


NAME	Prof. (Dr.) Ravi Kant Singh	
DESIGNATION	Professor & Head (Research)	
EMAIL ID	rksingh1@amity.edu	
CONTACT NUMBER	9718515328	

RESEARCH INTERESTS	Waste to Value, Plant Biotechnology, Biochemical Engineering
---------------------------	--

EDUCATIONAL QUALIFICATIONS:

Name of College / University	Degree	Year
Uttar Pradesh Technical University, Lucknow (Workplace: Indian Institute of Technology, Roorkee)	Ph.D. in Biotechnology	2008
Institute of Engineering & Technology, Lucknow, Affiliated with University of Lucknow, Lucknow	M.Tech. in Biotechnology	2002
University of Lucknow, Lucknow	M.Sc. in Chemistry	1999
University of Lucknow, Lucknow	B.Sc.	1997
Govt. Jubilee Inter College, Lucknow	Intermediate (10+2)	1993
Janta Inter College, Lucknow	High School (10)	1991

Title of Ph.D. thesis: Studies on Adsorption and Biodegradation for the Removal of p- Cresol from Industrial Wastewater

EXPERIENCE (in chronological order): Total of 24 Years of Research & Teaching

Designation	Type of post held (teaching/ research)	Name of the Institute	Year (From – To)
Professor & Head (Research)	Teaching/ Research	Amity Institute of Biotechnology, Amity University, Noida	04.08.2022 to till date
Professor & Dean	Teaching/ Research	Amity Institute of Biotechnology, Amity University, Raipur	13.08.2018 to 03.08.2022
Professor & Dean Academics	Teaching/ Research	NIET, Greater Noida	16.03.2015 to 09.08.2018
Associate Professor & Head (IQAC)	Teaching/ Research	IMSEC, Ghaziabad	19.08.2008 to 14.03.2015
Assistant Professor	Teaching/ Research	MIET, Meerut	26.08.2002 to 18.08.2008

No. of Ph.D. students supervised	07 (Awarded)
	02 (On going)
No. of Post-Doc	00
No. of M.Tech. Students supervised:	16
No. of B.Tech. Students supervised:	64
PUBLICATIONS (45-Scopus Indexed)	<p>1. Ravi Kant Singh, Shashi Kumar, Surendra Kumar, Arinjay Kumar, “Development of Parthenium Based Activated Carbon and its Utilization for Adsorptive Removal of p-Cresol from Wastewater”, Journal of Hazardous Materials 155 (3), 2008, 523-535.</p> <p>2. Ravi Kant Singh, Shashi Kumar, Surendra Kumar, Arinjay Kumar, “Biodegradation Kinetic Studies for the removal of p-cresol from Wastewater using <i>Gliomastix indicus</i> MTCC 3869”, Biochemical Engineering Journal 40 (2), 2008, 293-303.</p> <p>3. Deepika, Ravi Kant Singh, Aparna Priyadarshini, Debia Angel Yeam, Arpita Bhattacharya, Richa Vaishnav, Archana Kumar, Green synthesis of silver nanoparticles using marigold flowers extract for eco-friendly management of root knot nematode, Plant Nano Biology, 12, 100150, 2025.</p> <p>4. Taniskha Sharma, N. Das, PM Kakkar, RK Mohapatra, Sudheer PDVN, Ravi Kant Singh, Manish Kumar, Abhishek Guldhe, Manoranjan Nayak, Microalgae as an emerging alternative raw material of docosahexaenoic acid and eicosapentaenoic acid – a review, Critical Reviews in Food Science and Nutrition, 65 (12), 1-20, 2025.</p> <p>5. Akshita Tiwari, Ahmed Nadeem, Debarati Paul, Nahid Siddiqui, Kusuma Kumari Panda, Ravi Kant Singh, Gurumurthy Dummi Mahadevan, Prabhanshu Kumar, Whole-Genome Insights into the Probiotic Prospects of <i>Blautia producta</i>, <i>Industrial Biotechnology</i>, 21 (1), 81-94, 2025.</p> <p>6. Sakshi Chaudhary, Ravi Kant Singh, Pradeep Kumar, Genome-wide Identification, characterization, and primer designing of simple sequence repeats across <i>Leguminosae</i> family, 3 Biotech, 13 (8), 2023, 286.</p> <p>7. Aparna Kaushik, Ravi Kant Singh, Pankaj Kumar Tyagi, Green Synthesized Nanoparticle Based Drug Delivery: Recent Trends and Future Prospects, Precision Nanomedicine, 6(3), 2023, 1109-31.</p> <p>8. Tanushree B. Madavi, S. Chauhan, S. N. Ravi, S. N. Venkatesan, V. K. Kulothungan, Bharathiraja B., S. Hariharno, M. Sankaranarayanan, Ravi Kant Singh, Sudheer D. V. N. Pamidimarri, Whole-Cell Catalysts: Sustainable Green-Chemical Producing Entities, Whole-Cell Biocatalysis Next-Generation Technology for Green Synthesis of Pharmaceutical, Chemicals, and Biofuels, June 2024, 1, 77-92.</p> <p>9. Parmeshwar Singh, Anju Meshram, Ravi Kant Singh, Laiq ur Rahman, Vivek Kumar Morya, Synergistic Enhancement of Cauliflower Yield: Harnessing Phosphate-Solubilizing Bacteria and Nitrogen-Fixing Microbes for Sustainable Agriculture, Journal of Pure and Applied Microbiology, 18 (4), 2582-2591.</p> <p>10. Parmeshwar Singh, Laiq ur Rahman, Rajeev Kumar, Anju Meshram, Ravi Kant Singh, Optimizing Formulation and Economic Evaluation of Phosphate Solubilizing Bacteria for Enhanced Cauliflower Growth and Yield, Current Trends in Biotechnology and Pharmacy, 19 (2) 2311-2321, 2025.</p> <p>11. Pradeep Kumar, Madhu Kamle, Pawan K. Maurya, Ravi Kant Singh, Beneficial uses and applications of plant growth promoting Rhizobacteria in sustainable agriculture, Microbiology for Sustainable Agriculture, Soil Health & Environmental Protection, Apple Academic Press, USA, February 2019, 81-104.</p> <p>12. Balasubramanian V, Arunima Sur, Kush Kumar Nayak, Ravi Kant Singh, Plant Root Exudates as Determinant of Rhizomicrobiome, Rhizosphere Microbes, Soil and Plant Functions, Vol. 23, Springer Nature, January 2021, 105-126.</p> <p>13. Keshawanand Tripathi, Narendra Kumar, Meenakshi Singh, Ravi Kant Singh, Fungal Siderophore: Biosynthesis, Transport, Regulation, and Potential Applications,</p>

Rhizosphere Microbes, Soil and Plant Functions, Vol. 23, Springer Nature, January 2021, 387-408.

14. Madhu Kamle, Rituraj Borah, Himanshree Borah, Amit K. Jaiswal, **Ravi Kant Singh**, Pradeep Kumar, Systemic acquired resistance (SAR) & induced systemic resistance (ISR): Role & mechanism of action against phytopathogens, Fungal Biotechnology and Bioengineering, Springer, June 2020, 457-470.

15. Abhinav Shrivastava, Varaprasad Kolla, **Ravi Kant Singh**, Surya Prakash Dwivedi, Dilip Gore, Achyranthes aspera-Mediated Reduction of Silver and Iron Nanoparticles for Therapeutic Applications, Multidisciplinary Science Journal, 7 (7), e2025329, 2025.

16. Abhinav Shrivastava, **Ravi Kant Singh**, Varaprasad Kolla, Surya Prakash Dwivedi, Dilip Gore, Eco-Friendly Production and In-Vitro Assessment of Antibacterial Iron Nanoparticles Synthesized from Achyranthes aspera Leaf Extract: A Comprehensive Characterization Study, International Journal of Chemical and Biochemical Sciences, 25 (19), 2024, 1-12.

17. Rajeev Kumar, **Ravi Kant Singh**, Anshuman Shah, Abhinav Kumar Srivastava, Udai Pratap Singh and Anuradha Agarwal, Banana Cultivation and Micropropagation in India: Addressing Challenges and Exploring Future Prospects, Biosciences Biotechnology Research Asia, 21 (4), 45-56, 2024.

18. Ashutosh Khaswal, Santosh Kumar Mishra, Neha Chaturvedi, Prabir Kumar Paul, **Ravi Kant Singh**, Arpita Roy, Chetan Pandit, Vaseem Raja, Devvret Verma, Optimization of process parameters using response surface methodology (RSM) for laccase enzyme production using Aspergillus nidulans in solid state fermentation utilizing agro-industrial waste, Journal of Integrated Science & Technology, 12 (4), 2024, 777-785.

19. Kundan Kumar, Varaprasad Kolla, **Ravi Kant Singh**, Pankaj Kumar Tyagi, Dilip Gore, Tinospora cordifolia - A Future Green Material for Copper Oxide Nanoparticle-based Drug, Reduces the Risk of Diabetes and Cancer, Journal of Natural Remedies, 25 (2), 375-389, 2025.

20. Kundan Kumar, Varaprasad Kolla, Dilip Gore, **Ravi Kant Singh**, Pankaj Kumar Tyagi, Giloy-mediated Copper Nanoparticles: Their Bioactive Components, Medicinal Properties, and Species-Specific Antibacterial Efficacy, Journal of Environmental Nanotechnology, 13 (4), 461-468, 2024.

21. Abhinav Datta, **Ravi Kant Singh**, Shahina Tabassum, Isolation, Characterization and Growth of *Rhizobium* strains under optimum conditions for effective Biofertilizer production, International Journal of Pharmaceutical Science Review & Research, 32 (1), 2015, 199-208.

22. Abhinav Datta, **Ravi Kant Singh**, Shashi Kumar, Surendra Kumar, An Effective and Beneficial Plant Growth Promoting Soil Bacterium "*Rhizobium*": A Review, Annals of Plant Sciences, 4 (1), 2015, 933-942.

23. Latika Jaiswal, Sachinandan De, **Ravi Kant Singh**, Rubina Kumari Baithalu, Molecular characterization and protein structure prediction of heat shock transcriptional factors in goat (*Capra hircus*) and sheep (*Ovis aries*), Animal Biotechnology, 30 (3), 2019, 1-9.

24. Latika Jaiswal, Sachinandan De, **Ravi Kant Singh**, Seasonal variation in expression pattern of *heat shock factor* genes in *Ovis aries* and *Capra hircus*, Indian Journal of Animal Sciences, 89 (9), 2019, 951-954.

25. Meenu Chopra, **Ravi Kant Singh**, Sachinandan De, Genome Based Phylogeny and Virulence Factor Analysis of Mastitis Causing Escherichia coli Isolated from Indian Cattle, The Indian Journal of Animal Sciences, 90 (12), 2020, 1577-1583.

26. Meenu Chopra, **Ravi Kant Singh**, Sachinandan De, Complete genome sequence and comparative analysis of multi-antibiotic resistance plasmids in carbapenem-resistant Escherichia coli from bovine mastitis, Indian Journal of Biotechnology, 20 (2), 2021, 13-23.

27. Huda Afreen, **Ravi Kant Singh**, Pradeep Kumar, Peroxidases: Role in Bioremediation, Microbial Enzymes: Production, Purification and Industrial Applications, Vol-1, 2025, 173-187.

28. Aditya Kate, Ekkita Seth, Ananya Singh, Chandrashekhar Mahadeo Chakole, Meenakshi Kanwar Chauhan, **Ravi Kant Singh**, Shrirang Maddalwar, Mohit Mishra, Artificial Intelligence for Computer-Aided Drug Discovery, Drug Research, 73 (5), 303.
29. Santosh Kumar Mishra, Shashi Kumar, Surendra Kumar, **Ravi Kant Singh**, Optimization of process parameters for α -amylase production using Artificial Neural Network (ANN) on agricultural wastes, Current Trends in Biotechnology and Pharmacy 10 (3), 2016, 248- 260.
30. K. Silodia, L. Bhardwaj, Ajay Kumar, Subhasa Nigam, P. Yadav, Anza, **Ravi Kant Singh**, Abeer Hasem, Elsayed Fathi Abd Allah, Amit Raj, Strategies for bioremediation of emerging pollutants: A green and sustainable environment, Advances in Chemical Pollution, Environmental Management and Protection, 12, 34-57, 2025.
31. **Ravi Kant Singh**, Shashi Kumar, Surendra Kumar, "Production of α -amylase from agricultural byproducts by *Humicola lanuginosa* in solid state fermentation," Current Trends in Biotechnology and Pharmacy 3 (2), 2009, 172-180.
32. **Ravi Kant Singh**, Santosh Kumar Mishra, V. Balasubramanian, Priya Ranjan Kumar, Development of biologically based activated carbon for advanced water and wastewater treatment process, Bioremediation of Pollutants, June 2020, 215-225.
33. Santosh Kumar Mishra, **Ravi Kant Singh**, Priya Ranjan Kumar, Transgenic plants in phytoremediation of organic pollutants, Bioremediation of Pollutants, June 2020, 39-56.
34. Mohit Mishra, **Ravi Kant Singh**, Sushma Chauhan, Priyanka Gupta, Secretome of Microbiota in Extreme Conditions, Microbial Versatility in Varied Environments, April 2020, 85-99.
35. Surya Prakash Dwivedi, Neeraj Dwivedi, **Ravi Kant Singh** and Shweta Singh, Transforming Healthcare: The Power of Computer Vision and AI in Biomedical Imaging, Revolutionizing Medical Imaging with Computer Vision and Artificial Intelligence, Cambridge Scholars Publishing, Vo.-1, 2024, 33-67.
36. Vivek Srivastava and **Ravi Kant Singh**, Role of Artificial Intelligence in Medical Imaging: Current Trends and Future Possibilities, Revolutionizing Medical Imaging with Computer Vision and Artificial Intelligence, Cambridge Scholars Publishing, Vo.-1, 2024, 173-204.
37. Pratham Vats, Annie Gupta, Shiv Kumar and **Ravi Kant Singh**, Application of AI as Translational Approach in Healthcare: A Holistic Outlook, Revolutionizing Medical Imaging with Computer Vision and Artificial Intelligence, Cambridge Scholars Publishing, Vo.-1, 2024, 205-230.
38. Kundan Kumar, **Ravi Kant Singh**, Pankaj Kumar Tyagi, Dilip Gore, Assessment of Toxicity and Safety Profiles of Nanoparticles, Letters in Appl. Nano Biosci, 10 (1), 2021, 1877-1888.
39. Pankaj Tyagi, **Ravi Kant Singh**, Smriti Vats, Dharmendra Kumar, Shruti Tyagi, Nanomaterials Use in Wastewater Treatment, PSRC 2012 International Conference Programme-Bangkok (Thailand) December 21-22, 2012, pp. 65-68.
40. Kavita Yadav, Atul Thakur, Preeti Thakur, Amitender Singh, **Ravi Kant Singh**, Spinel Nano-Ferrites as Antibacterial Agents, Applications of Spinel Nano-Ferrites in Health, Environmental Sustainability, and Safety, 61-77, 2025
41. Pinki Kumari, Rajeev Kumar Anza, Archana Kumar, **Ravi Kant Singh**, Nanosensors for Monitoring and Detecting Nanoparticle Effects on Crops, Journal of Environmental Nanotechnology, 14 (1), 37-51, 2025.
42. Yashi Gupta, Vivek Srivastava, **Ravi Kant Singh**, AI-enhanced patient-centric clinical trial design, AIP Conference Proceedings, 3254 (1), 020020, 2025.
43. Tushita, Vivek Srivastava, Ravi Kant Singh, transforming brain research: Neuroimaging breakthroughs driven by AI, AIP Conference Proceedings, 3254 (1), 020021, 2025.
44. Komal Sharma, Vivek Srivastava, Ravi Kant Singh, From data to cures: Leveraging machine learning, deep learning and pharmacore modelling for targeted therapies, AIP Conference Proceedings, 3254 (1), 020008, 2025.

	45. Rajeew Kumar, Souraja Datta Majumder, Shruti Agarwal, Anshuman Shah, Shyam Kishor Thakur, Vishal Haribhai Patel, Nidhee Chaudhary, Ravi Kant Singh , A Comprehensive Review on Sustainable Molecular Pharming of Plant-based Pharmaceuticals: Challenges and Future Prospects, Journal of Natural Remedies, 25 (6), 1-21, 2025.
PATENTS (05)	1. Plant Protection Coating Paint Composition Using Fly Ash and Preparation Method Thereof (Application No- 202311032457) 2. Solar pyrolysis device design for preparation of biochar from biomass (Application No.- TEMP/E-1/45376/2023-DEL) 3. Bioreactor based power generation using plant biomass method and design Thereof (Application No.- TEMP/E-1/49002/2023-DEL) 4. Concentrating Solar Radiation Based Device for Milk Tea Preparation (Application No.- Temp/E1/69104/2023- Del) 5. An Assembly for Plant Microbial Fuel Cell-Based Phytoremediation and Working Method Thereof (Application No.- Temp/E1/100542/Del-2024)
RESEARCH PROJECTS Completed: (04) Ongoing: (Nil)	1. Completed a research project on Development of Technology Packages and Simulation model for prediction of plant performance based on evaluation of plants already established in field sponsored by MNES, Govt. of India. 2. Completed a research project on development of nano-based biosensor for wastewater monitoring & treatment funded by MSME, Govt. of India 3. Completed an infrastructure development project MODROB funded by AICTE. 4. Completed the Establishment of Herbal Garden to conserve Germplasm of Endemic and Endangered Traditional Medicinal Plants of Chhattisgarh state.
AWARDS & HONOURS/ DISTINCTIONS	1. Lifetime achievement Award by IEEE Society 2. Society Impact Award by IEEE Society 3. Best Academician Award by UPTU 4. Best Administrative Award by NIET 5. JRF & SRF by MNRE, Govt of India
MEMBERSHIP with Professional/ Academic bodies	1. Life Member, The Biotech. Research Society, India 2. Life Member, Association of Biotechnology and Pharmacy, India 3. Life Member, Association of Microbiologist of India, India 4. Life Member, The Indian Society of Human Genetics, India 5. Life Member, Bioinformatics and Drug Discovery Society