BIO DATA

Name	:	**Prof. Piyush Pandey**
Date of Birth	:	01-05-1977
Designation	:	Professor; Dean (Research); Director (IQAC)
Department	:	Department of Microbiology
University	:	Assam University, Silchar, Assam
Address	:	Department of Microbiology, Assam University, Silchar, Assam – 788011, India
E-mail	:	piyushddn@gmail.com, piyush.pandey@aus.ac.in

Prof Piyush Pandey is working at the department of Microbiology, Assam University, India, and also holds the office of Dean (Research), and Director IQAC. He has twenty-five years of academic and research experience. His research group works on plant associated bacteria, with their potential applications in agriculture and environment. He has published more than 180+ papers in journals of high impact, five books (Springer), and undertaken 16 research grants. He has been awarded with 'DBT-Unit for Excellence award' for working on bioremediation of polyaromatic hydrocarbons. Also, he has been 'Overseas Associate' to Agroscope, Switzerland, SICI-SMP fellow to York University, Canada, Bonn International Fellow at University of Bonn, Germany; SNSF-visiting researcher at University of Fribourg, Switzerland, and Visiting Professor, Shizuoka University, Japan. Prof. Pandey is Fellow of International Society of Environmental Botanists, member of several scientific societies and has editorial role in reputed Journals. He has been extensively working on soil and plant microbiomes, rhizoremediation of environmental pollutants, and environmental genomics. He has been awarded from Springer, Society for Environmental Sustainability, and Asian PGPR Society for his research contributions. Seventeen students have been awarded PhD under his supervision. He has two Indian patents granted. He is member of DBT, Ministry of Sci and Tech, Technical expert panel of Environment and Energy. He is a NAAC accessor and acted as member coordinator of several NAAC peer team visits.

Research Publications (selected)

Citation details: https://scholar.google.co.in/citations?hl=en&user=2lb7LO8AAAAJ

(H index: 45; Citations: 6750+ as of May 2026)

SR. NO	TITLE OF PAPER	AUTHORS	REFERENCE OF JOURNAL	YEAR
1.	Striking a microbial balance: Rhizoremediation of crude oil-contaminated soils suppresses resistomes and reconstructs hydrocarbon-degrading microbial networks	Nandita Das, Piyush Pandey	Science of The Total Environment, Volume 1022, 181586	2026
2.	Metagenomic analysis of bacterial diversity, antibiotic resistance, and functional profiles in the ice core samples from two glaciers of Sikkim	Tamang, S., Sherpa, M.T., Najar, I.N... Pandey Piyush, Nagendra Thakur	Scientific Reports 16, 15482 (IF 4.0)	2026

	Himalaya.			
3.	Rhamnolipid-like glycolipid biosurfactant mediated degradation of phenanthrene and fluoranthene by Pseudomonas aeruginosa and its impact on soil enzyme activities.	Bhuyan, B., Das, A., Chakraborty, R., Piyush Pandey	Biodegradation 37, 73 (IF 3.5)	2026
4.	Enforcing the remediation of petroleum hydrocarbon contaminated soil by implementing a synergistic phyto-biostimulation framework.	Nimisha Sarma, Eshaan Eshaan, Manisha Goswami, Suprakash Rabha, Piyush Pandey & Arundhuti Devi	Environmental Sustainability (in press) IF 3.0	2026
5.	Exploring the bacterial diversity and its antibiotic resistance in Kabru Glacier ice cores, Sikkim Himalaya.	Tamang S, Sherpa MT, Kumar S, Najar IN, Sharma P, Das S, Jiya N, Sharma A, Pandey P, Thakur N.	Frontiers in Microbiol. 28;16:1672943 IF 4.5	2026
6.	Integrative omics-based biotechnological strategies for deciphering plant stress responses,	Maahi Choure, Piyush Kant Rai, Kamlesh Kumar Soni, P.S. Bisen, V. Vivekanand, Vishal Sharma, Aradhana Mishra, Piyush Pandey, Kamlesh Choure,	Plant Gene, 45, 100573	2026
7.	Marine alga-mediated facile green synthesis of highly stable antibacterial ZnS quantum dots: a selective fluorescent sensor for heavy metal ions.	Debasish Borah, Puja Saikia, Jayashree Rout, Debika Gogoi, Ankita Das, Narendra Nath Ghosh, Piyush Pandey & Chira R. Bhattacharjee	Journal of Material Science 61, 15557–15575 IF: 4.5	2026
8.	Preferential selection of toxic polyaromatic hydrocarbons and their intermediates by *Pseudomonas fragi* driven by catechol dioxygenase-mediated catabolism,	Ankita Das, Sourav Debnath, Anand Prakash Maurya, L. Paikhomba Singha, Nandita Das, Piyush Pandey	**Journal of Hazardous Materials**, Volume 500, 140338 **IF 11.3**	2025
9.	Environmental restoration of polyaromatic hydrocarbon-contaminated soil through sustainable rhizoremediation: insights into bioeconomy and high-throughput systematic analysis	Nandita Das, Vijay Kumar, Kamlesh Chaure, Piyush Pandey	Environmental Science: Advances 4, 842-883 IF: 3.5	2025
10.	Sustainable lentil intensification in rice-fallow systems through bioaugmentation with atypical rhizobia and endophytes modulates rhizosphere and nodule microbiome dynamics.	Debnath, S., Sorongpong, S., Das, N., Choure, K., Agnihotri, V. K. & Pandey, P	BMC Plant Biol 25, 1237 IF: 4.8	2025
11.	Biochar-driven rhizoremediation of soil contaminated with organic pollutants: engineered solutions, microbiome	Nandita Das, Piyush Pandey	**Biochar** 7, 101 **IF: 13.5**	2025

	enrichment, and bioeconomic benefits for ecosystem restoration			
12.	Sustainable Tea Cultivation with a Rhizobacterial Consortium: A Microbiome-Driven Alternative to Chemical Fertilizers.	Sorongpong, S., Debnath, S., Rahi, P., Bera, B., & Pandey, P.	Microorganisms (MDPI) 13(8), 1715. IF: 4.2	2025
13.	Synergistic co-metabolism enhancing the crude oil degradation by *Acinetobacter oleivorans* DR1 and its metabolic potential	Lairenjam Paikhomba Singha, Renuka Kumari, Keisam Malabika Singha, Piyush Pandey, Pratyoosh Shukla	Microbiology Spectrum 13:e03023-24 IF: 3.7	2025
14.	Enhanced indole-3-acetic acid production by Enterobacter hormaechei APSB3 through heuristic artificial neural network and particle swarm optimisation	Aditya Sharma, Guddu Kumar Gupta, Deepak Chhabra, Piyush Pandey, Pratyoosh Shukla	Environmental Sustainability 8, 289–304 IF: 3.0	2025
15.	Plant-microbiome responses under drought stress and their metabolite-mediated interactions towards enhanced crop resilience	Aditya Sharma, Nandita Das, Piyush Pandey, Pratyoosh Shukla	Current Plant Biology, 43, 100513 IF:4.5	2025
16.	Microbial enhanced oil recovery: process perspectives, challenges, and advanced technologies for its efficient applications and feasibility	Ankita Das, Nandita Das, Prisha Pandey, Piyush Pandey	Archives of Microbiology 207, 106 IF: 2.3	2025
17.	Sustainable production of multifunctional NiOCeO2 nano-heterostructures showing superior UV-B photoprotection with pronounced antioxidant and antimicrobial activity	Jafrin Hasnu, Debasish Borah, Debika Gogoi, Ankita Das, Barnali Saha, Narendra Nath Ghosh, Piyush Pandey, Sujit Kr Ghosh, Jayashree Rout, Chira R Bhattacharjee	Surfaces and Interfaces 56, 105676 IF: 5.7	2025
18.	Zinc Complexes of Cationic Ammonium Phenyl and Methylpyridinium Porphyrins Display Synergistic Anti-HIV-1 and Broad-Spectrum Antibacterial Activity	Debdulal Sharma, Madhu Rai, Nandita Das, Ravi Kumar Kapavarapu, Piyush Pandey, Ritu Gaur, Devashish Sengupta	ACS Omega 10, 22, 22482–22507 IF: 4.3	2025
19.	WO3@Bi2O3 nanocomposite decorated on N-rGO sheets: A convenient approach to synthesis, characterization, and analysis of their antibacterial behaviour	Monjur Hassan Barbhuiya, Dona Mazumder, Piyush Pandey, Siddhartha Sankar Dhar	Inorganic Chemistry Communications 173, 113842 IF: 4.4	2025
20.	Use of *Camellia sinensis* in green synthesis of pure and nickel-doped copper oxide nanoparticles and investigation of their photocatalytic degradation and antibacterial effects	Nikhil Parasar, Bidhan Mohanta, Sandeep Das, Manoj Bora, Piyush Pandey	Nano Express 5, 045010 IF: 2.7	2024
21.	Energy crop-based rhizoremediation and lignocellulosic biomass production as sustainable bioeconomy-driven	Nandita Das, Dinesh Kumar Maheshwari, Piyush Pandey	**Progress in Energy and Combustion**	2024

	solution for biofuel generation and waste mitigation		**Science** 103, 101161 **IF: 37.0**	
22.	Unraveling the Potential of Mononuclear Zn (II) and Cu (II) Schiff Base Metal Complexes: Microwave-Aided Synthesis, Theoretical Analysis and Application in Biomimetic Catalysis …	Sneha Paul, Thangjam Sanjurani, Jyotirmoy Talukdar, Pranjit Barman, Ankita Das, Piyush Pandey	Applied Organometallic Chemistry 13 (12) e7749 IF: 3.7	2024
23.	Harnessing the potential of microbial keratinases for bioconversion of keratin waste	Sandeep Das,Ankita Das, Nandita Das, Tamanna Nath, Mrinalini Langthasa, Prisha Pandey, Vijay Kumar, Kamlesh Choure, Sanjeev Kumar, Piyush Pandey	Environmental Science and Pollution Research IF: 5.8	2024
24.	Genome-guided bioprospecting for industrially important enzymes from a thermophilic Bacillus subtilis strain SR-7, an isolate from hot spring of Madhya Pradesh, India	Piyush Kant Rai, Shreyansh Persai, Rajkumari Jina, Nandita Das, Kamlesh Choure, Piyush Pandey	Gene Reports IF: 1.0	2024
25.	Shift in the soil rhizobacterial community for enhanced solubilization and bioavailability of phosphorus in the rhizosphere of *Allium hookeri* Thwaites, through …	Lakshmibala Kshetri, Rhitu Kotoky, Sourav Debnath, DK Maheshwari, Piyush Pandey	3 Biotech IF: 2.6	2024
26.	Inhibitory effects of silver silicate ($AgSiO_2$) nanoparticles on uncultivable bacterial phyla present in soil	K Malabika Singha, L Paikhomba Singha, Debashish Acharya, Piyush Pandey	Environmental Sustainability IF: 3	2024
27.	Emergence of Lasiodiplodia theobromae induced leaf necrosis in tea (Camellia sinensis [L.] O. Kuntze) from India	Kheyali Ghosh, Sandeep Das, Silpi Sorongpong, Nandita Das, Piyush Pandey	Archives of Microbiology IF: 2.3	2024
28.	Identification of molecular interactions of pesticides with keratinase for their potential to inhibit keratin biodegradation	I Gahatraj, R. Roy, A. Sharma, B C Phukan, S Kumar, D Kumar, P Pandey, P Bhattacharya, A Borah	In Silico Pharmacology IF: 2.8	2024
29.	Biofortification as a solution for addressing nutrient deficiencies and malnutrition	B Naik,…Vijay Kumar, Piyush Pandey, Sarvesh Rustagi et al	Heliyon IF: 4.0	2024
30.	Exploring the bioremediation potential of Bacillus spp. for sustainable mitigation of hydrocarbon contaminants	Ankita Das, Nandita Das, Jina Rajkumari, Prisha Pandey & Piyush Pandey	Environmental Sustainability IF: 3.0	2024
31.	Functionally coherent transcriptional responses of *Jatropha curcas* and	Singha, L.P., Singha, K.M. & Pandey, P.	Scientific Reports	2024

	Pseudomonas fragi for rhizosphere mediated degradation of pyrene.		IF: 4.6	
32.	Isolation, identification, and molecular characterization of potential keratinolytic fungus sp. from Southern Assam: relevance to poultry wastes and its biological management.	Gahatraj, I., Roy, R., Phukan, B.C., Diwakar Kumar, Piyush Pandey, Sanjeev Kumar, Anupom Borah	Arch Microbiol IF: 2.8	2024
33.	Biodegradation of asphaltene by lipopeptide-biosurfactant producing hydrocarbonoclastic, crude oil degrading *Bacillus* spp.	S Das, N Das, K Choure, P Pandey	**Bioresource Technology IF: 11.889**	2023
34.	Prompt antibacterial activity of silver nanoparticle decorated on HAp embedded NiFe2O4 nanocomposite (NiFe2O4@HAp-Ag) against pathogenic strains and investigation of its photocatalytic activity towards degradation of antibiotics	J. Kalita, A. Das, L. Bharali, D. Chakraborty, S.S. Dhar, P. Pandey	**Materials Today Sustainability IF: 7.8**	2023
35.	Revolutionizing Tuberculosis Treatment: Uncovering New Drugs and Breakthrough Inhibitors to Combat Drug-Resistant Mycobacterium tuberculosis	Ankit Verma, Bindu Naik, Vijay Kumar, …. Piyush Pandey, et al	ACS Infect. Dis., IF: 5.3	2023
36.	Marine alga-mediated facile green synthesis, antibacterial and enhanced catalytic activity of highly stable superparamagnetic NiO nanostructure,	Debasish Borah, Puja Saikia, Debika Gogoi, Ankita Das, Jayashree Rout, Narendra Nath Ghosh, Piyush Pandey, Manash Das Gupta, Chira R. Bhattacharjee	Inorganic Chemistry Communications , IF: 3.8	2023
37.	Facile green synthesis of highly stable, water dispersible carbohydrate conjugated Ag, Au and Ag-Au biocompatible nanoparticles: Catalytic and antimicrobial activity,	Debasish Borah, Vishal Mishra, Rupam Debnath, Kheyali Ghosh, Debika Gogoi, Jayashree Rout, Piyush Pandey, Narendra Nath Ghosh, Chira Ranjan Bhattacharjee	Materials Today Communications , IF: 3.8	2023
38.	Endophytic bacteria with host-supportive genetic determinants in their genomes induce growth and antioxidant activity related gene functions in transcriptome of black rice (Oryza sativa L.),	K. Malabika Singha, Piyush Pandey	Environmental and Experimental Botany IF: 6.028	2023
39.	Advancements and Innovations in Harnessing Microbial Processes for Enhanced Biogas Production from Waste Material	Ankita Da, Sandeep Das, Nandita Das, Prisha Pandey, Birson Ingti, Vladimir Panchenko, Vadim Bolshev, Andrey Kovalev and Piyush Pandey	Agriculture IF: 3.6	2023

40.	Impacts of rhizoremediation and biostimulation on soil microbial community, for enhanced degradation of petroleum hydrocarbons in crude oil contaminated agricultural soils	Bhrigu Bhuyan, Piyush Pandey	Environmental Science and Pollution Research IF: 5.8	2023
41.	If you're not confused, you're not paying attention: *Ochrobactrum* is not *Brucella*"	Moreno et al.	**Journal of Clinical Microbiology** **IF: 11.677**	2023
42.	Non-rhizobial nodule endophytes improve nodulation, change root exudation pattern and promote the growth of lentil, for prospective application in fallow soil	Sourav Debnath, Subhradeep Chakraborty, Mrinalini Langthasa, Kamlesh Choure, Vivek Agnihotri, Arpit Srivastava, Piyush Kant Rai, Anita Tilwari, DK Maheshwari, Piyush Pandey	Frontiers in Plant Science IF:4.1	
43.	Facile green synthesis of novel hierarchical Ag doped MnO2 (Ag@MnO2) nanoparticle embedded rGO nanohybrid: photophysical, catalytic and antibacterial activity	Puja Saikia, Debasish Borah, Rupam Debnath, Debika Gogoi, Ankita Das, Jayashree Rout, Narendra Nath Ghosh, Piyush Pandey	Surfaces and Interfaces IF: 6.137	2023
44.	Comparative assessment of soil microbial community in crude oil contaminated sites	G Yerulker, P Patel, A Chafale, V Rathod, S Das, P Pandey, NA Khan, A Devi, NS Munshi, R Dhodapkar, A Kapley,	**Environmental Pollution** **IF: 9.988**	2023
45.	Treatment with atypical rhizobia, *Pararhizobium giardinii* and *Ochrobactrum* sp. modulate the rhizospheric bacterial community, and enhances *Lens culinaris* growth in fallow-soil	S Debnath, A Das, DK Maheshwari, P Pandey	Microbiological Research **IF: 6.09**	2023
46.	Petroleum Hydrocarbon Catabolic Pathways as Targets for Metabolic Engineering Strategies for Enhanced Bioremediation of Crude-Oil-Contaminated Environments	N Das, A Das, S Das, V Bhatawadekar, P Pandey, K Choure, S Damare, P Pandey	Fermentation IF: 5.123	2023
47.	A facile green synthesis route to silver nanoparticles using cyanobacterium Nostoc carneum and its photocatalytic, antibacterial and anticoagulative activity	Borah, D., Das, N., Sarmah, P., Ghosh, K., Chandel,M., Rout, J., Pandey, P., Ghosh, N. N., Bhattacharjee, C. R.	Materials Today Communications IF: 3.662	2023
48.	Photocatalytic and Antibacterial Activity of Fluorescent CdS Quantum Dots Synthesized Using Aqueous Extract of Cyanobacterium Nostoc	Borah, D., Saikia, P., Sarmah, P. et al.	BioNanoSci.	2023

	carneum.			
49.	Current Progress and Biotechnological Applications of Microbial Keratinases	Indira Gahatraj, Anupom Borah, Piyush Pandey, Arindam Bhattacharya, Suman Mazumdar, Bijender Singh, Sanjeev Kumar	Journal of Pure & Applied Microbiology	2023
50.	The changing paradigm of rhizobial taxonomy and its systematic growth upto postgenomic technologies	J Rajkumari, P Katiyar, S Dheeman, P Pandey, DK Maheshwari	World Journal of Microbiology and Biotechnology IF:4.253	2022
51.	Correlation of soil microbiome with crude oil contamination drives detection of hydrocarbon degrading genes which are independent to quantity and type of contaminants	N Das, B Bhuyan, P Pandey	**Environmental Research IF: 8.431**	2022
52.	Tetracoordinated ONNO donor purine based Schiff base and its metal complexes: Synthesis, characterization, DNA binding, theoretical studies, and bioactivities	A Singh, HP Gogoi, P Barman, A Das, P Pandey	Applied Organometallic Chemistry IF:4.072	2022
53.	Remediation of petroleum hydrocarbon contaminated soil using hydrocarbonoclastic rhizobacteria, applied through *Azadirachta indica* rhizosphere,	B Bhuyan and P Pandey	International Journal of Phytoremediation IF: 3.212	2022
54.	Two cationic meso-thiophenium porphyrins and their zinc-complexes as anti-HIV-1 and antibacterial agents under non-photodynamic therapy (PDT) conditions	D Sengupta, M Rai, ZH Mazumdar, D Sharma, K. M Singha, P Pandey, R Gaur	Bioorganic & Medicinal Chemistry Letters IF: 2.823	2022
55.	The structure-function relationship of bacterial transcriptional regulators as a target for enhanced biodegradation of aromatic hydrocarbons	R Kotoky, N Ogawa, P Pandey	Microbiological Research **IF: 6.09**	2022
56.	COVID-19 pandemic: aggressive research, vaccination, testing, and environmental sustainability are the way forward	NK Arora, P Pandey, D Egamberdieva, T Fatima	Environmental Sustainability IF: 3.0	2021
57.	A comparative study on the antibacterial activity of different shaped silver nanoparticles	D Acharya, P Pandey, B Mohanta	Chemical Papers 75 (9), 4907-4915 IF:2.146	2021
58.	Interplay of weather variables in triggering the transmission of SARS-CoV-2 infection in Asia	A Dalal, P Pandey	Environmental Sustainability IF: 3.0	2021
59.	Transmission of SARS-CoV-2 in South Asian countries: molecular evolutionary model based phylogenetic and mutation analysis	AP Maurya, RV Chikhale, P Pandey	Environmental Sustainability IF: 3.0	2021

60.	Rhizosphere assisted bioengineering approaches for the mitigation of petroleum hydrocarbons contamination in soil	LP Singha and P Pandey	**Critical Reviews in Biotechnology IF: 9.08**	2021
61.	Paradigm shift in Antibiotic-Resistome of petroleum hydrocarbon contaminated soil.	N Das, R Kotoky, A Maurya, B Bhuyan, P Pandey	**Science of the Total Environment IF: 10.753**	2021
62.	The genomic attributes of Cd-resistant, hydrocarbonoclastic Bacillus subtilis SR1 for rhizodegradation of benzo(a)pyrene under co-contaminated conditions.	R Kotoky and P Pandey	Genomics IF: 4.31	2021
63.	Host specific endophytic microbiome diversity and associated functions in three varieties of scented black rice are dependent on growth stage.	KM Singha, B Singh, P Pandey	Scientific Reports IF: 4. 0	2021
64.	Rhizodegradation of Pyrene by a Non-pathogenic Klebsiella pneumoniae Isolate Applied with Tagetes erecta L. and Changes in the Rhizobacterial Community	J Rajkumari, Y Choudhury, K Bhattacharjee, P Pandey	Frontiers in Microbiology IF: 4.5	2021
65.	Enrichment of antibiotic resistance genes (ARGs) in polyaromatic hydrocarbon–contaminated soils: a major challenge for environmental health.	Maurya, A.P., Rajkumari, J. & Pandey, P.	Environ Sci Pollut Res. IF: 5.8	2021
66.	Green synthesis of Silver and Silver-gold core-shell nanoparticles using Pineapple leaf extract (Ananas comosus) and study of their antibacterial properties	D Acharya, B Mohanta, P Pandey	International Journal of Nano Dimension IF: 0.319	2021
67.	A comparative study on the antibacterial activity of different shaped silver nanoparticles	D Acharya, P Pandey, B Mohanta	Chemical Papers IF: 2.146	2021
68.	Interplay of weather variables in triggering the transmission of SARS-CoV-2 infection in Asia	A Dalal, P Pandey	Environmental Sustainability IF: 3.0	2021
69.	The Endophytic Microbiome as a Hotspot of Synergistic Interactions, with Prospects of Plant Growth Promotion	UK Vandana, J Rajkumari, LP Singha, L Satish, H Alavilli, Pamidimarri DVN Sudheer, S Chauhan, R Ratnala, V Satturu, PB Mazumder, P Pandey	MDPI Biology IF: 5.168	2021
70.	Expressional Pattern of psm-mec System in Methicillin-Resistant Staphylococcus aureus Under Oxacillin Stress	D Bhowmik, S Chetri, P Pandey, BJ Das, J Wangkheimayum, NA Choudhury, K Melson Singha, D Dhar Chanda, A Bhattacharjee	Current Microbiology IF: 2.343	2021
71.	Biodegradation of High Molecular Weight Polyaromatic Hydrocarbons in	P Pandey, A Kapley, SK Brar	Frontiers in Microbiology	2021

	Different Environments		IF: 4.5	
72.	Comparative Metagenomic Analysis of Two Alkaline Hot Springs of Madhya Pradesh, India and Deciphering the Extremophiles for Industrial Enzymes	K Choure, S Parsai, R Kotoky, A Srivastava, A Tilwari, PK Rai, A Sharma, P Pandey	Frontiers in Genetics IF: 4.772	2021
73.	Development, spread and persistence of antibiotic resistance genes (ARGs) in the soil microbiomes through co-selection	AP Maurya, J Rajkumari, A Bhattacharjee and P Pandey	Reviews on Environmental Health IF: 3.62	2020
74.	Difference in the rhizosphere microbiome of Melia azedarach during removal of benzo(a)pyrene from cadmium co-contaminated soil.	Kotoky R., Pandey, P.,	Chemosphere	2020
75.	Rhizobacterial community of Jatropha curcas associated with pyrene biodegradation by consortium of PAH-degrading bacteria	L. Singha, P., Pandey, P.,	Applied Soil Ecology IF: 5.509	2020
76.	Rhizosphere assisted biodegradation of benzo(a)pyrene by cadmium resistant plant probiotic Serratia marcescens S2I7, and its genomic traits.	Kotoky R, Pandey P.	Scientific Reports. IF: 4. 6	2020
77.	Hyperaccumulation of Arsenic by *Pteris vittata*, a potential strategy for phytoremediation of Arsenic - contaminated soil.	Vandana, U. K., Gulzar, A. B. M., Singha, P., Mazumder, P. B. M., Pandey, P.	Environmental Sustainability	2020
78.	Alga-mediated facile green synthesis of silver nanoparticles: Photophysical, catalytic and antibacterial activity.	D Borah, N Das, N Das, A Bhattacharjee, P Sarmah, Ghosh K, Chandel M, Rout J, Pandey P, Ghosh NN, Bhattacharjee CR.	Applied Organometallic Chemistry IF: 4.072	2020
79.	Distinctive features gleaned from the comparative genomes analysis of clinical and non-clinical isolates of Klebsiella pneumoniae.	Rajkumari R, Chakraborty S, Pandey P.	Bioinformation	2020
80.	Linking gut microbiota with human diseases.	Vandana UK, Barlaskar NH, Md. Gulzar AB, Laskar IH, Kumar D, Paul P, Pandey P, Mazumder P.B.	Bioinformation	2020
81.	Rhizosphere mediated biodegradationof benzo(A)pyrene by surfactin producing soil bacilli applied through Melia azadirachta rhizosphere,	RhituKotoky& Piyush Pandey	International Journal of Phytoremediation IF 3.212	2020
82.	Cadmium resistant plant growth promoting rhizobacteria Serratia marcescens S2I7 associated with the growth promotion of rice plant.	Kotoky, R., Nath, S., Kumar Maheshwari, D., Pandey, P.	Environmental Sustainability IF: 3.0	2019
83.	Environmental applications of microbial extremophiles in the degradation of petroleum hydrocarbons in extreme	Rajkumari, J., Bhuyan, B., Das, N., Pandey, P.	Environmental Sustainability. IF: 3.0	2019

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84.	AcrAB-TolC efflux pump system plays a role in carbapenem non-susceptibility in Escherichia coli.	Chetri S, Bhowmik D, Paul D, Pandey P, Chanda DD, Chakravarty A, Bora D and Bhattacharjee A.	BMC Microbiology IF: 4.465	2019
85.	An array of multiplex PCR assays for detection of staphylococcal chromosomal cassette *mec* (SCC*mec*) types among staphylococcal isolates.	Bhowmik D, Das BJ,Pandey P,Chetri S,Chanda DD, Bhattacharjee A.	Journal of Microbiological Methods. IF 2.622	2019
86.	Rhizoremediation prospects of Polyaromatic hydrocarbon degrading rhizobacteria, that facilitate glutathione and glutathione-S-transferase mediated stress response and enhance growth of rice plants in pyrene contaminated soil.	Singha L. P., Sinha N., Pandey P.	Ecotoxicology and Environmental Safety. **IF 7.129**	2018
87.	Draft Genome Sequence of Bacillus subtilis Strain FB6-3, Isolated from Fermented Bamboo Shoot.	Khunjan O., Pandey P.	Microbiology Resource Announcement.	2018
88.	A multispecies consortium of bacteria having plant growth promotion and antifungal activities, for the management of *Fusarium* wilt complex disease in potato (*Solanumtuberosum* L.).	Devi A. R., Sharma G. D., Majumder P. B., Pandy P.	Biocatalyst and Agricultural Biotechnology. IF: 4.26	2018
89.	Differences in rice rhizosphere bacterial community structure by application of lignocellulolytic plant-probiotic bacteria with rapid composting traits.	Nevita T., Sharma G. D., Pandey P.	Ecological Engineering. IF 4.035	2018
90.	Composting of rice residue using lignocellulolytic plant –probiotic *Stenotrophomonas maltophilia* and its evaluation for growth enhancement of *Oryza sativa* L.	Nevita T., Sharma G.D., Pandey P.	Environmental Sustainability IF: 3.0	2018
91.	The rhizosphere microbiome: Significance in rhizoremediation of polyaromatic hydrocarbon contaminated soil.	Kotoky, R., Rajkumari, J., Pandey, P.	Journal of Environmental Management **IF 8.910**	2018
92.	Draft Genome Sequence of Klebsiella pneumoniae AWD5 (vol 5, e01531, 2017)	J Rajkumari, LP Singha, P Pandey	MICROBIOLOGY RESOURCE ANNOUNCEMENTS	2018
93.	Genomic insights of aromatic hydrocarbon degrading *Klebsiellapneumoniae* AWD5 with plant growth promoting attributes: a paradigm of soil isolate with elements of biodegradation.	Rajkumari J., Singha L.P., Pandey P.	3 Biotech. IF: 2.893	2018
94.	Shape dependent physical mutilation and lethal effects of silver nanoparticles on bacteria.	Acharya D., Singha K.M., Pandey P., Mohanta B., Rajkumari	Scientific Reports. IF 4. 6	2018

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95.	Rhizosphere mediated nutrient management in *Allium hookeri* Thwaites by using phosphate solubilizing rhizobacteria and tricalcium phosphate amended soil.	Kshetri, L.,Pandey, P., Sharma, G. D.	Journal of Plant Interactions, IF: 4.208	2018
96.	Fermentation and Process Optimization of *Soibum*- A traditional Food of Manipur India, using *Serratia*sp..	Khunjan O., Pandey P., Sharma G. D.	Climate Change and Environmental Sustainability	2018
97.	*Exiguobacteriumaurantiacum* mediated fermentation of bamboo shoot and process optimization for *Soibum* production: A traditional food of Manipur, North-East India.	Khunjan O., Pandey P., Sharma G. D.	International Journal of Food Fermentation Technology.	2018
98.	Plant-microbe Symbiosis as an Instrument for the Mobilization and Removal of Heavy Metals from Contaminated Soils – A Realistic Approach	R Kotoky, P Pandey	Current Biotechnology	2018
99.	Fermentation and Process Optimisation of Soibum-A Traditional Food of Manipur India, Using Serratia sp.	O Khunjan, P Pandey, GD Sharma	Climate Change and Environmental Sustainability	2018
100.	Erratum for Rajkumari et al.,"Draft genome sequence of Klebsiella pneumoniae AWD5."	J Rajkumari, LP Singha, P Pandey	Genome Announcements	2018
101.	Antibacterial properties of synthesized Ag and Ag@SiO2 core–shell nanoparticles: a comparative study	D Acharya, B Mohanta, P Pandey, F Nasiri	Canadian Journal of Physics IF: 1.24	2018
102.	The endophyticsymbiont-*Pseudomonas aeroginosa* stimulates the antioxidant activity and growth of *Achyranthesaspera*L..	Devi K.A., Pandey G., Rawat A.K.S., Sharma G.D., Pandey P.	Frontiers in Microbiology. IF: 4.5	2017
103.	Solubilization of Inorganic Phosphate by Rhizobacteria of Allium hookeri Thwaites and Influence of Carbon and Nitrogen Sources Amendments.	Kshetri L., Pandey P., Sharma G. D..	Journal of Pure Applied and Microbiology.	2017
104.	Draft genome sequence of Heavy Metal resistant soil bacterium, *Serratiamarcescens*S2I7, with ability to degrade Polyaromatic Hydrocarbons.	Kotoky R., Singha LP., Pandey P.	Genome Announcements.	2017
105.	Microbial fermentation by traditional process using intrinsic microflora reduces the cyanide content of bamboo shoots.	Khunjan O., Sharma G. D., Pandey P.	Journal of Pure and Applied Microbiology. IF:0.483	2017
106.	Draft genome sequence *Alcaligenesfaecalis* BDB4, a polyaromatic hydrocarbon degrading bacterium isolated from crude oil	Singha LP., Kotoky R., Pandey P.	Genome Announcements.	2017

	contaminated soil.			
107.	Draft genome sequence of PAH degrading *Bacillus subtilis* SR1, with plant growth promoting attributes.	Kotoky R., Singha LP., Pandey P.	Genome Announcements.	2017
108.	Draft genome sequence *Pseudomonas fragi* DBC with ability to degrade high molecular weight polyaromatic hydrocarbons.	SinghaL P., Kotoky R., Pandey P.	Genome Announcements.	2017
109.	Biodegradation of Benzo(a)pyrene by biofilm forming and plant growth promoting *Acinetobacter* sp. strain PDB4.	Kotoky R, Das S, Singha L. P, Pandey P, Singha K. M.	Environmental Technology & Innovation **IF: 7.758**	2017
110.	Rhizosphere mediated biodegradation of 1,4-dichlorobenzene byplant growth promoting rhizobacteria of *Jatrophacurcas*.	Pant R., Pandey P., Kotoky R.	Ecological Engineering **IF: 4.379**	2016
111.	Glutathione and glutathione-S-transferase activity in *Jatrophacurcas*in association with pyrene degrader *Pseudomonas aeruginosa* PDB1 inrhizosphere, for alleviation of stress induced by polyaromatichydrocarbon for effective rhizoremediation.	Singha LP, Pandey P.	Ecological Engineering **IF: 4.379**	2017
112.	Plant-microbe symbiosis as an instrument for the mobilization and removal of Heavy Metals from contaminated Soils – A realistic approach.	Kotoky, R., and Pandey, P.	Current Biotechnology	2017
113.	Characterization of plant growth promoting rhizobia from root nodule of *Mimosa pudica* grown in Assam, India.	Singha, B., Mazumder, P. B., Pandey, P.	Journal of Environmental Biology.	2017
114.	Characterization of Plant Growth Promoting Rhizobia from Root Nodule of Two Legume Species Cultivated in Assam, India.	Singha, B., Mazumder, P.B. and Pandey, P.	Proc. Natl. Acad. Sci., India, Sect. B Biol. Sci	2018
115.	Draft genome sequence of *Klebsiella pneumoniae* AWD5.	Rajkumari J, Singha LP, Pandey P.	Genome Announc5:e0153 1-16.	2017
116.	Optical and antibacterial properties of synthesised silver nanoparticles.	Acharya, D., Mohanta, B., Pandey, P., Singha, M., Nasiri, F.	Micro & Nano Letters, IET Digital Library. IF: 1.099	2017
117.	Plant Growth-Promoting Endophyte *Serratia marcescens* AL2-16 Enhances the Growth of *Achyranthes aspera* L., a Medicinal Plant.	Devi, K. A., Pandey, P., Sharma, G. D.	Hayati Journal of Biosciences IF: 1.45	2017
118.	Characterization of Plant Growth Promoting Rhizobia from Root Nodule of Two Legume Species Cultivated in Assam, India	B Singha, PB Mazumder, P Pandey	Proceedings of the National Academy of Sciences, India	2017

			Section B: Biological …	
119.	Bacteria consortium optimization improves nutrient uptake, nodulation, disease suppression and growth of the common bean (*Phaseolus vulgaris*) in both pot and field studies.	Kumar, P., Pandey, P., Dubey, R. C., Maheshwari, D. K.	Rhizosphere IF: 3.437	2016
120.	Optical Properties of synthesized colloidal silver nanoparticles and their antibacterial effects.	Acharya, D., Pandey, P., Nasiri, F., Singha, K. M., Mohanta, B.	Journal of Bionanoscience IF:2.305	2016
121.	Rhizosphere mediated biodegradation of 1, 4-dichlorobenzene by plant growth promoting rhizobacteria of *Jatropha curcas*.	Pant., R., Pandey, P., Kotoky, R.	Ecological Engineering IF: 4.379	2016
122.	Volatile organic compounds from native potato-associated *Pseudomonas* as potential anti-oomycete agents.	De Vrieze, M., Pandey, P., Bucheli, T. D., Varadarajan, A. R., Ahrens, C. H., Weisskopf, L., Bailly, A.	Frontiers of Microbiology. IF: 4.5	2016
123.	Bacteria consortium optimization improves nutrient uptake, nodulation, disease suppression and growth of the common bean (*Phaseolus vulgaris*) in both pot and field studies.	Kumar, P., Pandey, P., Dubey, R. C., Maheshwari, D. K.	Rhizosphere . IF: 3.437	2016
124.	Unusual rotavirus genotypes in humans and animals with acute diarrhoea in Northeast India.	Chakraborty, P., Bhattacharjee, M. J., Sharma, I., Pandey, P., Barman, N. N.	Epidemiology and Infection, IF: 2.451	2016
125.	Characterization of plant growth promoting rhizobia from root nodule of *Crotolariapallida* grown in Assam,	Singha, B., Mazumder, P. B., Pandey, P.	Indian Journal of Biotechnology	2015
126.	Bioremediation of polyaromatic hydrocarbons (PAH) using rhizosphere technology.	Bisht, S., Pandey, P., Bhargava, B., Sharma, S., Kumar, V., Sharma., K. D.	Brazilian Journal of Microbiology. IF: 2.214	2015
127.	Plant Growth Promoting Rhizobacteria (PGPR) and their application for sustainable Agriculture in North Eastern Region of India.	Kshetri, L., Nevita, T., Pandey, P.	ENVIS Bulletin Himalayan Ecology.	2015
128.	Role of cadmium and lead tolerant pseudomonas aeruginosa in seedling germination of rice (Oryza sativa L.)	S Nath, B Deb, I Sharma, P Pandey	Journal of Environmental & Analytical Toxicology IF: 3.367	2014
129.	Pseudomonas aeruginosa SN4 Enhances seedling growth of Oryza sativa in cadmium contaminated soil	S Nath, B Deb, I Sharma, A Pandey	Current World Environment	2014
130.	Screening the Rhizobium from *Cajanus cajan*for Plant Growth Promoting Factors	K Deb, B Deb, P Pandey	The International Journal of Science and	2014

			Technoledge	
131.	Anthropogenic activities as a source of high prevalence of antibiotic resistant Staphylococcus aureus in the river Ganga	A Sood, P Pandey, S Bisht, S Sharma	Appl Ecol Environ Res	2014
132.	Utilization of endophytic strain *Bacillus* sp. SBER3 for biodegradation of polyaromatic hydrocarbons (PAH) in soil model system.	Bisht, S., Pandey, P., Kaur, G., Aggarwal, H., Sood, A., Sharma, S., Kumar, V., Bisht, N. S.	European Journal of Soil Biology. IF:2.846	2014
133.	Prevalence of MBL producing Pseudomonas sp. from soil-A case study in Assam University campus.	R Das, P Sinha, P Pandey, D Kar	Global Adv Res J Microbiol	2014
134.	Colonization and antagonistic activity of ntomopathogenic*Aspergillus*sp.against tea termite (*Microcerotermesbeesoni* Snyder).	Pandey, P., Singha, P., Singha, B.	Current Science. IF: 1.102	2013
135.	Isolation and characterization of heavy metal resistant bacteria and its effect on shoot growth of Oryza sativa inoculated in industrial soil	S Nath, B Deb, I Sharma, P Pandey	Annals of Plant Sciences	2013
136.	Screening of Actinomycetes from earthworm castings for their antimicrobial activity and industrial enzyme.	Kumar., V., Bharti, A., Bisht, G. S., Negi, Y. K., Gusain, O.P. and Pandey, P.	Brazilian Journal of Microbiology. IF: 2.214	2012
137.	Transformation of pWWO in *Rhizobium leguminosarum* DPT to engineer toluene degrading ability for rhizoremediation.	Goel G., Pandey P., Sood A., Bisht S., Maheshwari D.K and Sharma G.D.	Indian Journal of Microbiology IF: 3.73	2012
138.	Multifarious activity of bioformulated*Pseudomonas fluorescens*PS1 and biocontrol of *Sclerotiniasclerotiorum* in Indian rapeseed (*Brassica campestris*L.).	Aeron, A., Dubey, R. C., Maheshwari, D. K., Pandey, P., Bajpai, V. K., Kang, S. C.	European Journal of Plant Pathology IF: 2.18	2011
139.	Biodegradation of naphthalene and anthracene by chemo-tactically active rhizobacteria of *Populus deltoids*.	Bisht, S., Pandey, P., Sood, A., Sharma, S. and Bisht, S.	Brazilian Journal of Microbiology. IF: 2.214	2010
140.	Differential response in growth of sesame under influence of indigenous and non-indigenous rhizosphere competent fluorescent pseudomonads.	Aeron, A., Pandey, P. and Maheshwari, D. K.	Current Science. IF: 1.169	2010
141.	Assessment of bacterial diversity in Gangetic river system of Uttarakhand, India.	Sood, A., Pandey, P., Bisht, S., Sharma, S., Gusain, M. and Gusain, O. P.	Current Science. IF: 1.169	2010
142.	Co-inoculation of urea and DAP tolerant *Sinorhizobiummeliloti* and *Pseudomonasaeruginosa*as integrated approach for growth enhancement of *Brassica juncea*.	Maheshwari, D. K., Kumar, S., Kumar, B. and Pandey, P.	Indian Journal of Microbiology IF: 2.461	2010

143.	Rhizosphere competent *P. aeruginosa*in the management of *Heteroderacajani*on sesame. World	Kumar, T., Wahla, V., Pandey, P., Dubey, R. C. and Maheshwari, D. K.	Journal of Microbiology and Biotechnology. IF: 3.277	2009
144.	Reduction in dose of chemical fertilizers and growth enhancement of sesame (*Sesamumindicum* L.) with application of rhizospheric competent *Pseudomonasaeruginosa* LES4.	Kumar, S., Pandey, P. and Maheshwari, D. K.	European Journal of Soil Biology. IF: 3.234	2009
145.	Process of rock phosphate solubilization by *Aspergillus* sp. PS 104 in soil amended medium.	Kang, S. C., Pandey, P. and Maheshwari, D. K.	Journal of Environmental Biology.	2008
146.	Biological control of root rot fungus *Macrophominaphaseolina*& growth enhancement of *Pinusroxburghii* by rhizosphere competent *Bacillus subtilis* BN1.	Singh, N., Pandey, P., Dubey, R. C. and Maheshwari, D. K.	World J. of Microbiol. Biotech. IF: 3.312	2008
147.	Assessment of bacterial indicators and physicochemical parameters to investigate pollution status of Gangetic river system of Uttarakhand (India).	Sood, A., Singh, K. D., Pandey, P. and Sharma, S.	Ecological Indicators. IF: 4.958	2008.
148.	Bioformulation of *Burkholderia* sp. MSSP with a multi-species consortium for growth promotion of *Cajanuscajan*.	Pandey, P. and Maheshwari, D. K.	Can. J. Microbiol. IF: 2.419	2007
149.	Studies on rhizosphericmycoflora of tea (*Camellia sinensis*): *In vitro* antagonism with dominant bacteria.	Singh, S., Sood, A., Sharma, S., Kumar, V., Singh, K. D. and Pandey, P.	Chin. J. Appl. Environ. Biol.	2007
150.	Two-species microbial consortium for growth promotion of *Cajanus cajan.*	Pandey, P. and Maheshwari, D. K.	Current Science. IF: 1.102	2007
151.	Microbial decolorization and bioremediation of melanoidin containing molasses spent wash.	Singh, K. D., Sharma, S., Dwivedi, A., Pandey, P., Thakur, R. L. and Kumar, V.	Journal of Environmental Biology.	2007
152.	Influence of rhizospheric bacteria on the allelopathic potential of *Brassica* on wheat.	Poonam, S., Sharma, S., Kumar, V., Pandey, P., Thakur, R. L., Bisht, G. R. S., Upadhyay, R. G.	International Journal of Tropical Agriculture.	2006
153.	Rhizosphere competent *Pseudomonas aeruginosa* GRC_1 produces characteristic siderophore and enhance growth of Indian mustard (*Brassica campestris).*	Pandey, P., Kang, S. C., Gupta, C. P. and Maheshwari, D. K.	Curr. Microbiol. IF: 2.188	2005.
154.	Antibacterial potential of extracts of Lantana camara-A prominent weed of northern India	AK Pandey, P Pandey, S Sharma, DK Maheshwari	Universities J PhytochemAyur Heights	2005
155.	Performance evaluation of three stage water purifier for ground water in rural community around Dehradun	A Dwivedi, S Sharma, P Pandey, RG Upadhyay	Indian journal of environmental protection	2005
156.	Isolation of endophytic plant growth	Pandey, P., Kang, S. C.	Current Science.	2005

	promoting *Burkholderia* sp. from root nodules of *Mimosa pudica.*	and Maheshwari, D. K.	IF: 1.102	
157.	Genetic diversity of rhizobia isolated from medicinal legumes growing in the sub-Himalayan region of Uttaranchal.	Pandey, P., Sahgal, M., Maheshwari, D. K. and Johri, B. N.	Current Science. IF: 1.102	2004
158.	Solid-state production of lignolytic enzymes by *Aspergillusniger* using high pressure steam treated bagasse as substrate.	Gupta, S., Garg, I., Pandey, A. K., Pandey, P. and Sharma, C. B.	Proc. Nat. Acad. Sci. India..	2004
159.	Rhizobia as a biocontrol agent against soil borne plant pathogenic fungi.	Deshwal, V. K., Pandey, P., Kang, S. C. and Maheshwari, D. K.	Ind. J. Exp. Biol.	2003
160.	Production of cellulase – free thermostable xylanases by an isolated strain of *Aspergillusniger*PPI, utilizing various lignocellulosic wastes.	Pandey, P and Pandey A. K.	World J Microbiol. Biotechnol. IF: 3.312	2002
161.	Studies on the biological treatment of digested distillery spent wash effluent using mutant strain of *Phanerochaetechrysosporium*.	Gupta, S., Pandey, A. K., Sharma, N. C. Pandey, P. and Sharma, C. B.	Proc. Nat. Acad. Sci. India.	2001

PATENTS

SR. NO	TITLE OF PATENT	PATENT APPLICATION NUMBER	INVENTERS	NBA APPLICATION NUMBER	CURRENT STATUS OF PATENT
1.	System and method for development of *Kluyvera* sp. based bioinoculant/bioformulation of black rice	202231052368	Prof. Piyush Pandey, K. Malabika Singha, Sourav Debnath, L. Paikhomba Singha	INBA3202304294	Granted
2.	A Method For Rhizobial Bioformulation With An Isolate - *Ochrobactrum* Species And Its Composition Thereof	202231046282	Piyush Pandey, Sourav Debnath, K. Malabika Singha, Nandita Das	INBA3202304291	Granted

Project Details

SR. NO	TITLE OF PROJECT	FUNDING AGENCY	FROM DATE	TO DATE	NO. OF Staff UNDER THE PROJECT	TOTAL APPROVED COST	ROLE OF PI	CURRENT STATUS OF PROJECT
1	Assessment of effect of multispecies consortium of effective bacterial strains of scented rice origin on improving yield and functional traits and impact on rhizosphere microbiome of scented rice in multi-location field trails at Assam and Manipur	DBT	Sanctioned	-	1 Project associate II	Duration 3 years, 59,91,158.00	PI	Ongoing
2.	Sustainable Restoration of Agricultural Soils contaminated with complex hydrocarbon pollutants of 'produced-water' through Rhizoremediation	NHMS-MoEF	22.02.2024	22.02.2027	1 SRF	Duration 3 years, 50 lacs	PI	Ongoing
3.	Exploration of native legumes and characterization of associated nitrogen fixing microsymbionts in North-Eastern India for development of biofertilizers	DBT	09.03.2022	09.03.2025	2 Project associates	Duration 3 years, 54,89lacs	PI	Completed
4.	Ecological and physiological roles of microorganisms of glaciers of North Sikkim, India for impact assessment on climate change	DBT	20.03.23	20.03.26	1 JRF	Duration 3 years 38.93916lacs	PI	Ongoing
5.	Utilization of soil and plant microbial resources for enhancing the productivity of cropping system and soil health under jhum and terrace/valley agroecosystems of Eastern and North-Western Indian Himalayas	DBT	10.07.2020	10.07.2023	1 JRF	Duration 3 years, 32,08lacs	PI	Completed
6.	Rhizosphere Microbiome for Improving Symbiotic Nitrogen Fixation and yield of lentil in North Eastern States of India.	DBT	20.10.2016	19.04.2020	1 JRF	Duration 3 years, 36.76+24.76= 61.52lacs	PI	Completed
7.	Microbial roles in yield management of scented rice of north east India, component - Functional analysis of endophytic Microbiome for Growth	DBT	19.10.2016	18.04.2020	1 JRF	(Duration 3 years, 42.28+29.23= 71.51lacs)	PI	Completed

	and Antioxidant activity in Black-Rice of North-East India,							
8.	Impact of rhizosphere mediated bioremediation of polyaromatic hydrocarbons on different soil microbiomes, in contaminated surface soil of oil and gas drilling sites in Assam.	DBT	31st March 2017	Extension requested	2JRF 2 Traineeships 2 Studentships	(Duration 3 years, 131.068 lacs)	PI	Completed
9.	Incidences of red rust and black rot diseases in *Thea sinensis Kuntze*growing in South Assam, India using Foldscope, and correlation of on-site observations with molecular data.	DBT	20.03.2018	19.09.2019	1 JRF	(Duration 1 year, 08 lacs)	PI	Completed
10.	Engineered Bioremediation Approaches for Onsite Treatment of Soil Contaminated with Crude Oil.	DBT	19.03.2019	18.03.22	1 JRF 1 RA	(Duration 3 years, 84.182 lacs)	PI	Completed
11.	Development of microbial inoculants to improve growth and productivity od Darjeeling and Assam Tea.	NHMS-MoEF	21.01.2019	20-01-22	1 JRF	(Duration 3 years,) 73.6064 lakhs	PI	Completed
12.	Assessment of bacterial diversity in Gangetic River system of Uttarakhand using molecular approaches funded by Department of Science and Technology, Uttarakhand Council for Science and Technology, Dehradun.	UCOST	2007	2010	1 JRF	12.5 lakhs	PI	Completed
13.	Environmental Restoration using plant – microbe interaction: Rhizoremediation	IERP-MoEF	2008	2011	1 Project Fellow	4.95 lakhs	PI	Completed
14.	Bioremediation of Polyaromatic Hydrocarbon contaminated soil using plant-microbe interaction in rhizosphere'.	DBT	06.09.2013	05.03.17	1 JRF	25.40 lakhs	PI	Completed
15.	Molecular analysis of efflux pump mediated resistance in Gram negative bacilli'.	DBT	19.02.2014	18.08.18	1 JRF	87.65 lakhs	CoPI	Completed
16.	Molecular insight into Staphylococcal chromosomal cassette mec (SCCmec) using an epidemiological marker for molecular diagmostic	DBT	02.08.2016	01.08.2019	1JRF	31.296 lakhs	CoPI	Completed

Employment Details

Organization	Post	Duration		Experience		PayBand/ Grade Pay
		From	To	Year	Month	
Department of Microbiology, Assam University	Professor	22nd Jan 2015	ongoing	10	07	Level 14
Department of Microbiology, Assam University	Associate Professor	1st September, 2011	21st Jan 2015	03	05	Rs.9000 AGP in PB Rs.37,400-67,000
Department of Life Sciences and Bioinformatics, Assam University	Associate Professor	30th June 2011	31st August 2011	-	03	Rs.9000 AGP in PB Rs.37,400-67,000
Dept of Microbiology SBSPGI, Dehradun	Lecturer/Sr Lecturer/ Associate Prof	March 2001	June 2011	10	03	As per UGC

Educational Details:

Ph. D Title of Thesis	Ph. D. in Microbiology, Department of Botany and Microbiology, Gurukul Kangri University, Haridwar, Role of Rhizobacteria in Biocontrol and growth promotion of *Cajanus cajan*.	
M. Sc (Microbiology)	C. C. S. Meerut University in 2000	I division (74.2%)

- Qualified National Eligibility Test (NET) for Lectureship in July 2000.
- Qualified National Eligibility Test (NET) for Junior Research Fellowship in December 2000.
- Qualified GATE (Life Sciences) in 2001

Consultancy: Consultancy projects undertaken with tea-planters for microbiological solutions.

Details of awards/recognitions/fellowships

- DBT Overseas Associate award, Agroscope, Switzerland, 2014
- Shastri Indo-Canadian SMP award 2020 – York University, Canada
- Visiting Professor, UGSAS, Gifu University, and Invited at Shizuoka University, Japan 2016, 2019, 2025 (UGSAS-GU grant).
- Bonn International Fellow/ Visiting Researcher, University of Bonn, Germany, 2025
- SNSF Fellow/ Visiting Researcher, University of Fribourg, Switzerland 2026
- Fellow, International Society of Environmental Botanists

- Member, DBT Technical Expert Committee on Energy, Environment and Biodiversity Conservation for NER.
- Award for Excellent Contribution to the Journal Environmental Sustainability by Springer Nature, 2019
- 'Excellence in PGPR Research' award from Asian PGPR Society (2021)
- Unit of Excellence Award by DBT, 2017
- Invited Speaker at several conferences including AMI, ISCA etc.
- Member, Board of Studies: Assam University, Sikkim University, NEHU
- Former Member, Board of Research Studies: Assam University, Mizoram University
- Editorial Role: Environmental Sustainability (Springer), Frontiers in Microbiology, Frontiers in Genetics
- Member of - AMI, Society for Environmental Sustainability, Indian Science Congress, Asian PGPR Society, BRSI, Society of Environmental Botanists
- Former Head, Department of Microbiology, Assam University (2011-2024)
- Director IQAC, Assam University (2022 – ongoing)
- Dean – Research and Consultancy, Assam University (2025 – ongoing)

Other relevant informations

- **PhD Guidance**: 18(awarded), 08 (ongoing) **Post Doc: 01**
- **Book published**:
    1. Bacilli in Agrobiotechnology (2016) Eds: M. Tofazzal Islam, Mahfuz Rahman, Piyush Pandey, Chaitanya Kumar Jha, Abhinav Aeron (Springer) https://doi.org/10.1007/978-3-319-44409-3
    2. Bacilli and Agrobiotechnology: Phytostimulation and Biocontrol (2019) Eds: Md Tofazzal Islam, M. Mahfuz Rahman, Piyush Pandey, Michael Henry Boehme, Geert Haesaert (Springer) https://doi.org/10.1007/978-3-030-15175-1
    3. Bacilli in Agrobiotechnology, Plant Stress Tolerance, Bioremediation, and Bioprospecting, Eds: M. Tofazzal Islam, Mahfuz Rahman, Piyush Pandey (Springer) https://doi.org/10.1007/978-3-030-85465-2
    4. Microorganisms Resilience to Climate Change (2025) Eds: Piyush Pandey, Shrivardhan Dheeman, Dinesh K. Maheshwari (Springer) https://doi.org/10.1007/978-981-96-3748-5
    5. Environmental Sustainability and Biotechnology: Opportunities and Challenges (2025) Eds: Naveen K Arora, Piyush Pandey, Jitendra Mishra (Springer) https://doi.org/10.1007/978-981-96-9025-1
- **Opinion paper**: Pandey, P., Arora, N.K. 2020. Prof. Ananda Mohan Chakrabarty: The Superbug Superhero! Environmental Sustainability 3, 333–335 (2020).
- **Policy paper (IUCN)**: Mohammad Aminur Rahman Shah, ..Nandita Das, … Piyush Pandey, ..et al. 2024. Climate mitigation and biodiversity conservation. IUCN. https://portals.iucn.org/library/node/51537

Book chapters:

S.No	Title	Authors	Book/Publisher	Year
1.	Microbial Symbiosis in Diverse and Changing Climatic Conditions	K Malabika Singha, A Arunima, L Paikhomba Singha, Piyush Pandey	Microorganisms Resilience to Climate Change. Springer	2025
2.	Microbes for a Sustainable World: Pioneering the SDGs Through Microbial Ingenuity., vol 46.	Nandita Das, Ankita Das, Dona Mazumder, Bhrigu Bhuyan, Sourav Debnath, Rajarshi Chowdhury, Rajnanda Thaosen & Piyush Pandey	Environmental Sustainability and Biotechnology: Opportunities and Challenges. Springer	2025
3.	Significance of Plant Growth-Promoting Rhizobacteria in Alleviating Drought Stress in Crop Plants Under a Changing Climate for Sustainable Agricultural Production	Aditya Sharma, Pratyoosh Shukla, Piyush Pandey	Microorganisms Resilience to Climate Change. Springer	2025
4.	Resilience of Microorganisms in the Face of Climate Change: Key Conclusions	Nandita Das, Rajarshi Chowdhury, Piyush Pandey	Microorganisms Resilience to Climate Change. Springer	2025
5.	Carbon Sequestration and Rhizoremediation: Strategies for Managing Xenobiotic Compounds and Restoring Ecological Balance to Mitigate Climate Change	Nandita Das, Piyush Pandey	Microorganisms Resilience to Climate Change. Springer	2025
6.	Geo-Microbes in Rhizoremediation: Harnessing Potential of Sulphate-Reducing Bacteria for Mitigation of Xenobiotics Compounds	Ankita Das, Nandita Das, Sandeep Das, Piyush Pandey	Mineral Transformation and Bioremediation by Geo-Microbes. Springer	2025
7.	Soil Microbiota as Key Players in Mitigating Climate Change and Achieving a Sustainable Environment: A Conclusion	Rajnanda Thaosen, Dona Mazumder, Nandita Das, Piyush Pandey	Climate Change and Soil Microorganisms for Environmental Sustainability. Springer	2025
8.	Role of Microbial Bio-inoculants in Sustainable Agriculture	IH Laskar, UK Vandana, N Das, P Pandey, PB Mazumder	In Microbial Biotechnology for Sustainable Agriculture Volume 2 (pp. 1-28). Singapore: Springer	2024
9.	Interactions of rhizobia with non leguminous plants: a molecular ecology perspective for enhanced plant growth	Debnath, S., Das, N., Maheshwari, D. K., & Pandey, P.	In Nitrogen Fixing Bacteria: Sustainable Growth of Non-legumes (pp. 23-64). Singapore: Springer	2022

10.	Role of Serratia sp. as biocontrol agent and plant growth stimulator, with prospects of biotic stress management in plant.	Kshetri, L., Naseem, F., & Pandey, P.	Plant Growth Promoting Rhizobacteria for Sustainable Stress Management: Volume 2: Rhizobacteria in Biotic Stress Management, 169-200.	2019
11.	Genomic insights and comparative genomics of Bacillus species having diverse mechanisms of biocontrol against fungal phytopathogens.	Rajkumari, J., & Pandey, P.	Bacilli and Agrobiotechnology: Phytostimulation and Biocontrol: Volume 2, 217-237.	2019
12.	Rhizoremediation of Polyaromatic hydrocarbon contaminated soil: Constrains and Future potential.	Pandey, P, L. Singha, P, Dutta, A.	In: Microbes in Action. Eds. Garg, N., Aeron, A. Nova Publishers.	2016
13.	Interactions in rhizosphere for bioremediation of heavy metals.	Nevita, T., Pandey, P., Maheshwari, D. K., Sood, A.	In: Bacteria in Agrobiology: Crop Productivity. Ed. Maheshwari, D. K. Springer-Verlag, Heidelberg, Germany. 439-461	2013
14.	Consortium of plant growth promoting bacteria: future perspective in agriculture.	Pandey P, Bisht S, Sood A, Sharma G. D. and Maheshwari D. K.	In: Bacteria in Agrobiology: Plant Probiotics. Ed. Maheshwari, D. K. Springer-Verlag, Heidelberg, Germany. 185-200.	2012
15.	Sustainable approaches for biological control of Fusarium wilt in pigeon pea (*Cajanus cajan* L. Millspaugh).	Pandey, P. and Maheshwari, D. K.	In: Plant Growth and Health Promoting Bacteria, Microbiology Monographs, Vol. 18, (ed: Maheshwari, D. K.) 231-249.	2011
16.	Emerging Role of Plant Growth Promoting Rhizobacteria in Agricultural and Allied Industry.	Abhinav Aeron, Sandeep Kumar, Piyush Pandey, Dinesh Kumar Maheshwari.	In: Bacteria in Agrobiology: Crop Ecosystem. Ed. Maheshwari, D. K. Springer-Verlag, Heidelberg, Germany. 1-36.	2011

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