

Nirupama Mohan

PhD, Metallurgical and Materials Engineering

CONTACT

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Address: Department of Mechanical Engineering,
B.M.S. College of Engineering

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PROFESSIONAL EXPERIENCE

Research Scholar | 2018-2025

Metallurgical and Materials Engineering, Indian Institute of Technology, Roorkee, Uttarakhand, India

- Expertise in material characterization and corrosion testing for hydroturbine applications
- Worked on surface coatings of stainless steels to enhance wear and corrosion resistance
- Optimized boronizing process parameters to improve surface chemistry and microstructure
- Developed slurry erosion and tribocorrosion testing methodologies for material evaluation
- Managed research projects and laboratory inventory, ensuring seamless experimental operations

Assistant Professor | 2012-Present

Mechanical Engineering, B.M.S. College of Engineering, Bengaluru, Karnataka, India

- Academic and research engagements in manufacturing and surface engineering
 - Course Instructor in materials sciences, manufacturing processes, tribology to undergraduate and graduate students
 - Collaboration with cross-functional teams to ideate and prototype innovative solutions for industry-specific challenges
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EDUCATION

INDIAN INSTITUTE OF TECHNOLOGY ROORKEE | 2018-2025

PhD, Metallurgical and Materials Engineering

VISVESVARAYA TECHNOLOGICAL UNIVERSITY | 2010-2012

Master of Technology, Manufacturing Science and Engineering

VISVESVARAYA TECHNOLOGICAL UNIVERSITY | 2005-2010

Bachelor of Engineering, Industrial Engineering and Management

TECHNICAL EXPOSURE

Surface Engineering & Coatings, Tribology & Wear Mechanisms, Materials Characterization, Experimental Design & Equipment Setup, Project & Inventory Management, Teaching & Mentorship

INSTRUMENTATION

X - Ray Photoelectron Spectroscopy, Scanning Electron and Optical Microscopy, X - Ray Diffraction, Indentation and Hardness testing, Potentiostat, Tribometer, Electrochemical etching

DATA ANALYSIS SOFTWARE

Microsoft Power BI, Microsoft Office suite, Origin Pro Lab

RECOGNITION

Best Research Paper Award, Asian Heat treatment and Surface Engineering Conference, 2020
Best Outgoing Student, Masters in Technology, Visvesvaraya Technological University, 2012

MEMBERSHIPS

Life Member - Tribology Society of India
Life Member - Indian Welding Society

ACHIEVEMENT

Expertise in Indian Classical Dance - Bharatanatyam - A highly trained practitioner with 25 years of experience in Bharatanatyam, a revered Indian classical dance form known for its grace, intricate footwork, and expressive storytelling (abhinaya). Performed hundreds of times on national and international stages, showcasing traditional and contemporary repertoire.