

Dr. Nitin Verma (B.Tech Biotechnology)

Soft Skills: CADD, DRUG DESIGNING, QSAR

Specialization

M.Tech: Biochemical Engineering

Ph.D: Bioprocess and waste Management

Other: GATE and CSIR -NET Quaified

Area of Interest

Research: Bioresource Technology, Solid waste management, Pretreatment Technology, Industrial waste management, Effluent treatment, 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)

Publication - Books / Chapters / Papers / Articles / Blogs: Research Publications: (39)

International Journals: 21

Book Chapters: 05

Conference Proceedings: 13

In Journal articles: 5 Sci Indexed, 5 in Springer Nature and 2 in Elsevier Publishers.

International Journals

21. Nitin Verma, Vivek kumar, 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>, 2020.(SCI Indexed)

20. Nitin Verma, Vivek kumar, 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>, 2020. (SCI Indexed)

19. Nitin Verma, Vivek kumar, 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,\(25\)e00416](https://doi.org/10.1016/j.btre,(25)e00416), March, 2020, Citation-1.

18. Nitin Verma, Vivek kumar, Mukesh C Bansal, Valorization of Waste Biomass in Fermentative Production of Cellulases., Waste and Biomass Valorization, (Springer), ISSN 1877-2641, <https://doi.org/10.1007/s12649-020-01048-8>, 2020.(.SCI Indexed)
17. Nitin Verma, Vivek kumar, 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.
16. Nitin Verma, Vivek kumar, 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.
15. Nitin Verma, Vivek kumar, 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. Citation-6..
14. 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, Citation-50.(.SCI Indexed)
13. 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, Citation-22, (.SCI Indexed)
12. 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, Citation-20.
11. 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, Citation-6
10. 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, Citation-8.
9. Nitin Verma, M. C. Bansal, Vivek Kumar, Enzymatic deinking with cellulases: A review, Journal of Solid Waste Management and Technology (USA) ISSN 1088-1697, 37(4) 2011, 297-306, Citation-5.
8. Nitin Verma, M. C. Bansal, Vivek Kumar, Comparative studies on biofilm development by Aspergillus niger on polyester sheet and muslin cloth, Journal of Biochemical Technology, ISSN 0974-2328, Vol 3(2), Aug 2010, 180-181. Citation-2.
7. Nitin Verma, M. C. Bansal, Vivek Kumar, 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.

6. 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.

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

4. Nitin Verma, M.C. Bansal, Vivek Kumar, Mathematical modelling aspects of *Trichoderma reesei* system: A review, Chemical Engineering Transactions (Italy), ISSN 1974-9791, Vol-14, 2008, 137-144.

3. Nitin Verma, Mukesh C. 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.

2. Nitin Verma, 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.

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

Book Chapters

5. Nitin Verma, Mukesh C. Bansal, Vivek Kumar, Pretreatment Technology: An approaches for effective utilization of lignocellulosic biomass. 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 *Aspergillus niger* under solid state cultivation, 113-117, Pramod.K. Bajpai and Haripada. Bhunia (Eds), "Proc. Advances in Chemical Engineering 2", Macmillan Publishers India Ltd., New Delhi, 2011, ISBN: CORP-000185.

3. Nitin Verma, M.C. Bansal, Vivek Kumar, Vikas Pruthi, Effect of surfactants on the growth and production system of *Aspergillus niger* and *Neurospora* strains under submerged condition, 118-124, Pramod.K. Bajpai and Haripada. Bhunia (Eds), "Proc. Advances in Chemical Engineering 2", Macmillan Publishers India Ltd., New Delhi, 2011, ISBN: CORP-000185.

2. Nitin Verma, M.C. Bansal, Vivek Kumar, C.B. Mazumder, Effect of moisture percentage on *Aspergillus niger* and *Neurospora* strains growth and production system using wheat bran solid support, 144-148, Pramod.K. Bajpai and Haripada. Bhunia (Eds), "Proc. Advances in Chemical Engineering 2", Macmillan Publishers India Ltd., New Delhi, 2011, ISBN: CORP-000185.

1. Nitin Verma, 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, Pramod.K. Bajpai and Haripada. Bhunia (Eds), "Proc. Advances in Chemical Engineering 2", Macmillan Publishers India Ltd.,

New Delhi, 2011, ISBN: CORP-000185.

Conference Proceedings

13. Verma Nitin, Kumar Vivek, Bansal M.C., Importance of Cellulases in Bioethanol from Biomass: A review, pp 208-219, Proceedings of 5th International biofuels conference, held on Feb 7-8, 2008, organized by Winrock International, New Delhi, India.

12. Nitin Verma, Mukesh.C. Bansal, Vivek Kumar, Growth and Morphological Studies of Trichoderma and Aspergillus and its coculture for effective utilization of lignocellulosic biomass", 77-81, Proceedings of International Conference on Challenging Environmental trends and Sustainable Environment (CETAS-2009) held at Environmental Science and Engineering Department, GJUS& T, Hisar.

11. Nitin Verma, M.C. Bansal, Vivek Kumar, Comparative Batch Growth Kinetic Studies of Trichoderma, Aspergillus and Neurospora strains under Submerged Cultivations, 892-897, Proceedings of International conference on Emerging Technologies in Environmental Science and Engineering, held on Oct 26-28, 2009, organized by (AMU) India in collaboration with Toledo University, U.S.A.

10. Nitin Verma, Vivek Kumar, M.C. Bansal Various Inducers involved in environmental viable cellulase biosynthesis, 1690-1695, Proceedings of International conference on Emerging Technologies in Environmental Science and Engineering, held on Oct 26-28, 2009, organized by Aligarh Muslim University (AMU) India in collaboration with Toledo University, U.S.A.

9. Nitin Verma, Vivek Kumar, M.C. Bansal, Fungal Cellulases: Production, Applications and Recent Approaches, 717-720, Proceedings of International conference on Emerging Technologies for Sustainable Environment, held on Oct 29-30, 2010, organized by Aligarh Muslim University (AMU) India in collaboration with La Sierra University, U.S.A. and Asia Pacific International University, Thailand.

8. S.K. Mandal, M.C. Bansal, Vivek Kumar, Nitin Verma Studies on effect of pretreated starch on Aspergillus niger system, 721-723, Proceedings of International conference on Emerging Technologies for Sustainable Environment, held on Oct 29-30, 2010, organized by Aligarh Muslim University (AMU) India, with La Sierra University, U.S.A. and Asia Pacific International University, Thailand.

7. Nitin Verma, M.C. Bansal, Vivek Kumar, Utilization of wheat straw hydrolyzates in Trichoderma reesei growth and production system, 714-716, Proceedings of International conference on Emerging Technologies for Sustainable Environment, held on Oct 29-30, 2010, organized by Aligarh Muslim University (AMU) India in collaboration with La Sierra University, U.S.A. and Asia Pacific International University, Thailand.

6. Nitin Verma, M.C. Bansal, Vivek Kumar, Growth and morphological studies of Trichoderma strains under submerged cultivation, 711-713, Proceedings of International conference on Emerging Technologies for Sustainable Environment, held on Oct 29-30, 2010, organized by Aligarh Muslim University (AMU) India in collaboration with La Sierra University, U.S.A. and Asia Pacific International University, Thailand.

5. Nitin Verma, Mukesh.C. Bansal, Vivek Kumar., Waste Paper Recycling: An Enzymatic Approach for Effective Environmental Management, 249-255, Proceedings of All India Seminar on "Advances in Environmental Science and Technology", held on Feb 15-16 organized by Institution of Engineers (India), Aligarh Local Centre, Aligarh and Aligarh Muslim University (AMU), Aligarh, U.P., India.

4. Nitin Verma, Vivek Kumar, Mukesh C. Bansal, Application of Trichoderma, Aspergillus and Neurospora in Bioremediation Process: A review ,363-371, Proceedings of All India Seminar on "Advances in Environmental Science and Technology" ,held on Feb15-16 organized by Institution of Engineers (India), Aligarh Local Centre, Aligarh and Aligarh Muslim University (AMU), Aligarh, U.P., India.

3. Nitin Verma, Mukesh.C. Bansal, Vivek Kumar., Solid state fermentation : A Generalized and Engineering Aspect ,355-362, Proceedings of All India Seminar on "Advances in Environmental Science and Technology" ,held on Feb15-16 organized by Institution of Engineers (India), Aligarh Local Centre, Aligarh and Aligarh Muslim University (AMU), Aligarh, U.P., India.

2. Nitin Verma, Vivek Kumar, M.C. Bansal, Growth Studies of Neurospora crassa for Effective Utilisation of Lignocellulosic Waste Biomass, 126-131, Proceedings of National Conference on "Recent Advances in Waste Management, held at Chemical Engineering Department of Institute of Technology , Banaras Hindu University (BHU), Varanasi on Feb, 20-21, 2009.

1. Nitin Verma , M.C. Bansal, Vivek Kumar, Waste Paper Recycling with Cellulases : An Effective and Environmental Friendly Approaches for Solid Waste Management, 118-125, Proceedings of National Conference on "Recent Advances in Waste Management" held at Chemical Engineering Department of Institute of Technology , Banaras Hindu University (BHU), Varanasi on Feb 20-21, 2009.