

Biodata

Name : **Prof. Piyush Pandey**
Designation : Professor and Head
Department : Department of Microbiology
University : Assam University, Silchar, Assam
Address : Department of Microbiology,
Assam University, Silchar, Assam, 788011, India
E-mail : piyushddn@gmail.com



Brief Profile:

Prof Piyush Pandey is working at the department of Microbiology, Assam University, India. He has twenty-two 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 120 research publications in journals of high impact, three books, and undertaken thirteen research grants. He has been awarded with 'DBT-Centre for Excellence award' for working on plant-rhizosphere mediated bioremediation of polyaromatic hydrocarbons. Also, he has been 'Overseas Associate' to Agroscope, Switzerland, SICI-SMP fellow to York University, Canada, and had visited 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. He has two Indian patents granted.

Research Publications

Citation details:

<https://scholar.google.co.in/citations?hl=en&user=2lb7LO8AAAAJ>
https://www.researchgate.net/profile/Piyush_Pandey20
<https://orcid.org/my-orcid?orcid=0000-0003-3175-0122>

SR. NO	TITLE OF PAPER	AUTHORS	REFERENCE OF JOURNAL	YEAR
1.	Biodegradation of asphaltene by lipopeptide-biosurfactant producing hydrocarbonoclastic, crude oil degrading <i>Bacillus</i> spp.	S Das, N Das, K Choure, P Pandey	Bioresource Technology 382, 129198 IF: 11.889	2023
2.	Endophytic bacteria with host-supportive genetic determinants in their genomes induce growth and antioxidant activity related gene functions in transcriptome of black rice (<i>Oryza sativa</i> L.),	K. Malabika Singha, Piyush Pandey,	Environmental and Experimental Botany, 105396 IF: 6.028	2023 (in press)
3.	Impacts of rhizoremediation and biostimulation on soil microbial community, for enhanced degradation of petroleum hydrocarbons in crude oil contaminated agricultural soils	Bhriгу Bhuyan, Piyush Pandey	Environmental Science and Pollution Research IF: 5.8	2023 accepted

4.	If you're not confused, you're not paying attention: <i>Ochrobactrum</i> is not <i>Brucella</i> "	Moreno et al.	Journal of Clinical Microbiology IF: 11.677	2023 accepted
5.	Facile green synthesis of novel hierarchical Ag doped MnO ₂ (Ag@MnO ₂) 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 accepted
6.	Non-rhizobial nodule endophytes improve nodulation, change root exudation pattern and promote the growth of lentil, for prospective application in fallow soil	S Debnath, S Chakraborty, M Langthasa, K Choure, V Agnihotri, A Srivastava, PK Rai, A Tilwari, DK Maheshwari and P Pandey	Front Plant Sci. 2023; 14: 1152875. IF: 6.627	2023
7.	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 328 (2023) 121578 IF: 9.988	2023
8.	Treatment with atypical rhizobia, <i>Pararhizobium giardinii</i> and <i>Ochrobactrum</i> sp. modulate the rhizospheric bacterial community, and enhances <i>Lens culinaris</i> growth in fallow-soil	S Debnath, A Das, DK Maheshwari, P Pandey	Microbiological Research 267 (2023) 127255 IF: 5.07	2023
9.	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 2023, 9, 196. IF: 5.123	2023
10.	A facile green synthesis route to silver nanoparticles using cyanobacterium <i>Nostoc carneum</i> 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 34, 105110 IF: 3.662	2023
11.	Photocatalytic and Antibacterial Activity of Fluorescent CdS Quantum Dots Synthesized Using Aqueous Extract of Cyanobacterium <i>Nostoc carneum</i> .	Borah, D., Saikia, P., Sarmah, P. et al.	BioNanoSci. 13, 650–666	2023
12.	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 38 (11), 1-23 IF: 4.253	2022
13.	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, 114185 IF: 8.431	2022

14.	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, e6852 IF:4.072	2022
15.	Remediation of petroleum hydrocarbon contaminated soil using hydrocarbonoclastic rhizobacteria, applied through <i>Azadirachta indica</i> rhizosphere,	B Bhuyan and P Pandey	International Journal of Phytoremediation, DOI: 10.1080/15226514.2022.2033689 IF: 3.212	2022
16.	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,65,128699, https://doi.org/10.1016/j.bmcl.2022.128699 . IF: 2.823	2022
17.	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, 127087 IF: 5.07	2022
18.	COVID-19 pandemic: aggressive research, vaccination, testing, and environmental sustainability are the way forward	NK Arora, P Pandey, D Egamberdieva, T Fatima	Environmental Sustainability 4 (3), 443-445	2021
19.	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
20.	Interplay of weather variables in triggering the transmission of SARS-CoV-2 infection in Asia	A Dalal, P Pandey	Environmental Sustainability 4 (3), 551-558	2021
21.	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 4 (3), 533-541	2021
22.	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
23.	Paradigm shift in Antibiotic-Resistome of petroleum hydrocarbon contaminated soil.	N Das, R Kotoky, A Maurya, B Bhuyan, P Pandey	Science of the Total Environment757:143777, IF: 10.753	2021
24.	The genomic attributes of Cd-resistant, hydrocarbonoclastic <i>Bacillus subtilis</i> SR1 for rhizodegradation of benzo(a)pyrene under co-contaminated conditions.	R Kotoky and P Pandey	Genomics IF: 4.31	2021

25.	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: 4.996	2021
26.	Rhizodegradation of Pyrene by a Non-pathogenic <i>Klebsiella pneumoniae</i> Isolate Applied with <i>Tagetes erecta</i> L. and Changes in the Rhizobacterial Community	J Rajkumari, Y Choudhury, K Bhattacharjee, P Pandey	Frontiers in Microbiology IF: 6.064	2021
27.	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 (2021). https://doi.org/10.1007/s11356-020-12171-3 IF: 5.190	2021
28.	Green synthesis of Silver and Silver-gold core-shell nanoparticles using Pineapple leaf extract (<i>Ananas comosus</i>) and study of their antibacterial properties	D Acharya, B Mohanta, P Pandey	International Journal of Nano Dimension	2021
29.	A comparative study on the antibacterial activity of different shaped silver nanoparticles	D Acharya, P Pandey, B Mohanta	Chemical Papers IF: 2.146	2021
30.	Interplay of weather variables in triggering the transmission of SARS-CoV-2 infection in Asia	A Dalal, P Pandey	Environmental Sustainability	2021
31.	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
32.	Expressional Pattern of psm-mec System in Methicillin-Resistant <i>Staphylococcus aureus</i> 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
33.	Biodegradation of High Molecular Weight Polyaromatic Hydrocarbons in Different Environments	P Pandey, A Kapley, SK Brar	Frontiers in Microbiology IF: 6.064	2021
34.	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
35.	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
36.	Difference in the rhizosphere microbiome of <i>Melia azedarach</i> during removal of benzo(a)pyrene from cadmium co-contaminated soil.	Kotoky R., Pandey, P.,	Chemosphere, 258: 127175 https://doi.org/10.1016/j.chemosphere.2020.1271	2020

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37.	Rhizobacterial community of <i>Jatropha curcas</i> associated with pyrene biodegradation by consortium of PAH-degrading bacteria	L. Singha, P., Pandey, P.,	Applied Soil Ecology 155: 103685 https://doi.org/10.1016/j.apsoil.2020.103685 . IF: 5.509	2020
38.	Rhizosphere assisted biodegradation of benzo(a)pyrene by cadmium resistant plant probiotic <i>Serratia marcescens</i> S2I7, and its genomic traits.	Kotoky R, Pandey P.	Scientific Reports. 10:5279. https://doi.org/10.1038/s41598-020-62285-4 IF: 4.996	2020
39.	Hyperaccumulation of Arsenic by <i>Pteris vittata</i> , 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 3: 169–178 https://doi.org/10.1007/s42398-020-00106-0	2020
40.	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 34 IF: 4.072	2020
41.	Distinctive features gleaned from the comparative genomes analysis of clinical and non-clinical isolates of <i>Klebsiella pneumoniae</i> .	Rajkumari R, Chakraborty S, Pandey P.	Bioinformation 16(3): 256-268.DOI: 10.6026/97320630016256 IF: 6.937	2020
42.	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 16(2):196-208. DOI: 10.6026/97320630016196 IF: 6.937	2020
43.	Rhizosphere mediated biodegradation of benzo(A)pyrene by surfactin producing soil bacilli applied through <i>Melia azadirachta</i> rhizosphere,	Rhithu Kotoky & Piyush Pandey	International Journal of Phytoremediation 22: 363-372 IF 3.212	2020
44.	Cadmium resistant plant growth promoting rhizobacteria <i>Serratia marcescens</i> S2I7 associated with the growth promotion of rice plant.	Kotoky, R., Nath, S., Kumar Maheshwari, D., Pandey, P.	Environmental Sustainability 2: 135. https://doi.org/10.1007/s42398-019-00055-3	2019
45.	Environmental applications of microbial extremophiles in the degradation of petroleum hydrocarbons in extreme environments.	Rajkumari, J., Bhuyan, B., Das, N., Pandey, P.	Environmental Sustainability. https://doi.org/10.1007/s42398-019-00065-1 .	2019

46.	AcrAB-TolC efflux pump system plays a role in carbapenem non-susceptibility in <i>Escherichia coli</i> .	Chetri S, Bhowmik D, Paul D, Pandey P, Chanda DD, Chakravarty A, Bora D and Bhattacharjee A.	BMC Microbiology 19(1). DOI: 10.1186/s12866-019-1589-1 IF: 4.465	2019
47.	An array of multiplex PCR assays for detection of staphylococcal chromosomal cassette <i>mec</i> (SCC <i>mec</i>) types among staphylococcal isolates.	Bhowmik D , Das BJ, Pandey P, Chetri S, Chanda DD , Bhattacharjee A.	Journal of Microbiological Methods. 166, 105733 https://doi.org/10.1016/j.mimet.2019.105733 IF 2.622	2019
48.	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. 164: 579-588. IF 7.129	2018
49.	Draft Genome Sequence of <i>Bacillus subtilis</i> Strain FB6-3, Isolated from Fermented Bamboo Shoot.	Khunjan O., Pandey P.	Microbiology Resource Announcement. e01319-18.	2018
50.				
51.	A multispecies consortium of bacteria having plant growth promotion and antifungal activities, for the management of <i>Fusarium</i> wilt complex disease in potato (<i>Solanum tuberosum</i> L.).	Devi A. R., Sharma G. D., Majumder P. B., Pandey P.	Biocatalyst and Agricultural Biotechnology. 16: 614-624. IF: 4.26	2018
52.	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. 120: 209-221. IF 4.035	2018
53.	Composting of rice residue using lignocellulolytic plant –probiotic <i>Stenotrophomonas maltophilia</i> and its evaluation for growth enhancement of <i>Oryza sativa</i> L.	Nevita T., Sharma G.D., Pandey P.	Environmental Sustainability 1: 185	2018
54.	The rhizosphere microbiome: Significance in rhizoremediation of polyaromatic hydrocarbon contaminated soil.	Kotoky, R., Rajkumari, J., Pandey, P.	Journal of Environmental Management, 217: 858-870. IF 8.910	2018
55.	Genomic insights of aromatic hydrocarbon degrading <i>Klebsiella pneumoniae</i> AWD5 with plant growth promoting attributes: a paradigm of soil isolate with elements of biodegradation.	Rajkumari J., Singha L.P., Pandey P.	3 Biotech. 8, 118. IF: 2.893	2018
56.	Shape dependent physical mutilation and lethal effects of silver nanoparticles on bacteria.	Acharya D., Singha K.M., Pandey P., Mohanta B., Rajkumari J., Singha L.P.	Scientific Reports. 8:201. IF 4.996	2018
57.	Rhizosphere mediated nutrient management in <i>Allium hookeri</i> Thwaites by using phosphate	Kshetri, L., Pandey, P.,	Journal of Plant	2018

	solubilizing rhizobacteria and tricalcium phosphate amended soil.	Sharma, G. D.	Interactions, 13:256-269 IF: 4.208	
58.	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. 88: 1007–1016 doi:10.1007/s40011-016-0836-6	2018
59.	<i>Exiguobacterium aurantiacum</i> mediated fermentation of bamboo shoot and process optimization for <i>Soibum</i> production: A traditional food of Manipur, North-East India.	Khunjan O., Pandey P., Sharma G. D.	International Journal of Food Fermentation Technology. 8(1): 51-62.	2018
60.	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 7 (2), 71-79	2018
61.	Fermentation and Process Optimisation of Soibum- A Traditional Food of Manipur India, Using <i>Serratia</i> sp.	O Khunjan, P Pandey, GD Sharma	Climate Change and Environmental Sustainability 6 (2), 127-138	2018
62.	Antibacterial properties of synthesized Ag and Ag@SiO ₂ core-shell nanoparticles: a comparative study	D Acharya, B Mohanta, P Pandey, F Nasiri	Canadian Journal of Physics 96 (8), 955-960 IF: 1.24	2018
63.	The endophytic symbiont- <i>Pseudomonas aeruginosa</i> stimulates the antioxidant activity and growth of <i>Achyranthesaspera</i> L..	Devi K.A., Pandey G., Rawat A.K.S., Sharma G.D., Pandey P.	Frontiers in Microbiology, 8:1897. IF: 6.064	2017
64.	Solubilization of Inorganic Phosphate by Rhizobacteria of <i>Allium hookeri</i> Thwaites and Influence of Carbon and Nitrogen Sources Amendments.	Kshetri L., Pandey P., Sharma G. D..	Journal of Pure Applied and Microbiology. 11(4): 1899-1908.	2017
65.	Draft genome sequence of Heavy Metal resistant soil bacterium, <i>Serratiamarcescens</i> S2I7, with ability to degrade Polyaromatic Hydrocarbons.	Kotoky R., Singha LP., Pandey P.	Genome Announcements. 5 (48) e01338-17.	2017
66.	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. 11(1): 465-473.	2017
67.	Draft genome sequence <i>Alcaligenesfaecalis</i> BDB4, a polyaromatic hydrocarbon degrading bacterium isolated from crude oil contaminated soil.	Singha LP., Kotoky R., Pandey P.	Genome Announcements. 5 (48) e01346-17.	2017
68.	Draft genome sequence of PAH degrading <i>Bacillus subtilis</i> SR1, with plant growth promoting attributes.	Kotoky R., Singha LP., Pandey P.	Genome Announcements. 5 (49) e01339-17.	2017
69.	Draft genome sequence <i>Pseudomonas fragi</i> DBC with ability to degrade high molecular weight polyaromatic hydrocarbons.	SinghaL P., Kotoky R., Pandey P.	Genome Announcements. 5 (49) e01347-17.	2017
70.	Biodegradation of Benzo(a)pyrene by biofilm forming and plant growth promoting <i>Acinetobacter</i> sp. strain PDB4.	Kotoky R, Das S, Singha L. P, Pandey P, Singha K. M.	Environmental Technology & Innovation 8, 256–268. IF: 7.758	2017

71.	Glutathione and glutathione-S-transferase activity in <i>Jatropha curcas</i> association with pyrene degrader <i>Pseudomonas aeruginosa</i> PDB1 in rhizosphere, for alleviation of stress induced by polyaromatic hydrocarbon for effective rhizoremediation.	Singha LP, Pandey P.	Ecological Engineering 102, 422–432 IF: 4.379	2017
72.	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 7(2), 71-79	2017
73.	Glutathione and glutathione-S-transferase activity in <i>Jatropha curcas</i> in association with pyrene degrader <i>Pseudomonas aeruginosa</i> PDB1 in rhizosphere, for alleviation of stress induced by polyaromatic hydrocarbon for effective rhizoremediation.	L. Singha, P., Pandey, P.	Ecological Engineering, 102:422-432 IF: 4.379	2017
74.	Characterization of plant growth promoting rhizobia from root nodule of <i>Mimosa pudica</i> grown in Assam, India.	Singha, B., Mazumder, P. B., Pandey, P.	Journal of Environmental Biology. 38:441-447	2017
75.	Draft genome sequence of <i>Klebsiella pneumoniae</i> AWD5.	Rajkumari J, Singha LP, Pandey P.	Genome Announc5:e01531-16.	2017
76.	Optical and antibacterial properties of synthesised silver nanoparticles.	Acharya, D., Mohanta, B., Pandey, P., Singha, M., Nasiri, F.	Micro & Nano Letters, IET Digital Library. 22 (4), 223-226. IF: 1.099	2017
77.	Plant Growth-Promoting Endophyte <i>Serratia marcescens</i> AL2-16 Enhances the Growth of <i>Achyranthes aspera</i> L., a Medicinal Plant.	Devi, K. A., Pandey, P., Sharma, G. D.	Hayati Journal of Biosciences. 23: 173-180 IF: 1.45	2017
78.	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 Section B: Biological ...	2017
79.	Bacteria consortium optimization improves nutrient uptake, nodulation, disease suppression and growth of the common bean (<i>Phaseolus vulgaris</i>) in both pot and field studies.	Kumar, P., Pandey, P., Dubey, R. C., Maheshwari, D. K.	Rhizosphere 2: 13-23 IF: 3.437	2016
80.	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 10: 511- 515. IF:2.305	2016
81.	Rhizosphere mediated biodegradation of 1, 4-dichlorobenzene by plant growth promoting rhizobacteria of <i>Jatropha curcas</i> .	Pant., R., Pandey, P., Kotoky, R.	Ecological Engineering 94: 50-56 IF: 4.379	2016
82.	Volatile organic compounds from native potato-associated <i>Pseudomonas</i> 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.6: 1295 (1- 15) IF: 6.064	2016
83.	Bacteria consortium optimization improves nutrient uptake, nodulation, disease suppression and growth of the common bean (<i>Phaseolus vulgaris</i>) in both pot and field studies.	Kumar, P., Pandey, P., Dubey, R. C., Maheshwari, D. K.	Rhizosphere 2, 13-23. IF: 3.437	2016
84.	Unusual rotavirus genotypes in humans and animals	Chakraborty, P.,	Epidemiology and	2016

	with acute diarrhoea in Northeast India.	Bhattacharjee, M. J., Sharma, I., Pandey, P., Barman, N. N.	Infection, 144:2780-2789 IF: 2.451	
85.	Characterization of plant growth promoting rhizobia from root nodule of <i>Crotolaria pallida</i> grown in Assam,	Singha, B., Mazumder, P. B., Pandey, P.	Indian Journal of Biotechnology 15:10-16. IF: 0.324	2015
86.	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. 46: 7-21. IF: 2.214	2015
87.	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. 23: 41-47	2015
88.	Role of cadmium and lead tolerant pseudomonas aeruginosa in seedling germination of rice (<i>Oryza sativa</i> L.)	S Nath, B Deb, I Sharma, P Pandey	Journal of Environmental & Analytical Toxicology 4 (4), 1 IF: 3.367	2014
89.	<i>Pseudomonas aeruginosa</i> SN4 Enhances seedling growth of <i>Oryza sativa</i> in cadmium contaminated soil	S Nath, B Deb, I Sharma, A Pandey	Current World Environment 9 (2), 478	2014
90.	Screening the Rhizobium from <i>Cajanus cajan</i> for Plant Growth Promoting Factors	K Deb, B Deb, P Pandey	The International Journal of Science and Technoledge 2 (8), 134	2014
91.	Anthropogenic activities as a source of high prevalence of antibiotic resistant <i>Staphylococcus aureus</i> in the river Ganga	A Sood, P Pandey, S Bisht, S Sharma	ApplEcol Environ Res 12 (1), 33-48	2014
92.	Utilization of endophytic strain <i>Bacillus</i> 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. 60: 67-76. IF:2.846	2014
93.	Prevalence of MBL producing <i>Pseudomonas</i> sp. from soil-A case study in Assam University campus.	R Das, P Sinha, P Pandey, D Kar	Global Adv Res J Microbiol 3 (6), 098-101	2014
94.	Colonization and antagonistic activity of ntomopathogenic <i>Aspergillus</i> sp. against tea termite (<i>Microcerotermes beesonii</i> Snyder).	Pandey, P., Singha, P., Singha, B.	Current Science. 105: 1216-1218 IF: 1.102	2013
95.	Isolation and characterization of heavy metal resistant bacteria and its effect on shoot growth of <i>Oryza sativa</i> inoculated in industrial soil	S Nath, B Deb, I Sharma, P Pandey	Annals of Plant Sciences 2, 188-193	2013
96.	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. 43: 205-214. IF: 2.214	2012
97.	Transformation of pWVO in <i>Rhizobium leguminosarum</i> 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 52: 197-202. IF: 3.73	2012

98.	Multifarious activity of bioformulated <i>Pseudomonas fluorescens</i> PS1 and biocontrol of <i>Sclerotinia sclerotiorum</i> in Indian rapeseed (<i>Brassica campestris</i> L.).	Aeron, A., Dubey, R. C., Maheshwari, D. K., Pandey, P., Bajpai, V. K., Kang, S. C.	European Journal of Plant Pathology 131: 81-93. IF: 2.18	2011
99.	Biodegradation of naphthalene and anthracene by chemo-tactically active rhizobacteria of <i>Populus deltoids</i> .	Bisht, S., Pandey, P., Sood, A., Sharma, S. and Bisht, S.	Brazilian Journal of Microbiology. 41:922-930. IF: 2.214	2010
100.	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. 99: 166-168. IF: 1.169	2010
101.	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.99: 1660-1663. IF: 1.169	2010
102.	Co-inoculation of urea and DAP tolerant <i>Sinorhizobium meliloti</i> and <i>Pseudomonas aeruginosa</i> as integrated approach for growth enhancement of <i>Brassica juncea</i> .	Maheshwari, D. K., Kumar, S., Kumar, B. and Pandey, P.	Indian Journal of Microbiology 50:425-431. IF: 2.461	2010
103.	Rhizosphere competent <i>P. aeruginosa</i> in the management of <i>Heterodera cajanion</i> sesame. World	Kumar, T., Wahla, V., Pandey, P., Dubey, R. C. and Maheshwari, D. K.	Journal of Microbiology and Biotechnology. 25: 277-285. IF: 3.277	2009
104.	Reduction in dose of chemical fertilizers and growth enhancement of sesame (<i>Sesamum indicum</i> L.) with application of rhizospheric competent <i>Pseudomonas aeruginosa</i> LES4.	Kumar, S., Pandey, P. and Maheshwari, D. K.	European Journal of Soil Biology. 45: 334-340. IF: 3.234	2009
105.	Process of rock phosphate solubilization by <i>Aspergillus</i> sp. PS 104 in soil amended medium.	Kang, S. C., Pandey, P. and Maheshwari, D. K.	Journal of Environmental Biology. 29: 743-746.	2008
106.	Biological control of root rot fungus <i>Macrophomina phaseolina</i> & growth enhancement of <i>Pinus roxburghii</i> by rhizosphere competent <i>Bacillus subtilis</i> BN1.	Singh, N., Pandey, P., Dubey, R. C. and Maheshwari, D. K.	World J. of Microbiol. Biotech. 24: 1669-1679. IF: 3.312	2008
107.	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. 8: 709-717. IF: 4.958	2008.
108.	Bioformulation of <i>Burkholderia</i> sp. MSSP with a multi-species consortium for growth promotion of <i>Cajanus cajan</i> .	Pandey, P. and Maheshwari, D. K.	Can. J. Microbiol 53: 213-222. IF: 2.419	2007
109.	Studies on rhizospheric mycoflora of tea (<i>Camellia sinensis</i>): <i>In vitro</i> antagonism with dominant bacteria.	Singh, S., Sood, A., Sharma, S., Kumar, V., Singh, K. D. and Pandey, P.	Chin. J. Appl. Environ. Biol. 13: 357-3	2007
110.	Two-species microbial consortium for growth promotion of <i>Cajanus cajan</i> .	Pandey, P. and Maheshwari, D. K.	Current Science. 92: 1137-1142. IF: 1.102	2007

111	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. 28: 675-677.	2007
112	Influence of rhizospheric bacteria on the allelopathic potential of <i>Brassica</i> 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. 24: 1-6.	2006
113	Rhizosphere competent <i>Pseudomonas aeruginosa</i> GRC ₁ produces characteristic siderophore and enhance growth of Indian mustard (<i>Brassica campestris</i>).	Pandey, P., Kang, S. C., Gupta, C. P. and Maheshwari, D. K.	Curr. Microbiol. 51: 303-309. IF: 2.188	2005
114	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 1, 18-23	2005
115	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 25 (6), 503	2005
116	Isolation of endophytic plant growth promoting <i>Burkholderia</i> sp. from root nodules of <i>Mimosa pudica</i> .	Pandey, P., Kang, S. C. and Maheshwari, D. K.	Current Science. 89: 177-180. IF: 1.102	2005
117	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. 86: 202-207. IF: 1.102	2004
118	Solid-state production of lignolytic enzymes by <i>Aspergillusniger</i> 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. 74: 171-177.	2004
119	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. 41: 1160-1164.	2003
120	Production of cellulase – free thermostable xylanases by an isolated strain of <i>Aspergillusniger</i> PPI, utilizing various lignocellulosic wastes.	Pandey, P and Pandey A. K.	World J Microbiol. Biotechnol. 18: 281-283. IF: 3.312	2002
121	Studies on the biological treatment of digested distillery spent wash effluent using mutant strain of <i>Phanerochaetechrysosporium</i> .	Gupta, S., Pandey, A. K., Sharma, N. C. Pandey, P. and Sharma, C. B.	Proc. Nat. Acad. Sci. India. 71: 259-267.	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 <i>Kluyvera</i> 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 - <i>Ochrobactrum</i> Species And Its Composition Thereof	202231046282	Piyush Pandey, Sourav Debnath, K. Malabika Singha, Nandita Das	INBA3202304291	Granted
3.	System and method for formulating petroleum hydrocarbon degrading bacterial consortium with plant growth stimulating attributes	202231052360	Piyush Pandey, Nandita Das, Sourav Debnath	INBA3202304414	Published (Active consideration of the award)

Project Details

SR. NO	TITLE OF PROJECT	FUNDING AGENCY	FROM DATE	TO DATE	TOTAL APPROVED COST	ROLE	CURRENT STATUS OF PROJECT
1	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	Duration 3 years, 54,89lacs	PI	Ongoing
2	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	Duration 3 years 38.93916lacs	PI	Ongoing
3	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	Duration 3 years, 32,08lacs	PI	Ongoing
4.	Rhizosphere Microbiome for Improving Symbiotic Nitrogen Fixation and yield of lentil in North Eastern States of India.	DBT	20.10.2016	19.04.2020	Duration 3 years, 36.76+24.76 =61.52lacs	PI	Completed
5.	Microbial roles in yield management of scented rice of north east India, component - Functional analysis of endophytic Microbiome for Growth and Antioxidant activity in Black-Rice of North-East India,	DBT	19.10.2016	18.04.2020	(Duration 3 years, 42.28+29.23 =71.51lacs)	PI	Completed
6.	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	31 st March 2017	Extension requested	(Duration 3 years, 131.068 lacs)	PI	Completed
7.	Incidences of red rust and black rot diseases in <i>Thea sinensis Kuntze</i> growing in South Assam, India using Foldscope, and correlation of on-site observations with molecular data.	DBT	20.03.2018	19.09.2019	(Duration 1 year, 08 lacs)	PI	Completed
8.	Engineered Bioremediation Approaches for Onsite Treatment of Soil Contaminated with Crude Oil.	DBT	19.03.2019	18.03.22	(Duration 3 years, 84.182 lacs)	PI	Completed
9.	Development of microbial inoculants to improve growth and productivity of Darjeeling and Assam Tea.	NHMS-MoEF	21.01.2019	20-01-22	(Duration 3 years,) 73.6064 lakhs	PI	Completed
10.	Assessment of bacterial diversity in Gangetic River system of Uttarakhand using molecular approaches funded by Department of Science and Technology, Uttarakhand Council for Science	UCOST	2007	2010	12.5 lakhs	PI	Completed

	and Technology, Dehradun.						
11.	Environmental Restoration using plant – microbe interaction: Rhizoremediation	IERP-MoEF	2008	2011	4.95 lakhs	PI	Completed
12.	Bioremediation of Polyaromatic Hydrocarbon contaminated soil using plant-microbe interaction in rhizosphere’.	DBT	06.09.2013	05.03.17	25.40 lakhs	PI	Completed
13.	Molecular analysis of efflux pump mediated resistance in Gram negative bacilli’.	DBT	19.02.2014	18.08.18	87.65 lakhs	CoPI	Completed
14.	Molecular insight into Staphylococcal chromosomal cassette mec (SCCmec) using an epidemiological marker for molecular diagnostic	DBT	02.08.2016	01.08.2019	31.296 lakhs	CoPI	Completed

Employment Details

Total experience: 22 years

Organization	Post	Duration	
		From	To
Department of Microbiology, Assam University	Professor and Head	22 nd Jan 2015	ongoing
Department of Microbiology, Assam University	Associate Professor and Head	1 st September, 2011	21 st Jan 2015
Department of Life Sciences and Bioinformatics, Assam University	Associate Professor Head i/c Microbio	30 th June 2011	31 st August 2011

Educational Details:

Ph. D (Microbiology)	Department of Botany and Microbiology, Gurukul Kangri University, Haridwar
Title of Thesis	Role of Rhizobacteria in Biocontrol and growth promotion of <i>Cajanus cajan</i> .
Supervisor:	Prof D. K. Maheshwari
M. Sc (Microbiology)	S.B.S.P.G.I, Dehradun affiliated to C. C. I division S. Meerut University in 2000 (74.2%)

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
- Unit of Excellence Award by DBT, 2017
- Fellow, International Society of Environmental Botanists
- Ex-Member, DBT Technical Expert Committee on Energy, Environment and Biodiversity Conservation for NER.
- Member, Board of Studies: Assam University, Sikkim University
- Member, Board of Research Studies: Assam University, Mizoram University
- Associate Editor: Environmental Sustainability (Springer), Frontiers in Microbiology, Frontiers in Genetics
- Award for Excellent Contribution to the Journal Environmental Sustainability by Springer Nature, 2019
- ‘Excellence in PGPR Research’ award from Asian PGPR Society (2021)
- 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.

Other relevant informations

PhD Guidance: 13 (awarded), 05 (ongoing)

Book published: 03, Book series on - *Bacillus* in Agrobiolology (Springer Nature) (Editor)

Book chapters:

SL. NO	TITLE OF THE BOOK	AUTHORS	PUBLICATION	YEAR
1.	Role of <i>Serratia</i> spp. as biocontrol agents and plant growth stimulator, with prospects of biotic stress management in plant.	Kshetri L, Naseem F, Pandey P	In: Sayyed RZ (Ed), Plant Growth Promoting Rhizobacteria for Sustainable Management- Vol. 2 Rhizobacteria in Biotic Stress Management. Springer-Nature, Singapore (in press).	2019
2.	Genomic Insights and Comparative Genomics of <i>Bacillus</i> Species Having Diverse Mechanisms of Biocontrol Against Fungal Phytopathogens.	Rajkumari J, Pandey P.	In: Islam M., Rahman M., Pandey P., Boehme M., Haesaert G. (eds) Bacilli and Agrobiotechnology: Phytostimulation and Biocontrol. Bacilli in Climate Resilient Agriculture and Bioprospecting. Springer, Cham.	2019.
3	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.
4	Interactions in rhizosphere for	Nevita, T., Pandey,	In: Bacteria in Agrobiolology: Crop	2013.

	bioremediation of heavy metals.	P., Maheshwari, D. K., Sood, A.	Productivity. <i>Ed.</i> Maheshwari, D. K. Springer-Verlag, Heidelberg, Germany. 439-461	
5	Consortium of plant growth promoting bacteria: future perspective in agriculture.	Pandey P, Bisht S, Sood A, Sharma G. D. and Maheshwari D. K.	<i>In: Bacteria in Agrobiolgy: Plant Probiotics. Ed.</i> Maheshwari, D. K. Springer-Verlag, Heidelberg, Germany. 185-200.	2012.
6	Sustainable approaches for biological control of Fusarium wilt in pigeon pea (<i>Cajanuscajan</i> L. Millspaugh).	Pandey, P. and Maheshwari, D. K.	<i>In: Plant Growth and Health Promoting Bacteria, Microbiology Monographs, Vol. 18, (ed: Maheshwari, D. K.)</i> 231-249.	2011.
7	Emerging Role of Plant Growth Promoting Rhizobacteria in Agricultural and Allied Industry.	Abhinav Aeron, Sandeep Kumar, Piyush Pandey, Dinesh Kumar Maheshwari.	<i>In: Bacteria in Agrobiolgy: Crop Ecosystem. Ed.</i> Maheshwari, D. K. Springer-Verlag, Heidelberg, Germany. 1-36.	2011.
8	Ecofriendly management of charcoal rot and Fusarium wilt diseases in Sesame (<i>Sesamumindicum</i> L.).	Sandeep Kumar, Abhinav Aeron, PiyushPandey, Dinesh Kumar Maheshwari.	<i>In: Bacteria in Agrobiolgy: Crop Ecosystem. Ed.</i> Maheshwari, D. K. Springer-Verlag, Heidelberg, Germany. 387-405.	2011.
9	Bacterial toxins: specially designed proteins for eukaryotic targets. Microbial toxins and toxigenic microbes (eds. Pandey, V. D. and Singh, S. K)	Pandey, P.	Publisher: Stadium Press (India) Pvt.Ltd.	2010.
10	Application of Fusaria in agricultural and industrial biotechnology. In: Biotechnological applications of microorganisms: A tecno-commercial approach. (eds. Maheshwari, D. K. and Dubey, R. C.)	Pandey, P., Saraf, M., Dubey, R. C. and Maheshwari, D. K.	I. K. International Publishing House. New Delhi. India. pp. 199-212.	2006.
11	Production of a pH stable and thermostable alkaline protease from <i>Pseudomonas</i> sp. HPA utilizing different substrates.	Pandey, A. K., Sahay, H. and Pandey, P.	<i>In: Zoology and Human Welfare</i> (Editor- Ashok Verma) University of Allahabad.	2004.