



Dr. RAGHU YOGARAJU

Assistant professor

**Qualification:** Ph.D.

**Email-id:** raghuyogaraj.mech@bmsce.ac.in

**Experience:** 12.5 years

**Teaching experience:** 9 years

**Date of Joining this Institution (BMSCE):** 18/07/2016

**Research Interests:**

- Bearings and Dampers
- Rotor dynamics
- Composite materials
- Cryogenic treatment on engineering materials

**About self**

- Ph.D. research is in the field of variable profile journal bearing.
- Involved in researches like Squeeze film dampers (internal & external), smart shafts, foil bearings, composite materials etc.
- Interested to do consultancy for estimation of damping, stiffness and natural frequency of different components.

**Education:**

**Doctoral Research:** Bearing design and Vibrations

**Masters:** M.Tech. (Machine Design)

**Bachelors:** B.E. (Mechanical)

**Others:**

**Completed proficiency courses at CCE, IISc.**

- Vibration and Noise Theory and Practice (2 Credit)- 2016
- Structural Analysis and Design Optimization Theory and Practice (2 Credit)-2019

**Patent details**

Sl. No.	Title	Status
1	Bearing comprising smart materials (1461/CHE/2014)	Granted on 12/11/2020
2	A FLEXIBLE COUPLING APPARATUS (application no. 202141014385)	Granted on 31/07/2023

**Selected Publications**

**Journals:**

1. Raghu Yogaraju, L. Ravikumar, V. Arun Kumar and G. Saravanakumar, "Feasibility and Performance Studies of a Semi Active Journal Bearing", Procedia Technology, Elsevier, Vol. 25, 2016, Pages 1154-1161.
2. Raghu Yogaraju, L. Ravikumar and V. Arun Kumar, "Effect of Clearance Profile on the Performance of Semi Active Journal Bearing" in International Journal of Emerging Technology & Advanced Engineering, Vol. 7, Issue 11, November, 2017.
3. Raghu Yogaraju, L. Ravikumar, V. Arun Kumar and G. Saravanakumar, "Experimental Investigation on the Effect of Housing Profile and Its Relative Position on the Performance of Semi-Active Journal Bearing", Lecture Notes in Mechanical Engineering, Springer.

**Conferences:**

1. Raghu Yogaraju, L. Ravikumar, V. Arun Kumar and G. Saravanakumar, "Feasibility Studies of Semi-Active Journal Bearing" National Tribology Conference, NTC-201', PESIT, December 2014.
2. Raghu Yogaraju, L. Ravikumar, V. Arun Kumar and G. Saravanakumar, "Feasibility and Performance Studies of a Semi Active Journal Bearing", 1<sup>st</sup> Global Colloquium on Recent Advancements and Effectual Researches in Engineering, Science and Technology - RAEREST 2016, SJ CET-Palai, Kerala, April 22<sup>nd</sup> & 23<sup>rd</sup>, 2016.
3. Raghu Yogaraju, L. Ravikumar, V. Arun Kumar and G. Saravanakumar, "Performance characteristics of a Semi Active Journal Bearing for different Ovality Ratio", National Tribology Conference 2016 "NTC2016", December 2016, IIT (BHU) Varanasi, India.
4. Raghu Yogaraju, L. Ravikumar, V. Arun Kumar and G. Saravanakumar, "Experimental Investigation on the Effect of Housing Profile and its Relative Position on the Performance of Semi Active Journal Bearing", NSRD-2019, NAL, Bangalore.

**Courses Handled List:** Mechanical Vibrations, Tribology & bearing design, Design of Machine Elements, CAD, CAM & Robotics, Rotor Dynamics, Elements of Engineering Drawing, Elements of Mechanical Engineering.

**Additional Responsibilities:** Time table officer, website coordinator (Department), Graduation day core committee member,

**Other Information:**

Year	Activities	Date												
2020	Invited talk on "Futuristic Rotor and Bearing Systems" @ "Rotors and Bearing Systems 2020"- SRM University	25/11/2020.												
	6-Day AICTE Sponsored Short Term Training Programme (STTP) Series on RECENT ADVANCES IN TRIBOLOGY AND SURFACE ENGINEERING-2 series	October-2020												
	Invited talk on "Semi active journal bearing" @ STTP-Rotor Dynamics-Sreies-2	16/12/2020.												
2021	Received TEQIP Funded projects details	07/01/2021												
	<table border="1"> <thead> <tr> <th>Sl.no</th> <th>Project</th> <th>Amount</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Design, fabrication and testing of 3D printed carbon fiber flexible flange coupling.</td> <td>1,50,000/-</td> </tr> <tr> <td>2</td> <td>Fabrication and mechanical property characterization of natural fibre nano composites</td> <td>1,92,000/-</td> </tr> <tr> <td>3</td> <td>Characterization of Aluminum carbon fiber/aramid fiber MFC in terms of strength to wright ratio for gas turbine fan blade applications.</td> <td>1,50,000/-</td> </tr> </tbody> </table>	Sl.no	Project	Amount	1	Design, fabrication and testing of 3D printed carbon fiber flexible flange coupling.	1,50,000/-	2	Fabrication and mechanical property characterization of natural fibre nano composites	1,92,000/-	3	Characterization of Aluminum carbon fiber/aramid fiber MFC in terms of strength to wright ratio for gas turbine fan blade applications.	1,50,000/-	
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Served as reviewer of innovative ideas received under the INSPIRE Awards-MANAK-GOI for the year 2020-21	17/01/2021													
Received VGST funded project under K-FIST L2 Details: Title: Establishment of infrastructure facilitating studies related to impact dynamics/material damping potential estimation from application-oriented research/academic perspectives K-FIST L2/GRD No. 935/2020-21/66	26/08/2021													
Served as reviewer of innovative ideas received under the INSPIRE Awards-MANAK-GOI for the year 2021-22	13/01/2022													
Design and Development of Magnetic clamping mechanism suitable for Aryabhata Motors – a consultancy worth 1.1 Lakhs	02/11/2022 (component submitted)													
2023	La Foundation-FDP on NVH (Pre FDP-2days and FDP-5days)	25 <sup>th</sup> & 26 <sup>th</sup> May 19 <sup>th</sup> to 23 June												
	Student project is selected for <b>La Fondation Dassault Systemes   Engineering DESIGN Internship Program Y 2023-24</b>   (for three years) towards Development of Orthosis	29/05/2023												
	Advanced Engineering Research Collaboration of <b>Volvo-BMSCE</b> towards development of facility for characterization of flexibles (project worth 21.5 Lakhs)	07/09/2023												
	Served as reviewer of innovative ideas received under the INSPIRE Awards-MANAK-GOI for the year 2022-23	10/11/2023												
	Third party inspection of a food truck which has been selected under a Karnataka Arya Vyshya Community Development Corporation, Bangalore South District	06/12/2023												
	2024	Coordinator for one day faculty workshop on “ <b>Hands on learning with Arduino</b> ”	06/01/2024											
Participated in one week faculty development on “Latest Trends in Additive Manufacturing”		29th Jan to 2nd Feb 2024												

### Proficiency Courses

<b>Sl. No.</b>	<b>Course</b>	<b>University</b>
<b>1</b>	<b>Vibration and Noise Theory and Practice (2 Credit)- 2016</b>	<b>IISc</b>
<b>2</b>	<b>Structural Analysis and Design Optimization Theory and Practice (2 Credit)-2019</b>	<b>IISc</b>
<b>3</b>	<b>Introduction to basic vibrations</b>	<b>Korea Advanced Institute of Science and Technology (KAIST)-Coursera</b>
<b>4</b>	<b>Introduction to advanced vibrations</b>	<b>Korea Advanced Institute of Science and Technology (KAIST) -Coursera</b>