

Saurabh Bansal

Designation: Associate Professor

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Google Scholar: <https://scholar.google.com/citations?user=u5VNU6sAAAAJ&hl=hi>

Education:

2006-12: Ph.D. (Biotechnology) Indian Institute of Technology Delhi

2004-06: M.Sc. (Biotechnology) Jiwaji University, Gwalior

2001-04: B.Sc. (Industrial Microbiology) Dr. B.R. Ambedkar University, Agra

- **PhD Thesis:** Structure-based active site engineering of *Pyrococcus furiosus* L-asparaginase for improving its efficacy.
Supervisors: Prof. Bishwajit Kundu, Prof. Prashant Mishra, IIT Delhi.
- **M.Sc. Thesis:** Characterization and extraction of proline-rich antimicrobial peptide binding proteins of *E. coli* BL21 (DE3).
Supervisor: Dr. Kanwaljeet Kaur, Staff Scientist- VI, NII, New Delhi.

Research Interest:

- Protein engineering (PE), Enzymology
- Development of industrially important enzymes with enhanced properties using PE tools
- Process development and optimization for the production of industrially important enzymes
- Scale up of enzyme production

Positions

Position	Institution	Period
Associate Professor	Department of Biotechnology & Bioinformatics, Jaypee University of Information Technology, H.P., INDIA	Jan 01, 2023 - Present
Assistant Professor (Sr. Grade)	Department of Biotechnology & Bioinformatics, Jaypee University of Information Technology, H.P., INDIA	Sept 30, 2018 – Dec 31, 2022
Assistant Professor (Grade-II)	Department of Biotechnology & Bioinformatics, Jaypee University of Information Technology, H.P., INDIA	Jan 01, 2016- Sept 29, 2018
Assistant Professor (Grade-I)	Department of Biotechnology & Bioinformatics, Jaypee University of Information Technology, H.P., INDIA	July 04, 2012- Dec 31, 2015
Research Associate	Department of Biochemical Engineering and Biotechnology, IIT Delhi, New Delhi	Aug 01, 2011- Jun 30, 2012

Awards

- Awarded travel grant from CSIR and DST to participate in the, '3rd International Conference on Drug Discovery and Therapy', Dubai, UAE. (07-10 Feb) 2011.
- Awarded Senior Research Fellowship (SRF) from CSIR, India 2008.
- Awarded Junior Research Fellowship (JRF) from CSIR, India 2007.
- Qualified CSIR National Eligibility Test for JRF (NET-JRF) 2006.
- Secured All India Rank- 37 (99.63 percentile) in Graduate Aptitude Test in Engineering (GATE-Life Sciences) 2006.

Research Grant

S. No.	Title of Research Project/ Consultancy Work	Details of Sponsoring Agency	Duration, Sanction Date & Status	Amount Sanctioned (In Lakhs)	PI/ Co-PI
1	Elucidating the linkage between key limiting processes and microorganisms during anaerobic degradation of lignocellulosic waste	Department of Science & Technology, GOI and Russian Foundation for Basic Research	2.5 Years, Apr 2014 – Oct 2016 Completed	Rs. 24.0 (Each partner)	Co- PI

2	Microbial interventions for generating renewable bio-energy in Himachal Pradesh using Pine needle forest litter	Himachal Pradesh Council for Science, Technology and Environment (HIMCOSTE), Shimla	2 Years 30 Dec 2016 – 29 Dec 2018	Rs. 5.80	Co-PI
3	Functional Analysis & Validation of Picosides Biosynthetic Pathway and Development of Gene Markers for Elite Chemotypes of <i>Picrorhiza kurroa</i>	DBT	5 Years, 2015 Completed	Rs. 349.82	Co- PI

Publications

Research Publications

- Sharma A, **Bansal S**, Kumari N, Vashistt J, Shrivastava R (2023). Comparative proteomic investigation unravels the pathobiology of *Mycobacterium fortuitum* biofilm. **Applied Microbiology and Biotechnology**, 1-10. (ISSN: 1432-0614, **IF: 5.0**)
- Kumari N, **Bansal S** (2023) Statistical modeling and optimization of microbial phytase production towards utilization as a feed supplement. **Biomass Conversion and Biorefinery**.13: 8339-8349. (ISSN: 2190-6823, **IF: 4.987**)
- Gautam H, Kumari N, **Bansal S** (2022) Enhancing the production of therapeutic enzyme arginase from *Lactobacillus acidophilus* using response surface methodology. **Brazilian Archives of Biology and Technology** 65: e22210041 (ISSN: 1678-4324, **IF: 1.181**)
- Kumari N, **Bansal S** (2021) Arginine depriving enzymes: applications as emerging therapeutics in cancer treatment. **Cancer Chemotherapy and Pharmacology** 88 (4): 565-594. (ISSN: 1432-0843, **IF: 3.333**)
- Chauhan R, Azami W, **Bansal S**, Goel G (2021) Multivariate analysis of adaptive response to ferulic acid and p-coumaric acid after physiological stresses in *Cronobacter sakazakii*. **Journal of Applied Microbiology** 131 (6): 3069-3080. (ISSN: 1365-2672, **IF: 3.772**)
- Kumari N, **Bansal S** (2021) Production and characterization of a novel, thermotolerant fungal phytase from agro-industrial byproducts for cattle feed. **Biotechnology Letters** 43 (4): 865-879. (ISSN: 1573-6776, **IF: 2.461**)
- Chauhan R, **Bansal S**, Azami W, Goel G (2020) Increased thermal tolerance in *Cronobacter sakazakii* strains in reconstituted milk powder due to cross protection by physiological stresses. **Journal of Food Safety** 40 (4): e12810. (ISSN: 1745-4565, **IF: 1.953**)

- Vashishtha S, Barwal TS, **Bansal S** (2019) Structure and Sequence Based Analysis of Pullulanases: understanding dual catalytic mechanism. **Protein and Peptide Letters** 26 (12): 893-903. (ISSN: **1875-5305**, **IF: 1.168**)
- Jamwal A, Sharma K, Chauhan R, **Bansal S**, Goel G (2019) Evaluation of commercial probiotic lactic cultures against biofilm formation by *Cronobacter sakazakii*. **Intestinal Research** 17 (2): 192-201. (ISSN: 2288-1956)
- Singh A, Sharma A, **Bansal S**, Sharma P (2018) Comparative interaction study of amylase and surfactants for potential detergent formulation. **Journal of Molecular Liquids** 261: 397-401. (ISSN: 0167-7322, **IF: 3.648**)
- Sharma D, Sud A, **Bansal S**, Mahajan R, Sharma BM, Chauhan RS, Goel G (2018) Endocellulase production by *Cotyledia pannosa* and its application in saccharification of Wheat Bran to Bioethanol. **BioEnergy Research** 11 (1): 219-227. (ISSN: 1939-1242, **IF: 2.487**)
- Tomar R, Sharma P, Srivastava A, **Bansal S**, Ashish FNU, Kundu B (2014) Structural and functional insights of an archael L-asparaginase obtained through linker-less assembly of constituent domains. **Acta Crystallographica Section D: Biological Crystallography** 70: 3187-3197, (ISSN: 1399-0047, **IF: 7.232**)
- **Bansal S**, Srivastava A, Mukherjee G, Pandey R, Verma AK, Mishra P, Kundu B. (2012) Hyperthermophilic asparaginase mutants with enhanced substrate affinity and antineoplastic activity: Structural insights on their mechanism of action. **FASEB J** 26: 1161-1171. (ISSN: 1530-6860, **IF: 5.704**)
- **Bansal S**, Gnaneswari D, Mishra P, Kundu B. (2010) Structural stability and functional analysis of L-asparaginase from *Pyrococcus furiosus*. **Biochemistry Moscow** 75: 375-381. (ISSN: 1608-3040, **IF: 1.402**)
- Rana A, Gnaneswari D, **Bansal S**, Kundu B. (2009) Prion metal interaction: Is prion pathogenesis a cause or a consequence of metal imbalance? **Chemico-Biol Interac** 181: 282-291. (ISSN: 0009-2797, **IF: 2.457**)
- Rana A, Gupta TP, **Bansal S**, Kundu B. (2008) Formation of amyloid fibrils by Bovine Carbonic Anhydrase: Confirmation of predictions made by recurrence quantification analysis. **Biochem Biophys Acta** 1784: 930-935. (ISSN: 1570-9639, **IF: 2.233**)
- Gupta S, **Bansal S**, Deb JK, Kundu B. (2007) Interplay between DtxR and NOR activities: a functional genomics approach indicating involvement of homologous protein domains in bacterial pathogenesis. **Inter J Exp Pathol** 88: 377-385. (ISSN: 1365-2613, **IF: 2.460**)

Books

- Human-Gut Microbiome: Establishment and Interactions, (2022) Ed. Gunjan Goel, Teresa Requena, **Saurabh Bansal**, Academic Press (Elsevier), USA. [**ISBN: 978-0-323-91313-3**].

Book Chapters

- Kumari N, **Bansal S*** (2023) Valorization of sugar industry waste for value-added products. In: Waste Valorization for Value-added Products (Ed. Vinay Kumar, Sivarama Krishna Lakkaboyana, Neha Sharma) Bentham Science, UAE. **(In Press)**
- Kumari N, Srivastava A, **Bansal S*** (2023) Green Technologies for Reduction of Toxins in Food Production and Processing. In: Green Chemistry in Agriculture and Food Production (Ed. Vinay Kumar, Kleopatra Tsatsaragkou & Nilofar Asim) CRC Press, Taylor and Francis, Boca Raton, FL, USA, pp. 224-244. **[ISBN: 978-0429-28953-8]**
- Attri S, **Bansal S**, Goel G (2022) An Introduction to human gut microbiome. In: Human-Gut Microbiome (Ed. Gunjan Goel, Teresa Requena, Saurabh Bansal) Academic Press (Elsevier), USA, pp. 3-14. **[ISBN: 978-0-323-91313-3]**
- Verma A, Sharma A, Kumar M, **Bansal S**, Shrivastava R (2022) Techniques and Challenges in Studies related with human gut microbiome. In: Human-Gut Microbiome (Ed. Gunjan Goel, Teresa Requena, Saurabh Bansal) Academic Press (Elsevier), USA, pp. 37-57. **[ISBN: 978-0-323-91313-3]**
- **Bansal S**, Kundu B* (2022) Protein Engineering: Methods and Applications. In: Advances in Protein Molecular and Structural Biology Methods (Ed. Timir Tripathi, Vikas Dubey) Academic Press (Elsevier), USA, pp. 641-668. **[ISBN: 978-0-323-90264-9]**.
- Srivastava A, **Bansal S***, Shankar J (2017) Developments and diversity of proteins and enzymes. In: Strategies for metabolic engineering in bioactive compounds and processes (Ed. V.C. Kalia, A.K. Saini, R.V. Sharma, D.K. Sharma) Springer, Singapore, pp. 11-48. **[ISBN: 978-981-10-5511-9]**.
- **Bansal S***, Goel G (2015) Commercial applications of rumen microbial enzymes. In: Rumen Microbiology: From Evolution to Revolution (Ed. Anil Kumar Puniya, Rameshwar Singh, Devki Nandan Kamra) Springer, Germany, pp. 281-291. **[ISBN: 9788132224006]**.
- Goel G, Dagar SS, Raghav M, **Bansal S** (2015). Rumen: an underutilized niche for industrially important enzymes. In: Rumen Microbiology: From Evolution to Revolution (Ed. Anil Kumar Puniya, Rameshwar Singh, Devki Nandan Kamra) Springer, Germany, pp. 247-263. **[ISBN: 9788132224006]**.
- **Bansal S***, Goel G, Ojha S (2014) Industrial Enzyme Production. In: Industrial Enzymes: Trends, Scope and Relevance (Ed. Vikas Beniwal and Anil Kumar Sharma) Nova Science Publishers, New York, USA, pp 15-32. **(ISBN: 978-1-63321-338-8)**.
- **Bansal S***, Goel G, Ojha S (2014) Applications of Industrially Important Enzymes. In: Industrial Enzymes: Trends, Scope and Relevance (Ed. Vikas Beniwal and Anil Kumar Sharma) Nova Science Publishers, New York, USA, pp 49-72. **(ISBN: 978-1-63321-338-8)**

Patents (Granted)

- **US patent** Granted Date: 26 Apr, 2016 (**US Patent No.** US9322008B2). Mutants of L-asparaginase. Inventors: Kundu B, **Bansal S**, Mishra P. (Ref: PCT/IB2011/002018; filed dated Sept 1, 2011)
- **Indian Patent** Granted Date: 07 Aug, 2020 (**India Patent No.** 343611). Mutants of L-asparaginase. Inventors: Kundu B, **Bansal S**, Mishra P. (Ref: India- 2090/DEL/2010; filed dated Sept 1, 2010)

Electronic Publication (e-Pathshala content writer)

- Develop a module entitled “Bio-preservation Methods (Module No. 17)” in a Food and Dairy Microbiology paper of the course ‘Microbiology’ for post graduate students in MHRD sponsored National Mission on Education (NME-ICT) program (e-pathshala). (**2017**)
- Develop a module entitled “Bacterial agents of food borne diseases (Module No. 29)” in a Food Microbiology paper of the course ‘Food Technology’ for post graduate students in MHRD sponsored National Mission on Education (NME-ICT) program (e-pathshala). (**2015**)

Proceedings in Conferences

- **Bansal S*** (2021) Video Presentation on *Pyrococcus furiosus* L-asparaginase mutants: A Promising anti-proliferative chemotherapeutic agent with improved efficacy and stability. 13th Anniversary of Protein and Peptide Conference 2021 (PepCon 2021), Dalian China, 25-27 Sept, 2021.
- Kumari N, **Bansal S*** (2020) Optimization of Physio-chemical Factors Affecting Extraction Process for Full Recovery of Phytase from *Aspergillus niger* NT7 in Solid State Fermentation. International E-Conference on Frontiers in Industrial Biotechnology (ICFIBT2020) Sponsored by AICTE, New Delhi, Department of Biotechnology, St. Joseph's College of Engineering, Chennai, 27-29 July, 2020.
- Kumari N, **Bansal S*** (2019) Optimization of Cultural Parameters and Extraction Process for Recovery of Phytase Enzyme from *Aspergillus niger* NT7 in Solid State Fermentation. Proceedings of 2nd International Conference on Applications of Biotechnology in Industry and Society (ABIS-2019), Dr. B. R. Ambedkar National Institute of Technology (NIT) Jalandhar, 14-16 Nov, 2019.
- Kumari N, **Bansal S*** (2019) Optimization of cultural parameters by X6 fungal isolate in solid-state fermentation by OVAT (One Variable at A Time) approach. Proceedings of International Conference on Recent Trends in Biotechnology and Bioinformatics (ICBAB-2019), Jaypee University of Information Technology Waknaghat, 01-03 Aug, 2019.
- Kumari N, **Bansal S*** (2018) One Variable at a Time Approach to enhance Lactobacillus L-arginase production. Proceedings of 3rd Himachal Pradesh Science Congress on rural upliftment through Science and Technology Interventions, IIT Mandi, 23-23 Oct, 2018.
- Sharma D, Mahajan R, **Bansal S**, Goel G (2018) Abiotic conductive materials enhance the electrochemical potential during anaerobic digestion of pine needle. Proceedings of 3rd Himachal Pradesh Science Congress on rural upliftment through Science and Technology Interventions, IIT Mandi, 23-23 Oct, 2018.

- Mahajan R, **Bansal S**, Puniya AK, Goel G (2018) Effect of pre-treatment on ultra-structure of pine needle forest litter: exploring potential of forest biomass for renewable bioenergy generation. Proceedings of 2nd International Bioresource Technology for Bioenergy, Bioproducts & Environmental Sustainability, Sitges, Spain, 16-19 Sept, 2018.
- Ashwina, Akshay, **Bansal S**, Sharma P (2017). Comparative Interaction Study of Amylase and Surfactants for Potential Detergent Formulation. Proceedings of the National Conference, Maharaja Agarsen University, Baddi, 04 Mar, 2017.
- Gautam H, **Bansal S***, Optimization of L-arginase Production from *Lactobacillus* species. Proceedings of 3rd International Conference on Biotechnology & Bioinformatics (ICBB-2016), Pune, 5-7 Feb, 2016.
- Atri P, Dey G, **Bansal S***, Bacteriocins: New age anti-microbial agents. Proceedings of Bioworld-2014: Protein structure and function, IIT Delhi, New Delhi, 12- 14 Dec, 2014.
- **Bansal S**, Srivastava A, Mukherjee G, Kundu B, Structural insights and mechanism of action of engineered thermophile-derived asparaginase with promising anti-proliferative activity. Proceedings of 17th International Biophysics Congress, Beijing, 30 Oct-03 Nov 2011.
- **Bansal S**, Mishra P, Kundu B, Active site engineered thermostable L-asparaginase with anti-cancer activity, 3rd International Conference on Drug Discovery and Therapy, Dubai, UAE, 07-09 Feb, 2011. Published in Current Medicinal Chemistry Special issue.
- **Bansal S**, Mishra P, Kundu B, Enhanced substrate affinity of thermostable L-asparaginase by single mutation at the enzyme active site, Proceedings of The National Symposium on Cellular and Molecular Biophysics (Indian Biophysical Society), CCMB, Hyderabad, India, 22-24 Jan, 2009.
- **Bansal S**, Gnaneswari D, Mishra P, Kundu B, Altered enzymatic activity and stability of a mutant L-asparaginase from a thermophile, Proceedings of 77th annual meeting of the Society of the Biological Chemists (India), IIT Chennai, India, 18-20 Dec, 2008.

Continuing Education/Faculty Development Programs

Organized:

- Coordinator, One Week **Faculty Development Programme** on “Teaching and Research Practices” in Hybrid mode organized by Jaypee University of Information Technology Waknaghat, **05-10 June 2023**.

Participated:

- Participant in 7 Days **Faculty Development Programme** on “Research methodology, Bibliometric analysis and Data analysis using R” organized by Society of Education, India, University of Agricultural Sciences, Raichur Karnataka, European Laser Academy, Germany and Genome Biotech, Mathura, **22-28 July 2023**.
- Participant in One Week **Faculty Development Programme** on “NEP 2020 Implementation in Higher Education Institutes” organized by National Institute of Technical Teachers Training and Research Chandigarh, **09-13 May 2022**.

- Participant in One Week AICTE Training and Learning (ATAL) Academy Online Elementary **Faculty Development Programme** on ‘Fermentation Technology and Biochemical Engineering’ organized by Jeppiaar Engineering College and AICTE, **02-06Aug 2021**.
- Participant in One Week **Faculty Development Programme** on ‘Advanced Excel with Data Visualization’ organized by E & ICT Academy, IIT Kanpur, **11-16 Jan 2021**.
- Participant in One Week **Faculty Development Programme** on ‘Research Advances in Plant and Microbial Biotechnology’ at Jaypee Institute of Information Technology, Noida, **13-18 July, 2020**.
- Participant in One Week **Webinar cum Faculty Development Programme** Series on ‘Current Progress and Future Prospects of Biotechnology’ organized by Chaitanya Bharathi Institute of Technology, Hyderabad and Andhra Pradesh Akademi of Sciences, **08-13 June 2020**.
- Participant in **Faculty Development Programme** on ‘Recent Trends in Industrial Biotechnology’ at Jaypee Institute of Information Technology, Noida, **01-06 July, 2019**.
- Participant in **Faculty Development Programme** on ‘Outcome-based education in Biotechnology’ at JUIT, Wagnaghat, **24-30 Dec, 2015**.
- Participant in six week ‘**Summer Faculty Research Fellow programme-2014**’ under the mentorship of Dr. D. Sundar at Department of Biochemical Engineering and Biotechnology, IIT Delhi, **02 June – 16 July 2014**.
- Participant in one week **QIP short term course** on Bioinformatics, IIT Bombay, Mumbai, **29 Dec – 02 Jan 2014**.

Symposium/Conferences/Workshops Attended or Organized

Organized:

- Organizing committee member, **National Symposium on Computational Systems Biology**” organized by Dept. of Biotechnology & Bioinformatics, Jaypee University of Information Technology, Wagnaghat, Solan, India in association with NNMCB (National Network for Mathematical and Computational Biology), Mohali node from **18th -20th Mar 2016** at JUIT, Wagnaghat, Solan.

Resource Person/Expert Lecture/Chair Session:

- **Resource Person** in ‘Summer Training 2023’ in the module “Industrial Biotechnology and Food Biotechnology” at JUIT, Wagnaghat, **02 June-14 July 2023**.
- Technical Resource Person in 7 Days Hands on Training Program on ‘Approaches for Screening and Characterization of pre-clinical drug candidates’ held under the scheme of Synergistic Training Program Utilizing the Scientific and Technological Infrastructure (STUTI) DST, ICT, held at Jaypee University of Information Technology Wagnaghat, **8-14 Dec, 2022**.
- **Resource Person** in ‘Summer Training 2022’ in the module “Industrial Biotechnology and Food Biotechnology” at JUIT, Wagnaghat, **01 June-13 July 2022**.

- **Chair** a session in virtual international conference on ‘Technological Intervention in Renewable Energy for Sustainable Environment (RESE-2021)’ organized by Technology Incubation and Entrepreneurship Development (TIED) Cell and Centre of Excellence in Sustainable Technologies for Rural Development (CESTRD), Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology Waknaghat, **24-25 Nov, 2021**.
- Delivered a Video presentation title “*Pyrococcus furiosus* L-asparaginase mutants: A Promising anti-proliferative chemotherapeutic agent with improved efficacy and stability” in the BIT’s 13th Anniversary of Protein and Peptide Conference 2021 (PepCon-2021) organized at Dahan, China, **25-27 Sept, 2021**.
- **Chair** a session in virtual international conference on ‘Technologies for Environmental Sustainability and Smart Agriculture (TESSA-2020)’ organized by Centre of Excellence in Sustainable Technologies for Rural Development (CESTRD), Department of Biotechnology and Bioinformatics, Jaypee University of Information Technology Waknaghat, **18-19 Sept, 2020**.
- Chair a session in an ‘1st International conference on Recent trends in Biotechnology and Bioinformatics 2019’ organized by Department of Biotechnology and Bioinformatics, JUIT Waknaghat, **01-03 Aug 2019**.
- **Resource Person** for conducting ‘Summer Training 2019’ in the module “Industrial Biotechnology and Food Biotechnology” at JUIT, Waknaghat, **01 June-14 July 2019**.
- **Resource Person** for conducting ‘Summer Training 2018’ in the module “Industrial Biotechnology and Food Biotechnology” at JUIT, Waknaghat, **01 June-14 July 2018**.
- Module Coordinator in Eight Weeks Summer Training Programme at JUIT, Waknaghat, **June-July 2013**.

Participated:

- Participant in 2nd International Conference on “Biotechnology and Bioinformatics (ICBAB-2023) organized by Department of Biotechnology and Bioinformatics, JUIT Waknaghat, **11-13 July, 2023**.
- Participant in 2nd Emergent Converging Technologies and Biomedical Systems (ETBS 2022) organized by Department of Electronics and Communication Engineering & Department of Physics and Materials Science, JUIT Waknaghat, **23-24 Sept, 2023**.
- Participant in the International conference on Nurturing Innovative Technological Trends in Engineering BIOscience (NITTE-BIO)-2021 organized by Department of Biotechnology Engineering, N.M.A. M. Institute of Technology, Udupi, Karnataka through online mode, **19-20 Nov, 2021**.
- Participant in **Alumni Champion Talks** season 2, An Alumni Relations Talk Series organized by AlmaShines through online mode, **08 May-29 May 2021**
- Participant in First season of **Alumni Champion Talks**- India’s First Alumni Relations Talk Series (6 Sessions on each Tuesday) organized by Almashines through online mode, **26 May-23 June 2020**.

- Participant in workshop on ‘Perception towards IPR’ organized by IPR Cell and HIMCOSTE at JUIT Waknaghat, **10-12 Feb 2020**.
- Participant in First Entrepreneurship Summit of JUIT organized by TIEDC at JUIT Waknaghat, **28-29 Sept 2019**.
- Participant in the NPTEL workshop organized by IIT Roorkee at JUIT Waknaghat, **15 June 2019**.
- Participant in workshop on ‘Patent Filing Procedures and Geographical Indications of Himachal Pradesh’ organized by IPR Cell and HIMCOSTE at JUIT Waknaghat, **30 Nov 2018**.
- Participant in National Workshop on ‘Statistical Techniques in Biological and Medical Sciences (STBMS-2018)’ at Jaypee University of Information Technology Waknaghat, **04-09 June, 2018**.
- Participant in the workshop on ‘Massive Open Online Courses (MOOCS)’ organized by ACM, JUIT at JUIT Waknaghat, **15 Sept 2017**.
- Participant in workshop on ‘Bio-entrepreneurship and Bio-enterprise Creation’ at IISER Mohali, **2-3 Sept, 2016**.
- Participant in workshop on ‘Computational Methods in Drug Discovery’, BTIS, IIT Delhi, New Delhi, **14-15 July 2014**.
- Participant in Conference on Bioprocessing India 2013, IIT Delhi, New Delhi, **05-07 Dec, 2013**.
- Participant in ‘International Genetically Engineered Machine Competition 2012’ at Hong Kong, **05-07 Oct, 2012**.
- Participant, Indo-UK workshop on ‘Next Generation Sequencing and Data Analysis for microbial applications’, IIT Delhi, New Delhi, India, **29-30 March 2012**.
- Participant in Conference on Nucleic Acids in Diseases and Disorders, IIT Delhi, New Delhi, **07-09 Dec, 2011**.
- Participant, Hands on training on “S-360 Cambridge SEM system”, IIT Delhi, **Jun 2009**.
- Participant, National Workshop on Advanced Analytical Instrumentation and Applications, AIF-USIC, Jawaharlal Nehru University, New Delhi, India, **05-07 Jan, 2009**.
- Participant, National Workshop on Recent Trends in Biotechnology, Bioinformatics and Metabolic Pathway Engineering, MGM’s Institute of Biosciences and Technology, Aurangabad, India, **30 Jan-03 Feb, 2008**.

Membership Professional Bodies

- Life member, The Biotech Research Society of India (BRSI).
- Life member, Society of Biological Chemists (India).
- Member of **JournalsPub** editorial board for the following Journal: (2017-18) (<http://biotech.journalspub.info/?journal=IJBB&page=about&op=editorialTeam>)
 - i) International Journal of Biochemistry and Biomolecules

- ii) International Journal of Molecular Biotechnology
- iii) International Journal of Industrial Biotechnology and Biomaterials
- Editorial Board Member of International Journal of Molecular Biotechnology since 2017
Publisher: JournalsPub.

<http://journalspub.com/AllEditorsJournalwise.aspx?jid=84&jname=International%20Journal%20of%20Molecular%20a0Biotechnology>

Reviewer

- Biomass Conversion and Biorefinery, Publisher: Springer
- 3Biotech, Publisher: Springer
- Environmental Sustainability, Publisher: Springer
- Amylase, Publisher: De Gruyter Open Access
- Journal of Plant Biochemistry and Biotechnology, Publisher: Springer
- Biologia, Publisher: Springer
- Journal of Biomolecular Structure and Dynamics, Publisher: Taylor & Francis
- Microbial Biotechnology, Publisher: Wiley

Administrative Experience

- Member Departmental Budget Committee, JUIT Waknaghat **2022-23**
- Member, Internal Review and Mentorship Committee, Technology Incubation and Entrepreneurship Development Cell (TIEDC), JUIT Waknaghat **2021-**
- Member, Governance Leadership and Management committee, subcommittee of IQAC Cell, JUIT Waknaghat **2021-**
- Member, Institutional Values and Best Practices committee, subcommittee of IQAC Cell, JUIT Waknaghat **2021-22**
- Faculty In-Charge, JUIT Alumni Cell, JUIT Waknaghat **2019-**
- Treasurer, SYNAPE- A Department Technical Bioclub at JUIT, Waknaghat **2019-**
- Member, Internal Quality Assurance Cell (IQAC), JUIT Waknaghat **2017-**
- Member, Board of Studies, Department of Biotechnology and Bioinformatics, JUIT Waknaghat **2017-**
- Faculty In-Charge, Alumni Affairs Committee, JUIT Waknaghat **2017-19**
- Coordinator, Departmental Accreditation Committee for NAAC at JUIT, Waknaghat **2016-23**
- Member Secretary of Teaching and Learning Sub-committee of IQAC at JUIT, Waknaghat **2016-17**
- Faculty In-Charge, SYNAPE- A Department Technical Bioclub at JUIT, Waknaghat **2015-19**
- Coordinator, Departmental Accreditation Committee for NBA at JUIT, Waknaghat **2014-22**

- Departmental committee member for the draft preparation for National Board Accreditation at JUIT, Wagnaghat **2012-13**
- Departmental committee member for the Curriculum development for B.Tech and M.Tech., at JUIT, Wagnaghat **2012-13**
- General Secretary, Student Affairs Council, IIT Delhi. **2009-10**
- Institute's Research Scholars representative, IIT Delhi **2009-10**
- Maintenance Secretary of Zanskar hostel, IIT Delhi. **2008-09**
- Ph.D. representative, Dept. Biochemical Engineering. & Biotechnology, IIT Delhi. **2007-08**
- Event Coordinator, BIOHORIZON 07, Indo Korean Symposium on Biochemical Engineering & Biotechnology, IIT Delhi. (22-24 Feb) **2007**

Other Activities

- Organizer of JUIT Alumni Meet 2018, **16-17 Mar, 2018**, at JUIT Wagnaghat.
- Faculty Coordinator of Inter Collegiate Public Speaking contest - '**Voice for BT**' for Under Graduate Final year organized at JUIT Wagnaghat in association with Novozyme, Bangalore, **25 Sept, 2015, 29 Sept, 2016**.

Courses Developed

- Bioprocess Engineering
- Industrial Enzymes Technologies
- Enzymes and Bioprocess Technology
- Bioentrepreneurship & Management
- Downstream Processing

Students Supervision

- **Ph.D. Students** supervision: **01** (July 2017-Dec 2022)- Completed
- **M.Tech. Students** supervision: **11** (July 2013- June 2023)- Completed
- **M.Sc. Students** supervision: **05** (July 2020- June 2023)- Completed
01 (Since July 2023) - Ongoing
- **B.Tech. Students** supervision: **37** (July 2012-June 2023)- Completed
01 (Since July 2023) - Ongoing

Courses taught

o UG Courses:

- Process Engineering/Bioprocess Engineering (Theory and Lab)
- Pharmaceutical Engineering (Theory and Lab)

- Protein Engineering
- Biochemistry (Theory and Lab)
- Industrial Enzymes Technologies
- Antibody Engineering
- Industrial Enzymes/ Industrial Enzymes Technologies
- Pharmaceutical Biotechnology (Theory and Lab)
- Fermentation Technology and Downstream Processing/Downstream Processing (Theory and Lab)

○ **PG Courses:**

- Bioentrepreneurship
- Biochemistry and Analytical Techniques Lab
- Bioprocess Technology
- Bioentrepreneurship & Management
- Functional Genomics (Theory and Lab)
- Protein Engineering
- Enzymes & Bioprocess Technology (Theory and Lab)