CURRICULUM VITAE

1.	Full Name (in block letter)	:	**Dr. JAI SHANKAR PAUL**
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5.	**Academic Qualifications**	:	M.Sc., M.Phil., Ph.D.
6.	**Exam Qualified**	:	CSIR NET Assistant Professor
7.	**Teaching Experience**	:	5 Years
8.	**Research experience**	:	9 Years

9. Workshop and Training

1) Short term training on **Proficiency in Immunotechnology** at Best Biotech Research Lab, Kuyampu, Karnataka (A.P.) from 7th June 2008 to 24th June 2008.
2) Hands on training on **Phylogenetic and Structural Analysis of Protein Modeling** (Haemoglobin, Myosin & Insulin) **in Bioinformatics with Emphasis on Drug Designing** by Nitza biological at G.D. Rungta college of science and technology, Bhilai (C.G.) from 24th November 2008 to 1st December 2008.
3) Attended National Workshop on **Operation and Maintenance of Laboratory Equipments**, jointly organized by School of Studies in Electronics and Photonics, Pt. Ravishankar Shukla University, Raipur Chhattisgarh and Western Regional Instrumentation Centre, Mumbai (A National Facility Center of University Grants Commission, New Delhi), 19-23 January 2015.
4) **3T-IBHSc Teachers Training Course** by The Indian Program of the UNESCO Chair in Bioethics (Haifa) held at Pt. Deendayal Upadhyay Memorial Health Sciences & Ayush University of Chhattishgarh, Raipur from 28-30th May 2018.

5) Attended National Work shop on **Saikshanik Pustak Lekhan me Takniki Shabdawali ka Mahattva** by Commission for Scientific and Technical Terminology, MHRD, Department of Higher Education held at Chhattisgarh Rajya Hindi Granth Academy, Raipur (CG), 20-21 January 2018.

10. Conference/Seminar

1) Presented paper in National Conference on Traditional Knowledge & Biotechnology, organized by School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) 22-24 November 2013.
2) Presented paper in National Seminar on Biodiversity of Medicinal and Aromatic Plants with respect to its Collection, Conservation & Characterization, organized by Department of Biotechnology, GD Rungta College of Science and Technology, Bhilai (C.G.) 28-29 January 2015.
3) Presented paper in National Seminar on Innovations & Prospects in Biotechnology, organized by School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) 2-4 January 2016.
4) Presented paper in National Seminar on Advances in Environment Science & Technology, organized by Department of Botany, Govt. Digvijay Autonomous PG College, Rajnandgaon (C.G.) 23-24 January 2017.
5) Presented paper in National Conference on Advances in Environmental & Chemical Sciences, organized by School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur (C.G.) 17-18 March 2017.
6) Presented paper in National Conference on Recent Advances and Trends in Biotechnology organized by School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) in Collaboration with Deendayal Upadhyay Memorial Health Sciences & Ayush University of Chhattisgarh, Raipur, 10-12 January 2020.
7) Presented paper in International *e*-Conference on Recent Advances in Biological Sciences & Opportunities in Entrepreneurship Jointly organized by School of Studies in Biotechnology & Alumni Association of Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) in academic partnership with Deendayal Upadhyay Memorial Health Sciences & Ayush University of Chhattisgarh, Raipur, 7-8 January 2022.

11. Invited Lecture

1) Delivered invited lecture at Department of Botany, Govt. DB Girls PG College, Raipur (C.G.) under CPE Grant Workshop on 22 March 2018.

12. Paper Publications

1) **Jai Shankar Paul**, A. Quraishi, Veena Thakur and S.K. Jadhav (2014) Effect of Ferrous and Nitrate Ions on Biological Hydrogen Production from Dairy Effluent with Anaerobic Waste Water Treatment Process. Asian Journal of Biological Sciences, 7(4)**:** 165-171. DOI: 10.3923/ajbs.2014.165.171. (Peer reviewed, Thomson Reuters)
2) B.M. Lall, **Jai Shankar Paul** and S.K. Jadhav (2015) Effect of Incubation Period (with Static and Shaking condition) on α-Amylase Production from *Aspergillus flavus*. Advances in Biological Research, 9(1): 01-06. DOI: 10.5829/idosi.abr.2015.9.1.91172. (Peer reviewed)
3) **Jai Shankar Paul**, K.L. Tiwari and S.K. Jadhav (2015) Long Term Preservation of Commercial Important Fungi in Glycerol at 4°C. International Journal of Biological Chemistry, 9(2): 79-85. DOI: 10.3923/ijbc.2015.79.85. (**Scopus, Peer reviewed**)
4) Beulah Madhurima Lall, **Jai Shankar Paul**, Shailesh Kumar Jadhav and Kishan Lal Tiwari (2016) Effect of Carbon and Nitrogen Source a-Amylase Enzyme Production from *Bacillus subtilis* MB6. Indian Journal of Aerobiology, 29(1 & 2): 37-41. (**UGC Care**)
5) **Jai Shankar Paul**, B.M. Lall, S.K. Jadhav and K.L. Tiwari (2017) Parameter's optimization and kinetics study of α-amylase enzyme of *Bacillus* sp. MB6 isolated from vegetable waste. Process Biochemistry, 52: 123-129. https://doi.org/10.1016/j.procbio.2016.10.005 (**SCI IF:4.885**)
6) ML Naik, SK Jadhav, Afaque Quraishi, Naveen Gupta, KK Ghosh and **Jai Shankar Paul** (2018) *Ipomoea triloba* (Convolvulaceae) a new record for Chhattisgarh India. Bioscience Discovery, 9(2): 274-277. (Peer reviewed)
7) **Jai Shankar Paul**, B.M. Lall, S.K. Jadhav and K.L. Tiwari (2019) Isolation and Identification of Novel *Bacillus tequilensis* TB5 from Vegetable Waste and Analyze the Effect of Rudiment Compounds on Bio-Catalytic α-Amylase Production. Research & Reviews: A Journal of Microbiology and Virology, 9(2): 39-50. (Peer reviewed)
8) **Jai Shankar Paul**, Esmil Beliya, Shubhra Tiwari, Karishma Patel, Nisha Gupta, S.K. Jadhav (2020) Production of biocatalyst α-amylase from agro-waste 'Rice Bran' by using *Bacillus tequilensis* TB5 and standardizing its production process. Biocatalysis

and Agricultural Biotechnology, 26: 101648. DOI: https://doi.org/10.1016/j.bcab.2020.101648. (**Scopus**)

9) **Jai Shankar Paul,** S.K. Jadhav, Afaque Quraishi, M.L. Naik (2020) Ferret out a natural bio-pesticide: *Ophicordyceps nutan*s in Central India and its interaction analysis with tree stink bug. Proceedings of the Zoological Society, DOI: 10.1007/s12595-020-00328-4. (**Scopus, UGC Care**).
10) **Jai Shankar Paul**, Nisha Gupta, Esmil Beliya, Shubhra Tiwari, Shailesh Kumar Jadhav (2021) Aspects and Recent Trends in Microbial α-Amylase: a Review. Applied Biochemistry and Biotechnology, 193:2649–2698. https://doi.org/10.1007/s12010-021-03546-4. (**SCI IF: 3.094**)
11) Nisha Gupta, Esmil Beliya, **Jai Shankar Paul**, Shubhra Tiwari, Shriram Kunjam, Shailesh Kumar Jadhav (2021) Molecular strategies to enhance stability and catalysis of extremophile-derived α-amylase using computational biology. Extremophiles, 25:221–233. https://doi.org/10.1007/s00792-021-01223-2. (**SCI IF: 3.035**)
12) Nisha Gupta, **Jai Shankar Paul** and S.K. Jadhav (2021) *In Silico* Approaches to Reveal Structural Insights, Stability and Catalysis of Bacillus-Derived α-Amylases Prior to Advance Lab Experiments. Journal of Computational Biophysics and Chemistry, 20 (8):853–867. https://doi.org/10.1142/S2737416521500538. (**SCI IF: 2.44**)
13) Shubhra Tiwari, Esmil Beliya, Monika Waswani, Khushbu Khawase, Dristi Verma, Nisha Gupta, **Jai Shankar Paul** and Shailesh Kumar Jadhav (2022) Rice Husk: A Potent Lignocellulosic Biomass for Second Generation Bioethanol Production from *Klebsiella oxytoca* ATCC 13182. Waste and Biomass Valorization. https://doi.org/10.1007/s12649-022-01681-5. (**SCI IF: 3.449**)
14) Nisha Gupta, Esmil Beliya, **Jai Shankar Paul** and S.K. Jadhav (2022) Nanoarmoured α -amylase: A route leading to exceptional stability, catalysis and reusability for industrial applications. Coordination Chemistry Reviews, 464:214557, 1-20. https://doi.org/10.1016/j.ccr.2022.214557. (**SCI IF: 24.833**)
15) Ankita Rathi, Nisha Gupta, Vani Dhruw, Esmil Beliya, Shubhra Tiwari, **Jai Shankar Paul** and S.K. Jadhav (2022) Valorization of rice milled by-products (rice husk and de-oiled rice bran) into α-amylase with its process optimization, partial purification and kinetic study. Process Biochemistry, 120: 101-113. https://doi.org/10.1016/j.procbio.2022.06.006. (**SCI IF: 4.885**)

16) Dristi Verma, **Jai Shankar Paul**, Shubhra Tiwari and S.K. Jadhav (2022) A Review on Role of Nanomaterials in Bioconversion of Sustainable Fuel Bioethanol Waste and Biomass Valorization. https://doi.org/10.1007/s12649-022-01843-5. (**SCI IF: 3.449**)

13. Proceeding Paper Publication

1) **Paul Jai Shankar**, Quraishi A, Thakur Veena and Jadhav SK (2014) Biohydrogen Production from Dairy Effluent by Anaerobic Batch Fermentation Process. *Biotechnology and Traditional Knowledge*, Chapter- 22, pp. 171-182, Biotech Books. ISBN No.- 978-81-7622-330-0.

14. Book Chapter

1) Shubhra Tiwari, S. K. Jadhav, Esmil Beliya, **Jai Shankar Paul** and G. D. Sharma (2020) Ethnic Fermented Beverages and Foods of Chhattisgarh, Chapter-5, pp. 121-138. Springer Nature Singapore Pte Ltd. 2020. In J. P. Tamang (ed.), *Ethnic Fermented Foods and Beverages of India: Science History and Culture*, https://doi.org/10.1007/978-981-15-1486-9_5.

15. M.Sc. Dissertation Supervised

SN	Name of Candidate	Title of M.Sc. Dissertation	Year	Remark
1.	Karishma Patel	Production of α-amylase from agro-waste residue 'rice bran' using *Bacillus tequilensis* TB5	2019	Co-guide
2.	Monika Vaswani	Effect of Various Pretreatment of Rice Husk on Bioethanol Production from *Klebsiella oxytoca* ATCC13183	2019	Co-guide
3.	Ankita Rathi	De-Oiled Rice Bran: A Potent Agro-waste for α-Amylase Production using *Staphylococcus aureus* and *Bacillus subtilis* MB6	2020	Guide
4.	Vani Dhruw	Production of α-Amylase from *Staphylococcus aureus* and *Bacillus subtilis* MB6 using Agro-Waste Substrate 'Rice Husk' and Standardizing the Production Parameter	2020	Guide
5.	Twinkle Agrahari	A Comparative Study on Antibacterial and Antioxidative Efficacies of *Tinospora cordifolia* and *Asparagus racemosus* Extracts	2020	Guide
6.	Lisha Roy	Production and Biochemical Characterization of α-Amylase from Rice Straw using *Klebsiella oxytoca* ATCC 13182	2021	Guide
7.	Aastha Verma	Synthesis of Metallic Nanoparticles via Green Approach and Evaluation of its Antibacterial Potential	2021	Guide

8.	Papiya Chatterjee	Evaluating the Antibacterial Potential of Iron Nanoparticle Synthesized via Green Approach	2021	Guide
9.	Shrijan Verma	Biogenic Synthesis of Zinc Oxide Nanoparticles using *Bauhinia variegata* L. and Evaluation of its Antibacterial Efficacy	2022	Guide
10.	Prachee Vaswani	Production and parameter optimization of protease enzyme from agro-industrial residues by *E. coli* ATCC443 and its application in stain removal	2022	Guide
11.	Roza Ali	Valorization of Agro-Industrial By-Products into α-Amylase using *Escherichia coli* ATCC443	2022	Guide
12.	Bhavesh Thakur	*Ocimum sanctum* Assisted Silver Nanoparticles Synthesis and Evaluation of its Antibacterial Potential	2023	Guide

16. Abstract Publication

1) **Paul Jai Shankar,** Thakur Veena and Jadhav S.K. (2012) Production of biohydrogen by fermentation process from dairy effluent. Pg. 61, National Seminar on Changing Environment and its Impact on Biodiversity, organized by Department of Botany, Govt. D.B. Girls P.G. Autonomous College, Raipur (C.G.) sponsored by UGC-CRO, Bhopal and CGCOST, Raipur, 11-12 October.
2) **Paul Jai Shankar,** Quraishi A. and Jadhav S.K. (2013) Effect of Ferrous and Nitrate Ions on Biological Hydrogen Production from Dairy Effluent with Anaerobic Waste Water Treatment Process. Pg. 104, National Conference on Traditional Knowledge & Biotechnology, organized by School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) 22-24 November.
3) **Jai Shankar Paul**, K.L. Tiwari and S.K. Jadhav (2015) Cost effective novel technique for bio-hydrogen production from industrial effluent with its treatment. Pg. 7, National Seminar on Biodiversity of Medicinal and Aromatic Plants with respect to its Collection, Conservation & Characterization, organized by Department of Biotechnology, GD Rungta College of Science and Technology, Bhilai (C.G.) 28-29 January.
4) **Jai Shankar Paul,** K.L. Tiwari and S.K. Jadhav (2016) Preservation of fungi for long time duration at 4°C. Pg. 87, National Seminar on Innovations & Prospects in Biotechnology, organized by School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) 2-4 January.
5) **Jai Shankar Paul**, B.M. Lall, S.K. Jadhav and K.L. Tiwari (2017) Optimization of parameters for α-amylase enzyme production from bacteria isolated from vegetable waste. Pg. 55, National Seminar on Advances in Environment Science & Technology,

organized by Department of Botany, Govt. Digvijay Autonomous PG College, Rajnandgaon (C.G.) 23-24 January.

6) **Jai Shankar Paul**, B.M. Lall, S.K. Jadhav and K.L. Tiwari (2017) Effect of different chemicals on α-amylase enzyme production from bacteria *Bacillus subtilis* MB6 isolated from vegetable waste. Pg. 34, National Conference on Advances in Environmental & Chemical Sciences, organized by School of Studies in Chemistry, Pt. Ravishankar Shukla University, Raipur (C.G.) 17-18 March.
7) Beulah Madhurima Lall, **Jai Shankar Paul**, Shailesh Kumar Jadhav and Kishan Lal Tiwari (2018) Effect of carbon and nitrogen source on bio-catalytic α-amylase enzyme production from *Bacillus subtilis* MB6. Pg. 130, XX National Conference of Aerobiology, organized by Department of Botany, Sant Gadge Baba Amravati University, Amravati (MS) 29-31 January.
8) **Jai Shankar Paul**, Esmil Beliya, SK Jadhav, Afaque Quraishi, ML Naik (2020) Ferret Out a Natural Bio-Pesticide: *Ophicordyceps nutan*s in Central India and Its Interaction Analysis with Tree Stink Bug. Pg. 32, National Conference on Recent Advances and Trends in Biotechnology organized by School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) in Collaboration with Deendayal Upadhyay Memorial Health Sciences & Ayush University of Chhattisgarh, Raipur, 10-12 January.
9) Dristi Verma, Shubhra Tiwari, Esmil Beliya, **Jai Shankar Paul**, Shailesh Kumar Jadhav (2020) Production of Green Energy 'Bioethanol' from Agro-Waste. Pg. 59, National Conference on Recent Advances and Trends in Biotechnology organized by School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) in Collaboration with Deendayal Upadhyay Memorial Health Sciences & Ayush University of Chhattisgarh, Raipur, 10-12 January.
10) Esmil Beliya, Shubhra Tiwari, **Jai Shankar Paul**, SK Jadhav (2020) Study of Various Physical Pretreatment Methods of Deoiled Rice Bran for Bioethanol Production. Pg. 60, National Conference on Recent Advances and Trends in Biotechnology organized by School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) in Collaboration with Deendayal Upadhyay Memorial Health Sciences & Ayush University of Chhattisgarh, Raipur, 10-12 January.

11) Nisha Gupta, **Jai Shankar Paul**, Shubhra Tiwari, Esmil Beliya, SK Jadhav (2020) Screening of Cost Effective Agro-Waste Substrate 'Rice Bran' for α-Amylase

Production. Pg. 92, National Conference on Recent Advances and Trends in Biotechnology organized by School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) in Collaboration with Deendayal Upadhyay Memorial Health Sciences & Ayush University of Chhattisgarh, Raipur, 10-12 January.

Place: Raipur

Name: Dr. Jai Shankar Paul