

Dr. Mugdha Dongre

Ph.D. (Mechanical)

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PROFESSIONAL PROFILE

- Assistant Professor with 10+ years of teaching experience.
- Possess comprehensive knowledge of 3D Printing technology along with Python, MATLAB, Minitab, Origin Lab, Microsoft Word, Excel, and PowerPoint.
- Comprehensive knowledge of various advanced Machine Learning algorithms.
- Guided 40+ UG students in the research domain.
- Worked as NAAC and NBA coordinator.
- Adept at interdepartmental coordination and communication.

PROFESSIONAL EXPERIENCE

1. Veermata Jijabai Technological Institute (VJTI), Mumbai (Aug 2023 – Present)

Assistant Professor-Tenure (Production Engineering Department)

Key Deliverables:

- ✓ Teaching Engineering Materials, Supply Chain Management, Production Management to UG/PG students.
- ✓ Assistant Rector for VJTI Girls hostel.
- ✓ Conducted a one day training program “Advances in Composites” for UG/PG and Doctoral students.
- ✓ Successful Conduction of Ph.D. research colloquium (2024) for Production Engineering research students, VJTI.
- ✓ Successfully organized expert talk ”Industry Insights and Student Success: Navigating Pathways through Professional Excellence” on 26th April 2024 in Department of Production Engineering, VJTI.

2. Saraswati College of Engineering, Kharghar (Jan 2015 – July 2023)

Assistant Professor, (Mechanical Department) (UGC approved)

Key Deliverables:

- ✓ Taught Metrology, Production Processes, Metal Forming Technology, Machining Science to UG students.
- ✓ Academic Coordinator
- ✓ NAAC and NBA coordinator
- ✓ Entrepreneurship Development cell Coordinator

RESEARCH PROFILE

Research Area: Fiber reinforced Composites, Additive manufacturing, Material Characterization, Nanocellulose extraction, Multi-objective optimization, Machine learning

1. **Dongre, M.**, Suryawanshi, V.B., Suryawanshi, Y.R. and Parameswaran, S. (2025) ‘3D printed cellulose nanofibre-PLA nanocomposites: experimental investigations and multi-objective optimisation’, Int. J. Materials Engineering Innovation, Vol. 16, No. 1, pp.22–41.
DOI: <https://doi.org/10.1504/IJMATEI.2025.145047>
2. Patil, M., **Dongre, M.**, Raut, D. N., & Naik, A. (2025). Multi-objective optimization of fused filament fabrication (FFF) parameters for rice husk reinforced PLA composites. Next Materials, 8, 100540.
DOI: <https://doi.org/10.1016/j.nxmate.2025.100540>
3. Thakur, P., Maurya, P., Raut, D.N. and **Dongre, M.** (2024) ‘Experimental investigation and multiobjective optimisation in abrasive waterjet machining by coupled fuzzy-AHP and fuzzy-TOPSIS’, Int. J. Computational Materials Science and Surface Engineering, Vol. 12, No. 1, pp.36–61 **DOI:**[10.1504/IJCMSSE.2024.139013](https://doi.org/10.1504/IJCMSSE.2024.139013)
4. **Dongre, M.**, Suryawanshi, V.B., Suryawanshi, Y.R. and Parameswaran, S.(2025) Preparation and Characterization of 3D Printed Bio-composites containing Carica Papaya Cellulose Nanofibers, Int. J. Materials Engineering Innovation, Vol. 16, No. 2, pp.122–139.
DOI:[10.1504/IJMATEI.2025.146441](https://doi.org/10.1504/IJMATEI.2025.146441)
5. Thakur, P., **Dongre, M.**, Raut, D.N. and Naik, A., Quality optimization by metaphor less algorithms: A case study of abrasive waterjet industry, Int. J. of Machining and Machinability of Materials, (Accepted for Publication)
6. **Mugdha Dongre**, V.B. Suryawanshi, Analysis of cellulose based nanocomposites & potential applications, Materials Today Proceedings, 45(2), 2021, pg 3476–3482. **DOI:** [10.1016/j.matpr.2020.12.943](https://doi.org/10.1016/j.matpr.2020.12.943)
7. Thakur, P., Khan, J. A., **Dongre, M.**, & Gupta, S. (2019, January). Multi Objective Optimization in CNC End Milling of Inconel 718 Super Alloy by Taguchi-Grey-Fuzzy Method. In 2019 International Conference on Nascent Technologies in Engineering (ICNTE) (pp. 1-4). IEEE.
DOI: [10.1109/ICNTE44896.2019.8945898](https://doi.org/10.1109/ICNTE44896.2019.8945898).

FDP and WORKSHOP ATTENDED

1. “FIBER REINFORCED COMPOSITES” at ICAR- Central Institute for Research on Cotton Technology, Mumbai during 7th to 9th February 2018.
2. “RECENT ADVANCEMENTS AND ACTIVITIES IN THE MANUFACTURING OF COMPOSITE MATERIALS” at Karpagam Academy of Higher Education, Coimbatore, India during May 8 to May 13, 2023.

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3. One week workshop on “GREEN AND SUSTAINABLE SOLUTIONS FOR POLYMERS” at Institute of Chemical Technology, Mumbai during 1st to 5th April, 2024.
 4. AICTE-Vibrant Advocacy for Advancement and Nurturing of Indian Languages workshop on “Use of Artificial Intelligence Tools and Techniques for Effective Teaching and Evaluation” at VJTI, Mumbai during 24th June 2024 to 26th June 2024.
 5. One week FDP on “Indian Knowledge System” organized by MSFDA at Deccan College, Pune during 13th February 2024 to 17th February 2024.

EDUCATION

VJTI, Mumbai, Ph.D. (Mechanical)

August 2017–December 2023

Title: Manufacturing and Characterization of Nanocellulose/PLA Bio-degradable Composites

D.J. Sanghvi COE, Vile Parle, M.E. (Manufacturing Systems)- First Class

October 2011–January 2014

Title: Quality Improvement in EDM Process through Parametric Optimization.

AWARDS & CONTRIBUTIONS

- “**Best Faculty: Contribution in Research**” award received from Director, VJTI on Foundation Day, 10th April 2024.

- “**Best Poster**” award in National Symposium (Technical and Applied Chemistry Department, VJTI, January 2020)

- Reviewer for Journal of Applied Polymer Science (Wiley Publications); Journal of Brazilian society of Mechanical Sciences and Engineering (Elsevier).

-Active participation and coordination of 2 International Conferences held in Saraswati College of Engineering, Kharghar.

PERSONAL DETAILS

Date of Birth: 24th June, 1983

Languages Known: Marathi, English and Hindi

Marital status / Children: Married / One

Permanent Address: 502, Guru Dilasa Apartment,

Jai Hind Colony, Near SVC bank,

Dombivli (west), Dist.Thane 421202

Maharashtra, India.
