

Academic and Research Profile

SUMIT KUMAR DUBEY

(M.Sc., M.Phil., PGDBM, PGDCA)

Faculty, Department of Biotechnology and Microbiology

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CAREER GOAL: To get excel in the field of Applied Biotechnology.

ACADEMIC PATH

Ph.D. (Microbiology): Registered since Nov 2019 in Govt. E.R.R. P.G. Science College, Bilaspur affiliated to Atal Bihari Vajpayee University, Bilaspur (C.G.)

| S.N. | Class/Course | Subject | Research/Study Centre | Board/University | Year | Percent |
|------|-------------------------|----------------------|---------------------------------|------------------|------|---------|
| 2 | M. Phil (Ph.M.) | Microbiology | CVRU, Bilaspur | CVRU, Bilaspur | 2014 | 75.20 |
| 3 | PGDBM (Diploma) | Management | C.M.D. College, Bilaspur | BU, Bilaspur | 2013 | 75.87 |
| 4 | M.Sc. | Biotechnology | MATS, Raipur | MATS, Raipur | 2011 | 68.88 |
| 5 | B.Sc. | Biotechnology | Govt. Science College, Bilaspur | GGU, Bilaspur | 2009 | 67.31 |
| 6 | Higher Secondary | Biology | C.H.S. School, Bilaspur | CGBSE, Raipur | 2006 | 73.40 |
| 7 | High School | Fundamental Subjects | S.S.M., Ashok Nagar, Bilaspur | CGBSE, Raipur | 2004 | 80.00 |

✓ Other Academic Activity

- Qualified **Diploma in Advance Software Technology** (2007) from NiceTech, Computer Education, Bilaspur (C.G.) with **A+ Grade** (80%).

SKILL SET

Updated academic and admirative knowledge along with NAAC and IQAC norms, familiar with various teaching aids and ICT tools, student projects design and execution, experience in research activities and other inter-academic practices.

- Teaching experience – **7 years**
- Research experience – **8 years**

PATENT/AWARDS/ PUBLICATIONS / PRESENTATION/PROGRAM/COURSES/&OTHER

| | | |
|---|----|----------------|
| Patent Published | 01 | Annexure 1 (a) |
| Awards | 06 | Annexure 1 (b) |
| Authored Book | 01 | Annexure 1 (c) |
| Edited Book | 03 | Annexure 1 (d) |
| Paper Published | 12 | Annexure 1 (e) |
| Book Chapter | 09 | Annexure 1 (f) |
| Paper Presented | 08 | Annexure 1 (g) |
| Symposium attended | 02 | Annexure 1 (h) |
| Workshop/Hands-on attended | 05 | Annexure 1 (i) |
| FDP | | Annexure 1 (j) |
| Short-term Courses/Program (under NIT-TEQIP, GIAN, NPTEL, ARPIT initiatives) | 07 | Annexure 1 (k) |
| Program organized (as organizing secretary and Co-coordinator) | 05 | Annexure 1 (l) |

CELL AND COMMITTEES

- Alumni member, IQAC Cell, Government E. R. R. P.G. Science College, Bilaspur (C.G.)
- BoS Member, Department of Biotechnology, Government E.R.R. P.G. Science College, Bilaspur (C.G.)
- BoS Member, Microbiology, Atal Bihari Vajpayee Vishwavidyalaya, Bilaspur (C.G.)
- IQAC Co-coordinator, D.L.S. P.G. College, Bilaspur (C.G.)

LIFE MEMBERSHIP

- **The Indian Science Congress Association (ISCA)**, Kolkata 700 017
Membership No.: L41771 (New Biology)
- **Avishka Council of Industrial and Allied Biosciences (ACIAB)**, Noida 201301
Membership registration number: ACIAB/2023/LM/00022

LECTURE DELIVERED

- **Resource Person in Workshop** entitled “**Microbial Culture Techniques**”, on **14 Jan 2023** organized by **Department of Microbiology and Biotechnology, Govt. E.R.R. Science P.G. College, Bilaspur (C.G.)**







RESEARCH EXPERIENCE

- Resource guide: planned and executed several M.Sc., M. Phil, Dental, and Research Scholar’s dissertations and research works for intra- and inter-college students.
- Research and Development Cell, D.L.S. P.G. College, Bilaspur (C.G.)
- M. Phil (Microbiology) dissertation work from Aditya Biotech Lab and Research Pvt. Ltd, Raipur (C.G.)
- M.Sc. (Biotechnology) dissertation work from Devleela Biotechs, Raipur (C.G.)

✓ **Extension Activities:**

- Fifteen Days **Industrial Training** in A.K. Products (2012), Bilaspur (C.G.)
- Twenty Days **Industrial Training in Production Department** of Digital Weighing System Pvt. Ltd. (2013), Bilaspur (C.G.)
- Participated in Six Day **National Service Scheme Camp** (2017), Farhada Village, Bilaspur (C.G.)
- Participated in **First Response Training Programme** conducted by Emergency Management & Research Institute, Hyderabad (A.P.)

✓ **Social Profile:**

| | |
|---|---|
|  | https://vidwan.inflibnet.ac.in/profile/424261#other_information_panel |
|  | https://www.researchgate.net/profile/Sumit_Dubey6 |
|  | http://independent.academia.edu/Sumitdubey4444 |
|  | https://scholar.google.co.in/citations?user=qb4h6kcAAAAJ&hl=en |
|  | https://in.linkedin.com/in/sumit-kumar-dubey-01b6161a |
|  | https://researchid.co/sumit_dubey |



Annexure

Annexure I(a)

PATENT PUBLISHED

A Patent published on Vermiwash production entitled “**An innovative and cost-effective method to produce vermiwash for sustainable organic farming practices**”.

Application No. 20222103581 and Publication Date: 15/07/2022

Annexure I(b)

AWARDS - 6

- Awarded for Volunteer Service in **AROGYA-2010** organized by (C.G.) State Medicinal Plant Board, Raipur (C.G.)
- **Project Fellow Award-2016** by **Department of Biotechnology, NIT, Raipur (C.G.)**
- **Best paper Presentation Award-2022** on 2nd International Multidisciplinary Conference on Literary and Innovative Research in Hindi, English, Economics, Science & (Computer Science, Technology, Arts, Humanities, Law, Commerce, Management and Library Sciences) organized by Govt. Pataleshwer College, Masturi (C.G.) held dated 7Aug 2022.
- **Best paper Presentation Award-2020** on National Seminar entitled “Emerging Horizons of Science in Natural Resource Management” organized by Department of Biotechnology & Zoology, Govt. E. Raghavendra Rao P.G. Science College, Bilaspur (C.G.) held dated 16-17 Feb 2020.
- **Paryawaran Mitra Award – 2022** by Paryawaran Evm Paryatan Vikas Samiti, Van Vibhag Govt. of Chhattisgarh, by Paryawaran Sanrakshan Mandal. Dated 5 June 2022.
- **Utkrist Shikshak Samman - 2022** on Silver Jubilee Year of the College Foundation Day. Dated 12 Sep 2022.

Annexure I(c)

AUTHORED BOOK

Recent Trends in Microbial Enzyme Technology (ISBN No. 978-93-5780-1447).

Annexure I(d)

EDITED BOOK

1. **Sustainable environmental Practices** (ISBN-13 (15) 978-93-94570-62-7)
2. **Trends in Environmental Biology Vol. I** (ISBN- 13 (15) 978-93-90847-55-6)
3. **Trends in Environmental Biology Vol. II** (ISBN - 13 (15) 978-93-94570-52-8)

Research Paper Published – 12

| S. No. | Paper Title | Authors | Year | Journal | Volume & Issue | Page No. | Citation |
|--------|---|--|------|--|----------------|-------------|----------|
| 1. | Isolation and characterization of cellulose degrading bacteria from biogas slurry and their RAPD profiling | Dubey, S.K., Meena, R.K., Sao, S., Patel, J., Thakur, S., Shukla, P. | 2014 | Current Research in Microbiology and Biotechnology | 2 (4) | 416-421 | 10 |
| 2. | Callus induction and shoot proliferation from seedling explants of different mustard genotypes | Dubey, S.K., Gupta, A.K. | 2014 | International Journal of Current Microbiology and Applied Sciences | 3 (7) | 858-864 | 06 |
| 3. | Effect of different carbon source on growth of Rhizobium belonging to different region of Chhattisgarh, India. | Patel, J., Dubey, S.K. | 2014 | International Journal of Current Microbiology and Applied Sciences | 3(10) | 830-836 | 03 |
| 4. | Bacteriophages as an antibacterial agent: A promising alternative | Dubey, K., Chandraker, S., Sao, S., Gupta, A., Dubey, S.K., | 2016 | International Journal of Current Microbiology and Applied Sciences | 5 | 231-234 | 04 |
| 5. | Identification and characterization of potential phenol degrading bacterial strains isolated from municipal sewage, Bilaspur, Chhattisgarh | Parihar, R., Dubey, S.K., | 2016 | International Journal of Current Microbiology and Applied Sciences | 4 (3) | 288-293 | 03 |
| 6. | Characterization of Protease Production Efficiency of Bacteria Present in the Poultry Farm Soil. | Dubey, S.K., Parihar, R., | 2017 | International Journal of Science and Research | 6 (1) | 1025-1028 | 01 |
| 7. | Isolation, Identification and Evaluation of Lipase Producing Bacteria for Biodegradation of Lipid-Rich Waste | Kashyap, A.K., Dubey, S.K. | 2021 | Annals of the Romanian Society for Cell Biology (UGC Care Listed) | 25(4) | 15338-15348 | Nil |
| 8. | Assessment of antimicrobial activity of commercially available <i>Withania somnifera</i> (Ashwagandha) powder against pathogenic microorganisms | Dubey, S.K., Verma, K.K., Qureshi, A., Behar, N. | 2022 | New Bio World | 4(2) | 25-30 | Nil |
| 9. | Phytochemical, Antioxidant and Antiviral Potential of <i>Euphorbia milii</i> | Parihar, R., Dubey S.K., Tiwari, U. | 2023 | Biological Forum – An International Journal | 15(2) | 23-129 | Nil |
| 10. | Comparative evaluation of in vitro antimicrobial efficacy of different species of <i>Curcuma</i> against human pathogenic bacteria. | Verma, K.K., Soni, S., Pandey, P., Sahu, V., Dubey, S.K., Behar N. | 2023 | New Bio World | 5(1) | 20-23 | Nil |
| 11. | Alkaline Protease Production by Bacillus sp. using Fortified Crude Dairy Effluent | Dubey, S. K., Parihar, R. | 2023 | Biological Forum – An International Journal | 15(5) | 1523-1529 | Nil |
| 12. | Isolation of <i>Bacillus subtilis</i> from Dairy Waste and Evaluation of their Protease Kinetics on Fortified Dairy Waste Effluent | Dubey, S. K., Parihar, R. | 2023 | International Journal of Science and Research | 12(9) | 2148-2151 | Nil |

Book Chapter - 9

| S. No. | Title | Authors | Year | Title of Book | Publisher | Edition | Page No. |
|--------|--|---|------|---|--|-----------------|----------|
| 1. | Cyanobacterial diversity concerning the extreme environment and their bioprospecting | Kashyap, A.K. Dubey, S.K. Jain, B.P. | 2021 | Cyanobacterial Lifestyle and its Applications in Biotechnology | Academic Press (Elsevier) | 1 st | 1-22 |
| 2. | Cyanobacteria-mediated heavy metal and xenobiotics bioremediation | Pandey, S. Dubey, S.K. Kashyap, A.K. Jain, B.P. | 2021 | Cyanobacterial Lifestyle and its Applications in Biotechnology | Academic Press (Elsevier) | 1 st | 335-350 |
| 3. | Molecular Mechanisms in Cancer Development | Kashyap, A.K. Dubey, S.K. | 2021 | Understanding Cancer | Academic Press (Elsevier) | 1 st | 79-90 |
| 4. | Life Science Engineering: Improving Human Health and Lifestyle | Mishra, P., Behar, N., Sharma, S., Verma, K.K., Banjare, S., Dubey, S.K. , Gurnule, W.B. | 2021 | Research and Innovations in Chemical Sciences: An Approach towards | Bharti Publications (ISBN: 978-93-91681-17-3) | 1 st | 105-116 |
| 5. | Post COVID-19 Health Scenario in India | Mishra, P., Behar, N., Sharma, S., Dubey, S.K. , Gurnule, W.B. | 2021 | Health Hygiene, Sanitation and Environment at Pandemic Times | Immortal Publication Vijayawada (AP) ISBN: 978-93-5457-589-1 | 1 st | |
| 6. | Biofilm: a doable microbial continuum for the treatment of wastewater | Dubey, S.K. Kashyap, A.K. | 2022 | Microbial Consortium and Biotransformation for Pollution Decontamination | Elsevier | 1 st | 321-345 |
| 7. | Technological Advancements for the Analysis of Phytochemical Diversity in Plants | Kashyap, A.K. Thattantavide, A., Dubey, S.K. , Kumar, A., Kumar, S. | 2023 | Phytochemical Genomics: Plant Metabolomics and Medicinal Plant Genomics | Springer Nature Singapore | 1 st | 109-125 |
| 8. | A Short Review on Genes Regulating Biosynthesis of Major Secondary Metabolites | Kashyap, A.K. Dubey, S.K. , Kumar, A., Kumar, S. | 2023 | Phytochemical Genomics: Plant Metabolomics and Medicinal Plant Genomics | Springer Nature Singapore | 1 st | 501-519 |
| 9. | Role of fungal metabolites in pharmaceuticals, human health, and agriculture | Behar, N., Sharma, S., Parihar, R., Dubey, S.K. , Mehta, S., Pandey, V. | 2024 | Fungal Secondary Metabolites Synthesis and Applications in Agroecosystem Nanobiotechnology for Plant Protection | Elsevier | 1 st | 519-535 |

Paper Presented - 8

| S. No. | Title of Paper Presented | Year | Name | Date | Organized by |
|--------|---|------|---|------------|---|
| 1 | Assessment of Protease Production Efficiency of Bacteria Present in Poultry Farm Soil | 2016 | Conference - Recent Advances in Biotechnology & Biofuels | Sep, 12-13 | Department of Microbiology & Bioinformatics, Bilaspur University Bilaspur (C.G.) |
| 2. | Assessment of Actinomycetes Biodiversity in Composting | 2020 | Seminar - Regional Warming and Narwa, Garwa, Ghurwa, Bari | Feb, 1-2 | Research & Development Cell D.L.S. P.G. College Bilaspur (C.G.) |
| 3. | Merops: The Protease Database | 2020 | Seminar - Impact of Computer Science & Information Technology on Modern Society | Jan, 18-19 | Department of Computer Science, Information Technology & Computer Application Govt. E. Raghavendra Rao P.G. Science College Bilaspur (C.G.) |
| 4. | Characterization of Amylase Producing Bacterial Strains isolated from Soil (Best Paper Award) | 2020 | Seminar - Emerging Horizons of Science in Natural Resource Management | Feb, 16-17 | Department of Biotechnology & Zoology, Govt. E. Raghavendra Rao P.G. Science College Bilaspur (C.G.) |
| 5. | In-silico ADME and Toxicological analysis of some bioactive compounds of Medicinal Plants | 2020 | International Conference | Jan, 7-8 | School of Studies in Biotechnology, Pt. Ravishankar Shukla University, Raipur (C.G.) |
| 6. | A Comprehensive Assessment of Bacterial Profile in Local Dairy and Bakery Waste of Bilaspur City (Best Paper Award) | 2022 | 2nd International Multidisciplinary Conference on Literary and Innovative Research in Hindi, English, Economics, Science & (Computer Science, Technology, Arts, Humanities, Law, Commerce, Management and Library Sciences) | Aug, 7 | Govt. Pataleshwer College, Masturi (C.G.) |
| 7. | Alkaline Protease Production from Dairy Effluent using <i>Bacillus</i> Sp. | 2022 | An International Conference on ICIMST2022 (Innovations in Management, Science and Technology) | Aug 5-6 | University of Science and Technology, Meghalaya (USTM), India Meghalaya, India |
| 8 | Kinetics of Protease Production by <i>Bacillus subtilis</i> on fortified dairy effluent. | 2023 | Multidisciplinary International Seminar on Innovative Training, Learning, Evaluation and New Digitalise Research System in India” | August 20 | International Centre for Scientific Research and Development (ICSRD), Bengaluru, Karnataka. Registration No: ICSR/023-08-041 |

Annexure 1 (h)

SYMPOSIUM ATTENDED – 02

- **Bio-Resources: Technology & Prospects (2007)**, 18-19, March, Govt. E. Raghvendra Rao P.G. Science College, Bilaspur (C.G.)
- **Herbal Medicine and Diabetes (2017)**, 13, February, D.L.S. P.G. College, Bilaspur (C.G.)

Annexure I(i)

WORKSHOP/HANDS-ON ATTENDED – 05

- **Hands-on - Training in Basics of Bioinformatics (2014)**, 13-15, February, Chhattisgarh infotech and biotech Promotion Society (CHiPS), Govt. of Chhattisgarh, Raipur (C.G.)
- **Research Methodology and Tools (2016)**, 25-30, June, Bilaspur University, Bilaspur (C.G.)
- **Current Trends in Mushroom Cultivation & Culture Techniques (2017)**, 12-13, January, D.L.S. P.G. College, Bilaspur (C.G.)
- **Examination Reforms: Evaluation System and its Prospects (2017)**, 18, March, Govt. E. Raghavendra Rao P.G. Science College, Bilaspur (C.G.)
- **Workshop cum Pre Ph.D.-Course Work (2019)**, 25 May to 03 June, Atal Bihari Vajpayee University, Bilaspur (C.G.)

Annexure I(j)

FDP

| S.N. | Title of FDP | Duration | Organized by | Held on |
|------|---|----------|---------------------------------|------------------|
| 1 | Futuristic Intervention in Biotechnology: A Roadmap Ahead | 5 Days | AMITY University, Raipur (C.G.) | 4-8 July 2022 |
| 2 | Effective Communication Skills | 5 Days | PIBM, Pune | 18-22 April 2022 |

Annexure I(k)

SHORT-TERM COURSES/PROGRAM

- NIT-TEQIP - 01, GIAN - 02, NPTEL - 02 & ARPIT- 02

| Courses/Programmes | Title | Year | Place |
|-------------------------------|---|------|--|
| NIT TEQIP (Short-Term Course) | Advance Wastewater Treatment Technologies | 2016 | NIT, Raipur (C.G.) |
| GIAN Programme | Nanobiotechnology for Healthcare | 2017 | IIT, Kharagpur (W.B.) |
| GIAN Programme | Transgenic Animal Technology | 2018 | Hyderabad University (T.S.) |
| HRD-NPTEL Programme | Industrial Biotechnology | 2017 | IIT, Kharagpur (W.B.) |
| MHRD-NPTEL Programme | Cell Culture Technology | 2017 | IIT, Kanpur (U.P.) |
| ARPIT Programme | Skills for Refresher Course on Teacher and Teaching in Higher Education | 2020 | Sant Gadge Baba Amravati University (M.S.) |
| ARPIT Programme | Skills for Refresher Course on New Educational Architecture | 2020 | Sant Gadge Baba Amravati University (M.S.) |

Annexure I(l)

PROGRAM ORGANIZED - 5

- Organizing secretary on National Seminar entitled “**Regional Warming and Narva, Garva, Ghurva, Bari**” dated 1-2 February 2020.

- Organizing secretary on the National e- Poster competition entitled “**Impact of Lockdown on Environment**” dated 5 June 2020.
- Organizing secretary on Webinar entitled “**Vaccine Against Covid -19 Opportunities and Challenges**” dated 10 Aug 2020.
- Organizing secretary on an online NAAC workshop entitled “**Revised Accreditation Framework for Accreditation in higher education**” dated 21 Nov 2020.
- Co-coordinator on Intellectual Property Awareness Program organized under **National Intellectual Property Awareness Mission (NIPAM)**, Intellectual Property Office, Govt of India dated 15 July 2022.