CURRICULUM VITAE

DR BINU KG

ING.PAED.IGIP

PERSONAL DATA:

Address

#437, Staff Quarters, St Joseph Engineering College, Vamanjoor, Mangalore – 575 028

Contact Number

Mobile: +91 9739866947

Email

binuk@sjec.ac.in

Personal Details

Date of Birth	: 03 Aug 1978
Gender	: Male
Nationality	: Indian
Marital Status	: Married

Languages known:

English, Hindi, Kannada, Malayalam, Tamil

ABSTRACT

- International Certification on Engineering Education (ING. PAED. IGIP)
- Faculty in the Department of Mechanical Engineering with proven all-round contribution in academic, research, managerial, co-curricular and extra-curricular responsibilities.
- Master Facilitator in Human Resource Development from CHLHRD.

EXPERIENCE SUMMARY

- **August 2005 till date:**

  Joined St Joseph Engineering College as a Lecturer and currently holds the designation of Professor & Head – Strategy & Planning.

- **July 2021 till date:**

  Promoted as Head – Strategy & Planning of St Joseph Engineering College, Mangaluru.

- **September 2021 till date:**

  Co-Founder & Director – ComforTech Engineering Solutions Pvt. Ltd

- **September 2009 to September 2012:**

  Doctoral Work in the Department of Mechanical Engineering at Manipal Institute of Technology, Manipal. Awarded Ph.D. Degree in April 2017.

SUBJECTS HANDLED

Theory: Internet of Things, Industry Oriented Training, Principles of Technology Innovation Management, Design of Machine Elements – 1 & 2, Mechanics of Materials, Fluid Mechanics, Mechanical Vibrations, Metrology & Measurements, Total Quality Management, Project Management, Manufacturing Process – 1, Non-Destructive Testing, Maintenance Engineering, Professional Ethics. **Laboratories:** Materials Testing, Mechanical Measurements, Fluid Mechanics, Design, Energy Conversion, Foundry & Forging.

Ongoing Research Projects

1) Project Title:
   Upskilling and Reskilling of Artisans in Dakshina Kannada, Udupi and Uttara Kannada Districts with respect to Skill India Mission of Pradhan Mantri Kaushal Vikas Yojana 4.0.

   Funding Agency:
   ICSSR (Special Call for Short Term Empirical Research Projects)
   2023-24

   Total Amount:
   12,00,000.00

   Designation:
   Project Director

2) Project Title:
   In-Vitro Measurement of Friction Coefficient of Contact Lenses in a Physiological Eyeball Model

   Funding Agency:
   Research Grants Scheme of Visvesvaraya Technological University
   2021 – 2023

   Total Amount:
   15,00,000.00

   Designation:
   Principal Investigator

EDUCATIONAL STRENGTH

- B.E (Mechanical): PESCE, Mandya (University of Mysore) Class of 2000 – First Class with Distinction.
- M.Tech (Mechanical Maintenance Engineering): SJCE, Mysore (VTU) Class of 2005 – First Class with Distinction and 3rd Rank in University Examinations.
- Ph.D. (Tribology): MIT – Manipal, 2017.

CURRENT RESPONSIBILITIES IN SJEC

Head – Strategy & Planning (2021 - Till Date)
Program Head: InnoVenture – SJEC Innovation Platform
Chief Coordinator - Development Projects (2018 - Till Date)
Member of Industry Interaction Cell of the Department of Mechanical Engineering.

Convenor: Tribology Study Group
Coordinator: Automation and Robotics Club ARC-SJEC

RESEARCH PUBLICATIONS

Peer-Reviewed International Journal Publications:

1. **K.G. Binu,** B.S. Shenoy, D.S. Rao, R. Pai. Static characteristics of a fluid film bearing with TiO2 based nanolubricant using the modified Krieger-Dougherty viscosity model and couple stress model. Tribology International 75 (2014): 69-79. (Elsevier Publications)
2. **K.G. Binu**, B.S. Shenoy, D.S. Rao, R. Pai. A variable viscosity approach for the evaluation of load carrying capacity of oil lubricated journal bearing with TiO2 nanoparticles as lubricant additives. Procedia Materials Science 6 (2014): 1051-1067. (Elsevier Publications)
3. **K.G. Binu,** B.S. Shenoy, D.S. Rao, R. Pai. Stability characteristics of journal bearing systems lubricated with couple stress fluids using the non-linear transient approach. Journal of Tribology and Surface Engineering 2011; 3(1-2): 51-66. (Nova Publications, USA)
4. B. S. Shenoy, **K. G. Binu**, R. Pai, D. S. Rao, R. S. Pai. Effect of nanoparticle additives on the performance of an externally adjustable fluid film bearing. Tribology International 2012; 45(1): 38-42. (Elsevier Publications)
5. K. Yathish, **K. G. Binu**, B. Shenoy, D. S. Rao, R. Pai. Study of TiO2 Nanoparticles as Lubricant Additive in Two-Axial Groove Journal Bearing. World Academy of Science, Engineering and Technology, International Science Index 95, International Journal of Mechanical, Aerospace, Industrial and Mechatronics Engineering, 2014 8(11), 1692 - 1698.
6. **Binu K. G**., Spoorthi M., Prajwal K., Neil Vaz, Rolvin D'Silva, Pai R. Formulation and Viscosity Analysis of TiO_2 Nanoparticle Dispersions in Engine Oil. American Journal of Materials Science. 2015 5(3C). 198-202. (Scientific and Academic Publishing, USA)
7. K. Yathish, **K. G. Binu**, Rolvin S. D'Silva, B. S. Shenoy, R. Pai. Static Characteristics of Two-Axial Groove Journal Bearing Operating on TiO_2 Nanolubricant. Journal of Mechanical Engineering and Automation. 2015, (3B). 94-99. (Scientific and Academic Publishing, USA)
8. **K.G. Binu**, K. Yathish., R. Mallya, B.S. Shenoy, D.S. Rao, R. Pai. Experimental study of hydrodynamic pressure distribution in oil lubricated two-axial groove journal bearing. Materials Today: Proceedings, 2015. 2(4-5). 3453–3462. (Elsevier Publications).
9. Rolvin D'Silva, **Binu K.G**., Thirumaleshwara Bhat. Performance and Emission Characteristics of a C.I. Engine Fuelled with Diesel and TiO2 Nanoparticles as Fuel Additive. 2015. Materials Today: Proceedings, 2(4–5), 3728–3735
10. Rolvin D'Silva, Vinoothan K., **Binu K. G.,** Thirumaleshwara Bhat, Raju K. Effect of Titanium Dioxide and Calcium Carbonate Nanoadditives on the Performance and Emission Characteristics of C.I. Engine. Journal of Mechanical Engineering and Automation. 2016. 6(5A). 28-31.
11. Sushmita, M. Rajesh, Hemanth K., Ravikantha Prabhu, Sharath Meloth C., **Binu K. G**. Processing and Testing of Hybrid Sandwich Composites for Vibration Damping and

Mechanical Properties. Journal of Mechanical Engineering and Automation. 2016. 6(5A). 22-27.

12. **K. G. Binu**, K. Yathish, D. S. Rao, R. Pai, B. S. Shenoy. Static Characteristics of Journal Bearings Operating on TiO2 Nanolubricants at Low Shear Condition. **Journal of Mechanical Engineering and Automation. 2016. 6(5A). 142-146.**
13. **KG Binu**, K Yathish, BS Shenoy, DS Rao, R Pai. Dynamic Performance Characteristics of Finite Journal Bearings Operating on TiO2 based Nanolubricants. Pertanika Journal of Science & Technology 25 (3), 2017**.**
14. Rolvin D'Silva, Mohammed Hafeez, Joyal Fernandez, Faheem Paloth, Ibrahim Abdul Rahiz, **KG Binu**, K Raju, Thirumaleshwara Bhat. Effect of Copperoxide Nanoadditives on the Performance and Emissions Characteristics of a CI Engine. Energy and Power 2017; 7(4): 99-104. doi:10.5923/j.ep.20170704.02
15. JM Vion, MN Venkatesh, PS Gauthami, DN Deepak, K Yathish, **KG Binu**, A Shetty, Joel D'Mello. Design and Fabrication of Arecanut Processing Unit. Journal of Mechanical Engineering and Automation. 2017; 7(5):155-158. doi:10.5923/j.jmea.20170705.06.
16. Manjunath B. A., **Binu K. G.,** Santhosh H., Rahul Kumar. Design and Fabrication of Air Driven Vehicle. Journal of Mechanical Engineering and Automation 2017; 7(4): 112-115. doi: 10.5923/j.jmea.20170704.05.
17. K Yathish, **KG Binu.** Static Characteristics of Two-Axial Groove Journal Bearing Operating on TiO 2 Nanolubricant Using a Temperature Dependent Viscosity Model. Journal of Mechanical Engineering and Automation, 2017;7(5): 150-154. doi:10.5923/j.jmea.20170705.05.
18. Neil Vaz, **Binu K. G.,** Pruthivi Serrao, Hemanth M. P., Jeffin Jacob, Nirmal Roy, Eric Dias. Experimental Investigation of Frictional Force in a Hydrodynamic Journal Bearing Lubricated with Magnetorheological Fluid. Journal of Mechanical Engineering and Automation, 2017; 7(5): 131-134. doi:10.5923/j.jmea.20170705.01.
19. Rolvin D'Silva, Naveen Fernandes, Melroy Menezes, Princstan D'Souza, Vellan Pinto, Vinoothan Kaliveer, **Binu K. Gopalakrishna**, and Thirumaleshwara Bhat. Effect of TiO2 nanoparticle concentration in Pongamia Pinnata methyl ester on performance and emission characteristics of CI engine. AIP Conference Proceedings 2080, 030006 (2019); https://doi.org/10.1063/1.5092909
20. Uttam M. Bangera, Royston Pinto, Chrisel Ann Pais, Sharon Helson Tauro, and **Binu K. G.** Design and development of controlled arm using electromyographic signals. AIP Conference Proceedings 2080, 040007 (2019); https://doi.org/10.1063/1.5092925
21. Ananth Krishna Bhat, Neil Vaz, Yathish Kumar, Rolvin D'Silva, Pavan Kumar, and **Binu K. G**. Comparative study of journal bearing performance with ferrofluid and MR fluid as lubricant. AIP Conference Proceedings 2080, 040008 (2019); https://doi.org/10.1063/1.5092926
22. Yathish Kumara, Arbaz Khader, Allen Clinton, Sheethal S. Kuchoor, Roland L. Tauro, Ashwin Shetty, Vinoothan Kaliveer, Neil Vaz, and **Binu K. Gopalakrishna.** Design and fabrication of a hovering multipurpose agro carrier. AIP Conference Proceedings 2080, 040009 (2019); https://doi.org/10.1063/1.5092927
23. Yathish Kumara, Royston S. Louis, Danish D'Souza, Shelton Floyd, Emil B. Varghese, and **Binu K. Gopalakrishna**. Design and fabrication of automatic arecanut processing unit. AIP Conference Proceedings 2080, 040010 (2019); https://doi.org/10.1063/1.5092928.
24. Mohammed Al Tamash Sheikh, Kenny Pritish Solomon Pereira, **Binu Kottoor**

Gopalakrishna, and Kandavalli Raju. Design and fabrication of automated prosthetic arm. AIP Conference Proceedings 2236, 070003 (2020); https://doi.org/10.1063/5.0007070. Published Online: 20 May 2020.

25. Rolvin D'Silva, **Binu Kottoor Gopalakrishna**, Raison DSouza, Vinoothan Kaliveer, and Thirumaleshwara Bhat. Empirical study of engine performance and emission parameters using Python module. AIP Conference Proceedings 2236, 030006 (2020); https://doi.org/10.1063/5.0007072. Published Online: 20 May 2020
26. **Binu K. G.,** Vijay V. S., Anusha M. M., Anoop C. V., Shreeranga Bhat, Rio D'Souza. Influence of Epistemic Curiosity on the Study Approaches of First Year Engineering Students. Procedia Computer Science 172 (2020) 443–451.
27. Amit Lathigara, Lipika Gupta, **Binu K. G.,** Veena Kumar, Sustaining Motivation of Engineering Students in India by Managing their Academic & Affective Needs. Journal of Engineering Education Transformations. Volume 34, Special Issue, ICTIEE 2021, January 2021. **DOI**: 10.16920/jeet/2021/v34i0/157203

AWARDS AND RECOGNITIONS

- Secured University Third Rank in M.Tech. (Maintenance Engineering)
- Secured Best Paper Award at ICCMEH – 2015 Malaysia (Paper presented by Dr Srikanth Rao, Prof. at MIT-Manipal)
- Awarded with ***Excellence in Accomplishments by IIEECP Certified Faculty*** by the Indo Universal Collaboration for Engineering Education at the International Conference on Transformations in Engineering Education ICTIEE-2021. 8 – 10 January 2021.
- Secured ***Best Paper Award*** for the paper titled Sustaining Motivation of Engineering Students in India by Managing their Academic & Affective Needs, jointly presented with Amit Lathigara and Lipika Gupta at the International Conference on Transformations in Engineering Education ICTIEE-2021. 8 – 10 January 2021.
- Awarded with ***Excellence in Accomplishments by IIEECP Certified Faculty*** by the Indo Universal Collaboration for Engineering Education at the International Conference on Transformations in Engineering Education ICTIEE-2021. 8 – 10 January 2021.
- Awarded the **Excellence in Academic Leadership** by the Indo Universal Collaborations for Engineering Education in January 2022.

RESEARCH AREA

1. Tribology
2. Nanofluids
3. Colloidal Stability
4. Engineering Education
5. Epistemic Curiosity
6. Social Science

https://www.linkedin.com/in/binukg/

https://www.researchgate.net/profile/Binu_Gopalakrishna