

# Kazi Samia Pial

Lecturer



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## Education

2018-2020	<b>Master of Science in Food Engineering and Bioprocess Technology</b> Asian Institute of Technology (AIT), Thailand CGPA: 3.46 out of 4.00 Thesis: Essential Oils and Chitosan based Nanoemulsions as Biopreservatives to control Multi-Drug-Resistant Foodborne Pathogens
2011-2016	<b>Bachelor of Science in Microbiology</b> North South University, Bangladesh CGPA: 3.76 out of 4.00 Project: Distribution of Bacteria and its Bacteriophage in Hospital Waste Water Effluent: Study on Dhaka City

## Work Experience

February 2021 – Present	<b>Lecturer</b> North South University, Dhaka-1229, Bangladesh -Conducting undergrad classes and research; taking part in departmental and administrative works.
September, 2020-January, 2021	<b>Team Leader (Part-Time)</b> Red & White Innovations, Dhaka, Bangladesh -Developing course; coordinating, reviewing, and editing course content.
January 2017- June 2017	<b>Teaching Assistant (TA)</b> Department of Biochemistry and Microbiology, North South University (NSU), Dhaka, Bangladesh

## Conferences & Workshops

January, 2024	<b>37th BSM Annual Conference</b> University of Dhaka, Dhaka, Bangladesh.
December, 2023	<b>Researcher Connect Morocco/Bangladesh</b> Researcher Connect Online Programme, British Council
August, 2023	Participated in the modules: <b>Mastering Effective Communication &amp; Delivery</b> <b>Understanding Student Psychology and Student Engagement and Andragogy</b> LEAD
June, 2023	Workshop on: <b>Biosafety and Biosecurity in Microbiological and Biomedical Research and Diagnostics, in Teaching Laboratories and in Pharmaceutical Industries.</b> North South University, Dhaka, Bangladesh.
January, 2023	<b>36th BSM Annual Conference, 2022.</b> Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh.
August, 2022.	Workshop on: <b>How not to teach: "Etiquette in Teaching", Institutional Quality Assurance Cell (IQAC),</b> North South University, Dhaka, Bangladesh.
June, 2022	<b>2nd International Conference on Genomics, Nanotech and Bioengineering, ICGNB 2022.</b> North South University, Dhaka, Bangladesh.
December, 2021	<b>35th BSM Annual Conference, 2021.</b> University of Dhaka, Dhaka, Bangladesh.
August, 2019	Training workshop on <b>"Safety and Quality in Innovative Food Production Systems"</b> Asian Institute of Technology (AIT), Thailand
September, 2018	1st International Conference on <b>"Innovations in Food Ingredients &amp; Food Safety"</b> Bangkok, Thailand
2017	<b>International Conference on Genomics, Nanotech and Bioengineering</b> North South University, Dhaka, Bangladesh.

## Conference Proceedings

### Poster Presentations

1. Rahman. T., Chowdhury. D., Haque. F., Johra. T. F., Farzana. S., **Pial. K. S.**, Sultana. J., Bulbul. N., Shams. F. Fakruddin. M., Bakhtiar Islam. S. M. and Rahman. K. Effect of Metal-Ions on the Enzymatic Efficiency of Amylase and Protease from Producer KTH 205. *International Biotechnology Conference, ICB 2025*. BRAC University, Dhaka, Bangladesh.
2. Shahed. S. R., Rahman. S., Bulbul. N., Sultana. J., Md. Fakruddin. Bakhtiar Islam. S. M. Rahman. K., and **Pial. K. S.** Detection of Multidrug-Resistant Foodborne *Staphylococcus aureus* Strains and Their Biofilm Formation Abilities. *1st International Student Conference and Research Fair-2024*. Rajshahi University Research Society, Rajshahi, Bangladesh
3. Rahman. K., Oishi. J. F., Akter. S., Mahi. H., Tasnim. F., **Pial. K. S.**, Sultana. J., Bulbul. N., Md. Fakruddin. And Bakhtiar Islam. S. M. Determination of Multidrug Resistant Pattern of Bacteria Isolated from Local Bottled Fruit Juices. *1st International Student Conference and Research Fair-2024*. Rajshahi University Research Society, Rajshahi, Bangladesh
4. Masud. F., Rahman. K., Fakruddin. M., Islam. B., Sultana. J., Bulbul. N. and **Pial. K. S.** Evaluating the Antimicrobial Effects of Lactic Acid Bacteria Isolated from Raw Farm Milk. *38th BSM Annual International Conference, 2024*. University of Dhaka, Dhaka, Bangladesh
5. Rahman. K., Akter. M. M., Rahman. T., **Pial. K. S.**, Sultana. J. and Bulbul. N. Optimizing Assay Conditions of Three Amylase Producing Soil Bacteria. *38th BSM Annual International Conference, 2024*. University of Dhaka, Dhaka, Bangladesh.
6. Hasan. S., Sultana. J., Rahman. K., **Pial. K.S.**, Fakruddin.M. and Bulbul. N. Isolation of Multi-Drug Resistant *Escherichia Coli* from The Fomites (Door Knob and Water Tap). *37th BSM Annual Conference, 2024*. University of Dhaka, Dhaka, Bangladesh. 2024.
7. Bhuiyan. R., Rahman. K., Fakruddin.M., Sultana. J., Bulbul. N. and **Pial. K.S.** Evaluating The Efficacy of Bacteriophages Isolated from Pond Water as Biocontrol Agents Targeting *Escherichia Coli* Isolated from Street Food. *37th BSM Annual Conference, 2024*. University of Dhaka, Dhaka, Bangladesh. 2024.
8. Akter. S., **Pial. K.S.**, Rahman. K., Fakruddin.M., Sultana. J. and Bulbul. N. Detection of *BlaTEM* and *TetA* Gene from *Salmonella* Isolated from Poultry Based Foods in Bangladesh. *37th BSM Annual Conference, 2024*. University of Dhaka, Dhaka, Bangladesh. 2024.
9. Akter. S., Oishi. J. F., **Pial. K.S.**, Sultana. J. and Bulbul. N. and Rahman. K. Determination of Antibiotic Susceptibility Pattern of Bacteria Isolated from Plastic Bottled Fruit Juices. *37th BSM Annual Conference, 2024*. University of Dhaka, Dhaka, Bangladesh. 2024.
10. Tondra. M. A., **Pial. K.S.** and Shams. F. Antimicrobial and Antibiofilm Activity of Green Synthesized Silver Nanoparticles Using Orange Peel Extract. *37th BSM Annual Conference, 2024*. University of Dhaka, Dhaka, Bangladesh. 2024.
11. Seraj. K. N., Bulbul. N., Sultana. J., Rahman. K. and **Pial. K.S.** Molecular Characterization of *Escherichia Coli* Strains Isolated from Street Food Samples. *5<sup>th</sup> International Conference on Biotechnology in Health and Agriculture, 2023*. University of Dhaka, Dhaka, Bangladesh. 1<sup>st</sup> – 3<sup>rd</sup> September, 2023.
12. Karim. M.A., Taib. S.N., Kaium. M.A., Bhuiyan. A.Z., **Pial. K.S.**, Rahman. K., Fakruddin.M., Sultana. J. and Bulbul. N. Prevalence of Adherence and Virulence Genes in *Escherichia Coli* Isolates from Street Foods in Dhaka City. *5<sup>th</sup> International Conference on Biotechnology in Health and Agriculture, 2023*. University of Dhaka, Dhaka, Bangladesh. 1<sup>st</sup> – 3<sup>rd</sup> September, 2023.

13. Mim. D.C., Johra. F.T., Bulbul. N., Sultana. J., **Pial. K.S.**, Shams. F. and Rahman. K. Optimization of Potent Protease Producing Bacteria isolated from Soil sample. *5<sup>th</sup> International Conference on Biotechnology in Health and Agriculture, 2023*. University of Dhaka, Dhaka, Bangladesh. 1<sup>st</sup> – 3<sup>rd</sup> September, 2023.
14. Rahman. K., Mahi. H., Tasnim. F., **Pial. K. S**, Sultana. J. and Bulbul. N. Microbial Analysis of Plastic Bottle Fruit Juices Made by Bangladeshi Companies. *36<sup>th</sup> BSM Annual Conference, 2022*. Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh. 19th - 20th January, 2023.
15. Rahman. K., Chowdhury. D., Kabir. S., **Pial. K.S.**, Sultana. J., Bulbul. N. and Shams. F. Characterization, Presumptive Identification and Enzyme Activity Measurement of Protease Producing Bacteria Isolated from Soil of Dhaka City. *36<sup>th</sup> BSM Annual Conference, 2022*. Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh. 19th - 20th January, 2023.
16. Rahman. K., Jerin. N., Haque. F., Farzana. S., **Pial. K.S.**, Sultana. J. and Bulbul. N. Presumptive Identification and Optimization of Amylase Producing Soil Bacteria. *36<sup>th</sup> BSM Annual Conference, 2022*. Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh. 19th - 20th January, 2023.
17. Sultana. J., Yasar. S., Safa. A. and **Pial. K.S.** Prevalence of *Vibrio* Species in Surface Water and Sediments of the Bay of Bengal, Bangladesh, and Their Seasonal Variation. *36<sup>th</sup> BSM Annual Conference, 2022*. Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh. 19th - 20th January, 2023.
18. Chowdhury. Z., Seraj. K.N., Sarker. S., Rahman. K., **Pial. K.S.**, Sultana. J. and Bulbul. N. The effectiveness of combination therapy in the treatment of multi-drug resistant *Escherichia coli* isolated from street food samples. *36<sup>th</sup> BSM Annual Conference, 2022*. Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh. 19th - 20th January, 2023.
19. **Pial. K.S.**, Khatoon.L., Ananya.N.A., Rahman.K., Fakruddin.M., Sultana. J., and Bulbul. N. Detection of *Bacillus cereus*, *Escherichia coli*, *Staphylococcus aureus*, and *Vibrio spp.* from Street-Vended Fruit Juice and Pickle in Dhaka City. *36<sup>th</sup> BSM Annual Conference, 2022*. Shahjalal University of Science and Technology (SUST), Sylhet, Bangladesh. 19th - 20th January, 2023.
20. **Pial. K. S.**, Sultana. J., Bulbul. N., Safa.A., and Bhuiyan .R. Distribution of bacteria and its specific bacteriophage in hospital wastewater effluent in Dhaka. *2nd International Conference on Genomics, Nanotech and Bioengineering, ICGNB 2022*. North South University, Dhaka, Bangladesh. 26-28 June, 2022
21. Sejuty, R. T., Sultana. J., **Pial. K. S.**, Safa. A., Bulbul. N., Rahman. K. and Yasar. S. Bacteria and its Specific Phage in the Urine of Healthy and Immunocompromised Patients in Bangladesh. *2nd International Conference on Genomics, Nanotech and Bioengineering, ICGNB 2022*. North South University, Dhaka, Bangladesh. 26-28 June, 2022
22. Hossain. T., Farzana. S., Bulbul. N., Sultana. J., **Pial. K. S.** and Rahman. K. Characterization of Amylase Producing Bacteria Isolated from Soil Sample. *2nd International Conference on Genomics, Nanotech and Bioengineering, ICGNB 2022*. North South University, Dhaka, Bangladesh. 26-28 June, 2022

## Research Experience

### Principle Investigator

Research Title:	Phage therapy: exploring bacteriophage as a biocontrol agent against isolated foodborne pathogens from street foods.
Research Location:	Microbiology Laboratories. Dept. of Biochemistry and Microbiology, North South University, Bangladesh.
Detail:	The study focuses on isolating foodborne pathogenic bacteria from street foods followed by the isolation of bacteriophages from sewage water and investigation of susceptibility of isolated bacteriophages against the selected foodborne pathogens.
Research Title:	Combating Foodborne <i>Escherichia coli</i> : Development of Chitosan-Encapsulated Bacteriophage Nanoparticles as a Biocontrol Agent in Fruit Juice
Research Location:	Microbiology Laboratories. Dept. of Biochemistry and Microbiology, North South University, Bangladesh.
Detail:	The study focuses on developing chitosan encapsulated bacteriophage nanoparticles and evaluate their antibacterial activity against previously isolated foodborne <i>E. coli</i> in fruit juice system.

## Poster Presentation

2017	Rehnuma Tabassum Sejuty, Kazi Samia Pial, Ashrafus Safa, Nayeema Bulbul, Elvira Moulee, Farhana Islam, Jinath Sultana. 2017. "Prevalence of Bacteria and their Phages in the Urine of Healthy and Immuno-compromised Individuals of Bangladesh". Presented in 'Public Lecture by Nobel Laureate Sir Richard J. Roberts' at the poster session.
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## Grants & Awards

2024	Grants: Principal Investigator: Total Fund: 625,000.00 BDT. Conference and Travel Research Grant (CTRG), North South University, Bangladesh (2024-2025).
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2022	Grants: Principal Investigator: Total Fund: 479,840.00 BDT. Conference and Travel Research Grant (CTRG), North South University, Bangladesh (2022-2023).
2022	Best Poster Award at the 2nd International Conference on Genomics, Nanotech and Bioengineering, ICGNB 2022. North South University, Dhaka, Bangladesh. 26-28 June, 2022
2018-2020	President Robert B. Banks Scholarship
2017	Magna Cum Laude

## Organizational Skills & Competences

- Life Member, Bangladesh Society of Medical Microbiologists.
- Member of Life Science Club, North South University (NSU), Dhaka, Bangladesh.
- Worked as a Chief Editor of Life Science Club Magazine.
- Worked as a content writer for a lifestyle blog.

## Language

- Bangla: Native or Bilingual Proficiency
- English: Full Professional Proficiency
- Korean: Elementary Proficiency

## Technical Skills

- Microsoft Office, SPSS, OMNIC, Adobe Illustrator, Adobe Photoshop, WordPress.

