

CURRICULUM VITAE



Dr. Nitin Verma

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Objective:

To serve a job with excellence in the field of Microbial biotechnology, Bioprocess Engineering, Down Stream Processing, Biochemical Technology, Enzyme Engineering, Biochemical Engineering and Environmental Technology as Researcher, Industrialist, Faculty member and Advisors. To implements the existing technologies, generates novel ideas & concepts for the benefits of our organization & global society. To solve the problems of our global society by fundamental, conceptual & practical approach.

Work Experience:

Teaching Assignments: (10+ years)

*Consistently taking classes for **B.Tech & M.Tech Biotech** students to cover the module for **Industrial Biotechnology, Bioprocess Engineering, Environmental Engineering, Enzyme Engineering, Downstream Processing, Biofuels & Alcohol Technology, Fermentation Biotechnology, Agricultural Biotechnology** since last couple of years.*

Research Assignments: (5+ years)

*Consistently conducting **research assignments in the area of Bioresource Technology, Solid waste management, Pretreatment Technology, Industrial waste management, Effluent treatment and Valorization of Biomass.***

Participated - In Specialized Training / Certified Courses:

- *Advanced Bioreactor Cultivation Technology (GE Healthcare Life Science, Bengaluru)*
- *Wine & Alcohol Fermentation Technology (CFTRI, Mysuru)*
- *Bioprocess and Downstream Technology (SVCE, Chennai)*
- *Synthesis of Nanomaterials and Characterization (MNNIT, Allahabad)*

Educational Qualification:

- *Doctorate from Indian Institute of Technology (IIT), Roorkee ,India*
- *Masters in Biochemical Engineering - Harcourt Butler Technological Institute, Kanpur, India.*
- *Masters from Banaras Hindu University (B.H.U), Varanasi, India*
- *Bachelors in Chemistry (Hons) - Banaras Hindu University (B.H.U.), Varanasi, India.*

National Exams qualified:

GATE with 91.99 percentile (organized by Indian Institute of Technology, Chennai)
CSIR-UGC NET (National Eligibility Test).

Research Publications:

Total Research Publications: (49)

International Journals: 25

Book Chapters: 05

Conference Proceedings: 17

In Journal articles: 7 SCI Indexed, 7 in Springer Nature and 2 in Elsevier Publishers

- **No of Citations:259**
- **H index:8**
- **I₁₀ index: 9**
- **TIF:>25**

Published:**International Journals:**

25. **NitinVerma**, Vivek Kumar, Kavindra Kumar Kesari, Microbial and Lignocellulosic biomass based dye decolourization, **Biomass Conversion and Biorefinery**, (Springer), ISSN 2190-6815, Published,DOIhttps://doi.org/10.1007/s13399-022-02537-7, 2021(SCI Indexed)(IF-4.98).

24. **NitinVerma**, VivekKumar, Microbial conversion of waste biomass into bioethanol: Current challenges and future prospects, **Biomass Conversion and Biorefinery**, (Springer), ISSN 2190-6815, Published, DOI10.1007/s13399-021-01824-z, 2021(SCI Indexed)(IF-4.98).

23. **NitinVerma**, Vivekkumar, Bottle gourd peel: An agricultural waste biomass utilized in cellulase production by *Trichoderma reesei* under solid state cultivation, **Biomass Conversion and Biorefinery**, (Springer), ISSN 2190-6815, <https://doi.org/10.1007/s13399-020-00617-0>, Apr, 2020 (SCI Indexed) (IF-4.98).

22. **NitinVerma**, Vivekkumar., [Valorization of Waste Biomass in Fermentative Production of Cellulases: A Review.](https://doi.org/10.1007/s12649-020-01048-8), **Waste and Biomass Valorization**(Springer).,ISSN 1877-2641.,<https://doi.org/10.1007/s12649-020-01048-8>, Apr, 2020,(SCI Indexed)(IF-3.7)

21. **NitinVerma**, Vivekkumar, Mukesh C Bansal, Comparative View on Microbial Consumption of

Agro Based Lignocellulosic Waste Biomass in Sustainable Production of Cellulases, **Biomass Conversion and Biorefinery**, (Springer), ISSN 2190-6815, <https://doi.org/10.1007/s13399-020-00617-0>, Feb , 2020, (SCI Indexed) (IF-4.98).

20. **Nitin Verma, Vivekkumar**, Impact of process parameters and plant polysaccharide hydrolysates in cellulase production by *Trichoderma reesei* and *Neurospora crassa* under wheat bran based solid state fermentation, **Biotechnology Reports** (Elsevier), ISSN 2215-017X, <https://doi.org/10.1016/j.btre.2020.101616>, March, 2020 (Scopus Indexed).

19. **Nitin Verma, Vivekkumar**, Application of Box-Behnken design for the optimization of cellulase production under solid-state fermentation, **SN Applied Sciences** (Springer) ISSN-2523-3971, <https://doi.org/10.1007/s42452-019-1779-3>, 1:1733, 2019 (Scopus Indexed).

18. **Nitin Verma, Vivekkumar, Mukesh C Bansal**, Utility of Starchy, Lignocellulosics and Cellulosics Hydrolysates on Cellulase Production under Liquid State Fermentation, **Waste Disposal and Sustainable Energy** (Springer), ISSN-2524- 7980, <https://doi.org/10.1007/s42768-019-00019-7>, 2019 (Scopus Indexed).

17. **Nitin Verma, Vivekkumar, Mukesh C. Bansal**, Utility of *Luffa cylindrica* and *Litchi cinensis* peel, an agricultural waste biomass in cellulase production by *Trichoderma reesei* under solid state cultivation, **Biocatalysis and Agricultural Biotechnology** (Elsevier), ISSN-1878-8181, (16), 483-492, 2018.

16. **Nitin Verma, Mukesh C. Bansal, Vivek Kumar**, Pea peel waste: A lignocellulosic waste and its utility in cellulase production by *Trichoderma reesei* under solid state cultivation, **Bioresources** (USA), ISSN 1930-2126, 6(2), 2011, 1505- 1519. (SCI Indexed) (IF-1.6).

15. **Nitin Verma, Vivek Kumar, M.C. Bansal**, Utilisation of egg shell waste in cellulase production by *Neurospora crassa* under wheat bran based solid state cultivation, **Polish Journal of Environmental studies** (Poland), ISSN 1230- 1485, 21(2), 2012, 491-497 (SCI Indexed) (IF-1.2).

14. **Nitin Verma, Vivekkumar**, Nature Bounce Back: Impacts of Novel Covid-19 Pandemic on Environmental Pollution & Biodiversity, **Research Journal of Biotechnology**, ISSN 0973-6263, Feb, 2022 (Scopus Indexed).

13. **Nitin Verma, Vivekkumar**, Effect of nitrogen sources and surfactants on cellulase production by fungal strains under submerged cultivation, **Research Journal of Biotechnology**, ISSN 0973-6263, Oct, 2021 (Scopus Indexed).

12. **Nitin Verma, Vivekkumar**, Influence of Sugars, Sugar Alcohols and their Combinations on Cellulase Production Under Liquid State Fermentation, **Nature Environment & Pollution Technology**, ISSN 0972-6268, March, 2022 (Scopus Indexed).

11. **Nitin Verma, M.C. Bansal, Vivek Kumar**, Protoplast fusion Technology and Its Biotechnological applications, **Chemical Engineering Transactions** (Italy), ISSN 1974-9791, Vol-14, 2008, 113-120 (Scopus Indexed).

10. **Nitin Verma, Vivek Kumar, M.C. Bansal**, Enzymatic and other recent approaches in waste paper recycling technology, **Journal of Industrial Research and Technology**, (Malaysia), ISSN 2229-9467, 1(1) 2011, 46-55 (Scopus Indexed).

9. **Nitin Verma, Mukesh C. Bansal, Vivek Kumar**, Scanning electron microscopic analysis of industrially and environmentally significant *Aspergillus niger* growth under various process

conditions, **International Journal of Microbiological Research**, ISSN 2079-2093,2(1) 8-11,2011.

8.NitinVerma, M.C.Bansal, Vivek Kumar, Enzymatic deinking with cellulases:Areview,**Journal of Solid Waste Management and Technology(USA)**ISSN1088-1697,37(4) 2011,297-306(Scopus Indexed).

7.Nitin Verma,M.C.Bansal,VivekKumar,Comparative studies on biofilm development by *Aspergillusniger* on polyester sheet and muslin cloth,,**Journal of Biochemical Technology**,ISSN 0974-2328,Vol3(2),Aug 2010,180-181.

6.Nitin Verma, M.C.Bansal, VivekKumar,Studies on pelleted form of growth morphology achieved by *Aspergillus* strains with different sugars treatment under submerged cultivation,**Journal of Pure and Applied Microbiology**,ISSN 0973- 7510,Vol-3(2),Oct-2009,559-565(Scopus Indexed).

5.Nitin Verma,M.C.Bansal,Vivek Kumar, Effects of sugars replacement on the growth of *Aspergillus* and *Neurospora* strain under submerged cultivation, **Journal of Pure and Applied Microbiology**, ISSN 0973-7510,Vol-5(1),2011,247- 252(Scopus Indexed).

4.Nitin Verma, M.C.Bansal, VivekKumar, Utilisation of waste news paperhydrolysates in growth and production system of *Neurosporacrassa* ,**International Journal of Applied Environmental Sciences(IJAES)**, ISSN 0974-0260,Vol 5,(3),2010,331-335,(listed in 2010 *Neurospora* bibliography, USA, 223).

3.NitinVerma, M.C.Bansal, VivekKumar,Mathematicalmodelling aspects of *Trichoderma reesei* system:A review, **Chemical Engineering Transactions(Italy)**, ISSN 1974-9791,Vol-14,2008,137-144(Scopus Indexed).

2.NitinVerma,MukeshC.Bansal, Vivek Kumar. Enzymatic deinking of old news paper by cellulases produced by various fungal strains, **Journal of Pure and Applied Microbiology**, ISSN 0973-751,Vol-5(2),2011,749-754(Scopus Indexed).

1.NitinVerma, Vivek Kumar, M.C.Bansal, Utilisation of Industrial waste in the growth of *Aspergillus* and *Neurospora* strains under submerged cultivation, **Journal of Industrial Research and Technology,(Malaysia)**,ISSN 2229- 9467,1(2)2011,88-91.

National Journals:

2. NitinVerma, **Bioethanol from biomass: A review**, **Journal of biofuels**, ISSN 0976-3015, Vol 1(2) 245- 256,2010.Citation 3.

1.Nitin Verma, VivekKumar,M.C.Bansal, Growth studies of *Trichoderma* ,*Paecilomyces* and *Aspergillus* with different sugar treatments in submerged fermentations, **Journal of Ecofriendly-Agriculture**,Vol-4,2009,171-173.

Book Chapters:

5.NitinVerma, MukeshC.Bansal, Vivek Kumar, Pretreatment Technology:An approaches for effective utilization of lignocellulosicbiomass.**Industrialisation, Ecofriendly Industries and Climate Changes**, ,ISBN 978-81-7625-627-8., 2010,Published by Sarup and Sons, New Delhi.

4.Nitin Verma,M.C.Bansal,Vivek Kumar, Effect of different fermentation vessels on the growth and production system of *Aspergillusniger* under solid state cultivation,113-117, Published in **Advances in Chemical Engineering**, Edited by Dr. P.K.Bajpai., **MacMillan Advanced Research Series**, ISBN CORP000185,2011,MacMillan Publishers India Pvt Ltd.

3.Nitin Verma,M.C.Bansal,VivekKumar,VikasPruthi, *Effect of surfactants on the growth and production system of Aspergillusniger and Neurospora strains under submerged condition*,118-124, **Advances in Chemical Engineering**,Edited by **Dr. P.K.Bajpai** ,MacMillan Advanced Research Series, ISBN CORP000185,2011,MacMillan Publishers India Pvt Ltd.

2.Nitin Verma,M.C.Bansal,VivekKumar,C.B.Mazumder, *Effect of moisture percentage on Aspergillusniger and Neurospora strains growth and production system using wheat bran solid support*,144-148, **Advances in Chemical Engineering** ,Edited by **Dr. P.K.Bajpai**., **MacMillan Advanced Research Series**,ISBN CORP000185,2011,MacMillan Publishers India Pvt Ltd.

1. NitinVerma, Vivek Kumar, M.C.Bansal,S.K.Mandal, *Influence of nitrogen sources on the growth and production system of Aspergillus strains under submerged cultivation*,125-129, **Advances in Chemical Engineering** ,Edited by **Dr. P.K.Bajpai** .,MacMillan Advanced Research Series,ISBN CORP000185,2011,MacMillan Publishers India Pvt Ltd.

Memberships:

- **Associate member** of Competence platform on Energy crops and agroforestry systems for semiarid ecosystems in Africa (**COMPETE**).
- **Member of European Federation of Biotechnologists (EFB).**
- **Life member of Society of Biological Chemists (India).**
- **Associate member of Korean Society for Biotechnology & Bioengineering (ID:AVD2917938).**

Other Achievements:

- Successfully Invite Prof Prasad VLS Burra, Prof Biotechnology, KL University, A.P. for the web Series of **MIET career Samvad** on 12th June 2020 at MIET, Meerut.
- Successfully completed weekly webinar series on “Water Challenges During And Post Covid-19” from 7-28 May,2020 organized by ICCW and IIT Madras.
- Successfully completed one week on line e-FDP on “Building of Atmanirbhar BHARAT.,Organized by Govt Engg College,Hassan, Andra Pradesh during 6th Sep to 10th Sep 2021.
- Successfully completed one week on line e-FDP on “Novel technological approaches for utilization of food industry waste.,Organized by NIFTEM, Sonipat, during 13th Sep to 17th Sep 2021.
- Successfully completed one week on line e-FDP on “Energy management for sustainable development., Organized by Rajkiya Engg college,Sonbhadra during 20th Sep to 24th Sep 2021.
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- Successfully completed one week national level e-FDP on “Interdisciplinary research & pedagogy.,Organized by KIIT University, Bhubaneshwar, Odisha on 20-26th June 2021.
- Successfully completed one week national level e-FDP on “Recent Trends in Waste & Waste water treatments.,Organized by Deptt of Chemical Engg, KKW education society,Nashik, on 18-22th Jan 2021.
- Successfully completed one week national level e-FDP on “Comprehensive quality initiatives for higher education in pandemic era.,Organized by UkaTarsadia University, Bardoli ,Gujarat during evening session on 26-30th May 2020.
- Successfully completed one week national level e-FDP on “Outcome based Education and Accreditation from 25th May to 29th May 2020, organized by IILM college of

Engineering and Technology.

- *Successfully completed one week on line International level e-FDP on “Innovations in drug delivery systems.,Organized by Baptala college of Pharmacy, Andra Pradesh during 31st May-5th June 2020.*
- *Successfully completed one week International level e-FDP on “Skilling Teachers for Online Education” organized by UkaTarsadia University, Bardoli ,Gujarat during 2-6th June 2020.*
- *Successfully completed 5 days hands on workshop on “Patent Searching, Drafting and Filing (online mode) from 29th May – 2nd June 2020 organized by Panimalar Institute of Technology, Chennai,Tamil Nadu.*
- *Successfully organizing a National Conference on ETSTM-2017 as a member of organizing committee at AITM.*
- *Successfully organized UPSEE-2016 as Centre Controller.*
- *Success fully Conducted Workshop on Flow Cytometry as Co-Convenor.*
- *Successfully Conducted Workshop on Comet Assay as Coordinator.*
- *Successfully Organized International Conference on Advancements in Disease, Genetics, Structural & System Biology as Coordinator.*

Worked as Reviewer for Elsevier & Springer Journals: 3-Biotech, Biocatalysis and Agricultural Biotechnology, Biomass Conversion & Biorefinery, Cellulose, Industrial Crops & Products, Forest Research Studies in China, African Journal of Biotechnology, African Journal of Microbiology. Desalination and Water Treatment, Science Alert Journal.

Worked as Editorial Board Member for Conference Alerts & Science Alerts Journals.

Current Areas of Research

- *Pretreatment Technology for effective utilization of lignocellulosic biomass.*
- *Bioethanol Production Technology.*
- *Microbial production of industrial enzymes, acids by fermentation process using agricultural and industrial wastes and their utility in process industries.*
- *Waste paper recycling with enzymes(biodeinking).*
- *Microbial degradation of phenolics based industrial effluent.*
- *Biofilter development for industrial effluent treatment.*
- *Strain improvement technologies such as genetic engineering for effective production and their utility in environmental management.*
- *Environmental solid waste management. Adsorption of solid waste in toxic and hazardous components removal.*