

Dr. Mohan Kumar T S

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Education

	Degree	Year	Institute	Specialization
1	PhD	2024	National Institute of Technology Karnataka	Mechanical Engineering
2	MTech	2011	R V Collage of Engineering	Computer-Integrated Manufacturing
3	BE	2007	HMS Institute of Technology	Mechanical Engineering

Professional Experience

	Date (from-to)	Designation	Organization
1	July 2016- Till Date	Assistant Professor	Siddaganga Institute of Technology
2	Sep 2013- June 2016	Assistant Professor (Temporary)	Siddaganga Institute of Technology
3	Feb 2013 to Sep 2013	Project Engineer	Hindustan Turbo Machinery Limited, Bengaluru
4	Nov 2010 to Oct 2011	Project Engineer	Biomass Energy for Rural India (BERI), Tumakuru Dist.

Positions held

- *Worked as Co-ordinator Examination for Academic year 2015-16, 2016-17, 2017-18, 2018-19, 2019-20, and 2024-2025.*

Courses Taught

Undergraduate Courses

- Material Science and Metallurgy
- Automation in Manufacture
- Manufacturing Process III
- Six Sigma Methodology

- CAD/CAM
- Non-Traditional Machining Process
- Project Management
- World Class Management Practices
- Indian Knowledge System

Postgraduate Courses

- Computer Aided Design
- Advanced Materials Technology
- Computer-Aided Design and Manufacturing
- Automation in Manufacturing Systems
- Computer Control In Manufacturing Systems

Research Areas

- Composite Materials
- CAD/CAM and Robotics
- Six Sigma

Publications

Journals

- B Adaveesh, Halesh G M, Madeva Nagaral and Mohan Kumar T S, “Microstructure and Tensile behavior of B4C Reinforced ZA43 Alloy Composites”, IOP Conf. Series: Materials Science and Engineering 149 (2016) 012115 doi:10.1088/1757-899X/149/1/012115, 2016.
- T. S. Mohan Kumar and B. Adaveesh, “Application of “8D Methodology” for the Root Cause Analysis and Reduction of Valve Spring Rejection in a Valve Spring Manufacturing Company: A Case Study”, Indian Journal of Science and Technology, Vol 10(11), DOI: 10.17485/ijst/2017/v10i11/106137, March 2017.
- Mohan Kumar T S, "Process Planning For Manufacturing Of Aircraft Component (Front Spar L/H): A Case Study", IJRAR - International Journal of Research and Analytical Reviews (IJRAR), E-ISSN 2348-1269, P- ISSN 2349-5138, Volume.6, Issue 1, pp.786-792, January 2019.
- Mohan Kumar T S, Dr Prabhushankar G V, Vijay Kumar, “Application of “Six sigma-DMAIC Methodology” for the process improvement in a Rocker arm manufacturing company: A Case Study”, International Journal of Engineering, Applied and Management Sciences Paradigms (IJEAM), Special Issue ICRMR-2019 (Goa University, Goa). Pp. 217-224, ISSN 2320-6608, Feb 2019.
- Dr. B Adaveesh, Mohan Kumar T S, Deeepa,” Processing and Property Evaluation of Nano Al₂O₃ Reinforced Copper- 5% Tin Composites for Bearing Applications”, International Journal of Recent Technology and Engineering (IJRTE), Published By:

Blue Eyes Intelligence Engineering & Sciences Publication, ISSN: 2277-3878, Volume-8 Issue-2S8, August 2019, DOI:10.35940/ijrte.B1007.0882S819.

- Dr. B Adaveesh, Mohan Kumar T S, Gnanashekar B, “Mechanical and Wear Behaviour of Severe Plastic Deformed Al6063-Nano Al₂O₃ Composites Processed by Constrained Groove Pressing (CGP)”, International Journal of Recent Technology and Engineering (IJRTE), Published By: Blue Eyes Intelligence Engineering & Sciences Publication, ISSN: 2277-3878, Volume-8 Issue-5, January 2020, DOI:10.35940/ijrte.E6538.018520. (Impact Score - 0.40)
- T. S. Mohan Kumar, M. Krishna, Sharnappa Joladarashi, and S. M. Kulkarni, “Alkali absorption and durability studies on CFRP laminated composites”, AIP Conference Proceedings 2247, 040006 (2020); <https://doi.org/10.1063/5.0003800> Published online: 16 July 2020. (Impact Score - 0.40)
- Mohan Kumar T S, “Optimizing the Total Run-out Error by Standardizing the Shrinkage and Repositioning: A Case Study”, International Journal of Innovative Research in Science, Engineering and Technology, e-ISSN: 2319-8753, p-ISSN: 2320-6710, Volume 10, Issue 7, July 2021, DOI:10.15680/IJRSET.2021.1007011.
- Mahadeva Reddy, B Adaveesh1, Mohan Kumar T S, Madeva Nagara, “Tensile and Flexural Behaviour Of Graphite Filler Particles And Pineapple Leaf Fiber (Palf) Reinforced Polymer Composites”, Metallurgical and Materials Engineering, Association of Metallurgical Engineers of Serbia AMES, Vol 28 (1) 2022 p. 141-155, <https://doi.org/10.30544/659>. (Impact Score - 0.69)
- T. S. Mohan Kumar, Sharnappa Joladarashi, S. M. Kulkarni, Saleemsab Doddamani, “Optimization of process parameters for ballistic impact response of hybrid sandwich composites”, International Journal on Interactive Design and Manufacturing (IJIDeM) (2023) 17:1099–1111, <https://doi.org/10.1007/s12008-022-01061-2>. (Impact Score - 2.64)
- Saleemsab Doddamani, Satyabodh M. Kulkarni, Sharnappa Joladarashi, Mohan Kumar T S, Ashish Kumar Gurjar, “Analysis of light weight natural fiber composites against ballistic impact: A Review”, International Journal of Lightweight Materials and Manufacture, 6, (2023), 450-468, ISSN: 2588-8404, <https://doi.org/10.1016/j.ijlmm.2023.01.003>. (Impact Score - 4.06).
- T. S. Mohan Kumar, Sharnappa Joladarashi, S. M. Kulkarni, Saleemsab Doddamani, “Experimental and numerical investigation on low-velocity impact response of sandwich structure with functionally graded core”, Polymer Composites, Volume45, Issue 4, 10 March 2024, Pages 3225-3242, <https://doi.org/10.1002/pc.27986>. (Impact Score - 5.2).
- Saleemsab Doddamani, Satyabodh M. Kulkarni, Sharnappa Joladarashi, T. S. Mohan Kumar & Ashish Kumar Gurjar, “Enhancing energy absorption in rubber–sand (Ru–San) composite blocks against ballistic impact: a multi-objective optimisation approach”, Multiscale and Multidisciplinary Modeling, Experiments and Design, May 2024, DOI: 10.1007/s41939-024-00466-8 (Impact factor 2.2).
- Saleemsab Doddamani, Satyabodh M. Kulkarni, Sharnappa Joladarashi, Ashish Kumar Gurjar, Mohan Kumar T.S, “Development of rubber-sand composite for

enhanced impact resistance: Implications of vulcanization”, Engineering Science and Technology, an International Journal, Volume 51, March 2024, 101631, <https://doi.org/10.1016/j.jestch.2024.101631>. (Impact Score - 5.7).

- T. S. Mohan Kumar, Sharnappa Joladarashi, S. M. Kulkarni, Saleemsab Doddamani, “Influence of sea sand reinforcement on the static and dynamic properties of functionally graded epoxy composites”, Iranian Polymer Journal, 06 June 2024, <https://doi.org/10.1007/s13726-024-01340-7>. . (SCI, Impact Score – 3.1).
- Mohan kumar T S, Sharnappa Joladarashi, S M Kulkarni and Vishwas Mahesh. (Feb 2025). "High-Velocity Impact Behavior of Sandwich Composite with Compliant Skin and Sea Sand Strengthened Functionally Graded Core: Experimental and FE Approach", Fibers and Polymers, ISSN 1875-0052, <https://doi.org/10.1007/s12221-025-00907-2>.
- T. S. Mohan Kumar, Sharnappa Joladarashi, S. M. Kulkarni, “Comparative Study on Impact Responses of Sandwich Composites with Stiff and Compliant Core Materials”, Mechanics of Advanced Composite Structures, (2025), Serial Number 26, 12(3), pp. 483-496. <https://doi.org/10.22075/MACS.2024.32403.1584>.
- Mohan Kumar T S, Dr. Sharnappa Joladarashi, and Dr. S M Kulkarni, (2025) “Comprehensive review of modeling and material selection for hybrid sandwich composites for ballistic impact application using Six Sigma DMAIC methodology”, Proceedings of the Institution of Mechanical Engineers Part C Journal of Mechanical Engineering Science, 2025, Vol. 239(10) 3703–3724, DOI: 10.1177/09544062251315327.
- Ashish Kumar Gurjar, Satyabodh M. Kulkarni, Sharnappa Joladarashi, Saleemsab Doddamani and Mohan Kumar TS, “Enhancing energy absorption of luffa–cenosphere-reinforced epoxy composite: Influence of surface modification of reinforcements”, Journal of Reinforced Plastics and Composites, January 23, 2026, <https://doi.org/10.1177/07316844261419874>.

Conference Proceedings

- Mohan Kumar T S, Srinivas Readdy Mungaru, Presented a Technical paper at GYAANOTHSAV ‘09 Saranathan College of Engineering, Tiruchirappalli, Tamil Nadu “Investigation of Design Parameters in Magnetorheological Fluid Devices” and awarded first place.
- B Adaveesh, Halesh G M, Madeva Nagaral and Mohan Kumar T S, “Microstructure and Tensile Behaviour of B4C Reinforced ZA43 Alloy Composites”. International Conference on Advances in Materials and Manufacturing Applications (IConAMMA 2016)" during 14th - 16th July, 2016.
- Dr.Adaveesh B, Anil K C, Mohan Kumar T S, Goutham R , “Applied load on tribological behavior of Ni-hard cast iron, Alloy cast iron and CA-40 steel: 3-Body

Abrasive wear”, National conference on Recent advancements in Mechanical Engineering and allied fields ”(RAMEAF-2016), held at Sir-MVIT- 2016.

- T. S. Mohan Kumar and B. Adaveesh, “Application of '8D Methodology' for the Root Cause Analysis and Reduction of Valve Spring Rejection in a Valve Spring Manufacturing Company: A Case Study”, International Conference on Advanced Materials, Manufacturing, Management and Thermal Sciences-2016 at Siddaganga Institute of Technology, Tumakuru, during September 23rd 24th 2016.
- Mohan Kumar T S, Dr. G V PrabhuShankar, Vijay Kumar, “Application of 'Six sigma-DMAIC Methodology' for the process improvement in a Rocker arm manufacturing company: A Case Study”, 3rd International Conference on recent Multidisciplinary research, Goa University, Goa on 24th and 25th January 2019.
- Dr. Adaveesh B, Mohan Kumar T S, Deepa, “Processing and property evaluation of Nano Al₂O₃ reinforced copper5% tin composites for bearing applications”, International
- Conference on Emerging Trends in Engineering, Technology and Management” (ICETETM-2019), held at Proudhadavaraya Institute of Technology (PDIT), on 26th and 27th April 2019.
- T. S. Mohan Kumar, M. Krishna, Sharnappa Joladarashi, and S. M. Kulkarni, “Alkali absorption and durability studies on CFRP laminated composites”, International conference on Design, Materials and Manufacture (ICDEM-2019), held at NITK Surathkal, on 6th to 8th December 2019.
- T. S. Mohan Kumar, “A study on Optimization of Effective Inventory Control and Management in an automobile components manufacturing Industry”, National conference on emerging multi-disciplinary trends in biotechnology and engineering: a future perspective, held at Acharya Institute of Technology, Bengaluru, on 23rd and 24th August 2019.
- T. S. Mohan Kumar, “A study and Application of Value Stream Mapping in Automobile component manufacturing Plant”, International Conference on Trends in Mechanical Sciences (ICTMES 2020), held at Malnad College of Engineering, Hassan, on 06th and 07th August 2020.
- T. S. Mohan Kumar, Dr. Sharnappa Joladarashi, and Dr. S M Kulkarni, “Influence of filler material on impact response of hybrid and green sandwich composite structures: FE study”, International Conference on Sustainable Materials, Manufacturing & Industrial Engineering. ICSMMIE-2022, Siddaganga Institute of Technology, Tumakuru, during September July 1st and 2nd, 2022.
- T. S. Mohan Kumar, Dr. Sharnappa Joladarashi and Dr. S M Kulkarni, “Effect of core thicknesses on ballistic behavior of sandwich composites: FE study”, International Conference on Sustainable Materials, Manufacturing & Industrial Engineering. ICSMMIE-2022, Siddaganga Institute of Technology, Tumakuru, during September July 1st and 2nd, 2022.

- Saleemsab Doddamani, Satyabodh M. Kulkarni, Sharnappa Joladarashi, Mohan Kumar T S, Ashish Kumar Gurjar, “Ballistic impact analysis of multilayered armour system using finite element analysis”, Finite Element Analysis of Polymers and Composites, ISBN-978-044314087-7, 978-044314086-0, DOI: 10.1016/B978-0-443-14087-7.00018-5.

Editor/ Reviewer of Journal

- Polymer Composite
- Proceedings of the Institution of Mechanical Engineers Part C Journal of Mechanical Engineering Science
- Mechanics of Advanced Composite Structures