

NAGARAJU

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Education

	Degree	Year	Institute	Specialization
1	Ph.D.	2017	UVCE, Bangalore University	Mechanical Engg.
2	M.E	2004	UVCE, Bangalore University	Manufacturing Science & Engg.
3	B.E	1998	Siddaganga Institute of Technology, Bangalore University	Industrial Engg. & Management.

Professional Experience

	Date (from-to)	Designation	Organization
1	Jan 2011 to Till date	Assistant Professor	Siddaganga Institute of Technology, Tumkur
2	Sep 2008 to Jan 2011	Senior Lecturer	
3	Sep 2003 to Sep 2008	Lecturer	
4	From April 2002 Aug 2023	Research Fellow	Aeronautical Development Agency (ADA), Bangalore
5	Aug1998 to Feb 2001	Quality Control Engineer	Deepak Cables India Limited, TUMKUR

(Please fill in reverse order. Current designation should be at the top)

Positions held

Current Job Profile:

Presently Working as an Assistant Professor for Siddaganga Institute of Technology (SIT) Tumkur, Karnataka.

Courses Taught

Undergraduate Courses

1. Elements of Mechanical Engg
2. Engineering materials and Metallurgy
3. Metrology and Measurements
4. Engg. Graphics / Computer Aided Engineering Drawing (CAED)
5. Machine Drawing
6. Manufacturing processes
7. Hydraulics and Pneumatics
8. Operations Management/ Production Operations Management
9. Management and Entrepreneurship
10. Total Quality Management
11. Metal Forming Processes.

WORK HISTORY

I. Research Fellow 'A'

Aeronautical Development Agency (ADA), Bangalore

Deputed to: Vikram Sarabhai Space Centre (VSSC), ISRO, Thiruvananthapuram
April 2002 – September 2003

Project: DALIA (Development of Advanced Linear Integrated Actuators) for LCA

Project Overview: Project DALIA was a collaborative initiative between ADA and VSSC aimed at developing advanced primary actuators for the Light Combat Aircraft (LCA).

Key Responsibilities:

- ☐ Conducted research and development for the DALIA Actuation System.
- ☐ Prepared the Failure Mode Effect and Criticality Analysis (FMECA) for the DALIA Actuation System.
- ☐ Developed procedures for identification, storage, and release of metallic raw materials.
- ☐ Reviewed process plans for various components of the DALIA Actuation System.
- ☐ Created detailed drawings of components, fixtures, and accessories using AutoCAD.
- ☐ Participated in the design of the feed check valve for the DALIA Actuation System.
- ☐ Assisted in preparing the design documentation for the 5T DALIA Actuator.

II. Quality Control Engineer

Deepak Cables India Limited, Tumkur

August 1998 – February 2001

Deepak Cables India Limited is an ISO 9002 certified company specializing in the manufacture of transmission line conductors for the Power Grid Corporation (Govt. of India) and various state electricity boards. The company's core activities include wire drawing and stranding.

Key Responsibilities:

- ☐ Developed and implemented quality procedures for ISO 9002 certification.
- ☐ Trained and motivated workers on quality standards and compliance with Quality System Procedures.
- ☐ Conducted incoming material inspections (aluminium rods and galvanized steel wires), including diameter, tensile strength, torsion strength, and visual checks; reviewed supplier certificates and authorized materials for production.
- ☐ Performed in-process and final inspections (including 20% sampling).
- ☐ Prepared and maintained comprehensive inspection reports and records.
- ☐ Conducted final packing inspections.
- ☐ Maintained and calibrated laboratory equipment.

Research Guidance

Sl. no	Name of the Scholar	Title	Year of completion
1	Amith A	Development & Tribological Property Evaluation of Water Chilled Aluminium 7075 Alloy Reinforced with Titanium Diboride Metal Matrix Composites.	Perusing

Research Areas

- ☐ Magneto-Fluid Dynamics & Chiral Fluids
- ☐ Porous Media & Mass Transfer
- ☐ Computational Modeling & Simulation
- ☐ Solar Energy & Thermal Systems
- ☐ Surface Integrity & Machining

Publications

Type	Title	Authors	Journal/ Conf. Name	Volume/Issue /Year	Pages
Journal Article	An investigation into the surface integrity and cutting force characteristics in titanium alloy end	Mohandas K N, Basavaraj Hosamani, Nagaraju, Vignesh, V.R. Raju, Kemminje, Nagahanumaiah	Results in Surfaces and Interfaces	2024	1-8

	milling using soluble oil and MQL as coolants				
Journal Article	Performance optimization of a solar still using CFD analysis	Nagaraju, Sujatha N	Water and Energy International	Vol. 66, 2023	21
Journal Article	Performance Optimization of a Solar Still using CFD Analysis	Nagaraju, Sujatha N	Water and Energy International	2023	-
Journal Article	Design and Fabrications of Dust Collector for City Buses	Nagaraju, Jatadhara G.S	Int. J. for Research in Applied Science and Engineering Technology	Vol. 6, Issue III, 2018	1972-1980
Journal Article	Magneto-convection in Chiral Fluid with Variation of Viscosity through a Saturated Porous Media in the Presence of Coriolis Force	Nagaraju, Sujatha.N, Mallika.K.S	International Journal of Mathematics Trends and Technology	Special Issue, 2018	5-15
Journal Article	Study of the Flow Response of a Chiral Fluid Confined in a Channel in the Presence of the Transverse Magnetic Field	Nagaraju, B.M Rajaprakash, G.K. Suresh	Indian Journal of Science and Technology	Vol. 9, Issue 45, 2016	1-8
Journal Article	Non-Linear Oberbeck Convection in Chiral Fluid through a Vertical Permeable Channel in the Presence of a Transverse Magnetic Field	N Rudraiah, B M Rajaprakash, Nagaraju	JAFM	Vol. 7, Issue 1, 2014	35-41
Journal Article	Effects of Magnetic Field and Viscous Dissipation on Oberbeck Convection in a Chiral Fluid and Mass Transfer Flow	Nagaraju, B.M Rajaprakash, Sujatha N	International Journal of Current Engineering and Technology	Vol. 3, No. 5, 2013	-

	through Porous Media				
Conference Proceeding	Study of the Various Parameters Affecting the Performance of a Solar Still using CFD Analysis	Nagaraju, Sujatha N	2nd ICECTASET 2023	Vol. 2, 2023	39
Conference Proceeding	Non-Linear Oberbeck Electroconvection In A Chiral Fluid Flowing In A Vertical Channel With Permiable Boundaries	Nagaraju, Sujatha N, B.M. Rajaprakash	ICRAET-2021	2021	58-64
Conference Proceeding	Non-Linear Oberbeck Electromagnetic Convection of A Chiral Fluid Flowing Through A Vertical Channel Bounded By The Permiable Boundaries	Nagaraju, Sujatha, B.M Rajaprakash	66th International Congress of ISTAM	2021	100
Conference Proceeding	Study of Flow Response of the chiral fluid confined in a vertical channel in the presence of the applied electric field	Nagaraju, B.M Rajaprakash, Sujatha.N	2nd International Conference on PURE AND APPLIED MATHEMATICS	2018	-

SKILL SET:

CAD packages Known : AutoCAD, SolidEdge, Solidworks.

Analysis packages Known : ANSYS,.

Programming languages : C, FORTRAN, Python