **Asit Kumar Saha**, Riya Ghosh, Anoar Ali Khan “Exploratory Studies on the Effects of Increased Carbon Dioxide Concentration In Pseudo-Environments”, pp.49, CLIMATE CHANGE AND SUSTAINABILITY (CCS), Chemical Engineering Congress (CHEMCON 2022) 75th Annual Session (Platinum Jubilee) of Indian Institute of Chemical Engineers, December 27th to 30th 2022, HBTU, Kanpur, India.
64. Sovan Dey, Suvajit Mandal, **Keka Rana**, “Hydrodynamic study of Radial flow membrane module through CFD approach”, 9th National Conference on Sustainable Trends in Energy

and Environmental Resources (STEER), ACE-IChE SSN Student Chapter, Department of Chemical Engineering, Sri, Sivasubramaniya Nadar College of Engineering, Chennai, 16th-17th March, 2023.

65. Mainuddin Warsi, Sarvesh Kumar, **Keka Rana**, “Hydrodynamic study of Couette flow system through CFD approach”, 9th National Conference on Sustainable Trends in Energy and Environmental Resources (STEER), ACE-IChE SSN Student Chapter, Department of Chemical Engineering, Sri, Sivasubramaniya Nadar College of Engineering, Chennai, 16th-17th March, 2023.
66. Swarnendu Bhattacharyya, **Keka Rana**, “Hydrogen gas as an alternative source of energy: a Review”, 9th National Conference on Sustainable Trends in Energy and Environmental Resources (STEER), ACE-IChE SSN Student Chapter, Department of Chemical Engineering, Sri, Sivasubramaniya Nadar College of Engineering, Chennai, 16th-17th March, 2023.

2021-22

1. **Siddhartha Sankar Boxi**, Smriti Mandal, Smritikana Phadikar, Soumen Pal, Suraj Rana, “Precious Metal Recovery from Electronic Waste (E-waste) - A Review”, National Conference on Science Technology And Management 2022 (NCSTM-22), Department of Basic Science, NSHM Knowledge Campus, Durgapur-GOI, West Bengal, India and Operational Research Society of India, Durgapur Chapter, 8-9th July, 2022.
2. Krishnendu Dolai, **Siddhartha Sankar Boxi**. “Removal of Toxic Organic Contaminants from Waste Water Using Graphene Oxide (GO)” 1st International Conference on Smart Materials and Applications (SMA-2022), Department of Physics, National Institute of Technology Raipur, 4 - 5 March, 2022.
3. Ankan Mondal, **Siddhartha Sankar Boxi**, “Recovery of Valuable Materials from Electronic Waste (E-waste)”, International Conference on Advances in Chemical and Materials Sciences (ACMS 2022), Heritage Institute of Technology, Kolkata, West Bengal, 14-16 April, 2022.
4. Badhan Basak, **Siddhartha Sankar Boxi**, “Recycling of Waste Plastics for the production of Clean Fuel”, International Conference on Advances in Chemical and Materials Sciences (ACMS 2022), Heritage Institute of Technology, Kolkata, West Bengal, 14-16 April, 2022.
5. Khalilur Rahaman Dewan, **Siddhartha Sankar Boxi**, “Production of Biodiesel from Sewage Sludge using Heterogeneous Nano-catalyst”, International Conference on Advances in

Chemical and Materials Sciences (ACMS 2022), Heritage Institute of Technology, Kolkata, West Bengal, 14-16 April, 2022.

6. Upakatha Jash, **Siddhartha Sankar Boxi**, “Carbon Nanotube (CNT): Synthesis and its Applications”, International Conference on Advances in Chemical and Materials Sciences (ACMS 2022), Heritage Institute of Technology, Kolkata, West Bengal, 14-16 April, 2022.
7. Suraj Rana, Smriti Mandal, **Siddhartha Sankar Boxi**, “Production of Biodiesel through Transesterification using Different Feed Stock”, National Conference APPSCICON 2022, School of Applied Science & Technology, Maulana Abul Kalam Azad University Maulana Abul Kalam Azad University of Technology, West Bengal of Technology, West Bengal 27-28 May, 2022.
8. Brishti Sengupta, **Siddhartha Sankar Boxi**, **Barnali Bej**, "Recovery of Gold from Electronic Waste (e-waste)" International Conference on Nanotechnology (ICNT 2021), Institute of Fire and Safety Engineering, Brajalalchak, Haldia, 23-24th Dec, 2021.
9. Debosmita Barman, **Barnali Bej**, **Siddhartha Sankar Boxi**, "Production of Biodiesel from Waste Cooking Oil Using Heterogeneous Catalyst" International Conference on Nanotechnology (ICNT 2021), Institute of Fire and Safety Engineering, Brajalalchak, Haldia, 23-24th Dec, 2021.
10. Sweta Gayen, Rudrashis Biswas, **Barnali Bej**, **Siddhartha Sankar Boxi**, “Synthesis of Graphene oxide and its application for purification of water”, National Conference on “Advances in Chemical Engineering and Science (ACES-2022)” Department of Chemical Engineering, Indian Institute of Science Education and Research (IISER) Bhopal, Madhya Pradesh, 25-26th March, 2022.
11. Sweta Gayen, **Barnali Bej**, **Siddhartha Sankar Boxi**. “River Water Purification Using Graphene oxide ” National conference APPSCICON – 2022, MAKAUT Main Campus, Haringhata, West Bengal, 27 - 28 May, 2022.
12. Debosmita Barman, Brishti Sengupta, **Barnali Bej**, **Siddhartha Sankar Boxi**. “Production of Biodiesel from Rubber Seed Oil Using Heterogeneous Catalyst” National conference APPSCICON – 2022, MAKAUT Main Campus, Haringhata, West Bengal, 27 - 28 May, 2022.
13. Sweta Gayen, Rudrashis Biswas, **Barnali Bej**, **Siddhartha Sankar Boxi**. “Synthesis of Graphene Oxide and Its Application for Purification of Water” National conference on

Advances in Chemical Engineering and Science – 2022 (ACES - 2022), IChE Student's Chapter, IISER Bhopal, 25 - 26 March, 2022.

14. Avirup Das, **Barnali Bej**. “Production of Solar Fuels by Artificial Photosynthesis” National conference on Advances in Chemical Engineering and Science – 2022 (ACES - 2022), IChE Student's Chapter, IISER Bhopal, 25 - 26 March, 2022.
15. Debshilpi Patra, **Barnali Bej**. “Acetylene Powered Thermal Power Plant Boiler” National conference on Advances in Chemical Engineering and Science – 2022 (ACES - 2022), IChE Student's Chapter, IISER Bhopal, 25 - 26 March, 2022.
16. Afrin Hossain, Nikita Giri, Anwesha Sinha, Chandan Datta, **Sunil Baran Kuila, Sonali Samanta, Keka Rana**, “Study on Polymer Matrix Composite for Advanced Application: A Review”, National Conference on Advances in Chemical Engineering and Science (ACES 2022), Organized jointly by Departments of Chemical Engineering at IISER Bhopal and UEC, Ujjain in association with IChE-IISER Bhopal Students' Chapter on 25-26 March, 2022.
17. Sarthak Chakraborty, **Keka Rana**, “Waste Water Treatment of Sugar Industry: A review”, National Conference on Advances in Chemical Engineering and Science (ACES 2022), Organized jointly by Departments of Chemical Engineering at IISER Bhopal and UEC, Ujjain in association with IChE-IISER Bhopal Students' Chapter on 25-26 March, 2022.
18. Priya Kumari, **Keka Rana**, “Study on Nanomaterial Application in Waste Water Treatment”, National Conference on Advances in Chemical Engineering and Science (ACES 2022), Organized jointly by Departments of Chemical Engineering at IISER Bhopal and UEC, Ujjain in association with IChE-IISER Bhopal Students' Chapter on 25-26 March, 2022.
19. Afrin Hossain, Nikita Giri, Chandan Datta, **Sunil Baran Kuila, Sonali Samanta, Keka Rana**. “Performance Analysis of Polymer Matrix Composite for Advanced Application”, An Interdisciplinary National Conference: APPSCICON 2022”, School Applied Science and Technology, Makaut Main Campus, Haringhata, WB, India, 27th – 28th May, 2022.
20. Subhrajyoti Das, Kankan Bose, Swagata Adhikarym, Chandan Datta, **Sunil Baran Kuila, Keka Rana, Sonali Samanta**, “Development of Wood Substitute Polymer Composite by using Bio-waste Material”, An Interdisciplinary National Conference: APPSCICON 2022”, School Applied Science and Technology, Makaut Main Campus, Haringhata, WB, India, 27th – 28th May, 2022.

21. Swagata Adhikary, Subhrajyoti Das, Kankan Bose, **Keka Rana**, **Sonali Samanta**, “Development of Wood Substitute Composite by using Plant fiber and Waste material: A Review”, National conference on Advances in Chemical Engineering and Science (ACES 2022), IISER Bhopal, Students' Chapter IChE – IISERB and Ujjain Engineering College, 25th – 26th March 2022.
22. Samyabrata Bhattacharjee, Avijit Ghosh, Biswajit Mandal, **Sunil Baran Kuila**. “Adsorptive Separation Of Dye By Filled Polymeric FIPN Hydrogel” International Conference, namely, ‘Advances in Chemical and Materials Sciences’ (ACMS-2022), IChE, Kolkata, India, 14-16 April, 2022.
23. Arunima Mondal, Avijit Ghosh, Biswajit Mandal, **Sunil Baran Kuila**. “Studies on adsorptive dehydration of pasteurized milk by filled polymeric IPN hydrogel” International Conference, namely, ‘Advances in Chemical and Materials Sciences’ (ACMS-2022), IChE, Kolkata, India, 14-16 April, 2022.
24. Gopal Dey, Ripa Sutar, **Sunil Baran Kuila**. “Biodegradable Polymers from Agro-Waste” National Conference on Advances in Chemical Engineering and Science (ACES-2022), organized jointly by the Departments of Chemical Engineering at IISER Bhopal and UEC, Ujjain in association with IChE-IISER Bhopal Students' Chapter on 25-26 March 2022.
25. S. Bhowmick, A. Chatterjee, **L. Das Samanta**, presented a paper **titled** “Development of Nanotech detector and its application.....” in International Conference on Schemcon 2021, during 22-23 October 2021.
26. Ripa Sutar, **Lipika Das Samanta**. “Degradation of methylene blue through photocatalysis using synthesized ZnO/CeO₂ nanocomposite catalyst” International Conference on Advances in Chemical and Material Sciences (ACMS-2022), organized by Indian Institute of Chemical Engineers held at Heritage Institute of Technology, Kolkata, April 14th-16th, 2022.
27. Subhamita Hazra, Rajarshi Ray, **Keka Rana**, Sonali Samanta, “Study of Adsorption Potentiality of Bio-Adsorbents for Removal of Dyes: Review”, SCHEMCON-2021(Virtual mode) annual congress, organized by MANIT and IISER Bhopal on 22nd -23rd October 2021.
28. Milind Pranay, **Barnali Bej**, "Conversion of Captured Carbon dioxide to Value Added Products " International Conference on Current Trends in Chemical Sciences and Their Industrial Applications (CTCSIA 2021), School of Applied Science & Humanities & IQAC, Haldia Institute of Technology during 29th Oct – 2nd Nov, 2021.

29. Avirup Das, **Barnali Bej**, "Production of Biodiesel Using Waste Vegetable Oil" International Conference on Current Trends in Chemical Sciences and Their Industrial Applications (CTCSIA 2021), School of Applied Science & Humanities & IQAC, Haldia Institute of Technology during 29th Oct – 2nd Nov, 2021.
30. Soumyo Deep Chowdhury, **Barnali Bej**, "Bioplastic - Roadmap for Sustainable development" International Conference on Current Trends in Chemical Sciences and Their Industrial Applications (CTCSIA 2021), School of Applied Science & Humanities & IQAC, Haldia Institute of Technology during 29th Oct – 2nd Nov, 2021.
31. Jaya Kumari, **Barnali Bej**, " Biofuel-An Alternative Source of Energy for Present and Future" International Conference on Current Trends in Chemical Sciences and Their Industrial Applications (CTCSIA 2021), School of Applied Science & Humanities & IQAC, Haldia Institute of Technology during 29th Oct – 2nd Nov, 2021.
32. Prachi Singh, **Barnali Bej**, "Superconductivity in Rhombohedral Tri-layer Graphene" International Conference on Current Trends in Chemical Sciences and Their Industrial Applications (CTCSIA 2021), School of Applied Science & Humanities & IQAC, Haldia Institute of Technology during 29th Oct – 2nd Nov, 2021.
33. Debshilpi Patra, **Barnali Bej**, "Acetylene Powered Thermal Power Plant Boiler" International Conference on Current Trends in Chemical Sciences and Their Industrial Applications (CTCSIA 2021), School of Applied Science & Humanities & IQAC, Haldia Institute of Technology during 29th Oct – 2nd Nov, 2021.(Poster).
35. Mrityunjay Kumar, Oyshee Goswami, Kadrunnisa Khatun, **Sonali Samanta, Keka Rana**, "Adsorption of heavy metals from waste water using low cost adsorbents", SCHEMCON-2021(Virtual mode) annual congress, organized by MANIT and IISER Bhopal on 22nd -23rd October 2021.
36. **Aditi Sinha, Rabindranath Jana**, "Application of nanocomposite membrane to separate oil/water emulsion: Review", International Conference on nanotechnology ICNT-2021, organised by Institute of Fire and Safety Engineering, Brajalalchak, Haldia, during 23rd - 24th December, 2021.
37. O. Goswami , M. Kumar, **S. Roy, L. Das Samanta**, presented a paper titled "Nanotechnology in medical fields – Nano Capsules: A Review" in International Conference

on Nanotechnology 2021 (ICNT 2021), organized by Institute of Fire and Safety Engineering, Haldia Brajalalchak Welfare Organization, Haldia during 23-24th December, 2021.

38. Ripa Sutar, **Sonali Samanta, Keka Rana**, “Study on Pharmaceutical Waste Water Treatment”, International Conference on Nanotechnology (ICNT 2021), organized by Institute of Fire and Safety Engineering, haldia, Brajalalchak Welfare Organization, Pg. No. 67, on 23rd -24th December, 2021.
39. Riya Manna, **Sonali Samanta, Keka Rana**, “Application of nanomaterials for waste water treatment: a Review”, International Conference on Nanotechnology (ICNT 2021), organized by Institute of Fire and Safety Engineering, haldia, Brajalalchak Welfare Organization, Pg. No. 64, on 23rd -24th December, 2021.
40. Anisha Satpati, **Keka Rana**, “Nanotechnology in the field of cancer treatment”, International Conference on Nanotechnology (ICNT 2021), organized by Institute of Fire and Safety Engineering, haldia, Brajalalchak Welfare Organization, Pg. No. 68, on 23rd -24th December, 2021.
41. Kadrunnisa Khatun, Akash Das, **Sonali Samanta, Keka Rana**, “Application of Polymer for Water Purification: a Review”, International Conference on Nanotechnology (ICNT 2021), organized by Institute of Fire and Safety Engineering, haldia, Brajalalchak Welfare Organization, Pg. No. 69, on 23rd -24th December, 2021.
42. Partha Kar, **Keka Rana**, “Study on Heavy metals removal from Waste Water: a Review”, International Conference on Nanotechnology (ICNT 2021), organized by Institute of Fire and Safety Engineering, haldia, Brajalalchak Welfare Organization, Pg. No. 66, on 23rd -24th December, 2021.
43. Sayak Kundu, Sayantan Ghosh, **Sonali Samanta, Keka Rana**, “Dye removal from polluted water through different nano materials”, International Conference on Nanotechnology (ICNT 2021), organized by Institute of Fire and Safety Engineering, haldia, Brajalalchak Welfare Organization, Pg. No. 71, on 23rd -24th December, 2021.
44. Shriparna Das, Sananda Das, **Sonali Samanta and Keka Rana**, “Application of Nanomaterials for Air Pollution Remediation”, International Conference on Nanotechnology (ICNT 2021), organized by Institute of Fire and Safety Engineering, haldia, Brajalalchak Welfare Organization, Pg. No. 62, on 23rd -24th December, 2021.

45. Shreyadhrita Panda, Gopal Dey, **Sutapa Roy**, **Asit Kr Saha**. "Optimization of Turmeric Oil Extraction in an Annular Supercritical Fluid Extractor by Comparing BBD-RSM and CCD-RSM Approaches", International Conference on Advances in Chemical and Material Sciences (ACMS-2022), organized by Indian Institute of Chemical Engineers held at Heritage Institute of Technology, Kolkata, April 14th-16th, 2022.

2020-21

1. **R. Das**, A. De, A. Mukherjee, I. Sinha, "Removal of Chromium (VI) from Aqueous Solution Using Low Cost Bio-Adsorbents : A comparison on performances, Isotherms and Kinetics" presented in the international conference by BRICS NUs: Water Resources and Pollution Treatment WRPT-21organised by NIT Durgapur & IIT Kanpur during 6-9th July 2021.
2. **R. Das**, "Importance of E-learning and Digital Education in Indian New Education Policy (NEP-2020) " in One Day National Seminar on NATIONAL EDUCATION POLICY 2020, 22nd November, 2021, organized by Haldia Institute of Technology, Haldia, West Bengal, India in collaboration with Global Institute of Science and Technology, Haldia, West Bengal, India.
3. S. Panda, S. S. Maity, **S. Roy**, "Effect of Introduction of Annular Geometry inside the Feedstock Shell of Supercritical Fluid Extractor," The Indian Chemical Engineering Congress (CHEMCON-2020), Indian Institute of Chemical Engineers, West Bengal, 27 - 29 December, 2020.
4. Samyabrata Bhattacharjee, **Sunil Baran Kuila**. "Selective production of aromatic compound from the waste plastics by catalytic pyrolysis" SCHEMCON -2020, Indian Institute of Chemical Engineers (IICHE), 09-10 October, 2020.
5. Samyabrata Bhattacharjee, **Sunil Baran Kuila**. "Selective production of aromatic compound from the waste plastics by using porous carbonaceous material as catalyst" International Conference on "Recent Trends in Chemical Sciences (RTCS-2020)",The Indian Chemical Society, 26-29 December, 2020.
6. Samyabrata Bhattacharjee, **Sunil Baran Kuila**. "Aromatic compounds production from the waste plastics by using the derived catalyst" CHEMCON -2020, Indian Institute Of Chemical Engineers (IICHE), 27-29 December, 2020.
7. Samyabrata Bhattacharjee, **Sunil Baran Kuila**. " Production of aromatic hydrocarbon from the waste plastics" Chem - Spark, Heritage Institute Of Technology And IICHE Students' Chapter HITK, 31st January 2021.
8. Samyabrata Bhattacharjee, **Sunil Baran Kuila**. " Recovery of monomer from waste plastic – case study" National Seminar On "Material Chemistry – Today & Tomorrow" ,The Indian

Chemical Society, Kolkata in association with Jadavpur University, 28th February & 1st March, 2021.

9. **A. Sinha**, “Recent Trends in Chemical Sciences”, International conference, Indian Chemical Society, 26-29th December, 2020.

2019-20

1. Samyabrata Bhattacharjee, Siddhartha Sankar Boxi. “Production of Clean Fuel from Waste Plastics by Catalytic Pyrolysis” 2nd international Conference on Advances in Bioprocess Engineering and technology (ICABET-2020), Heritage Institute of Technology, Kolkata, India, 20-22 January, 2020.
2. Ankita Kumari, Siddhartha Sankar Boxi. “Graphene and its Applications in Catalysis” International Conference on Nanotechnology (ICNT - 2019), Institute of Fire and Safety Engineering, Haldia, West Bengal, 28 - 29 December, 2019.
3. Samyabrata Bhattacharjee, Siddhartha Sankar Boxi. “Application of Nanomaterials as Antibacterial Agent” International Conference on Nanotechnology (ICNT - 2019), Institute of Fire and Safety Engineering, Haldia, West Bengal, 28 - 29 December, 2019.
4. Arunima Mondal, Siddhartha Sankar Boxi. “Thermal application of Carbon Nanotubes” International Conference on Nanotechnology (ICNT - 2019), Institute of Fire and Safety Engineering, Haldia, West Bengal, 28 - 29 December, 2019.
5. Ankita Kumari, Nirmita Bera, Shreyadhrita Bera, Siddhartha Sankar Boxi. “Use of Nuclear Magnetic Resonance (NMR) Technology in Food Processing.” National Workshop on Applications of Nuclear Science in Biochemical Engineering, Agricultural Productivity & Food Safety (ANS 2019), School of Chemical Engineering, Food Technology and Biotechnology, Haldia Institute of technology, Haldia, West Bengal, 30-31 August, 2019.
6. Rabindranath Jana and Aditi Sinha, Effect of different Nanoparticles on Organic Solar Cell’s Performance, 5th International Conference on Nanoscience and Nanotechnology (ICONN 2019), Dept. of Physics and Nanotechnology, SRM Institute of Science and Technology, Chennai, January 28-30th, 2019.
7. Rabindranath Jana, “Application of Nuclear science in Agricultural Productivity” in ANS - 2019 organized by HIT, Aug, 2019.
8. Arusharka Singha, Dipanjan Das, Subham Jana and Lipika Das, “Study on Green Chemistry and Engineering in Pharmaceutical Industry with A Scope to Treat Non-Biodegradable Wastes From Wastewater”, Schemcon 2019.
9. Pritam Mondal, Soumyadip Bose, Susmita Maity and Lipika Das, “Study on Reuse and Recycle of Solid and Liquid Waste Materials Nuclear Power Plants with A Scope to Reduce Nuclear Waste”, Schemcon 2019.
10. Aditi Sinha, R. Das “ Application of Nuclear Medicine Imaging: A Review” Presented in the National conference on Applications of Nuclear Science in Bio-Chemical Engineering,

Agricultural Productivity & Food Safety Organized by School of Chemical Engineering, Biotechnology & Food Technology at Haldia Institute of Technology, during August 30th - 31st 2019 .

11. Kunal Roy, Arghyadeep De, Anupam Mukherjee, Radha Das “An outlook on the development of nuclear science in agricultural sector” Presented in the National conference on Applications of Nuclear Science in Bio-Chemical Engineering, Agricultural Productivity & Food Safety Organized by School of Chemical Engineering, Biotechnology & Food Technology at HIT , Haldia during August 30th - 31st 2019.

2018-19

1. Priya Jana, Siddhartha Sankar Boxi. “Production of Hydrogen by Photocatalytic Water Splitting using Heterogeneous Nanocatalyst.” International Conference on Nanotechnology (ICNT - 2018), Institute of Fire and Safety Engineering, Haldia, West Bengal, 16 - 17 November, 2018.
2. Avinash Kumar, Siddhartha Sankar Boxi. “Metal impregnated TiO₂ nanomaterial for catalysis application.” International Conference on Nanotechnology (ICNT - 2018), Institute of Fire and Safety Engineering, Haldia, West Bengal, 16 - 17 November, 2018.
3. Priya Jana, Siddhartha Sankar Boxi. “Removal of Arsenic from water using Nanomaterials.” International Seminar on Recent Advances in Molecules & Materials (RA2M-2018) Haldia Institute of Technology, Haldia, West Bengal, 2-3 August, 2018.
4. Arghyadeep De, Siddhartha Sankar Boxi. “Thermal Applications of Nanofluids.” International Seminar on Recent Advances in Molecules & Materials (RA2M-2018). Haldia Institute of Technology, Haldia, West Bengal, 2-3 August, 2018.
5. Rabindra Nath Jana, “Banning of plastic use is not an ideal solution ” 12th All India Peoples Technology Congress, Organized by Forum of Scientist, Engineers and Technologists (FOSET), National Institute of Technical Teachers’ Training and research, Kolkata, 16-17 February, 2019.
6. S. Datta, P. Ghosh, L. Das, “Degradation of pharmaceuticals through photocatalysis using Carbonaceous TiO₂ composite”, Schemcon 2018.
7. RadhaDas, AnupamMukherje, IshitaSinha, KunalRoy, “RSM Approach for Removal of Malachite Green Dye from Industrial Wastes using Indian Neem leaf Powder (Azadirachta indica): Isotherms and Kinetics, Presented at 3rd Regional Science & Technology Congress, Organized by West Bengal State at Sidhu – Kanho- Birsha University , 20-21st December 2018.
8. Subham Chandra, Tanushree Ghosh, Sunil Baran Kuila “kinetic studies of bio-diesel synthesis from soyabean oil” International Conference on Emerging Trends for Sustainable Development (ICETSD '19).
9. Shakrah Ghazal, Shambhavi, Keka Rana “Application of nanomaterials in waste watertreatment”, International seminar on recent advances in molecules and materials (RA2M-2018), Haldia Institute of Technology, 2nd – 3rd August, 2018, Pg. No. 70.

10. Ratnesh Pandey, Keka Rana "Application of nanomaterials in medical sciences", International seminar on recent advances in molecules and materials (RA2M-2018), Haldia Institute of Technology, 2 nd – 3 rd August, 2018, Pg. No. 71.
11. Rohit Barman, Navket Jha, Keka Rana, "Study of Nanotechnology in changing paradigm of sustainable Energy Production" International seminar on recent advances in molecules and materials (RA2M-2018), Haldia Institute of Technology, 2 nd – 3 rd August, 2018, Pg. No. – 71.

2017-18

1. Boxi, S. S.; Paria, S. "Visible Light Induced Photocatalytic Degradation of Methylene Blue Using Silver Doped TiO₂ Nanoparticles." Indian Chemical Engineering Congress, CHEMCON - 2017, Indian Institute of Chemical Engineers & Haldia Institute of Technology, December 27 - 30, 2017.
2. Das, R.; Sinha, I. "Competitive Adsorption of Malachite Green & Methylene Violet Dyes on Indian Neem Leaf Powder: Isotherm & Kinetics." Indian Chemical Engineering Congress, CHEMCON - 2017, Indian Institute of Chemical Engineers & Haldia Institute of Technology, December 27 - 30, 2017.
3. Das, R.; Dhar, D.; Sinha, I. "Synthesis and characterization of SiO₂ Nano Powder from Agricultural Wastes." Indian Chemical Engineering Congress, CHEMCON - 2017, Indian Institute of Chemical Engineers & Haldia Institute of Technology, December 27 - 30, 2017.
4. Jana, R. N.; Sinha, I.; Basu, P. "TiO₂/MWNTs based Artificial Leaf for Energy Harvesting." Indian Chemical Engineering Congress, CHEMCON - 2017, Indian Institute of Chemical Engineers & Haldia Institute of Technology, December 27 - 30, 2017.
5. Samanta, S.; Jana, R. N.; Gupta, P. K. "Synthesis of Silica Nanoparticles from Bagasse." Indian Chemical Engineering Congress, CHEMCON - 2017, Indian Institute of Chemical Engineers & Haldia Institute of Technology, December 27 - 30, 2017.
6. Roy, S.; Saha, A. K.; Guha, C. "Studies on Solid-Fluid Supercritical Extraction in modified Extractor Bed." Indian Chemical Engineering Congress, CHEMCON - 2017, Indian Institute of Chemical Engineers & Haldia Institute of Technology, December 27 - 30, 2017.
7. Sinha, A.; Jana, R. N. "Effect of different nanoparticles on organic solar cell performance." Indian Chemical Engineering Congress, CHEMCON - 2017, Indian Institute of Chemical Engineers & Haldia Institute of Technology, December 27 - 30, 2017.
8. Keka Rana, Debasish Sarkar, "Performance Characterization of Intermeshed Spinning Basket Membrane Module in Ultrafiltration Membrane Separation.", *Chemcon 2017, 70th Annual Session of Indian Institute of Chemical Engineers*, Haldia Institute of Technology, Haldia Regional Centre, Haldia, 27-30, December, 2017, Pg. No. 13-14.
9. Barnali Bej, Narayan C. Pradhan and Swati Neogi, "Production of Hydrogen by Steam Reforming of Methanol over Alumina Supported Nano-NiO/SiO₂ Catalyst ", CHEMCON-2017, 70th Annual Session of Indian Institute of Chemical Engineers, 27th - 29th December 2017, Haldia Institute of Technology, Haldia, West Bengal.(presented)

10. Lipika Das, "Applying Nano Crystalline Titania for Removal of Malachite Green by Photocatalysis", CHEMCON-2017, 70th Annual Session of Indian Institute of Chemical Engineers, 27th - 29th December 2017, Haldia Institute of Technology, Haldia, West Bengal.
11. Lipika Das, Koushik Guha Biswas, Uttam Kumar, "Treatment of phenolic effluent by photocatalytic reaction" Page No. 88, International Conference on Advances in Petroleum, Chemical, and Energy Challenges (APCEC), 2017.

2016-17

1. Pradhan S., Rana K., Jana R., "Zinc oxide nano particles for electronic Applications", "International Conference on Recent Trends in Energy Technology, ICRTET 2016, 21-23rd Jan., 2016, ISBN:978-81-927756-1-6, Pg. No. 27.
2. Roy P., Rana K., Kuila S.B., "Studies on the Recovery of Associated unburned carbon from thermal power plant generated coal fired fly ash by forth floatation", "International Conference on Recent Trends in Energy Technology, ICRTET 2016, 21-23rd Jan., 2016, ISBN:978-81-927756-1-6, Pg. no. 43..
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