



Malnad College of Engineering, Hassan

(An Autonomous Institute, Affiliated to V.T.U, Belagavi)

Faculty Biodata

GENERAL INFORMATION AND ACADEMIC BACKGROUND

PART-A

| | | |
|---------------------------------------|--|---|
| 1. | Name (in Block Letters) | Dr. S. PRADEEP |
| 2. | Qualification | B.E., M.Sc. (Engg.), Ph.D. |
| 3. | Date of joining the service at MCE | 09/05/1994 |
| 4. | Department | Mechanical Engineering |
| 5. | Current Designation & Experience in MCE | Principal & 30 Years |
| 6. | Teaching Experience: U.G. (in Years) | 30 Years |
| Research Experience (in Years) | | |
| 7. | a) Total Number of years | 23 Years |
| | b) Years spent in M. Phil. / Ph.D. | 3 Years |
| | c) Years of Guiding Ph.D. / M. Phil. | - |
| | d) Total No. of papers Published in | |
| | i. International Journals | 32 |
| | ii. National Journals | - |
| | iii. Conference Proceedings | 04 |
| | e) Total No. of Conferences/ Seminar/ Workshop Attended | |
| | i. International | 06 |
| | ii. National | 01 |
| iii. State Level | - | |
| 8. | Awards/ Prizes/ Honor's/ Recognitions | <ul style="list-style-type: none"> ➤ Editorial Board Member for Journals - ➤ Reviewer of International Journals ➤ Reviewer/ Member of International Conferences |
| 9. | Fields of Specialization under the Subject/ Discipline | Mechanical Engineering, Materials Engineering |
| 10. | Orientation/ Refresher Course/ Summer School/ Winter School/ Workshops attended | 50 |

PART-B

1. List of Publications:

Articles Published:

| Sl. No. | Title | Name of the Journal, Vol. No., Year | ISSN/ ISBN/ Number |
|---------|---|--|--------------------|
| 1. | Development of banana fabric incorporated polymer composites for printed circuit board application | Biomass Conversion and Biorefinery. 2023 Apr 29:1-4 | 21906815, 21906823 |
| 2. | Investigations on physical, mechanical, morphological and water absorption properties of ramie/hemp/kevlar reinforced vinyl ester hybrid composites | Journal of Vinyl and Additive Technology. 2023 Apr 24 | 15480585, 10835601 |
| 3. | Investigation on the dynamic behaviour and corrosion characteristics of hexagonal boron nitride (h-BN) and zirconium dioxide (ZrO ₂) reinforced Al7075 composite | Journal of Alloys and Metallurgical Systems. 2023 Mar 1;1:100004 | 2949-9178 |
| 4. | Hybrid effect of PJFs/E-glass/carbon fabric reinforced hybrid epoxy composites for structural applications | Journal of Natural Fibers. 2022 Oct 3;19(10):3742-52 | 1544046X, 15440478 |
| 5. | Comparative Study of the Mechanical and Water Absorption Behaviour of Basalt Fiber Reinforced Polymer Matrix Composites with Different Epoxies as Matrix for Biomedical Applications | Advances in Materials Science and Engineering. 2021 Dec 22;2021:1-9 | 16878442, 16878434 |
| 6. | Investigation of mechanical properties of ECAP processed AL7068 aluminium alloy | In IOP Conference Series: Materials Science and Engineering 2021 Oct 1 (Vol. 1189, No. 1, p. 012027). IOP Publishing | 17578981, 1757899X |
| 7. | Experimental Investigation of effect of hybridization of UHMWPE fibers on the mechanical and physical properties of Basalt fiber reinforced polymer matrix composites | In IOP Conference Series: Materials Science and Engineering 2021 Oct 1 (Vol. 1189, No. 1, p. 012025). IOP Publishing | 17578981, 1757899X |
| 8. | Effect of processing route on grain refinement and mechanical properties in equal channel angular pressing of aluminium alloy AA7068 | Journal of Mines, Metals and Fuels, 2021; 1-7 | 00222755 |
| 9. | Effect of fiber orientation on the mechanical properties of unidirectional basalt fiber reinforced polymer matrix composites | Journal of Mines, Metals and Fuels, 2021; 97-101 | 00222755 |
| 10. | Effect of layering sequence on impact properties of alkali treated phoenix pusilla fibers-glass-carbon fabrics reinforced hybrid composite laminates | Journal of Natural Fibers. 2022 Dec 1;19(13):6878-88 | 1544046X, 15440478 |
| 11. | Experimental investigation on the mechanical and morphological behavior of Prosopis juliflora bark fibers/E-glass/carbon fabrics reinforced hybrid polymeric composites for structural applications | Polymer Composites. 2020 Dec;41(12):4983-93 | 02728397, 15480569 |
| 12. | Preparation and characterization of new hybrid polymer composites from Phoenix pusilla fibers/E-glass/carbon fabrics on potential engineering applications: Effect of stacking sequence | Polymer Composites. 2020 Nov;41(11):4572-82 | 02728397, 15480569 |
| 13. | A review on synthesis and characterization of commercially available natural fibers: Part-I | Journal of Natural Fibers. 2018 Apr 5 | 1544046X, 15440478 |
| 14. | Processing and evaluation of mechanical properties of coconut coir and rice husk reinforced natural hybrid composites | Applied Mechanics and Materials. 2019 Dec 2;895:176-80 | 16609336 |
| 15. | Mechanical Properties Evaluation of Friction Stir Welded AA6061-AA7075 Alloys for Different Tool Pin Geometries | Applied Mechanics and Materials. 2019 Dec 2;895:295-300 | 16609336 |

| | | | |
|-----|---|---|-----------------------|
| 16. | Characterization of raw and alkali treated prosopis juliflora fibers for potential polymer composite reinforcement | In IOP Conference Series: Materials Science and Engineering 2019 Nov 1 (Vol. 653, No. 1, p. 012016). IOP Publishing | 17578981, 1757899X |
| 17. | Effect of hexagonal boron nitrate on microstructure and mechanical behavior of Al7075 metal matrix composite producing by stir casting technique | International Journal of Engineering. 2019 Jul 1;32(7):1017-22 | 1728-1431 |
| 18. | Characterization of cellulosic fibre from Phoenix pusilla leaves as potential reinforcement for polymeric composites | Journal of Materials Research and Technology. 2019 May 1;8(3):2597-604 | 22387854 |
| 19. | Effect of boron nitride and zirconium dioxide on mechanical behavior of Al7075 metal matrix hybrid composite | Materials Research Express. 2018 Dec 5;6(3):036509 | 20531591 |
| 20. | A review on synthesis and characterization of commercially available natural fibers: Part II | Journal of Natural Fibers. 2019 Jan 2;16(1):25-36 | 1544046X, 15440478 |
| 21. | Effect of various chemical treatments of Prosopis juliflora fibers as composite reinforcement: Physicochemical, thermal, mechanical, and morphological properties | Journal of Natural Fibers. 2018 Oct 22 | 1544046X, 15440478 |
| 22. | Characterization and properties of natural fiber polymer composites: A comprehensive review | Journal of Cleaner Production. 2018 Jan 20;172:566-81 | 09596526, 18791786 |
| 23. | Studies on mechanical properties of bamboo/carbon fiber reinforced epoxy hybrid composites filled with SiC particulates | Int. J. Eng. Res. Gen. Sci. 2018;6(5):1-9 | 2091-2730 |
| 24. | Natural Fibers and Its Composites for Engineering Applications: An Overview | In SARC International Conference, Chennai India, 2018 Dec. | - |
| 25. | Electrical Power Generation by Footsteps using Piezo-electric Transducers | International Journal of Recent Trends in Engineering & Research. 2016 | 2455-1457 |
| 26. | Superplastic forming of multipass friction stir processed aluminum-magnesium alloy | Metallurgical and Materials Transactions A. 2014 Dec;45:6207-16 | 10735623, 15431940 |
| 27. | Microstructural and Mechanical Characterization of Multipass Friction Stir Processed Al-Mg Alloy | Advanced Materials Research. 2014 May 26;902:18-23 | 16628985, 10226680 |
| 28. | Effect of microstructural inhomogeneity on superplastic behaviour of multipass friction stir processed aluminium alloy | Materials Science and Engineering: A. 2013 Jan 20;561:78-87 | 09215093 |
| 29. | Multipass friction-stir processing and its effect on mechanical properties of aluminum alloy 5086 | Metallurgical and Materials Transactions A. 2012 Nov;43:4311-9 | 10735623, 15431940 |
| 30. | Microstructural and mechanical characterization of friction stir processed 5086 aluminum alloy | In Materials Science Forum 2012 Feb 9 (Vol. 710, pp. 253-257). Trans Tech Publications Ltd. | 02555476, 16629752 |
| 31. | Influence of friction stir processing parameters on anisotropic behavior property of 5086-O aluminum Alloy | In Materials Science Forum 2012 Jan 25 (Vol. 702, pp. 348-351). Trans Tech Publications Ltd. | 02555476, 16629752 |

Chapters published in Books:

| Sl. No. | Title of the chapter | Book Title, editor & publisher | ISSN / ISBN No. |
|---------|--|--|-------------------|
| 1. | Potential of natural/ synthetic hybrid composites for aerospace applications | Sustainable composites for aerospace applications, Woodhead Publishing, 2018 | 978-0-08-102131-6 |

| | | | |
|----|---|--|---------------|
| 2. | Metallic lightweight materials: properties and their applications | Lightweight and Sustainable Composite Materials, Woodhead Publishing, 2023 | 9780323951890 |
|----|---|--|---------------|

Patents:

| Sl. No. | Title of the patent | Application No. | Journal Date | Type | Published/Granted | Grant type |
|---------|--|-----------------|--------------|-------------------|-------------------|------------|
| 1. | Development of Hybrid Polymer Composites Reinforced with Prosopis Juliflora Bark Fibers, Phoenix Pusilla Leaf Fibers, Glass Fabrics and Carbon Fabrics | 202041000392 | 10/01/2020 | National (Indian) | Granted | 25/01/2023 |

2. **Responsibilities in the Department and Institute / University:** (DAC, DPC, BOS, BOE etc., Institutional Governance responsibilities like, Dean, Chief warden, Warden, HOD's, School/ Centre Chairperson, IQAC Coordinator etc.)

| Sl. No | Responsibilities |
|--------|---|
| 1. | Principal, Dean (Examinations), Dean (Research) |

3. Details of Teaching Related Activities

| Sl. No. | Course Title |
|---------|------------------------------------|
| 1. | Strength of Materials |
| 2. | Engineering Drawing |
| 3. | Manufacturing Science – I |
| 4. | Machine Drawing |
| 5. | Non-Conventional Energy Sources |
| 6. | Engineering System Design |
| 7. | Elements of Mechanical Engineering |

| Professional Development Activities | | |
|-------------------------------------|---|----|
| | Membership in profession related committees at state and national level a) At International b) At national level c) At state | 08 |
| | Participation in subject associations, conferences, seminars without paper presentation | 08 |

| | | |
|--|---|-----------|
| | Participation in short term training courses less than one week duration in educational technology, curriculum development, professional development, Examination reforms, Institutional governance | 25 |
| | Membership/ participation in State/ Central Bodies/ Committees on Education, Research and National Development | 06 |
| | Publication of articles in newspapers, magazines, or other publications (not covered in category 3); radio talks; television programmes | - |
| | Invited Expert Talks | - |

PART-C

RESEARCH, PUBLICATIONS AND ACADEMIC CONTRIBUTIONS

1. Published Papers in Journals

| Sl. No. | Title | Journal with Vol. Year & Page No. | ISSN / ISBN No. | Whether peer reviewed. Impact factor, if any | No. of Co-authors | Whether you are the main author or Guide/mentor |
|---------|--|--|--------------------|--|-------------------|---|
| 1. | Development of banana fabric incorporated polymer composites for printed circuit board application | Biomass Conversion and Biorefinery. 2023 Apr 29:1-4 | 21906815, 21906823 | SCIE, 4.0 | 04 | No |
| 2. | Investigations on physical, mechanical, morphological and water absorption properties of ramie/hemp/kevlar reinforced vinyl ester hybrid composites | Journal of Vinyl and Additive Technology. 2023 Apr 24 | 15480585, 10835601 | SCIE, 2.7 | 05 | No |
| 3. | Investigation on the dynamic behaviour and corrosion characteristics of hexagonal boron nitride (h-BN) and zirconium dioxide (ZrO ₂) reinforced Al7075 composite | Journal of Alloys and Metallurgical Systems. 2023 Mar 1;1:100004 | 2949-9178 | Peer reviewed | 05 | No |
| 4. | Hybrid effect of PJFs/E-glass/carbon fabric reinforced hybrid epoxy composites | Journal of Natural Fibers. 2022 Oct 3;19(10):3742-52 | 1544046X, 15440478 | SCIE, 3.5 | 08 | No |

| | | | | | | |
|----|--|--|--------------------|---------------|----|----|
| | for structural applications | | | | | |
| 5. | Comparative Study of the Mechanical and Water Absorption Behaviour of Basalt Fiber Reinforced Polymer Matrix Composites with Different Epoxies as Matrix for Biomedical Applications | Advances in Materials Science and Engineering. 2021 Dec 22;2021:1-9 | 16878442, 16878434 | Scopus | 07 | No |
| 6. | Investigation of mechanical properties of ECAP processed AL7068 aluminium alloy | In IOP Conference Series: Materials Science and Engineering 2021 Oct 1 (Vol. 1189, No. 1, p. 012027). IOP Publishing | 17578981, 1757899X | Peer reviewed | 03 | No |
| 7. | Experimental Investigation of effect of hybridization of UHMWPE fibers on the mechanical and physical properties of Basalt fiber reinforced polymer matrix composites | In IOP Conference Series: Materials Science and Engineering 2021 Oct 1 (Vol. 1189, No. 1, p. 012025). IOP Publishing | 17578981, 1757899X | Peer reviewed | 04 | No |
| 8. | Effect of processing route on grain refinement and mechanical properties in equal channel angular pressing of aluminium alloy AA7068 | Journal of Mines, Metals and Fuels, 2021; 1-7 | 00222755 | Scopus | 04 | No |
| 9. | Effect of fiber orientation on the | Journal of Mines, Metals and Fuels, 2021; 97-101 | 00222755 | Scopus | 04 | No |

| | | | | | | |
|-----|---|--|--------------------|-----------|----|----|
| | mechanical properties of unidirectional basalt fiber reinforced polymer matrix composites | | | | | |
| 10. | Effect of layering sequence on impact properties of alkali treated phoenix pusilla fibers-glass-carbon fabrics reinforced hybrid composite laminates | Journal of Natural Fibers. 2022 Dec 1;19(13):6878-88 | 1544046X, 15440478 | SCIE, 3.5 | 07 | No |
| 11. | Experimental investigation on the mechanical and morphological behavior of Prosopis juliflora bark fibers/E-glass/carbon fabrics reinforced hybrid polymeric composites for structural applications | Polymer Composites. 2020 Dec;41(12):4983-93 | 02728397, 15480569 | SCIE, 5.2 | 07 | No |
| 12. | Preparation and characterization of new hybrid polymer composites from Phoenix pusilla fibers/E-glass/carbon fabrics on potential engineering applications: Effect of stacking sequence | Polymer Composites. 2020 Nov;41(11):4572-82 | 02728397, 15480569 | SCIE, 5.2 | 07 | No |

| | | | | | | |
|-----|--|---|--------------------|---------------|----|----|
| 13. | A review on synthesis and characterization of commercially available natural fibers: Part-I | Journal of Natural Fibers. 2018 Apr 5 | 1544046X, 15440478 | SCIE, 3.5 | 05 | No |
| 14. | Processing and evaluation of mechanical properties of coconut coir and rice husk reinforced natural hybrid composites | Applied Mechanics and Materials. 2019 Dec 2;895:176-80 | 16609336 | Peer reviewed | 04 | No |
| 15. | Mechanical Properties Evaluation of Friction Stir Welded AA6061-AA7075 Alloys for Different Tool Pin Geometries | Applied Mechanics and Materials. 2019 Dec 2;895:295-300 | 16609336 | Peer reviewed | 03 | No |
| 16. | Characterization of raw and alkali treated prosopis juliflora fibers for potential polymer composite reinforcement | In IOP Conference Series: Materials Science and Engineering 2019 Nov 1 (Vol. 653, No. 1, p. 012016). IOP Publishing | 17578981, 1757899X | Peer reviewed | 03 | No |
| 17. | Effect of hexagonal boron nitrate on microstructure and mechanical behavior of Al7075 metal matrix composite producing by stir casting technique | International Journal of Engineering. 2019 Jul 1;32(7):1017-22 | 1728-1431 | ESCI | 02 | No |

| | | | | | | |
|-----|---|--|--------------------|---------------|----|----|
| 18. | Characterization of cellulosic fibre from Phoenix pusilla leaves as potential reinforcement for polymeric composites | Journal of Materials Research and Technology. 2019 May 1;8(3):2597-604 | 22387854 | Scopus, 6.4 | 05 | No |
| 19. | Effect of boron nitride and zirconium dioxide on mechanical behavior of Al7075 metal matrix hybrid composite | Materials Research Express. 2018 Dec 5;6(3):036509 | 20531591 | SCIE | 03 | No |
| 20. | A review on synthesis and characterization of commercially available natural fibers: Part II | Journal of Natural Fibers. 2019 Jan 2;16(1):25-36 | 1544046X, 15440478 | SCIE, 3.5 | 05 | No |
| 21. | Effect of various chemical treatments of Prosopis juliflora fibers as composite reinforcement: Physicochemical, thermal, mechanical, and morphological properties | Journal of Natural Fibers. 2018 Oct 22 | 1544046X, 15440478 | SCIE, 3.5 | 06 | No |
| 22. | Characterization and properties of natural fiber polymer composites: A comprehensive review | Journal of Cleaner Production. 2018 Jan 20;172:566-81 | 09596526, 18791786 | SCIE, 11.1 | 05 | No |
| 23. | Studies on mechanical | Int. J. Eng. Res. Gen. Sci. 2018;6(5):1-9 | 2091-2730 | Peer reviewed | 03 | No |

| | | | | | | |
|-----|--|--|--------------------|---------------|----|-----|
| | properties of bamboo/carbon fiber reinforced epoxy hybrid composites filled with SiC particulates | | | | | |
| 24. | Natural Fibers and Its Composites for Engineering Applications: An Overview | In SARC International Conference, Chennai India, 2018 Dec. | - | Peer reviewed | 04 | No |
| 25. | Electrical Power Generation by Footsteps using Piezo-electric Transducers | International Journal of Recent Trends in Engineering & Research. 2016 | 2455-1457 | Peer reviewed | 05 | No |
| 26. | Superplastic forming of multipass friction stir processed aluminum-magnesium alloy | Metallurgical and Materials Transactions A. 2014 Dec;45:6207-16 | 10735623, 15431940 | SCIE | 01 | Yes |
| 27. | Microstructural and Mechanical Characterization of Multipass Friction Stir Processed Al-Mg Alloy | Advanced Materials Research. 2014 May 26;902:18-23 | 16628985, 10226680 | Peer reviewed | 01 | Yes |
| 28. | Effect of microstructural inhomogeneity on superplastic behaviour of multipass friction stir processed aluminium alloy | Materials Science and Engineering: A. 2013 Jan 20;561:78-87 | 09215093 | SCIE | 01 | Yes |
| 29. | Multipass friction-stir processing and its effect on mechanical | Metallurgical and Materials Transactions A. 2012 Nov;43:4311-9 | 10735623, 15431940 | SCIE | 02 | Yes |

| | | | | | | |
|-----|--|--|--------------------|---------------|----|-----|
| | properties of aluminum alloy 5086 | | | | | |
| 30. | Microstructural and mechanical characterization of friction stir processed 5086 aluminum alloy | In Materials Science Forum 2012 Feb 9 (Vol. 710, pp. 253-257). Trans Tech Publications Ltd. | 02555476, 16629752 | Peer reviewed | 02 | Yes |
| 31. | Influence of friction stir processing parameters on anisotropic behavior property of 5086-O aluminum Alloy | In Materials Science Forum 2012 Jan 25 (Vol. 702, pp. 348-351). Trans Tech Publications Ltd. | 02555476, 16629752 | Peer reviewed | 02 | Yes |

2. Training Courses, Teaching-Learning-Evaluation Technology Programs, Faculty development Programmes

| Sl. No. | Name of Course/ Summer/ Winter School | Duration | Organized By |
|---------|--|-----------|--------------|
| 1. | Analytical and Numerical Techniques in Applied Mathematics and Engineering | One week | MCE, Hassan |
| 2. | Essentials Skills for Mechanical Engineers | One week | MCE, Hassan |
| 3. | Advances in Bio-Lubricants and Cutting Fluids | One week | MCE, Hassan |
| 4. | Emerging Trends in Materials and Manufacturing Technology | One week | MCE, Hassan |
| 5. | Pedagogy workshop on "FEEL TEACHER" | One week | MCE, Hassan |
| 6. | Challenges in Non-Conventional Energy Sources | One week | MCE, Hassan |
| 7. | Total Quality Management | One week | MCE, Hassan |
| 8. | Recent Trends in Automotive Technology | One week | MCE, Hassan |
| 9. | Lightweight Structures for Engineering Applications through Composites and Topology Optimization | Two weeks | GEC, Hassan |

3. Papers presented in Conferences, Seminars, Workshops, Symposia

| Sl. No. | Title | Title of Conference/Seminar etc. | Dates of the Event | Organized by | Whether International/ National/ State/ Regional/ University/ College Level |
|---------|--|---|---------------------------------|--|---|
| 1 | Characterization of raw and alkali treated prosopis juliflora fibers for potential polymer composite reinforcement | International Conference on Advances in Material and Manufacturing Engineering – 2019 (ICAMME-2019) | March 15-17th 2019 | KIIT University, Bhubaneswar, Odisha | International |
| 2 | Effect of Nano Fillers on Glass/Silk Fibers Based Reinforced Polymer Composites | International Conference on Advanced Trends in Mechanical & Aerospace Engineering (ATMA-2019) | February 7-9 th 2019 | Dayananda Sagar University, Bengaluru, Karnataka | International |