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GM UNIVERSITY

P. B. Road, Davanagere – 577 006 KARNATAKA | INDIA



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https://scholar.google.com/citations?hl=en&user=5NgQT_gAAAAJ

Dr. Pradeep M J

Associate Professor

Faculty

Faculty of Engineering and Technology

School / Program

School of Engineering

B.Tech. in Biotechnology

Faculty Introduction

Dr. Pradeep M J is a Chemical Engineer and Biotechnologist with over 15 years of teaching and research experience in India and abroad. He specializes in subcritical fluid extraction, process design, and bioprocess technology. Having served as an Assistant Professor at Bulehora University, Ethiopia, and at reputed engineering institutions in Karnataka, he currently serves as Program Director for Bioengineering and Genetic Technology at GM University, Davangere. His research interests include bioseparation, biofuel extraction, and sustainable process technologies.

Qualifications

Ph.D. (Chemical Engineering)

VTU, Belagavi, 2020

M. Tech. (Chemical Engineering)

VTU, Belagavi, 2011

B.E (Biotechnology)

VTU, Belagavi, 2009

Experience

Teaching

- **3 Years** at GM Institute of Technology, Davanagere
- **7 Years** at Bulehora University, Ethiopia
- **3.5 Years** at The Oxford College of Engineering, Bengaluru
- **1.5 Years** of MVJCE, Davangere Bengaluru

Industry

- **1 Year** at JSW Steel Ltd, Toranagallu, Karnataka



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Research

- Subcritical and Supercritical Fluid Extraction
- Bioprocess Engineering and Biofuel Technology
- Process Simulation and Design
- Environmental Biotechnology and Wastewater Treatment

Training Program Attended

- Attended "Nurturing Future Leadership" Program organized by Indian Institute of Management (IIM), Sambalpur, Odisha from 18th to 22nd June 2024.
- Attended "BIS Mentors Training" Program organized Bureau of Indian Standards (BIS), Bengaluru from May 2024.
- Workshop on "Research Methodologies and LaTeX" organized by VTU e-Learning Centre, Mysore, from 18th to 20th February 2016.

Research Interest

- Biofuel Technology
- Novel Separation Techniques
- Biochemical Engineering

Awards & Achievements

- Delivered Talk on "Bio-mimicry in Engineering & Next-Gen in Bioengineering" at University BDT College of Engineering (UBDTCE), Davanagere on 19-05-2025.
- Delivered Talk on "Recent Trends in Bio-engineering" at University BDT College of Engineering (UBDTCE), Davanagere on 15-05-2025.
- Delivered Talk on "Biochemical Engineering for Greener Tomorrow" at Ramaiah Institute of Technology, Bengaluru on 22-08-2024.

Publication / Patents

- **Patents:**
- Design and Development of small-scale composting plant for household wet waste management – **Indian Patent.**
- Liquid based Bio-preservatives- – **Indian Patent.**
- **Research Papers**



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- Ph.D. Dissertation: **Subcritical Fluid Extraction of Bioactive Compounds from Macro Lichens and comparative studies with conventional Extraction Techniques**
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- **National Conference Papers:**
- Presented a paper on “**Subcritical Fluid Extraction of Bioactive Compounds from Macro Lichens**” at a conference organized by **Karnataka State Science & Technology Academy (KSTA), Bengaluru 2025.**
- **International Conference Papers:**
- Successfully presented a paper entitled “Development and Validation of essential oil of *Pongamia Pinnata* using the method of Subcritical Fluid Extraction” at the International Conference organized by **Bulehora University, Ethiopia**, during **14 -15 May 2021.**
- Successfully presented a paper entitled “Super and subcritical Extraction of essential oil from *Pongamia* seeds and yield comparison with conventional Extraction techniques” at the International Conference organized by **Wollega University, Ethiopia** during **18 -19 May 2017.**
- **National Journal Papers:**
- K L Shivabasappa, Vinod P R, **Pradeep M J**, M.Gokulakrishnan. 2014. A novel approach for extraction of polyphenols, *Emerging Trends in chemical engineering*; 1(1), 31-36.
- **International Journal Papers:**
- **Pradeep Jayappa. 2022.** Optimization of the process of metal Nano-Calcium Oxide based Biodiesel production through simulation using SuperPro designer, *Journal of Engineering*, 2022, 1-6. **(Scopus)**
- **Pradeep Jayappa. 2021.** An overview on role of unconventional machining processes on different materials, *Materials Today; proceedings*. 50(5), 1341-45. **(Elsevier & Scopus).**
- **Pradeep Jayappa. 2021.** Assessment of wear properties under dry sliding conditions on AISI 301LN Austenitic stainless steel by plasma nitriding process; *E3S Wb of Conferences*, 309. **(Scopus).**
- **M. J. Pradeep**, K. L. Shivabasappa, H. S. Ravikumar Patil, Abhijith Acharya. **2011.** Study of Coke- oven Gas Desulphurization and Methods to Improve Sulphur Quality,



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Journals of Modern Chemistry & Chemical Technology. 2(2), 16-23

- M Gokulakrishnan, Ravishankar, **M J Pradeep**, P R Vinod. **2014**. Biobutanol production from lignocellulosic material, *Emerging Trends in chemical engineering*; 1(1), 44-49.
- **Pradeep Jayappa**, Haile Hisho and Nigus Worku. **2017**. Supercritical fluid extraction of essential oil from pongamia seeds and yield comparison with conventional extraction techniques, *International Journal of Trend in Research and Development*, 3(6), 823-826.
- **Pradeep Jayappa** and Dereje Tadele. **2017**. Domestic sewage treatment of Bulehora university campus using low cost filtration technology, *International Journal of Trend in Research and Development*, 4(3), 344-347.
- **Pradeep M J** and Shivabasappa K L. **2018**. Antioxidant activity of Subcritical extract of selected macro lichens, *International Journal of Trend in Research and Development*; 5(5), 121-128.

Professional Membership

- Member, Chemical Engineers Association (CHEA)
- Member, GENELIX – Forum of Biotechnology Engineers

Awards & Recognitions

- Best Faculty award for the year 2012 on the occasion of Founders day of MVJCE, Bengaluru

Administrative Responsibilities

- Department Level
- Admission & Publicity
- University Level
- Program Director- M.Tech in Bioengineering & Genetic Technology
- President for GMU-Quizzers
- Member of Green Campus Initiative
- Chief Coordinator- BIS Standard Clubs

Workshops / FDPs / Seminars Attended

- Attended **“Nurturing Future Leadership” Program** organized by **Indian Institute of Management (IIM), Sambalpur, Odisha** from **18th to 22nd June 2024**.



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Workshops / FDPs / Seminars Organized

- AICTE VAANI Workshop on 'Roots to Recipes – Tech-driven Agri Practices' (20th to 22nd Aug 2025, GM University).
- International Webinar on 'Industry 4.0' (March 2021, GMIT in collaboration with Bulehora University, Ethiopia)

Projects Guided

- **UG Projects**

- Design and Fabrication of a Low-Cost Subcritical Extraction Unit for Bioactive Compounds.
- Optimization of Pectinase Production from Fruit Waste Using Subcritical Extraction Techniques.
- Biofuel Production from Agricultural Waste Using Green Extraction Processes.
- Bioremediation of Industrial Wastewater Using Indigenous Microbial Consortia
- Design and Development of an IoT-Based Composting System for Smart Campuses.
- Phytochemical Screening and Antioxidant Analysis of Subcritical Extracts from Medicinal Plants

- **PG Projects**

- Valorization of Food and Agro-Industrial Wastes through Biochemical Conversion and Extraction of Phytochemicals.
- Integrated Bioprocess Design for Production of Bioethanol from Mixed Fruit Waste.
- Study on Phytoremediation Efficiency of Aquatic Macrophytes in Industrial Wastewater Treatment
- Development of Hybrid Subcritical-Ultrasonic Extraction Method for Enhanced Recovery of Essential Oils.

Funded Projects / Grants Received

- **AICTE (2025-26):** Roots to Recipes – Tech-driven Agri Practices (₹2,00,000).
- **GMU-Seed Money(2024-25):** Grapezyme – Extraction and Characterization of Pectinase Enzyme from Grape Pomace



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- **Karnataka State Biofuel Development Board (2014-15):** Subcritical Extraction of Bio-fuels (₹13,000)
- **Bulehora University (2020-21):** GIS Mapping and Chemical analysis of mining wastewater (₹2,52,000).
- **Bulehora University (2020-21):** Analytical scale Subcritical extraction of low volume-high value products (₹53,333)