Faculty Achievements

Dr. Anupama Mishra, HOD, Department of Microbiology, has published a book chapter titled *"Phyconanoremediation: A Novel Approach to Heavy Metal Removal by Integrating Nanotechnology and Bioremediation Using Algae"* in the book *Algae-Based Nanomaterials for Environmental Applications* (Springer Nature, 2025; pp. 39–47, ISBN: 978-3-031-82185-1) as corresponding author and co-author.

Dr. Anupama Mishra, HOD, Department of Microbiology, authored a book chapter titled *"Inventive Potential of PHA Biopolymers for Biomedical Applications"* in the book *Polyhydroxyalkanoates: Sustainable Production and Biotechnological Applications III: Biomedical Sector* (Springer Nature Singapore, 2025, pp. 213–236, ISBN: 978-981-96-2021-0) as Corresponding Author and Co-author.

Dr. Anupama Mishra, HOD, Department of Microbiology, contributed as Corresponding Author and Co-author in the book chapter "Green Synthesis - Converting Lignocellulosic Biomass and Biochar into PHAs" in the book *Polyhydroxyalkanoates: Sustainable Production and Biotechnological Applications I: Microbial Biodiversity, Biowastes, and Bioprocesses*, published by Springer Nature Singapore (2025, pp. 103–127, ISBN: 978-981-96-1995-5).

Dr. Anupama Mishra, HOD, Department of Microbiology, contributed as Corresponding Author and Co-author in the book *Bioactive Compounds: Industrial and Agricultural Applications* (2025, pp. 163–176, ISBN: 978-3-031-76858-3), published in *Biotechnological Intervention in Production of Bioactive Compounds: Biosynthesis, Characterization and Applications* by Springer Nature Singapore.

Dr. Anupama Mishra, HOD, Department of Microbiology, contributed as Corresponding Author and Co-author in the book chapter "Microbial Production of Bioplastics: Current Status and Future Prospects" (2025, pp. 203–214, ISBN: 978-3-031-76858-3), published in the book *Biotechnological Intervention in Production of Bioactive Compounds: Biosynthesis, Characterization and Applications* by Springer Nature Singapore.

Dr. Anupama Mishra, HOD of the Department of Microbiology, authored the chapter "Bioactive Compounds for Food, Agricultural and Health Sector: Opportunities and Challenges" in the book *Biotechnological Intervention in Production of Bioactive Compounds: Biosynthesis, Characterization and Applications* (Springer Nature Singapore, 2025, pp. 57–72, ISBN: 978-3-031-76858-3) as corresponding author and co-author.

Dr. Jaya Chawla, Assistant Professor, Department of Microbiology, authored a book chapter titled *"Inventive Potential of PHA Biopolymers for Biomedical Applications"* in the book *Polyhydroxyalkanoates: Sustainable Production and Biotechnological Applications III: Biomedical Sector* (Springer Nature Singapore, 2025, pp. 213–236, ISBN: 978-981-96-2021-0) as Corresponding Author and Co-author.

Dr. Brinda Bhatt, Assistant Professor, Department of Microbiology, authored a book chapter titled *"Inventive Potential of PHA Biopolymers for Biomedical Applications"* in the book *Polyhydroxyalkanoates: Sustainable Production and Biotechnological Applications III: Biomedical Sector* (Springer Nature Singapore, 2025, pp. 213–236, ISBN: 978-981-96-2021-0) as Corresponding Author and Co-author.

Jadav Vishal Madhubhai, Mr. Mayur Chavda, Department of Mechatronics Authored a publication "Design and Development of an IoT-Enabled Robotic Vehicle with Integrated ESP32-CAM and Health Monitoring System," *International Journal of Creative Research Thoughts (IJCRT)*, vol. 13, no. 5, pp. xx–xx, May 2025, ISSN: 2320-2882. (UGC Approved, International).

Mihir Ruparel, Dr. Mayank Dev Singh, Mr. Mayur Chavda, Dr. A.nil M. Bisen, and Ms. Apexa Purohit, Department of Mechatronics Authored a publication "Advancements in PET Flake to Staple Fiber Conversion: A Pathway to Sustainable Textile Production," *International Journal of Research and Analytical Reviews (IJRAR)*, vol. 12, no. 2, pp. xx–xx, Jun. 2025, ISSN: 2349-5138. (UGC Approved, International).

Nishita Tamboli, Mr. Mayur Chavda, Ms. Apexa Purohit, Dr. Anil M. Bisen, and Dr. Mayank Dev Singh, Department of Mechatronics Authored a publication "Design and Development of a Comfortable and Customizable Prosthetic Arm Socket Using 3D Printing Technology," *International Journal of Research in Engineering and Science (IJRES)*, vol. 13, no. 6, pp. xx–xx, Jun. 2025, ISSN: 2320-9356. (UGC Approved, International).

Rushi Shah, Dip Patel, Ms. Apexa Purohit, Mr. Mayur Chavda, Dr. Anil M. Bisen, Dr. Mayank Dev Singh, and Dr. Jai B. Balwanshi, Department of Mechatronics Authored a publication "Automatic Braking System: A Low-Cost Prototype for Obstacle Detection and Collision Prevention," *International Journal of Research in Engineering and Science (IJRES)*, vol. 13, no. 6, Jun. 2025, ISSN: 2320-9356. (UGC Approved, International).

Nishita Tamboli, Mr. Mayur Chavda, Ms. Apexa Purohit, Dr. Anil M. Bisen, and Dr. Mayank Dev Singh, Department of Mechatronics Authored a publication "3D Printing in Prosthetic Arm Socket Development: A Review of Current Trends and Future Prospects," *International Journal of Research and Analytical Reviews (IJRAR)*, vol. 12, no. 2, Jun. 2025, ISSN: 2349-5138. (UGC Approved, International).

Kavan Patel, Yashraj Rathod, Vedant Pandya, Yash Bhatt, Mr. Mayur Chavda, Ms. Apexa Purohit, Dr. Anil M. Bisen, Dr. Mayank Dev Singh, and Dr. Jai B. Balwanshi, Department of Mechatronics Authored a publication "Development and Evaluation of a Cost-Effective Desktop 3D Printing System for Rapid Prototyping," *International Journal of Latest Technology in Engineering, Management & Applied Science (IJLTEMAS)*, vol. XIV, no. VI, Jun. 2025, ISSN: 2278-2540. (UGC Approved, International).