



Dr. Sharath B.N
B.E., M.Tech., Ph. D.

Contact:



91-9738201801



Kalparuksha nilaya, III
Main, 13th Cross, Hassan,
Karnataka, India.

sharathbn04@gmail.com
sbn@mcehassan.ac.in

Google scholar ID:

<https://scholar.google.com/citations?hl=en&user=Xc5fWNMAAAAJ>

ORCiD ID:

0000-0001-7521-1759

Scopus Author ID:

57224323959



Areas of Interest

- Tribology
- Material Science
- Manufacturing Process
- Engineering Drawing
- Composites

Technical Skills

- Minitab
- Solid Works
- ANSYS
- Artificial Neural Network

Curriculum Vitae

Education

2022 Ph.D. in Mechanical Engineering

Malnad College of Engineering, Hassan, Karnataka, India.
(Visvesvaraya Technological University Belagavi.)

2015 M. Tech in Production Engineering & Systems Technology

UBDT College of Engineering, Davangere, Karnataka, India.
(Visvesvaraya Technological University Belagavi.)

2013 B.E. in Mechanical Engineering

NDRK Institute of Technology, Hassan, Karnataka, India.
(Visvesvaraya Technological University Belagavi.)

Experience

2015 – Till Date

Assistant Professor

Malnad College of Engineering, Hassan, Karnataka, India.

Award & Recognition

- **II Rank** in M. Tech [Production Engineering & Systems Technology] in **Visvesvaraya Technological University Belagavi**. (State Technological University, Govt. of Karnataka).

Work Profile

- Member of Internal Board of Studies & BOE
- Involved in Curriculum design.
- Guided, led, and mentored students in project works.
- Participated in departmental and college activities.
- Assessed, reviewed, and evaluated student performance and progress.
- Worked as, The Institution of Engineers, Timetable, Internal Exams & Mini project coordinator.
- Developed manual of Laboratory
- Worked with the department for achieving accreditation from national board of accreditation (NBA) & NAC

International Journals

1. **Sharath BN**, Madhu KS, Pradeep DG, Madhu P, Premkumar BG, Karthik S. High Temperature Tensile Behaviour of Ceramic-Hybridized Metal Matrix Composites for Above-Room-Temperature Applications. *Silicon*. **2023 Nov** 10:1-2. <https://doi.org/10.1007/s12633-023-02746-3> [SCIE] [Q2]
2. Pradeep DG, Nithin HS, **Sharath BN**, Madhu KS. Evaluation of dry sliding wear behavior of thermally sprayed and microwave post-processed TiO₂ reinforced tungsten carbide composite coating. *Welding in the World*. **2023 Nov** 9:1-3. <https://doi.org/10.1007/s40194-023-01617-0> [SCIE] [Q2]
3. **Nagaraju SB**, Somashekara MK, Govindaswamy PD, Puttegowda M, Shankar PB, Sathyanarayana K. Wear behaviour of hybrid (boron carbide-graphite) aluminium matrix composites under high temperature. *Journal of Engineering and Applied Science*. **2023 Dec**;70(1):1-23. <https://doi.org/10.1186/s44147-023-00294-6> [Scopus Index] [Q4]
4. **Nagaraju SB**, Sathyanarayana K, Somashekara MK, Pradeep DG, Puttegowda M, Verma A. Artificial neural networks for predicting mechanical properties of Al₂₂₁₉-B₄C-Gr composites with multi reinforcements. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*. **2023 Sep** 5:09544062231196038. <https://doi.org/10.1177/09544062231196> [Scopus Index] [Q2]
5. Karthik S, **Sharath BN**, Madhu P, Madhu KS, Prem Kumar BG, Verma A. Experimental and artificial neural network-based slurry erosion behavior evaluation of cast iron. *International Journal on Interactive Design and Manufacturing (IJIDeM)*. **2023 Nov** 13:1-1. <https://doi.org/10.1007/s12008-023-01618-9> [Scopus Index] [Q2]
6. **Sharath BN**, Madhu P, Verma A. Enhancing tribological performance: A review of ceramic reinforced aluminium hybrid composites for high-temperature engineering applications. *Hybrid Advances*. **2023 Oct** 1:100094. <https://doi.org/10.1016/j.hybadv.2023.100094>
7. **Nagaraju SB**, Somashekara MK, Govindaswamy PD, Puttegowda M, Girijashankar PB, Sathyanarayana K. Mechanical Characterization of B₄C-Gr Al₂₆₁₈ Based Composites Synthesized by Stir Casting Method. *Applied Science and Engineering Progress*. **2023 Aug** 23;16(3):6579-. <https://doi.org/10.14416/j.asep.2022.12.005> [Scopus Index] [Q2]
8. **Sharath BN**, Karthik S, Madhu P, Madhu KS, Pradeep DG. Predictive Analysis of Slurry Erosion Behaviour in Aluminium-Based Hybrid Metal Matrix Composites: Experimental and Machine Learning Approach. *Journal of Bio-and Tribo-Corrosion*. **2023 Dec**;9(4):70. <https://doi.org/10.1007/s40735-023-00793-2> [Scopus Index] [Q2]
9. **Sharath BN**, Madhu KS, Pradeep DG, Madhu P, Premkumar BG, Karthik S. Effects of tertiary ceramic additives on the micro hardness and wear characteristics of Al₂₆₁₈+ Si₃N₄-B₄C-Gr hybrid composites for automotive applications. *Journal of Alloys and Metallurgical Systems*. **2023 May** 31:100014. <https://doi.org/10.1016/j.jalmes.2023.100014>

10. **Sharath BN**, Madhu KS, Pradeep DG, Madhu P, Premkumar BG, Karthik S. “Conjectured hybrid power with artificial intelligence and single-axis solar tracking wind turbine”. International Journal of Energy and Water Resources. **2023 Jan** 24:1-7. <https://doi.org/10.1007/s42108-023-00234-3>
11. TG YG, Ballupete Nagaraju S, Puttegowda M, Verma A, Rangappa SM, Siengchin S. Biopolymer-Based Composites: An Eco-Friendly Alternative from Agricultural Waste Biomass. Journal of Composites Science. **2023 Jun** 11;7(6):242. <https://doi.org/10.3390/jcs7060242> [SCIE] [Q2]
12. **Ballupete Nagaraju S**, Kodigarahalli Somashekara M, Puttegowda M, Manjulaiah H, Kini CR, Channarayapattana Venkataramaiah V. Effect of B₄C/Gr on Hardness and Wear Behavior of Al₂618 Based Hybrid Composites through Taguchi and Artificial Neural Network Analysis. Catalysts. **2022 Dec** 15;12(12):1654. <https://doi.org/10.3390/catal12121654> [SCIE] [Q2]
13. Madhu KS, Venkatesh CV, **Sharath B.N**, Karthik S. “Characterization and Evaluation of Mechanical Properties of Al-Zn Based Hybrid Metal Matrix Composites”. Applied Science and Engineering Progress. **2022 Nov** 2;16(1):5804-. <https://doi.org/10.14416/j.asep.2022.03.008> [Scopus Index] [Q2]
14. **Sharath B.N**, Venkatesh CV, et. al “Multi Ceramic Particles Inclusion in the Aluminium Matrix and Wear Characterization through Experimental and Response Surface-Artificial Neural Networks”. Materials. **2021 Jan**;14(11):2895. <https://doi.org/10.3390/ma14112895>. [SCIE] [Q2]
15. **Sharath B.N**, and Venkatesh C V. **2021**. “Study On Effect of Boron Carbide, Aluminium Oxide and Graphite on Dry Sliding Wear Behaviour of Aluminium Based Metal Matrix Composite at Different Temperature”. Tribologia - Finnish Journal of Tribology 38 (1–2):35–46. <https://doi.org/10.30678/fjt.9993>. [Scopus Index] [Q4]
16. **Sharath BN**, Venkatesh CV et. al “Study on effect of ceramics on dry sliding wear behaviour of Al-Cu-Mg based metal matrix composite at different temperature”. Materials Today: Proceedings. **2021**. <https://doi.org/10.1016/j.matpr.2021.04.034>. [Scopus Index] [Q2]
17. **Sharath B.N**, Jeevan TP, et. al. “Machinability studies on boron carbide and graphite reinforced aluminium hybrid composites”. Materials Today: Proceedings. **2021 Apr** 23. <https://doi.org/10.1016/j.matpr.2021.04.036>. [Scopus Index] [Q2]
18. Pradeep DG, **Sharath BN**, Madhu KS, Karthik S, Venkatesh CV. “Investigating the adhesion strength of electrodeposited Ni-Al₂O₃ nano composite on Al-2618 substrate by using the scratch test technique”. Materials Today: Proceedings. **2021 Dec** 1. <https://doi.org/10.1016/j.matpr.2021.11.336>. [Scopus Index] [Q2]
19. Pradeep DG, Nithin HS, **Sharath BN**, Madhu KS, Venkatesh CV. “Microstructure and Wear Behavior of Microwave Treated WC-10Co-4Cr Composite Coating on AISI 4140 Alloy Steel”. In IOP Conference Series: Materials Science and Engineering **2021 Oct** 1 (Vol. 1189, No. 1, p. 012012). IOP Publishing. <https://doi.org/10.1088/1757-899X/1189/1/012012>. [Scopus Index]

20. Madhu K.S, **Sharath B.N**, Venkatesh CV, Pradeep DG. "Evaluation of Mechanical Properties of Ceramic Reinforced Aluminium-7029 Hybrid Composite". In IOP Conference Series: Materials Science and Engineering **2021 Oct 1** (Vol. 1189, No. 1, p. 012019). IOP Publishing.
<https://doi.org/10.1088/1757-899X/1189/1/012019> [**Scopus Index**]
21. Chikkegouda SP, Gurudath B, **Sharath B.N**, Karthik S, Mahale RS "Mechanical and Tribological Characteristics of Aluminium 2618 Matrix Composite Reinforced with Boron Carbide." Bio interface Research in Applied Chemistry **2021**. Volume 12, Issue 4, 2022, 4544 – 4556.
<https://doi.org/10.33263/BRIAC124.45444556> [**Scopus Index**] [Q3]
22. **Sharath B.N**, Madhu KS, Pradeep DG, Venkatesh CV. "Tribological Suitability of aluminium hybrid composite above atmospheric temperature". In IOP Conference Series: Materials Science and Engineering **2021 Oct 1** (Vol. 1189, No. 1, p. 012018). IOP Publishing.
<https://doi.org/10.1088/1757-899X/1189/1/012018> [**Scopus Index**]
23. Pradeep DG, **Sharath B.N**, "Study on scratch behavior of Ni-Al₂O₃ coating composition on Al-2219 substrate by electro deposited technique". Materials Today: Proceedings. **2021 May 4**.
<https://doi.org/10.1016/j.matpr.2021.04.033>. [**Scopus Index**] [Q2]
24. Madhu, K. S., C. V. Venkatesh, **Sharath B. N**, and S. Karthik. "Effect of Boron Carbide on wear resistance of graphite containing Al7029 Based Hybrid Composites and its Dry Sliding Wear Characterization Through Experimental, Response Surface Method and ANOVA." Tribologia-Finnish Journal of Tribology 38, no. 3– 4 (**2021**): 48-60.<https://doi.org/10.30678/fjt.111905> [**Scopus Index**] [Q4]
25. **Sharath, B.N.**, Madhu, K.S. and Venkatesh, C.V., **2019**. "Experimental Study on Dry Sliding Wear Behaviour of Al-B₄C-Gr Metal Matrix Composite at Different Temperatures". J. Applied Mechanics and Materials, 895, pp. 96-101. <https://doi.org/10.4028/www.scientific.net/AMM.895.96>
26. "Advancing the Performance of Ceramic - Reinforced Aluminum Hybrid Composites: A Comprehensive Review and Future Perspectives" [**Scopus Index: Applied Science and Engineering Progress-Accepted and Published in online**]. DOI: [10.14416/j.asep.2023.10.001](https://doi.org/10.14416/j.asep.2023.10.001)[Q2]
27. Sintering of mechanically alloyed powders (**Book Chapter: IGI Global Publisher of Timely Knowledge -Accepted**)
28. Comparison of wet and dry milling (**Book Chapter: IGI Global Publisher of Timely Knowledge Accepted**)
29. Comparative study of mechanical alloying and other conventional powder metallurgical methods. (**Book Chapter: Elsevier- Accepted**)
30. Introduction to Bioimplant manufacturing (**Book Chapter: CRC Press-Tylor & Francis Group-Accepted**)

- α. **Sharatha, B.N.**, Madhu, K.S. and Venkatesh, C.V., “**Tribological suitability of aluminium hybrid composite above atmospheric temperature.**”- International conference on Trends in Mechanical Engineering Sciences.” MCE Hassan
- β. Madhu, K.S., **Sharath, B.N.** and Venkatesh, C.V. “**Evaluation of Mechanical Properties of Ceramic Reinforced Aluminium-7029 Hybrid Composite**”.- International conference on Trends in Mechanical Engineering Sciences.” MCE Hassan.
- χ. **Sharath B.N***, Karthik S, Pradeep D G, Madhu K S, C V Venkatesh “**Machinability studies on boron carbide and graphite reinforced Al7029 based hybrid composites**” Second International Conference on Materials, Design and Manufacturing for Sustainable Environment (ICMDMSE 2022) with a Theme focusing on Digital Solutions for Sustainable Earth in collaboration with UCSI University of Malaysia during the month of March 11-12, 2022.

Under Review

1. Prospects of Synthetic Fiber Reinforced Polymer Composites in Engineering and Commercial Applications (**Book Chapter: Elsevier**)
2. An Introduction to Metal Matrix Composites and Their Applications (**Book Chapter: Elsevier**)
3. Finite Element Analysis of Polymeric Materials in Engineering Applications. (**Book Chapter: Elsevier**)
4. Consolidation of lightweight alloy powders: Overcoming the problems during pressing and sintering of low dense alloy powders like aluminium, magnesium, titanium, and beryllium alloys (**Book Chapter: Springer**)
5. Energy storage applications of mechanically alloyed materials Super capacitors, battery applications. (**Book Chapter: Springer**)
6. Wear Behaviour of Aluminium-based hybrid composites Processed by Equal Channel Angular Pressing [**Scopus Indexed: Journal of Engineering Tribology**]
7. A Review on the Potential Impact of Age Hardening on Aluminum Alloys and Hybrid Composites for Engineering Applications: [**Scopus Indexed: Advances in Materials and Processing Technologies**]
8. Carbon Nanotube-Infused Metal Matrix Composites: A Review of Recent Advances and Future Prospects for Engineering Use [**Emergent Materials**]
9. Unveiling the Potential of Age Hardened Aluminum Alloys: Strengthening Solutions for Engineering Challenges"[**Journal of The Institution of Engineers (India): Series D**].

10. Advanced Terrain Exploration Rover with Finite Element Modelling: Unleashing the Forest and Special Operations Potential [**Bulletin of Engineering Geology and the Environment**].
11. An Experimental and Artificial Neural Network Approach to Characterizing the Effects of SiC and Al₂O₃ on the Mechanical Properties of Al6082 Hybrid Metal Matrix Composites. [**JOM**]
12. Mechanical property evaluation of raw and chemically treated luffa aegyptica fruit fiber epoxy composite. [**SCIE Indexed: Biomass Conversion and Biorefinery Processing of Biogenic Material for Energy and Chemistry**]

Book Chapters

- **Sharath, B. N.**, S. Karthik, D. G. Pradeep, K. S. Madhu, and C. V. Venkatesh. "Machinability Studies on Boron Carbide and Graphite Reinforced Al7029-Based Hybrid Composites." In Materials, Design and Manufacturing for Sustainable Environment, pp. 511-522. **Springer**, Singapore, 2023. [DOI:10.1007/978-981-19-3053-9_38](https://doi.org/10.1007/978-981-19-3053-9_38)
- Sathyanarayana, Karthik, Madhu Puttegowda, Sanjay Mavinkere Rangappa, Suchart Siengchin, Pradeep Shivanna, **Sharath Ballupete Nagaraju**, Madhu Kodigarahalli Somashekara, Premkumar Bagaderakoppal Girijashankar, and Yashas Gowda Thyavihalli Girijappa. "**Metallic lightweight materials: properties and their applications.**" Lightweight and Sustainable Composite Materials: Preparation, Properties and Applications (2023): 47. (**Book Chapter-3: Elsevier**) <https://doi.org/10.1016/B978-0-323-95189-0.00003-2>
- **Nagaraju, Sharath Ballupete**, H. C. Priya, Yashas Gowda, Thyavihalli Girijappa, and Madhu Puttegowda. "Lightweight and sustainable materials for aerospace applications." **Lightweight and Sustainable Composite Materials: Preparation, Properties and Applications** (2023): 157. (**Book Chapter-9: Elsevier**) <https://doi.org/10.1016/B978-0-323-95189-0.00007-X>

Editorial Board Member

Advances in Materials (AM). ISSN Print: 2327-2503; ISSN Online: 2327-252X.

<https://www.sciencepg.com/j/am>

Review Board Member

- PriMera Scientific Engineering (PSEN) (ISSN: 2834-2550) <https://primerascientific.com/psen/editorialboard>
- **Medicon Engineering Themes** (ISSN: 2834-7218). Medicon Engineering Themes (MCET) is a multidisciplinary International, double blinded peer reviewed open access Journal with 0.868 ISI impact factor. <https://themedicon.com/engineeringthemes-reviewer-board>
- **International Journal of Novel Research and Development**, (ISSN: 2456-4184). Scholarly open access journals, Peer-reviewed, and Refereed Journals, Impact factor 8.76. **Member ID: 111844**

Reviewer for Journals

- Reviewer in Journal of Asian Ceramic Societies-**Tylor & Francis online**
- Reviewer in Surface Topography: Metrology and Properties -**IOP science**
- Reviewer in Engineering Research Express-**IOP science**
- Reviewer in Silicon Journal-**Springer**
- Reviewer in Biomass Conversion and Biorefinery-**Springer**
- Reviewer in The Journal of The Minerals, Metals & Materials Society (TMS) -**Springer**
- Reviewer in Multiscale and Multidisciplinary Modeling, Experiments and Design-**Springer**
- Reviewer in International Journal of Energy and Water Resources-**Springer**
- Reviewer in Materials Research Express-**IOP science**

Membership in Technical Societies

- International Association of Engineers (IAENG).

FDP/Webinar/Technical Talk Organized

- Organizing Webinar on “**ANSA is an advanced multidisciplinary CAE pre-processing tool.**” in association with The Institution of Engineers (India) Mysore Local Center, Mysore. 29th May 2023. Organized by Department of Mechanical Engineering at Malnad College of Engineering, Hassan.
- Organizing Technical talk on “**Exam Stress, Fear & Related Causes**” in association with The Institution of Engineers (India) Mysore Local Center, Mysore. 26th Nov 2022. Organized by Department of Mechanical Engineering at Malnad College of Engineering, Hassan.
- Organizing Two Day Faculty Development Program on “**Geometric Dimensioning and Tolerancing**” 28th September 2022. Organized by Department of Mechanical Engineering at Malnad College of Engineering, Hassan.
- Organizing Technical talk on “**Recent developments in industrial and process automation**” in association with The Institution of Engineers (India) Mysore Local Center, Mysore. 16th June 2022. Organized by Department of Mechanical Engineering at Malnad College of Engineering, Hassan.
- Organizing Technical talk on “**Digital Disruption**” in association with The Institution of Engineers (India) Mysore Local Center, Mysore. 11th June 2022. Organized by Department of Mechanical Engineering at Malnad College of Engineering, Hassan.
- Organizing Technical talk on “**Exam Stress & Ways to Manage it**” in association with The Institution of Engineers (India) Mysore Local Center, Mysore. 17th Jan 2021. Organized by Department of Mechanical Engineering at Malnad College of Engineering, Hassan.

- Organizing One Day Faculty Development Program on “**Product Development and manufacturing**” in association with The Institution of Engineers (India) Mysore Local Center, Mysore. 16th June 2021. Organized by Department of Mechanical Engineering at Malnad College of Engineering, Hassan.

References

Dr. Pradeep S

Principal

Malnad College of Engineering. Hassan
Karnataka, India. 573202.

sp@mcehassan.ac.in

M.No- +919740620519

Dr. Ezhil Vannan

Head & Professor

Department of Mechanical Engineering
Malnad College of Engineering. Hassan
Karnataka, India. 573202.

evs@mcehassan.ac.in

M.No- +919845575450

Dr. Jeevan T.P

Associate Professor

Department of Mechanical Engineering
Malnad College of Engineering. Hassan
Karnataka, India. 573202.

tpj@mcehassan.ac.in

M.No- +919743448889

Online certification Courses / FDP

- Attended **Thirty** Faculty Development Programs till date organized inside/outside the institution.
- Completed **One** NPTEL/SWYAM Online certification course.

I hereby declare that all the above information is true to the best of my knowledge.

(Dr. Sharath B N)