

## **Dr. Abhishek Vashishtha**

*M.Sc. (Microbiology), Ph.D.*

### ***Present Position***

Associate Professor  
Department of Microbiology  
&  
Director Research  
Maharaja Ganga Singh University,  
(Erstwhile; University of Bikaner)  
Bikaner-334004

### ***Residential Address:***

Saket Dham, 63, Virat Nagar, Udasar Road, Near  
Army Gate, Bikaner-334001

***Date of Birth:*** 24-07-1980

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<b><i>Books published</i></b>	<b>: 02</b>
<b><i>Patent</i></b>	<b>: 01</b>
<b><i>Research Publications</i></b>	<b>: 31</b>
<b><i>Text Book Chapters</i></b>	<b>: 09</b>
<b><i>Conference attended</i></b>	<b>: 28</b>
<b><i>Orientation and refresher Courses</i></b>	<b>: 1+4</b>
<b><i>Research Guidance</i></b>	<b>: 01</b>
<b><i>Invited / Special lectures</i></b>	<b>: 14</b>
<b><i>Conferences attended</i></b>	<b>: 26</b>
<b><i>Projects</i></b>	<b>: 5</b>

### ***Working Experience:***

#### ***Maharaja Ganga Singh University, Bikaner***

- ◆ *Associate Professor: – Since 7 June 2023*
- ◆ *Assistant Professor (Selection Scale): – 7 June 2020 – 6 June 2023*
- ◆ *Assistant Professor (Senior Scale) :– 7 June 2015 – 6 June 2020*
- ◆ *Assistant Professor :– 7 June 2011 – 6 June 2015*

#### ***Mahatma Gandhi Institute of Applied Sciences, Jaipur***

- ◆ *In-charge, Dept. of Microbiology – 27 August 2003 – 6 June 2011  
(Affiliated to University of Rajasthan, Jaipur)*

***Awards:***

1. Young Scientist Gold Medal Award by the Indian Academy of Environmental Sciences
2. Young Scientist Award (II position) in an National Conference on Environmental issues, Toxicology and exposure science” held at Jaipur on 20-21 September 2013

***Present Administrative Responsibilities:***

1. Director Research (Since 18.10.2023)
2. Head, Department of Economic Administration and Financial Management (EAFM). (Since 30-7-2025)
3. Drawing and Disbursing Officer
4. Member, Board of Studies in Microbiology
5. Member, Library Management Committee
6. Incharge, Departmental Admission Committee
7. Director Incubation center
8. Co-Coordinator, Ph.D. Course work
9. Co-Ordinator, Ph.D. Entrance
10. Member, IQAC

***Past Administrative Responsibilities:***

1. Dean Students’ Welfare
2. Director, Pt. Madan Mohan Malviya Centre for Value Education (Sodh Peeth)
3. Coordinator Career Counselling and Placement Cell
4. Member, Academic Counsel
5. Convenor, Board of Studies in Biotechnology
6. Ex- In charge, National Service Scheme
7. Chief Election officer for Students Union Elections
8. Coordinator, P.G. Diploma in Pharmaceutical Microbiology
9. Co-Coordinator, Students Grievance Redressal Cell
10. Co-Coordinator, Ph.D. Course work
11. Co-Ordinator, Ph.D. Entrance Test
12. Co-Coordinator, Question Paper Grievance and Redressal Cell
13. Member, Anti Ragging Squad

**No. of Ph.D. Scholars Supervised: 01**

1. Shyam Sunder Sharma

**Patent:**

Kumari N., Meghnani E., Vashishtha A., Kumawat T.K., (2025). A Method for Isolating Solanesol from Thermophilic Actinomycetes of *Laceyella Sacchari*. Indian Patent No 202511040984 A, Issue No 20/2025

**Publications:**

**Research Papers/Reviews Published:**

1. Meghwanshi G.K., Verma S., Choyal R., Vashishtha A., Trinh N.T.T. and Kumar R. (2025) Biocatalysis in Transforming Biofuel Technologies. *Front. Biosci. (Elite Ed)*, 17(2), 37729. <https://doi.org/10.31083/FBE37729>.
2. Singh P., Patel A., Singh R., Shukla V.K., Tiwari S., Pandey P.K., Pandey I.K., Sobin F., Khare N., Vashishtha A., Kumar A. and Tripathi A. (2025). Isolation and Enumeration of Bacteria from Fresh Flowers of The Religious City of Ayodhya in the State of Uttar Pradesh in India. *Acta Scientific Microbiology* 8(3): 52-57. <https://doi.org/10.31080/asmi.2025.08.1496>.
3. Meghwanshi G.K. and Vashishtha A. (2025). Reestablishing Indian Culture through Value Education. In Dixit M. and Hrawani D. (Eds). Prospects and challenges in integrating NEP 2020 into our education system. Eds. PP-25-28. Kitabwale, New Delhi. ISBN: 978-93-48029-19-5.
4. Patel A., Singh R., Vashishtha A., et.al., (2023). Decolourization of Spent Wash using Bacteria *Pseudomonas putida*. *Int. J. Curr. Microbiol. App. Sci.* 12(10): 63-73. doi: <https://doi.org/10.20546/ijcmas.2023.1210.008>
5. Charan P.D, Meghwanshi G.K. and Vashishtha A. (2022). Environmental Impacts of Covid -19 with special reference to Plastic wastes- A review. *J. Environ. science & Engg.* 61(2); 708-713. [https://www.neeri.res.in/img\\_homes/JESE-2019/JESE-April-2019.pdf](https://www.neeri.res.in/img_homes/JESE-2019/JESE-April-2019.pdf).

6. Kumari N, Menghani E, Kumawat T. K. and Vashishtha A. (2022). Qualitative assessment of bioactive compounds of actinomycetes AIA25a isolate using HPTLC and GCMS technique. *Indian J. Chem. Technol.*29: 303-310. DOI: [10.56042/ijct.v29i3.55025](https://doi.org/10.56042/ijct.v29i3.55025)
7. Yadav A, Purohit P., Vashishtha A., Charan P.D. and Meghwanshi G. K. (2022). Microbial assisted production of alcohols, acetone and glycerol. In Verma P. and Shah M.P., (Eds), *Bioprospecting of Microbial Diversity*. Elsevier. pp47-92, ISBN 9780323909587. <https://doi.org/10.1016/B978-0-323-90958-7.00026-1>  
(<https://www.sciencedirect.com/science/article/pii/B9780323909587000261>)
8. Dabi N. K, Vashishtha A, Ahmed A, Meghwanshi G K. (2021). Screening of native bacterial isolates for keratinase production and its application in detergent formulation and wash performance. *J. Phytol. Res.* 30 (1): 69-81. ISSN 0970-5767. <http://www.jphytolres.org/archive/2021>
9. Sharma S. S., and Vashishtha A. (2021). Physicochemical characterization of petroleum hydrocarbon contaminated land of Guru Gobind Singh refinery's peripheral area, Punjab. *Environment Conservation Journal*, 22(1&2), 213-216.
10. Meghwanshi G.K., Kaur N., Verma S., Dabi N.K., Vashishtha A, Charan P.D., Purohit P., Bhandari H., Bhojak N. and Kumar R. (2020). Enzymes for pharmaceutical and therapeutic applications. *Biotechnology and Applied Biochemistry*. doi:[10.1002/bab.1919](https://doi.org/10.1002/bab.1919).
11. Vashishtha A. and Meghwanshi, G.K. (2018). Fungi inhabiting in hypersaline conditions: an insight. In Gehlot P. and Singh J., (Eds), *Fungi and their Role in Sustainable Development: Current Perspectives*. Springer Nature Singapore Pvt Ltd, PP. 449-465. [https://doi.org/10.1007/978-981-13-0393-7\\_25](https://doi.org/10.1007/978-981-13-0393-7_25), Print ISBN: 9789811303920, eText ISBN: 9789811303937.
12. Meghwanshi G. K. and Vashishtha, A. (2018). *Biotechnology of Fungal Lipases*. In Gehlot P. and Singh J., (Eds), *Fungi and their Role in Sustainable Development: Current Perspectives*. Springer Nature Singapore Pvt. Ltd, PP 383-411. [https://doi.org/10.1007/978-981-13-0393-7\\_22](https://doi.org/10.1007/978-981-13-0393-7_22), Print ISBN: 9789811303920, eText ISBN: 9789811303937
13. Vashishtha A. and Meghwanshi G. K. (2018). Quorum Sensing and Bacterial Pheromones: A Road to Influence the Local Microbial Environment. In Katiyar V and

- Joshi V., (Eds), Microbial Research An Overview. PP 89-108. I.K. International Publishing House Pvt. Ltd., New Delhi. ISBN No.: 9789385909443. <https://www.ikbooks.com/books/book/life-sciences/microbiology/microbial-research/9789385909443/>.
14. Meghwanshi G. K. and Vashishtha A. (2018). Industrial Biocatalysis: A Green Solution to Environmental Safety and Sustainability. *In* Katiyar V and Joshi V., (Eds), Microbial Research An Overview. PP 153-176. I.K. International Publishing House Pvt. Ltd., New Delhi. ISBN No. : 9789385909443. <https://www.ikbooks.com/books/book/life-sciences/microbiology/microbial-research/9789385909443/>
  15. Vashishtha A. and Meghwanshi G. K. (2018). Hydrocarbon Pollution and factors affecting its Bioremediation. *In* Joshi S.C. and Sharma P., (Eds), Environmental Toxicology. PP 75-85. Pointer Publishers, Jaipur. ISBN No.: 978-81-7132-883-3. <http://www.pointerpublishers.com/details.asp?id=1517>.
  16. Vashishtha A., Meghwanshi G. K., Lowry M. and Jaroli D.P. (2017). Impact of Petroleum Hydrocarbons on Physico-Chemical Properties and Bacterial Population in Contaminated Soils. *J. Phytol. Res.* 30 (1): 69-81. ISSN 0970-5767. <http://www.jphytolres.org/archive/2017>.
  17. Baid S., Vashishtha A., Ahmed A., Verma S., and Meghwanshi G. K. (2016). Bacterial Keratinase catalyzed Bioremediation of Keratin rich wastes for potential Agricultural and other applications. *J. Phytol. Res.* 29 (1-2): 17-30. ISSN 0970-5767. <http://www.jphytolres.org/archive/2016>.
  18. Vashishtha A., Charan P.D., Meghwanshi G. K. (2015). An Overview of Trichoderma interactions with Pathogens and plants. *J. Phytol. Res.* 28 (1-2) : 15-23. ISSN 0970-5767. <http://www.jphytolres.org/archive/2015>.
  19. Vashishtha A. and Dhawal P.K. (2015). Microbial Osmoadaptation – A Road Towards Sustainability in Extreme Conditions. *In* Singh J. and Gehlot P. Microbes in Action. PP 95-108. Agrobios (India), Jodhpur. ISBN no. : 978-81-7754-537-1. <http://agrobiosonline.com/booklist.php?sdx===AUVZ0cW5mTHNIRaNVTWJVU>.
  20. Vashishtha A. and Meghwanshi G. K. (2015). Biodegradation of Polycyclic aromatic hydrocarbons with special reference to Naphthalene. *In* Singh J. and Gehlot P. Microbes

- in Action. PP 145-166. Agrobios (India), Jodhpur. ISBN no. : 978-81-7754-537-1.  
<http://agrobiosonline.com/booklist.php?sdx===AUVZ0cW5mTHNIRaNVTWJVU>.
21. Meghwanshi G. K. and Vashishtha A. (2015). Application of Enzymes in Food Processing. *In* Singh J. and Gehlot P. Microbes in Action. PP 281-302. Agrobios (India), Jodhpur. ISBN no. : 978-81-7754-537-1.  
<http://agrobiosonline.com/booklist.php?sdx===AUVZ0cW5mTHNIRaNVTWJVU>.
22. Pareek A., Vashishtha A., Moin S. and Menghani E. (2014) Bioreduction of Fluoride in Affected Water Samples of Jaipur by *Oscillatoria* (Cyanophyta) Species. *International Journal on Alga*. 16(1): 86–94. ISSN 1521-9429.  
<http://www.dl.begellhouse.com/ru/journals/7dd4467e7de5b7ef,1b3ba09e1acfc644.html>.
23. Meghwanshi G.K. and Vashishtha A. (2014). Microalgae as Potential Sources of Biofuels. *J. Phytol. Res.* 27 (1-2): 41-56. ISSN 0970-5767.  
<http://www.jphytolres.org/archive/2014>.
24. Vashishtha A. and Meghwanshi G. K. (2014). Approaches towards Biological restoration of Hydrocarbon polluted sites: Bioremediation and phytoremediation. *In* Khan J.B. Environmental Management: challenges and conservation. PP 89-104. Lap Lambert Publishing House, Ag & Co. KG, Dudweiler Landstr, Germany. ISBN No.: 978-3-659-57593-8.  
<https://www.lap-publishing.com/catalog/details/store/gb/book/978-3-659-57593-8/environment-management?search=978-3-659-57593-8>.
25. Kumari N., Vashishtha A., Saini P. and Menghani E. (2013). Isolation, Identification and Characterization of Oil Degrading Bacteria Isolated from the Contaminated Sites of Barmer, Rajasthan. *Inter. J. Biotechnol. Bioeng. Res.* 4 (5): 429-436. ISSN 2231-1238.  
<http://www.ripublication.com/ijbbr.htm>.
26. Meghwanshi G.K. and Vashishtha A. (2012). Microbial Enzymes: Productions and Applications. *In* 'Recent Trends in Microbiology Eds Kapoor B.B.S. and Arora A.83-100. Madhu Publications, Bikaner. ISSN/ ISBN. 81-86644-23-7.
27. Lowry M., Vashishtha A. and Jaroli. D.P. (2012). Adding Available Carbonates-An Inexpensive Method of Recovery of Soil Parameters in Petroleum Hydrocarbon Contaminated Soils. Proceedings of the 3<sup>rd</sup> International Biotechnology and Biodiversity Conference & Exhibition Harnessing Microbes For A Sustainable Future (ISBN 978-983-

- 44324-2-9) (BIOJOHOR 2012), June 9-11, 2012, Johor Biotechnology & Biodiversity Corporation, Universiti Teknologi Malaysia (UTM).
28. Vashishtha A., Lowry M. and Jaroli D.P. (2011). 'Hydrocarbon Bioremediation: Biotic and abiotic factors'. In 'Recent Advances in Environmental Biotechnology' Eds Jain P. et al, PP 112-145. Lap Lambert Academic Publishing Ag & Co. KG, Dudweiler Landstr, Germany. ISBN- 978-3-8443-0687-3. <https://www.lap-publishing.com/catalog/details/es/book/978-3-8443-0687-3/recent-advances-in-environmental-biotechnology?search=-3-8443-0687-3>
  29. Vashishtha A. (2008). Indian Agriculture Market and its Vulnerability for an Agroterrorist Attack. In 'Bioterrorism and Biological Warfare' Eds Bhatia A.L and Kulshrestha S.K., PP 09-31. Pointer Publishers. India. ISBN 978-81-7132-587-0
  30. Pathak H., Vashishtha A., Jain P. K., A. Nagmani, Jaroli D.P. and Lowry M. (2010). Physico-Chemical properties of Petroleum contaminated soil collected from coastal areas of Mumbai. *Asian J.Exp.Sci.*,24 (1):175-178. ISSN: 0971-5444. [http://ajesjournal.com/ajes\\_archives\\_2010-1.html](http://ajesjournal.com/ajes_archives_2010-1.html)
  31. Vashishtha. A., Lowry M. and Jaroli D.P. (2006). Protein Profile Variations in Halophilic Bacteria in Response to Variations in Salt and Temperature. *Asian J.Exp.Sci.*20(1):35-40. ISSN: 0971-5444. [http://ajesjournal.com/ajes\\_archives\\_2006-1.html](http://ajesjournal.com/ajes_archives_2006-1.html)
  32. Pareek.A., Vashishtha A. and Sharma P. (2004). Chlorophycean Microalgal Flora of Keoladeo National Park, Bharatpur (Rajasthan). *J.Phytol.Res.* 17(2): 187-189. ISSN: 0970-5764. <http://www.jphytolres.org/archive/2004>.

### **Text Books Authored**

1. Vigyan (2017) - Class tenth. Published by Rajasthan Pathya Pustak Mandal for Board of Secondary Education, Rajasthan. ISBN no. 978-93-87089-63-1.
2. Science (2018) Class tenth. Class tenth. Published by Rajasthan Pathya Pustak Mandal for Board of Secondary Education, Rajasthan. ISBN no. 978-93-87089-94-5.

### **Text Book Chapters:**

1. Vashishtha A. (2009). Bacteria of Medical Importance. In Microbiology and Biotechnology (Zoology ZO-07). Vardhman Mahaveer Open University, Kota. PP-82-130. ISBN: 13/978-81-8496-009-9.

2. Vashishtha A. (2009). Viruses. In Microbiology and Biotechnology (Zoology ZO-07). Vardhman Mahaveer Open University, Kota. PP-131-152. ISBN: 13/978-81-8496-009-9.
3. Vashishtha A. (2009). Industrial products II. In Microbial Biotechnology (Biotech BT-07). Vardhman Mahaveer Open University, Kota. PP-258-267.
4. Vashishtha A. (2009). Industrial products III. In Microbial Biotechnology (Biotech BT-07). Vardhman Mahaveer Open University, Kota. PP-268-279.
5. Vashishtha A. (2015). Biotechnology in Medicine. In Cell, Molecular Biology and Biotechnology (MZO-02). Vardhman Mahaveer Open University, Kota. PP-272-315. ISBN: 978-81-8496-549-0.
6. Vashishtha A. (2015). Tolerance, Hypersensitivity and Immunity against Infections. In Biochemistry, Physiology and Immunology (MZO-03). Vardhman Mahaveer Open University, Kota. PP-353-414. ISBN: 978-81-8496-550-6.
7. Vashishtha A. (2015). Cell Biology. In Practical Zoology - I (MZO-05). Vardhman Mahaveer Open University, Kota. PP-108-119. ISBN: 978-81-8496-552-0.
8. Vashishtha A. (2015). Immunology. In Practical Zoology - I (MZO-05). Vardhman Mahaveer Open University, Kota. PP-120-129. ISBN: 978-81-8496-552-0.
9. Vashishtha A. (2015). Biochemistry. In Practical Zoology - I (MZO-05). Vardhman Mahaveer Open University, Kota. PP-130-142. ISBN: 978-81-8496-552-0.



(Signature of the Candidate)  
(Dr. Abhishek Vashishtha)