

**DIGVIJAY VERMA**  
**Assistant Professor**  
**Department of Environmental Microbiology**  
**School of Earth and Environmental Sciences**



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### Education Qualification

	Organization	Year of award
Undergraduate	B R Ambedkar University, Agra	2002
Post-graduation	CCS University, Meerut	2005
Ph.D. (Microbiology)	University of Delhi South Campus, New Delhi	2013
Post-Doctoral Training	CSIR-IGIB, New Delhi	2014-15
Post-Doctoral Training	NSUT, New Delhi	2015-17

### Professional Experience (In Years)

**Teaching Experience:** 03 years

**Research Experience:** 12 years

### Areas of Research (Maximum Five Bullet Points)

- **METAGENOMICS**
- **MICROBIOMICS**
- **Industrial Enzymes**
- **EXTREMOZYMES**

### Research/Consultancy Grants

Title of Projects	Funding Agency	Duration (Specific Dates)	Total grant	Role (PI/CO-PI)
Diversity of oral microbiome of smokeless tobacco induced oral cancer patients as compared to tobacco chewers and non tobacco chewer healthy individuals: A metagenomic approach.	DST-SERB, New Delhi	01.04.2015-22.11.2017	19.67 lakhs	Principle investigator

Exploring the microbiome of smokeless tobacco using metagenomic approaches.	UGC, New Delhi	09.10.2018 to till now	10 lakhs	Principle investigator
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## Publications

International					
S. No.	Authors	Year	Title	Journal	Vol/ Page no.
1.	Srivastava, A., Mishra SD., <b>Verma, D.</b>	2021	Characterization of the adult human oral microbiome from Indian pupilation using 16S rDNA analysis	Microbial Ecology	In Press
2.	<b>Verma, D.</b> , Srivastava, A., Garg PK et al.	2020	Taxonomic profiling and functional characterization of the healthy human oral bacterial microbiome from the north Indian urban sub-population.	Archives of Microbiology	<a href="https://doi.org/10.1007/s00203-020-02084-7">https://doi.org/10.1007/s00203-020-02084-7</a>
3.	<b>Verma D</b> , Satyanrayana T. <b>2020.</b>	2020	Xylanolytic Extremozymes Retrieved From Environmental Metagenomes: Characteristics, Genetic Engineering, and Applications	Frontiers in Microbiology	11(551109), 1-18.
4.	<b>Verma D</b> , Garg PK, Dubey A	2018	Insights into the human oral Microbiome	Archives of Microbiology	200 (4), 525-540.
5.	<b>Verma, D.</b> and Satyanarayana, T.	2013	Improvement in thermo-stability of GH11 xylanases by site directed mutagenesis.	Ind. J. Microbiol. and Biotechnol	40: 1373-81.
6.	<b>Verma, D.</b> and Satyanarayana, T.	2013	Cloning and expression of xylanase gene in <i>Bacillus subtilis</i> and optimization of fermentation conditions for extracellular xylanase from recombinant strain.	Biotechnology Progress	29: 1441-1447
7.	<b>Verma, D.</b> , Ashima, A., and Satyanaryana, T.	2013	Thermo-alkali-stable endoxylanase of an extremely thermophilic bacterium <i>Geobacillus thermodenitrificans</i> TSAA1:	Applied Biochemistry and Biotechnology	170: 119-130.

			Cloning, expression, characteristics and its applicability in generating xylooligosaccharides.		
<b>8.</b>	<b>Verma, D.,</b> Kawarabaysi, Y., Miyazaki, K. and Satyanarayana, T.	2013	Cloning, expression and characteristics of a novel alkalistable and thermostable xylanase encoding gene ( <i>Mxyl</i> ) retrieved from compost-soil metagenome.	PlosONE	8 (1): e52459.
<b>9.</b>	Kumar, V., <b>Verma, D.</b> and Satyanarayana, T.	2013	Extremophilic Bacterial Xylanases: Production, Characteristics and Applications	Current Biotechnology	2, 380-399.
<b>10.</b>	<b>Verma, D.,</b> Kumar, V. and Satyanarayana, T.	2013	Biotechnological applications of microbial xylanases	Productivity	54, 19-25.
<b>11.</b>	<b>Verma, D.</b> and Satyanaryana, T. <b>2012.</b>	2012	Cloning, expression and applicability of thermo-alkalstable xylanase of <i>Geobacillus thermoleovorans</i> in generating xylooligosaccharides from agro- residues.	Bioresource Technology	107: 333-338
<b>12.</b>	<b>Verma, D.</b> and Satyanaryana, T.	2012	Phytase production by the unconventional yeast <i>Pichia anomala</i> . in fed batch and cyclic fed batch fermentations.	African J Biotechnology	11:13705-13709.
<b>13.</b>	<b>Verma, D.</b> and Satyanaryana, T.	2012	Molecular approaches for ameliorating microbial xylanases	Bioresource Technology	117: 360-367.
<b>14.</b>	Kaur, P. <b>Verma, D.</b> and Satyanaryana, T.	2011	Recycling of spent medium from <i>Pichia anomala</i> MTCC-4133 phytase fermentation for the production of useful microbial products.	Kavaka	39: 8-14
<b>15.</b>	<b>Verma, D.</b> and Satyanarayana, T.	2011	An improved protocol for DNA extraction from alkaline soil and sediment samples for constructing metagenomic libraries.	Applied Biochemistry and Biotechnology	165: 454-464.
<b>National: ---NIL---</b>					

<b>Book Chapters</b>					
<b>S. No.</b>	<b>Authors</b>	<b>Year</b>	<b>Title</b>	<b>Book name/Eds</b>	<b>Vol/ Page no./ISSN</b>
<b>1.</b>	Vishwakarma A., <b>Verma D.</b>	2020	Exploring the microbiome of smokeless tobacco.	In: Microorganisms for Sustainable Environment and Health Eds. (Chaudhary P, Raj, A., Verma, D., and Akhter Y.), Elsevier, netherland	ISBN: <a href="#">9780128190012</a> pp.534.
<b>2.</b>	<b>Verma D.</b> , Kumar R., and Satyanarayana, T.	2019	Diversity in xylan-degrading prokaryotes and xylanolytic enzymes and their bioprospects. In microbial Diversity in Ecosystem Sustainability and Biotechnological Applications	In: Satyanarayana T., Das S., Johri B. (eds) Microbial Diversity in Ecosystem Sustainability and Biotechnological Applications. Springer, Singapore.	ISBN: 978-981-13-8487-5 pp. 325-373
<b>3.</b>	<b>Verma D.</b> , and Satyanarayana, T.	2016	Retrieval of xylanase genes from environmental metagenomes by metagenomic approaches.	In: Biotechnology Progress and Applications, Eds: Saif Hameed and Zeeshan Fatima.	ISBN: 978-93-5124-729-6 (Hardbound). pp: 19-34.
<b>4.</b>	<b>Verma, D.</b> and Satyanarayana, T.	2015	Cloning, expression and characteristics of a novel alkalistable and thermostable xylanase encoding gene ( <i>MxyI</i> ) retrieved from compost-soil metagenome	In: Contemporary issues in Biotechnology.	pp. 1-14
<b>5.</b>	<b>Verma, D.</b> and Satyanarayana, T.	2015	Novel alkalistable and thermostable xylanase encoding gene ( <i>MxyI</i> ) retrieved from compost soil metagenome.	In: Nelson K.E. (eds) Encyclopedia of Metagenomics. Springer, Boston, MA.	ISBN: 978-1-4899-7478-5 pp. 1-13

<b>6.</b>	<b>Verma, D.</b> and Satyanarayana, T.	2014	Developments in the retrieval of novel biocatalysts by metagenomics approaches.	Eds. Robert W. Li, In: Metagenomics: Methods, Applications and Perspectives.	ISBN: 978-1-61122-358-3  pp. 115-136.
<b>7.</b>	<b>Verma, D.,</b> Kawarabaysi, Y. and Satyanarayana, T	2010	Developments in metagenomic for accessing novel genes for useful microbial products	In: Applications of Microbiology (Ed. P.C. Trivedi), Aavishkar Publishers	ISBN: 9788179103111  pp. pp. 27-57.

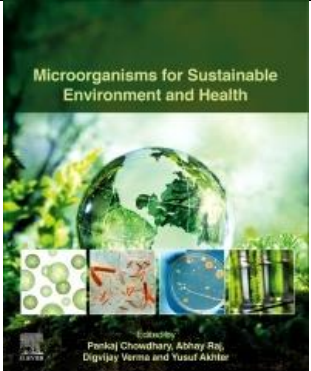
Author/s (Year), Title, Name of Book, Publisher, Edition, ISBN No., Page no.

#### **Authored Books**

--NIL--

Author/s (Year), Title, Name of Book, Publisher, Edition, ISBN No., Page no.

#### **Edited Books**

	<p><b>Title of the Book:</b> Microorganisms for Sustainable Environment and Health.  <b>Year:</b> 2020  <b>Editors:</b> Chowdhary, P., Raj, A., <b>Verma D.</b>, Akhter, Y.  <b>Book DOI:</b> <a href="https://doi.org/10.1016/c2018-0-05025-2">10.1016/c2018-0-05025-2</a>  <b>ISBN:</b> <a href="https://www.isbn-international.org/product/9780128190012">9780128190012</a>  <b>Publisher:</b> Elsevier, Netherland</p>
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#### **Patents**

	Inventors	Title and Award/Application no.
<b>Awarded</b>	NIL	-NA-
<b>Published</b>	NIL	-NA-
<b>Filed</b>	NIL	-NA-

#### **Research Supervision**

	Completed	Ongoing
<b>PG/M.Phil</b>	09	--
<b>Ph.D</b>	NIL	03

<b>Post-Doctoral</b>	NIL	NIL
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### **Honors, Recognition and Awards**

- Department topper in M.Sc. (Biotechnology) and awarded Special Eligibility Certificate
- Qualified CSIR-NET exam conducted by Council of Scientific and Industrial Research (**CSIR**)
- Qualified senior research fellowship (**SRF**) from **CSIR**
- Qualified **DBT**- postdoctoral fellowship (**DBT-RA**)
- Qualified **DST-SERB** start up grant for **Young Scientist**
- Best poster award at NSIT, University of Delhi during the conference **BESCON**, 2017

### **Membership of Professional Bodies**

- Association of Microbiologists of India (AMI, India)
- Biotech Research Society of India (BRSI, India)
- Indian Science Congress Association (ISCA, India)

### **Seminar/Conference/Symposia /Workshops Organized**

-NIL-

### **Countries Visited**

- Research fellow under the project supported by **DST-JSPS** Enzyme Exploration Research Group of Institute for Biological Resources and Functions, **AIST, Tsukuba, Japan** during 2009
- Guest researcher under the project supported by **DST-JSPS** at Laboratory of Microbial Genetics, Dept. of Bio-science and Biotechnology, **Kyushu University**, Fukuoka, **Japan** during 2010

### **Invited Lectures/Talks/Chair/Co-Chair in Seminar/Conference/Symposia /Workshops**

- Delivered **THREE** lectures as a **resource person** at KS Rangasamy College of Technology, Tiruchengode-637 215, Tamilnadu in an **AICTE sponsored short term training program (STTP)** on **24.12.2020, 07.01.2021 and 19.01.2021**.

### **Additional Information (If Any)**

- Co-coordinator, IQAC, Department of Microbiology, BBAU
- Co-coordinator, NIRF, Department of Microbiology, BBAU
- Member DRC, Department of Microbiology, BBAU
- Member BPGS, Department of Microbiology, BBAU

## **REVIEWER / EDITOR**

- Frontiers in Microbiology
- PLoS ONE
- Archives of Microbiology
- Current Microbiology
- Gut pathogens
- Frontiers in Computational Biology
- BMC Oral health

## **RESEARCH PROFILES AT VARIOUS SCIENTIFIC PLATFORMS**

- **SCOPUS Profile (Citation: 312)**  
<https://www.scopus.com/authid/detail.uri?authorId=54581746800>
- **Google scholar ID: (citations : 519)**  
[https://scholar.google.co.in/citations?hl=en&user=p9v2kRwAAAAJ&view\\_op=list\\_works&sortby=pubdate](https://scholar.google.co.in/citations?hl=en&user=p9v2kRwAAAAJ&view_op=list_works&sortby=pubdate).
- **ORCID ID:** <https://orcid.org/0000-0002-6177-8399>
- **Research gate ID (Citation: 388):**  
[https://www.researchgate.net/profile/Digvijay\\_Verma3](https://www.researchgate.net/profile/Digvijay_Verma3)