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. MADHU P**
2.	Qualification	**B.E., M.Tech., Ph.D.**
3.	Date of joining the service at MCE	**21/08/2013**
4.	Department	**Mechanical Engineering**
5.	Current Designation & Experience in MCE	**Associate Professor & 12 years, 7 months**
6.	Teaching Experience: U.G. (in Years)	**12 years, 7 months**
Research Experience (in Years)		
7.	**a) Total Number of years**	**11 Years**
	b) Years spent in M. Phil. / Ph.D.	**4 Years**
	c) Years of Guiding Ph.D. / M. Phil.	**-**
	d) Total No. of papers Published in	
	i. International Journals	**97**
	ii. National Journals	**-**
	iii. Conference Proceedings	**06**
	e) Total No. of Conferences/ Seminar/ Workshop Attended	
	i. International	**05**
	ii. National	**01**
	iii. State Level	**-**
8.	**Awards/ Prizes/ Honor's/ Recognitions**	➢ Award for Outstanding Research Publication (AORP) for 2023-24 from Vision Group on Science & Technology, Department of IT, BT, and Science & Technology, Government of Karnataka. ➢ Recognized by Stanford University's list (published by Elsevier) of the World's Top 2% of the Most-Cited Scientists in Single Year Citation Impact 2021, 2022, 2023 and 2024. ➢ Listed in AD Scientific Index Rankings (Ranked No. 1 MCE, Hassan) (Overall World Rankings in Mechanical Engineering - 265 Rank in India; 1327

		Rank in Asia and 4029 Rank in World) (as of July 2023 updated Data) ➢ Young Researcher Award - 2022 for the article "A review on synthesis and characterization of commercially available natural fibers: Part-I" from the Institute of Scholars(InSc). ➢ Young Researcher (RSL078) from Global Academicians & Researchers Network (RSquareL) for the article "Characterization and properties of natural fiber polymer composites: A comprehensive review". ➢ Top cited article 2020-21 "A comprehensive review on cellulose nanocrystals and cellulose nanofibers: Pretreatment, preparation, and characterization" Polymer Composites, Wiley. ➢ Top cited article 2021-22 "A comprehensive review on cellulose nanocrystals and cellulose nanofibers: Pretreatment, preparation, and characterization" Polymer Composites, Wiley. ➢ Top cited article 2021-22 "Influence of nanofillers on biodegradable composites: A comprehensive review" Polymer Composites, Wiley. ➢ Top cited article 2022-23 "A comprehensive review on cellulose nanocrystals and cellulose nanofibers: Pretreatment, preparation, and characterization" Polymer Composites, Wiley. ➢ Top cited article 2022-23 "Carbon fiber reinforced areca/sisal hybrid composites for railway interior applications: Mechanical and morphological properties" Polymer Composites, Wiley. ➢ Top cited article 2022-23 "Recent developments and challenges in natural fiber composites: A review" Polymer Composites, Wiley. ➢ Top downloaded article 2022-23 "A comprehensive review on cellulose nanocrystals and cellulose nanofibers: Pretreatment, preparation, and characterization" Polymer Composites, Wiley. ➢ Top downloaded article 2022-23 "Sustainable recycling technologies for thermoplastic polymers and their composites: A review of the state of the art" Polymer Composites, Wiley. ➢ Highly viewed Paper 2023 "Role of Polymer Composites in Railway Sector: An Overview" Applied Science and Engineering Progress (ISSN 2673-0421).
9.	**Fields of Specialization under the Subject/ Discipline**	Mechanical Engineering, Materials Engineering, Composite Materials
10.	**Orientation/ Refresher Course/ Summer School/ Winter School/ Workshops attended**	68

.PART-B

1. List of Publications:

Articles Published:

Sl. No.	Title	Name of the Journal, Vol. No., Year	ISSN/ ISBN/ Number
1.	Sustainable LDPE composites reinforced with Syzygium cumini seed biofillers: Mechanical, thermal, and morphological performance assessment	Next Materials. 2026 Apr 1;11:101795	29498228
2.	Enhanced Mechanical and Moisture Resistance in Aramid/Epoxy Composites with Aluminum and Graphite Fillers for Precision Engineering Applications	International Journal of Precision Engineering and Manufacturing. 2026 Feb;27(2):711-27	20054602, 22347593
3.	Development and Comprehensive Evaluation of Centella asiatica Loaded Polyvinyl Alcohol Films for Enhanced Wound Healing Applications	Materials Chemistry and Physics. 2026 Jan 20:132109	02540584
4.	CNN-based leaf disease detection for rooftop gardening using multi-species image segmentation	Journal of Asian Scientific Research. 2026;16(2):190-206	19921454, 20772076
5.	Advancements in 3D Printed Hemp-PLA Composites: A Sustainable Approach for Additive Manufacturing	Next Research. 2025 Dec 2:101168	3050-4759
6.	Mechanical and moisture performance of pineapple leaf fiber/carbon fiber-eggshell reinforced epoxy composites for eco-friendly applications	Journal of the Indian Academy of Wood Science. 2025 Oct 25:1-4	0972172X, 09768432
7.	Mechanical enhancement of sustainable natural fiber composites through filler additives: a comprehensive review	Journal of Umm Al-Qura University for Engineering and Architecture. 2025 Oct 20:1-9	16588150
8.	Performance Evaluation of Blended Neem and Mahua Oil-Based Cutting Fluids in Machining of SS316 Stainless Steel	Journal of Bio-and Tribo-Corrosion. 2025 Sep;11(3):87	21984220, 21984239
9.	Mechanical and structural optimization of flax fiber reinforced composites through controlled gamma irradiation	iScience. 2025 Jul 18;28(7)	25890042
10.	Development and Characterization of Al-SiC Metal Matrix Composites Through Microwave Processing and Extrusion	Applied Science and Engineering Progress. 2025 Jul 16;18(3):7652	26729156, 26730421
11.	Development of eco-friendly basalt filler reinforced poly (lactic acid) composites using an additive manufacturing: An experimental insights	International Journal of Biological Macromolecules. 2025 Jun 1;311:143698	01418130, 18790003
12.	Carbon nanotube-infused metal matrix composites: a review of recent advances and future prospects for engineering use	Sādhanā. 2025 May 10;50(2):97	02562499, 09737677
13.	Eco-friendly composites: exploring the potential of natural fiber reinforcement	Discover Applied Sciences. 2025 May;7(5):1-24	30049261
14.	Enhancing Mechanical and Tribological Properties of Hybrid Kenaf–Carbon Fiber Vinyl Ester Composites for Advanced Applications	Journal of Materials Engineering and Performance. 2025 Mar 13:1-4	10599495, 15441024
15.	Fabrication of raw and chemically treated biodegradable Luffa aegyptica fruit fibre-based hybrid epoxy composite: a mechanical and morphological investigation	Biomass Conversion and Biorefinery. 2025 Mar;15(6):8473-86	21906815, 21906823
16.	Artificial intelligence and machine learning in mechanical engineering: Current trends and future prospects	Engineering Applications of Artificial Intelligence. 2025 Feb 15;142:109910	09521976
17.	Gamma radiation-induced degradation of mechanical properties in Carbon/Kevlar hybrid epoxy composites for aerospace applications	Journal of Polymer Research. 2024 Dec;31(12):367	10229760, 15728935

18.	Isolation and extraction of microcellulose from Alpine galanga fiber	Sustainable Chemistry and Pharmacy. 2024 Dec 1;42:101829	23525541
19.	Experimental and artificial neural network-based slurry erosion behavior evaluation of cast iron	International Journal on Interactive Design and Manufacturing (IJIDeM). 2024 Nov;18(9):6739-49	19552505, 19552513
20.	Enhancing wear resistance, mechanical properties of composite materials through sisal and glass fiber reinforcement with epoxy resin and graphite filler	Journal of the Indian Chemical Society. 2024 Oct 1;101(10):101349	00194522
21.	A novel study on the development of sisal-jute fiber epoxy filler–based composites for brake pad application	Biomass Conversion and Biorefinery. 2024 Oct;14(19):23411-23	21906815, 21906823
22.	Wear behaviour of aluminium-based hybrid composites processed by equal channel angular pressing	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology. 2024 Sep;238(9):1079-90	13506501, 2041305X
23.	Human-Computer Interaction and Computational Intelligence: Machine Learning Approaches	In 2024 1st International Conference on Sustainable Computing and Integrated Communication in Changing Landscape of AI (ICSCAI) 2024 Jul 4 (pp. 1-9). IEEE	-
24.	Mechanical characterization and water absorption behavior of waste coconut leaf stalk fiber reinforced hybrid polymer composite: Impact of chemical treatment	Applied Science and Engineering Progress. 2024 Jul 2;17(3):7371	26729156, 26730421
25.	Analysis of friction and wear performance of eco-friendly basalt filler reinforced polylactic acid composite using the Taguchi approach	Journal of Thermoplastic Composite Materials. 2024 Jul;37(7):2479-504	08927057, 15307980
26.	Characterizing the effects of SiC and Al_2O_3 on the mechanical properties of Al6082 hybrid metal matrix composites: An experimental and neural network approach	Advances in Production Engineering & Management. 2024 Jun 1;19(2):281-92	18546250, 18556531
27.	Development of banana fabric incorporated polymer composites for printed circuit board application	Biomass Conversion and Biorefinery. 2024 Jun;14(11):12599-612	21906815, 21906823
28.	Effect of sugarcane bagasse and alumina reinforcements on physical, mechanical, and thermal characteristics of epoxy composites using artificial neural networks and response surface methodology	Biomass Conversion and Biorefinery. 2024 Jun;14(11):12539-57	21906815, 21906823
29.	Advancing the performance of ceramic-reinforced Aluminum hybrid composites: A comprehensive review and future perspectives	Applied Science and Engineering Progress. 2024 Apr 3;17(2):7034	26729156, 26730421
30.	Artificial neural networks for predicting mechanical properties of Al2219-B4C-Gr composites with multireinforcements	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science. 2024 Mar;238(6):2170-84	09544062, 20412983
31.	Influence of water absorption on mechanical and morphological behaviour of Roystonea-Regia/banana hybrid polyester composites	Applied Science and Engineering Progress. 2024 Feb 9;17(1):7074	26729156, 26730421
32.	High temperature tensile behaviour of ceramic-hybridized metal matrix composites for above-room-temperature applications	Silicon. 2024 Feb;16(3):1205-16	1876990X, 18769918
33.	Accelerated weathering of sustainable and micro-filler Basalt reinforced polymer biocomposites: physical, mechanical, thermal, wettability, and water absorption studies	Journal of Building Engineering. 2023 Dec 1;80:108040	23527102

34.	Wear behaviour of hybrid (boron carbide-graphite) aluminium matrix composites under high temperature	Journal of Engineering and Applied Science. 2023 Dec;70(1):124	18196608, 24095656
35.	Enhancing tribological performance: a review of ceramic reinforced aluminium hybrid composites for high-temperature engineering applications	Hybrid Advances. 2023 Dec 1;4:100094	2773207X
36.	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	21984220, 21984239
37.	Thermal analysis of sustainable and micro-filler Basalt reinforced polymer biocomposites for lightweight applications	Journal of Building Engineering. 2023 Nov 15;79:107869	23527102
38.	Effects of tertiary ceramic additives on the micro hardness and wear characteristics of Al2618+Si_3N_4-B_4C-Gr hybrid composites for automotive applications	Journal of Alloys and Metallurgical Systems. 2023 Sep 1;3:100014	29499178
39.	Mechanical characterization of B4C-Gr Al2618 based composites synthesized by stir casting method	Applied Science and Engineering Progress. 2023 Aug 23;16(3):6579	26729156, 26730421
40.	Biopolymer-based composites: an eco-friendly alternative from agricultural waste biomass	Journal of Composites Science. 2023 Jun 11;7(6):242	2504477X
41.	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 May;29(3):555-67	10835601, 15480585
42.	Study of treatment effect on the Cocos nucifera lignocellulosic fibers as alternative for polymer composites	Journal of Natural Fibers. 2023 Apr 24;20(1):2134257	1544046X, 15440478
43.	Drilling characteristics and properties analysis of fiber reinforced polymer composites: a comprehensive review	Heliyon. 2023 Mar 1;9(3)	24058440
44.	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	25220101, 25383604
45.	Innovative polymer science: Groundbreaking materials for a sustainable future	Insight. 2023;6(1)	-
46.	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	20734344
47.	Extraction and characterization of natural lignocellulosic fibres from Typha angustata grass	International Journal of Biological Macromolecules. 2022 Dec 1;222:1840-51	01418130, 18790003
48.	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
49.	Effect of natural filler materials on fiber reinforced hybrid polymer composites: An Overview	Journal of Natural Fibers. 2022 Nov 2;19(11):4132-47	1544046X, 15440478
50.	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
51.	Microwave-assisted synthesis of poly (acrylamide-co-2-hydroxyethyl methacrylate)/chitosan semi-IPN ZnO nanocomposite membranes for food packaging applications	Journal of Materials Research and Technology. 2022 Sep 1;20:3537-48	22140697, 22387854
52.	Sustainable recycling technologies for thermoplastic polymers and their composites: A review of the state of the art	Polymer Composites. 2022 Sep;43(9):5831-62	02728397, 15480569
53.	Areca/Synthetic fibers reinforced based epoxy hybrid composites for semi-structural applications	Polymer Composites. 2022 Aug;43(8):5222-34	02728397, 15480569
54.	Mechanical and thermal properties of flax/carbon/kevlar based epoxy hybrid composites	Polymer Composites. 2022 Aug;43(8):5649-62	02728397, 15480569

55.	A comprehensive review on the effect of synthetic filler materials on fiber-reinforced hybrid polymer composites	The Journal of the Textile Institute. 2022 Jul 3;113(7):1231-9	00405000, 17542340
56.	Comparative evaluation of areca/carbon/basalt fiber reinforced epoxy/bio epoxy based hybrid composites	Polymer Composites. 2022 Jul;43(7):4179-90	02728397, 15480569
57.	A comprehensive review on 3D printing advancements in polymer composites: technologies, materials, and applications	The International Journal of Advanced Manufacturing Technology. 2022 Jul;121(1):127-69	02683768, 14333015
58.	Growth and characterization of second and third order acentric studies of L-phenylalanine L-phenylalaninium malonate single crystal	Crystals. 2022 Jun 20;12(6):869	20734352
59.	Influence of stacking sequence on flax/kevlar hybrid epoxy composites: Mechanical and morphological studies	Polymer Composites. 2022 Jun;43(6):3782-93	02728397, 15480569
60.	Role of polymer composites in railway sector: an overview	Applied Science and Engineering Progress. 2022 May 27;15(2):5745	26729156, 26730421
61.	Structural investigation of Cu doped calcium ferrite (Ca1-xCuxFe2O4; x= 0, 0.2, 0.4, 0.6, 0.8, 1) nanomaterials prepared by co-precipitation method	Journal of Materials Research and Technology. 2022 May 1;18:705-19	22140697, 22387854
62.	Recent developments and challenges in natural fiber composites: a review	Polymer Composites. 2022 May;43(5):2545-61	02728397, 15480569
63.	Review on nitride compounds and its polymer composites: a multifunctional material	Journal of Materials Research and Technology. 2022 May 1;18:2175-93	22140697, 22387854
64.	Waste coconut leaf sheath as reinforcement composite material with phenol-formaldehyde matrix	Polymer Composites. 2022 Apr;43(4):1985-95	02728397, 15480569
65.	A comprehensive review on polymer composites in railway applications	Polymer Composites. 2022 Mar;43(3):1238-51	02728397, 15480569
66.	Synthesis, Characterization and Bio-Potential Activities of Co (II) and Ni (II) Complexes with O and N Donor Mixed Ligands	Crystals. 2022 Feb 26;12(3):326	20734352
67.	Synthesis and Characterization of Microwave-Assisted Copolymer Membranes of Poly (vinyl alcohol)-g-starch-methacrylate and Their Evaluation for Gas Transport Properties	Polymers. 2022 Jan 17;14(2):350	20734360
68.	Carbon fiber reinforced areca/sisal hybrid composites for railway interior applications: Mechanical and morphological properties	Polymer Composites. 2022 Jan;43(1):160-72	02728397, 15480569
69.	Synthesis of atmospherically stable zero-valent iron nanoparticles (nZVI) for the efficient catalytic treatment of high-strength domestic wastewater	Catalysts. 2021 Dec 27;12(1):26	20734344
70.	A review on extraction, chemical treatment, characterization of natural fibers and its composites for potential applications	Polymer Composites. 2021 Dec;42(12):6239-64	02728397, 15480569
71.	Influence of nanofillers on biodegradable composites: a comprehensive review	Polymer Composites. 2021 Nov;42(11):5691-711	02728397, 15480569
72.	Bacillus-mediated silver nanoparticle synthesis and its antagonistic activity against bacterial and fungal pathogens	Antibiotics. 2021 Nov 1;10(11):1334	20796382
73.	Sri Unveiling the photosensitive and magnetic properties of amorphous iron nanoparticles with its application towards decontamination of water and cancer treatment	Journal of Materials Research and Technology. 2021 Nov 1;15:99-118	22140697, 22387854
74.	A brief study on optical and mechanical properties of an organic material: urea glutaric acid (2/1)-a third order nonlinear optical single crystal	Crystals. 2021 Oct 14;11(10):1239.	20734352

75.	Trends and developments in natural fiber composites	Applied Science and Engineering Progress. 2021 Oct 7;14(4):543-52	26729156, 26730421
76.	Pongamia pinnata shell powder filled sisal/kevlar hybrid composites: Physicomechanical and morphological characteristics	Polymer Composites. 2021 Sep;42(9):4434-47	02728397, 15480569
77.	A comprehensive review on cellulose nanocrystals and cellulose nanofibers: Pretreatment, preparation, and characterization	Polymer Composites. 2021 Apr;42(4):1588-630	02728397, 15480569
78.	A new study on flax-basalt-carbon fiber reinforced epoxy/bioepoxy hybrid composites	Polymer Composites. 2021 Apr;42(4):1891-900	02728397, 15480569
79.	Effect of nano fillers on glass/silk fibers based reinforced polymer composites	Materials Today: Proceedings. 2021 Jan 1;46:9032-5	22147853
80.	Mechanical and chemical properties evaluation of sheep wool fiber–reinforced vinylester and polyester composites	Materials Performance and Characterization. 2021 Jan 1;10(1):99-109	21653992
81.	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
82.	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
83.	A novel approach for development of printed circuit board from biofiber based composites	Polymer Composites. 2020 Nov;41(11):4550-8	02728397, 15480569
84.	Alkaline effect on characterization of discarded waste of Moringa oleifera fiber as a potential eco-friendly reinforcement for biocomposites	Journal of Polymers and the Environment. 2020 Nov;28(11):2823-36	15662543, 15728919
85.	Effect of various chemical treatments of Prosopis juliflora fibers as composite reinforcement: Physicochemical, thermal, mechanical, and morphological properties	Journal of Natural Fibers. 2020 Jun 2;17(6):833-44	1544046X, 15440478
86.	A new study on effect of various chemical treatments on Agave Americana fiber for composite reinforcement: Physico-chemical, thermal, mechanical and morphological properties	Polymer Testing. 2020 May 1;85:106437	01429418
87.	A review on synthesis and characterization of commercially available natural fibers: Part-I	Journal of Natural Fibers. 2019 Nov 17.	1544046X, 15440478
88.	Characterization of raw and alkali treated prosopis juliflora fibers for potential polymer composite reinforcement	InIOP Conference Series: Materials Science and Engineering 2019 Nov 1 (Vol. 653, No. 1, p. 012016). IOP Publishing	-
89.	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	22140697, 22387854
90.	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
91.	Effect of tungsten carbide on mechanical and tribological properties of jute/sisal/E-glass fabrics reinforced natural rubber/epoxy composites	Journal of Industrial Textiles. 2018 Oct;48(4):713-37	15280837, 15308057
92.	Characterization and properties of natural fiber polymer composites: A comprehensive review	Journal of Cleaner Production. 2018 Jan 20;172:566-81	09596526, 18791786
93.	Studies on mechanical properties of bamboo/carbon fiber reinforced epoxy hybrid composites filled with SiC particulates	International Journal of Engineering Research and General Science. 2018;6(5):43-50	2091-2730
94.	Natural fibers and its composites for engineering applications: an overview	InSARC International Conference, Chennai India 2017 Dec 13	-

95.	Polymer matrix-natural fiber composites: An overview	Cogent Engineering. 2018 Jan 1;5(1):1446667	
96.	Stress analysis and life estimation of gas turbine blisk for different materials of a jet engine	International Journal of Science and Research. 2016;5(6):1103-1107	2319-7064
97.	Electrical Power Generation by Footsteps using Piezo-electric Transducers	International Journal of Recent Trends in Engineering & Research. 2016.	2455-1457 (E)

Books published as author or as editor:

Sl. No.	Title with page No.	Type of Book & Authorship	Publisher & ISSN / ISBN No.	Date of Publication	Whether Published by National / International
1	Fiber-Reinforced Polymer Composites	Authored Book	Woodhead Publishing/ 9780443275463	2025	International
2	Applications of Composite Materials in Engineering	Edited Book	Woodhead Publishing/ 9780443139895	2024	International
3	Advances in Bio-Based Fiber: Moving Towards a Green Society	Edited Book	Woodhead Publishing/ 9780128245439	2021	International

Chapters published in Books:

Sl. No.	Title of the chapter	Book Title, editor & publisher	ISSN / ISBN No.
1.	Introduction to lightweight composites	Lightweight Composites, Mrityunjay Di, Pradeep M, Manoj Gupta, Elsevier	9780443188527
2.	Biobased polymers: Processing, properties, and engineering applications	Polymer Nano-Biocomposites, Rajeshkumar L, Hind Abdellaoui, Sanjay M R, Suchart S, Elsevier	9780443239229
3.	Numerical analysis of eco-friendly fibers and polymers for the sustainable environment	Eco-Friendly Fiber Reinforced Polymer Composite Materials, Sanjay M R, Suchart S, Alcides L, Ryszard M. Kozlowski, Elsevier	9780443327964
4.	The Role of Computational Approaches in Additive Manufacturing for Medical Applications	Using Computational Intelligence for Sustainable Manufacturing of Advanced Materials, Kamalakanta M, Bikash R M, Steve K A, Dillip K B, IGI Global Scientific Publishing	9798369379745
5.	Morphology and characterization of surface-treated fibers	Surface Modification and Coating of Fibers, Polymers, and Composites, Sanjay M R, Sathish Kumar P, Ramesh Manickam, Rajeshkumar L, Suchart S, Elsevier	9780443220296
6.	An introduction to metal matrix composites and their applications	Applications of Composite Materials in Engineering, Madhu P, Yashas Gowda T G, Binoj J S, Sanjay M R, Suchart S, Elsevier	9780443139895
7.	Evolution and recent advancements of composite materials in rapid prototyping	Applications of Composite Materials in Engineering, Madhu P, Yashas Gowda T G, Binoj J S, Sanjay M R, Suchart S, Elsevier	9780443139895
8.	An introduction to polymer matrix composites and their applications	Applications of Composite Materials in Engineering, Madhu P, Yashas Gowda T G, Binoj J S, Sanjay M R, Suchart S, Elsevier	9780443139895

9.	Prospects of synthetic fiber-reinforced polymer composites in engineering and commercial applications	Applications of Composite Materials in Engineering, Madhu P, Yashas Gowda T G, Binoj J S, Sanjay M R, Suchart S, Elsevier	9780443139895
10.	Unveiling the potential of age hardened aluminum alloys: Strengthening solutions for engineering challenges	Hybrid composite materials: experimental and theoretical analysis, Akarsh V, Hariome S G, Sushanta K. Sethi, Springer	9789819721030
11.	Finite element analysis of polymeric materials in day-to-day applications	Finite Element Analysis of Polymers and Composites, Sathish Kumar P, Rajeshkumar L, Sanjay M R, Suchart S, Elsevier	9780443140877
12.	Biometric Authentication and Theft Alert System for Motorcycles Using IoT	Contemporary Solutions for Sustainable Transportation Practices, Shakerod Munuhwa, IGI Global	9798369337554
13.	Metallic lightweight materials: properties and their applications	Lightweight and Sustainable Composite Materials, Sanjay M R, Sunita M. Doddamani, Mrityunjay Doddamani, Suchart S, Elsevier	9780323951890
14.	Lightweight and sustainable materials for aerospace applications	Lightweight and Sustainable Composite Materials, Sanjay M R, Sunita M Doddamani, Mrityunjay Doddamani, Suchart S, Elsevier	9780323951890
15.	Lightweight and sustainable materials for structural applications	Lightweight and Sustainable Composite Materials, Sanjay M R, Sunita M. Doddamani, Mrityunjay Doddamani, Suchart S, Elsevier	9780323951890
16.	Introduction to plant fibers and their composites	Plant Fibers, their Composites, and Applications, Jyotishkumar P, Suchart S, Togay O, Hao Wang, Sanjay M R, Elsevier	9780128245286
17.	Introduction to bio-based fibers and their composites	Advances in Bio-Based Fiber, Sanjay M R, Madhu P, Jyotishkumar P, Suchart S, Sergey M. Gorbatyuk, Elsevier	9780128245439
18.	Plastics in automotive applications	Encyclopedia of Materials: Plastics and Polymers, M S J Hashmi, Elsevier	9780128232910
19.	Mechanical, electrical and thermal behaviour of additively manufactured thermoplastic composites for high performance applications	Additive and subtractive manufacturing of composites, Sanjay M R, M K Gupta, Suchart S, Qinghua S, Springer	9789811631832
20.	Effect of process engineering on the performance of hybrid fiber composites	Hybrid fiber composites: materials, manufacturing, process engineering, Anish Khan, Sanjay M R, Mohammad J, Suchart Siengchin, Abdullah M. Asiri, Wiley	9783527346721
21.	Potential of natural/ synthetic hybrid composites for aerospace applications	Sustainable composites for aerospace applications, Mohammad J, Mohamed Thariq Hameed Sultan, Elsevier	9780081021316

Patents:

Sl. No.	Title of the patent	Application No.	Journal Date	Type	Published/ Granted	Grant type
1.	Eco-Friendly Venturimeter: Chemically Treated Coir Fiber Reinforced Bio-PLA Composite Via 3D Printing	202441053537	02/08/2024	Indian Utility Patent	Published	Indian Utility Patent

2.	Nano materials to replace the augment human tissues	202441011121	17/02/2024	Indian Utility Patent	Published	Indian Utility Patent
3.	Device and System to Mend Polymer and Composite Sheets on Greenhouses and Polysheet Shadenet Structures	202241044724	05/08/2022	Indian Utility Patent	Published	Indian Utility Patent
4.	Development of Advanced Prosthetic Device for Blind Amputees	202141051978	26/03/2024	Indian Utility Patent	Granted	Indian Utility Patent
5.	Development of Toolbox Material from Hybrid Composites Reinforced with NC, NDL, NK, GF and NP-MMC	201941045139	06/11/2019	Indian Utility Patent	Published	Indian Utility Patent
6.	Development of Hybrid Polymer Composites Reinforced with Prosopis Juliflora Bark Fibers, Phoenix Pusilla Leaf Fibers, Glass Fabrics and Carbon Fabrics	202041000392	25/01/2023	Indian Utility Patent	Granted	Indian Utility Patent

Ongoing Research Projects / Consultancies

Sl. No.	Title	Agency	Period	Grant / Amount Mobilized (Rs Lakhs)
1	Bio-Nanocomposites from organic waste for coatings and steel corrosion inhibitors	Institute for Research and Community Service, Brawijaya University	November 2023 to June 2024	10,63,179.56/-
2	Experimental investigation on machining performance of cutting fluids derived from blended nonedible vegetable oil	VGST, Government of Karnataka	November 2020 to February 2022	3,00,000/-

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.	Dean (Research)
2.	Associate Dean (Research)
3.	Convener, Technical Club
4.	NIRF Coordinator

5.	Academic Council Member, MCE, Hassan
6.	Department Seminar Co-Ordinator
7.	Department Timetable Officer
8.	Department CIE Co-Ordinator
9.	Department Contineo Co-Ordinator
10.	Department Project Co-Ordinator
11.	Department R&D Committee Member
12.	College level Interdisciplinary Projects Committee Member
13.	IPR Activity Coordinator (IIC)
14.	Institutional Research Advisory Committee (IRAC)

3. Details of Teaching Related Activities

Sl. No.	Academic Year	(B.E./ M.Tech.)	Course Title
1.	2013-14	M.Tech.	Finite Elements Methods
2.		B.E.	Engineering Drawing
3.			Manufacturing Science – I
4.	2014-15	B.E.	Engineering Drawing
5.			Manufacturing Science – II
6.			Manufacturing Science – I
7.			Machine Drawing
8.			Non-Conventional Energy Sources
9.	2015-16	B.E.	Engineering Drawing
10.			Manufacturing Science – II
11.	2016-17	B.E.	Engineering Drawing
12.			Machine Drawing
13.			Manufacturing Science – II
14.			Manufacturing Science – III
15.			Production Drawing
16.	2017-18	B.E.	Elements of Mechanical Engineering
17.			Machine Drawing
18.			Engineering Drawing
19.			Manufacturing Science – III
20.			Product Design & Manufacturing
21.	2018-19	B.E.	Computer Aided Engineering Drawing

22.			Manufacturing Science – II
23.			Project Management
24.			Manufacturing Science-III
25.			Modern Manufacturing Methods
26.	2019-20	B.E.	Computer Aided Engineering Drawing
27.			Manufacturing Science – I
28.			Project Management
29.			Geometric Dimensioning and Tolerancing
30.			Production Drawing
31.			Modern Manufacturing Methods
32.	2020-21	B.E.	Manufacturing Science – I
33.			Project Management
34.			Computer Aided Engineering Drawing
35.			Composite Materials
36.	2021-22	B.E.	Elements of Mechanical Engineering
37.			Computer Aided Engineering Drawing
38.			Project Management
39.	2022-23	B.E.	Manufacturing Science – I
40.			Computer Aided Engineering Drawing
41.			Introduction to Python Programming
42.			Introduction to Mechanical Engineering
43.	2023-24	B.E.	Computer Aided Engineering Drawing
44.			Introduction to Mechanical Engineering
45.			Introduction to AI & ML
46.		M.Tech	Human-Computer Interaction
47.			Cyber Security and Cyber Law
48.	2024-25	B.E.	Research Methodology and IPR
49.			Social Connect and Responsibility
50.			Introduction to Python Programming
51.	2025-26	B.E.	Computer-Aided Engineering Drawing (CAED)
52.			Introduction to Python Programming

53.			Interdisciplinary Project- Based Learning

Professional Development Activities		
	Membership in profession related committees at state and national level a) At International b) At national level c) At state	**05**
	Participation in subject associations, conferences, seminars without paper presentation	**05**
	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	**05**
	Publication of articles in newspapers, magazines, or other publications (not covered in category 3); radio talks; television programmes	**-**
	Invited Expert Talks	**01**

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.	Sustainable LDPE composites reinforced with Syzygium cumini seed biofillers: Mechanical, thermal, and morphological performance assessment	Next Materials. 2026 Apr 1;11:101795	29498228	Scopus, Q1		
2.	Enhanced Mechanical and Moisture Resistance in Aramid/Epoxy Composites with Aluminum and Graphite Fillers for Precision Engineering Applications	International Journal of Precision Engineering and Manufacturing. 2026 Feb;27(2):711-27	20054602, 22347593	SCIE, 3.6, Q2		
3.	Development and Comprehensive Evaluation of Centella asiatica Loaded Polyvinyl Alcohol Films for Enhanced Wound Healing Applications	Materials Chemistry and Physics. 2026 Jan 20:132109	02540584	SCIE, 4.7, Q1		
4.	CNN-based leaf disease detection for rooftop gardening using multi-species image segmentation	Journal of Asian Scientific Research. 2026;16(2):190-206	19921454, 20772076	Scopus, Q2		
5.	Advancements in 3D Printed Hemp-PLA Composites: A	Next Research. 2025 Dec 2:101168	3050-4759	-		

	Sustainable Approach for Additive Manufacturing					
6.	Mechanical and moisture performance of pineapple leaf fiber/carbon fiber-eggshell reinforced epoxy composites for eco-friendly applications	Journal of the Indian Academy of Wood Science. 2025 Oct 25:1-4	0972172X, 09768432	Scopus, 1.2, Q3		
7.	Mechanical enhancement of sustainable natural fiber composites through filler additives: a comprehensive review	Journal of Umm Al-Qura University for Engineering and Architecture. 2025 Oct 20:1-9	16588150	Scopus, Q1		
8.	Performance Evaluation of Blended Neem and Mahua Oil-Based Cutting Fluids in Machining of SS316 Stainless Steel	Journal of Bio-and Tribo-Corrosion. 2025 Sep;11(3):87	21984220, 21984239	Scopus, Q2		
9.	Mechanical and structural optimization of flax fiber reinforced composites through controlled gamma irradiation	iScience. 2025 Jul 18;28(7)	25890042	Scopus, 4.1, Q1		
10.	Development and Characterization of Al-SiC Metal Matrix Composites Through Microwave Processing and Extrusion	Applied Science and Engineering Progress. 2025 Jul 16;18(3):7652	26729156, 26730421	Scopus, Q2		
11.	Development of eco-friendly basalt filler reinforced poly (lactic acid) composites using an additive	International Journal of Biological Macromolecules. 2025 Jun 1;311:143698	01418130, 18790003	SCIE, 8.5, Q1		

	manufacturing: An experimental insights					
12.	Carbon nanotube-infused metal matrix composites: a review of recent advances and future prospects for engineering use	Sādhanā. 2025 May 10;50(2):97	02562499, 09737677	SCIE, 1.4, Q2		
13.	Eco-friendly composites: exploring the potential of natural fiber reinforcement	Discover Applied Sciences. 2025 May;7(5):1-24	30049261	Scopus, Q2		
14.	Enhancing Mechanical and Tribological Properties of Hybrid Kenaf–Carbon Fiber Vinyl Ester Composites for Advanced Applications	Journal of Materials Engineering and Performance. 2025 Mar 13:1-4	10599495, 15441024	SCIE, 2.0, Q2		
15.	Fabrication of raw and chemically treated biodegradable Luffa aegyptica fruit fibre-based hybrid epoxy composite: a mechanical and morphological investigation	Biomass Conversion and Biorefinery. 2025 Mar;15(6):8473-86	21906815, 21906823	SCIE, 4.1, Q2		
16.	Artificial intelligence and machine learning in mechanical engineering: Current trends and future prospects	Engineering Applications of Artificial Intelligence. 2025 Feb 15;142:109910	09521976	SCIE, 8.0, Q1		
17.	Gamma radiation-induced degradation of mechanical properties in Carbon/Kevlar hybrid epoxy composites for aerospace applications	Journal of Polymer Research. 2024 Dec;31(12):367	10229760, 15728935	SCIE, 2.8, Q2		

18.	Isolation and extraction of microcellulose from Alpine galanga fiber	Sustainable Chemistry and Pharmacy. 2024 Dec 1;42:101829	23525541	SCIE, 5.8, Q1		
19.	Experimental and artificial neural network-based slurry erosion behavior evaluation of cast iron	International Journal on Interactive Design and Manufacturing (IJIDeM). 2024 Nov;18(9):6739-49	19552505, 19552513	Scopus, 2.5, Q2		
20.	Enhancing wear resistance, mechanical properties of composite materials through sisal and glass fiber reinforcement with epoxy resin and graphite filler	Journal of the Indian Chemical Society. 2024 Oct 1;101(10):101349	00194522	SCIE, 3.4, Q2		
21.	A novel study on the development of sisal-jute fiber epoxy filler–based composites for brake pad application	Biomass Conversion and Biorefinery. 2024 Oct;14(19):23411-23	21906815, 21906823	SCIE, 4.1, Q2		
22.	Wear behaviour of aluminium-based hybrid composites processed by equal channel angular pressing	Proceedings of the Institution of Mechanical Engineers, Part J: Journal of Engineering Tribology. 2024 Sep;238(9):1079-90	13506501, 2041305X	Scopus, Q2		
23.	Human-Computer Interaction and Computational Intelligence: Machine Learning Approaches	In 2024 1st International Conference on Sustainable Computing and Integrated Communication in Changing Landscape of AI (ICSCAI) 2024 Jul 4 (pp. 1-9). IEEE	-	IEEE, Peer reviewed		
24.	Mechanical characterization and water absorption behavior of waste coconut leaf stalk fiber reinforced hybrid polymer composite: Impact of chemical treatment	Applied Science and Engineering Progress. 2024 Jul 2;17(3):7371	26729156, 26730421	Scopus, Q2		

25.	Analysis of friction and wear performance of eco-friendly basalt filler reinforced polylactic acid composite using the Taguchi approach	Journal of Thermoplastic Composite Materials. 2024 Jul;37(7):2479-504	08927057, 15307980	SCIE, 3.4, Q1		
26.	Characterizing the effects of SiC and Al_2O_3 on the mechanical properties of Al6082 hybrid metal matrix composites: An experimental and neural network approach	Advances in Production Engineering & Management. 2024 Jun 1;19(2):281-92	18546250, 18556531	SCIE, 1.125, Q2		
27.	Development of banana fabric incorporated polymer composites for printed circuit board application	Biomass Conversion and Biorefinery. 2024 Jun;14(11):12599-612	21906815, 21906823	SCIE, 4.1, Q2		
28.	Effect of sugarcane bagasse and alumina reinforcements on physical, mechanical, and thermal characteristics of epoxy composites using artificial neural networks and response surface methodology	Biomass Conversion and Biorefinery. 2024 Jun;14(11):12539-57	21906815, 21906823	SCIE, 4.1, Q2		
29.	Advancing the performance of ceramic-reinforced Aluminum hybrid composites: A comprehensive review and future perspectives	Applied Science and Engineering Progress. 2024 Apr 3;17(2):7034	26729156, 26730421	Scopus, Q2		

30.	Artificial neural networks for predicting mechanical properties of Al2219-B4C-Gr composites with multireinforcements	Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science. 2024 Mar;238(6):2170-84	09544062, 20412983	SCIE, 1.7, Q2		
31.	Influence of water absorption on mechanical and morphological behaviour of Roystonea-Regia/banana hybrid polyester composites	Applied Science and Engineering Progress. 2024 Feb 9;17(1):7074	26729156, 26730421	Scopus, Q2		
32.	High temperature tensile behaviour of ceramic-hybridized metal matrix composites for above-room-temperature applications	Silicon. 2024 Feb;16(3):1205-16	1876990X, 18769918	SCIE, 3.3, Q2		
33.	Accelerated weathering of sustainable and micro-filler Basalt reinforced polymer biocomposites: physical, mechanical, thermal, wettability, and water absorption studies	Journal of Building Engineering. 2023 Dec 1;80:108040	23527102	SCIE, 7.4, Q1		
34.	Wear behaviour of hybrid (boron carbide-graphite) aluminium matrix composites under high temperature	Journal of Engineering and Applied Science. 2023 Dec;70(1):124	18196608, 24095656	Scopus, Q2		
35.	Enhancing tribological performance: a review of ceramic reinforced aluminium hybrid composites for high-	Hybrid Advances. 2023 Dec 1;4:100094	2773207X	DOAJ, Q2		

	temperature engineering applications					
36.	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	21984220, 21984239	Scopus, Q2		
37.	Thermal analysis of sustainable and micro-filler Basalt reinforced polymer biocomposites for lightweight applications	Journal of Building Engineering. 2023 Nov 15;79:107869	23527102	DOAJ, Q1		
38.	Effects of tertiary ceramic additives on the micro hardness and wear characteristics of Al2618+Si_3N_4-B_4C-Gr hybrid composites for automotive applications	Journal of Alloys and Metallurgical Systems. 2023 Sep 1;3:100014	29499178	DOAJ, Q1		
39.	Mechanical characterization of B4C-Gr Al2618 based composites synthesized by stir casting method	Applied Science and Engineering Progress. 2023 Aug 23;16(3):6579	26729156, 26730421	Scopus, Q2		
40.	Biopolymer-based composites: an eco-friendly alternative from agricultural waste biomass	Journal of Composites Science. 2023 Jun 11;7(6):242	2504477X	Scopus, 3.7, Q1		
41.	Investigations on physical, mechanical, morphological and	Journal of Vinyl and Additive Technology. 2023 May;29(3):555-67	10835601, 15480585	SCIE, 3.6, Q2		

	water absorption properties of ramie/hemp/kevlar reinforced vinyl ester hybrid composites					
42.	Study of treatment effect on the Cocos nucifera lignocellulosic fibers as alternative for polymer composites	Journal of Natural Fibers. 2023 Apr 24;20(1):2134257	1544046X, 15440478	SCIE, 3.1, Q2		
43.	Drilling characteristics and properties analysis of fiber reinforced polymer composites: a comprehensive review	Heliyon. 2023 Mar 1;9(3)	24058440	Scopus, 3.6, Q1		
44.	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	25220101, 25383604	Scopus, Q3		
45.	Innovative polymer science: Groundbreaking materials for a sustainable future	Insight. 2023;6(1)	-	Peer reviewed, Q3		
46.	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	20734344	SCIE, 4.0, Q2		
47.	Extraction and characterization of natural lignocellulosic fibres from Typha angustata grass	International Journal of Biological Macromolecules. 2022 Dec 1;222:1840-51	01418130, 18790003	SCIE, 8.5, Q1		
48.	Effect of layering sequence on impact properties of alkali	Journal of Natural Fibers. 2022 Dec 1;19(13):6878-88	1544046X, 15440478	SCIE, 3.1, Q2		

	treated phoenix pusilla fibers-glass-carbon fabrics reinforced hybrid composite laminates					
49.	Effect of natural filler materials on fiber reinforced hybrid polymer composites: An Overview	Journal of Natural Fibers. 2022 Nov 2;19(11):4132-47	1544046X, 15440478	SCIE, 3.1, Q2		
50.	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	SCIE, 3.1, Q2		
51.	Microwave-assisted synthesis of poly (acrylamide-co-2-hydroxyethyl methacrylate)/chitosan semi-IPN ZnO nanocomposite membranes for food packaging applications	Journal of Materials Research and Technology. 2022 Sep 1;20:3537-48	22140697, 22387854	SCIE, 6.6, Q1		
52.	Sustainable recycling technologies for thermoplastic polymers and their composites: A review of the state of the art	Polymer Composites. 2022 Sep;43(9):5831-62	02728397, 15480569	SCIE, 4.7, Q1		
53.	Areca/Synthetic fibers reinforced based epoxy hybrid composites for semi-structural applications	Polymer Composites. 2022 Aug;43(8):5222-34	02728397, 15480569	SCIE, 4.7, Q1		
54.	Mechanical and thermal properties of flax/carbon/kevlar based epoxy hybrid composites	Polymer Composites. 2022 Aug;43(8):5649-62	02728397, 15480569	SCIE, 4.7, Q1		

55.	A comprehensive review on the effect of synthetic filler materials on fiber-reinforced hybrid polymer composites	The Journal of the Textile Institute. 2022 Jul 3;113(7):1231-9	00405000, 17542340	Scopus, 1.5, Q2		
56.	Comparative evaluation of areca/carbon/basalt fiber reinforced epoxy/bio epoxy based hybrid composites	Polymer Composites. 2022 Jul;43(7):4179-90	02728397, 15480569	SCIE, 4.7, Q1		
57.	A comprehensive review on 3D printing advancements in polymer composites: technologies, materials, and applications	The International Journal of Advanced Manufacturing Technology. 2022 Jul;121(1):127-69	02683768, 14333015	SCIE, 3.1, Q1		
58.	Growth and characterization of second and third order acentric studies of L-phenylalanine L-phenylalaninium malonate single crystal	Crystals. 2022 Jun 20;12(6):869	20734352	SCIE, 2.4, Q2		
59.	Influence of stacking sequence on flax/kevlar hybrid epoxy composites: Mechanical and morphological studies	Polymer Composites. 2022 Jun;43(6):3782-93	02728397, 15480569	SCIE, 4.7, Q1		
60.	Role of polymer composites in railway sector: an overview	Applied Science and Engineering Progress. 2022 May 27;15(2):5745	26729156, 26730421	Scopus, Q2		
61.	Structural investigation of Cu doped calcium ferrite (Ca1-xCuxFe2O4; x= 0, 0.2, 0.4, 0.6, 0.8, 1) nanomaterials	Journal of Materials Research and Technology. 2022 May 1;18:705-19	22140697, 22387854	SCIE, 6.6, Q1		

	prepared by co-precipitation method					
62.	Recent developments and challenges in natural fiber composites: a review	Polymer Composites. 2022 May;43(5):2545-61	02728397, 15480569	SCIE, 4.7, Q1		
63.	Review on nitride compounds and its polymer composites: a multifunctional material	Journal of Materials Research and Technology. 2022 May 1;18:2175-93	22140697, 22387854	SCIE, 6.6, Q1		
64.	Waste coconut leaf sheath as reinforcement composite material with phenol-formaldehyde matrix	Polymer Composites. 2022 Apr;43(4):1985-95	02728397, 15480569	SCIE, 4.7, Q1		
65.	A comprehensive review on polymer composites in railway applications	Polymer Composites. 2022 Mar;43(3):1238-51	02728397, 15480569	SCIE, 4.7, Q1		
66.	Synthesis, Characterization and Bio-Potential Activities of Co (II) and Ni (II) Complexes with O and N Donor Mixed Ligands	Crystals. 2022 Feb 26;12(3):326	20734352	SCIE, 2.4, Q2		
67.	Synthesis and Characterization of Microwave-Assisted Copolymer Membranes of Poly (vinyl alcohol)-g-starch-methacrylate and Their Evaluation for Gas Transport Properties	Polymers. 2022 Jan 17;14(2):350	20734360	SCIE, 4.9, Q1		
68.	Carbon fiber reinforced areca/sisal hybrid composites for railway interior	Polymer Composites. 2022 Jan;43(1):160-72	02728397, 15480569	SCIE, 4.7, Q1		

	applications: Mechanical and morphological properties					
69.	Synthesis of atmospherically stable zero-valent iron nanoparticles (nZVI) for the efficient catalytic treatment of high-strength domestic wastewater	Catalysts. 2021 Dec 27;12(1):26	20734344	SCIE, 4.0, Q2		
70.	A review on extraction, chemical treatment, characterization of natural fibers and its composites for potential applications	Polymer Composites. 2021 Dec;42(12):6239-64	02728397, 15480569	SCIE, 4.7, Q1		
71.	Influence of nanofillers on biodegradable composites: a comprehensive review	Polymer Composites. 2021 Nov;42(11):5691-711	02728397, 15480569	SCIE, 4.7, Q1		
72.	Bacillus-mediated silver nanoparticle synthesis and its antagonistic activity against bacterial and fungal pathogens	Antibiotics. 2021 Nov 1;10(11):1334	20796382	SCIE, 4.6, Q1		
73.	Sri Unveiling the photosensitive and magnetic properties of amorphous iron nanoparticles with its application towards decontamination of water and cancer treatment	Journal of Materials Research and Technology. 2021 Nov 1;15:99-118	22140697, 22387854	SCIE, 6.6, Q1		
74.	A brief study on optical and mechanical properties of an organic material: urea glutaric acid (2/1)-a	Crystals. 2021 Oct 14;11(10):1239.	20734352	SCIE, 2.4, Q2		

	third order nonlinear optical single crystal					
75.	Trends and developments in natural fiber composites	Applied Science and Engineering Progress. 2021 Oct 7;14(4):543-52	26729156, 26730421	Scopus, Q2		
76.	Pongamia pinnata shell powder filled sisal/kevlar hybrid composites: Physicomechanical and morphological characteristics	Polymer Composites. 2021 Sep;42(9):4434-47	02728397, 15480569	SCIE, 4.7, Q1		
77.	A comprehensive review on cellulose nanocrystals and cellulose nanofibers: Pretreatment, preparation, and characterization	Polymer Composites. 2021 Apr;42(4):1588-630	02728397, 15480569	SCIE, 4.7, Q1		
78.	A new study on flax-basalt-carbon fiber reinforced epoxy/bioepoxy hybrid composites	Polymer Composites. 2021 Apr;42(4):1891-900	02728397, 15480569	SCIE, 4.7, Q1		
79.	Effect of nano fillers on glass/silk fibers based reinforced polymer composites	Materials Today: Proceedings. 2021 Jan 1;46:9032-5	22147853	Peer reviewed		
80.	Mechanical and chemical properties evaluation of sheep wool fiber–reinforced vinylester and polyester composites	Materials Performance and Characterization. 2021 Jan 1;10(1):99-109	21653992	Scopus, Q2		
81.	Experimental investigation on the mechanical and morphological behavior of Prosopis juliflora bark fibers/E-glass/carbon fabrics	Polymer Composites. 2020 Dec;41(12):4983-93	02728397, 15480569	SCIE, 4.7, Q1		

	reinforced hybrid polymeric composites for structural applications					
82.	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, 4.7, Q1		
83.	A novel approach for development of printed circuit board from biofiber based composites	Polymer Composites. 2020 Nov;41(11):4550-8	02728397, 15480569	SCIE, 4.7, Q1		
84.	Alkaline effect on characterization of discarded waste of Moringa oleifera fiber as a potential eco-friendly reinforcement for biocomposites	Journal of Polymers and the Environment. 2020 Nov;28(11):2823-36	15662543, 15728919	SCIE, 5.0, Q1		
85.	Effect of various chemical treatments of Prosopis juliflora fibers as composite reinforcement: Physicochemical, thermal, mechanical, and morphological properties	Journal of Natural Fibers. 2020 Jun 2;17(6):833-44	1544046X, 15440478	SCIE, 3.1, Q2		
86.	A new study on effect of various chemical treatments on Agave Americana fiber for composite reinforcement: Physico-chemical,	Polymer Testing. 2020 May 1;85:106437	01429418	SCIE, 6.0, Q1		

	thermal, mechanical and morphological properties					
87.	A review on synthesis and characterization of commercially available natural fibers: Part-I	Journal of Natural Fibers. 2019 Nov 17.	1544046X, 15440478	SCIE, 3.1, Q2		
88.	Characterization of raw and alkali treated prosopis juliflora fibers for potential polymer composite reinforcement	InIOP Conference Series: Materials Science and Engineering 2019 Nov 1 (Vol. 653, No. 1, p. 012016). IOP Publishing	-	Peer reviewed		
89.	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	22140697, 22387854	SCIE, 6.6, Q1		
90.	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, 3.1, Q2		
91.	Effect of tungsten carbide on mechanical and tribological properties of jute/sisal/E-glass fabrics reinforced natural rubber/epoxy composites	Journal of Industrial Textiles. 2018 Oct;48(4):713-37	15280837, 15308057	SCIE, 2.0, Q2		
92.	Characterization and properties of natural fiber polymer composites: A comprehensive review	Journal of Cleaner Production. 2018 Jan 20;172:566-81	09596526, 18791786	SCIE, 10.0, Q1		
93.	Studies on mechanical properties of bamboo/carbon fiber reinforced epoxy hybrid composites	International Journal of Engineering Research and General Science. 2018;6(5):43-50	2091-2730	Peer Reviewed		

	filled with SiC particulates					
94.	Natural fibers and its composites for engineering applications: an overview	InSARC International Conference, Chennai India 2017 Dec 13	-	Peer Reviewed		
95.	Polymer matrix-natural fiber composites: An overview	Cogent Engineering. 2018 Jan 1;5(1):1446667		Scopus, 2.5, Q2		
96.	Stress analysis and life estimation of gas turbine blisk for different materials of a jet engine	International Journal of Science and Research. 2016;5(6):1103-1107	2319-7064	Peer Reviewed		
97.	Electrical Power Generation by Footsteps using Piezo-electric Transducers	International Journal of Recent Trends in Engineering & Research. 2016.	2455-1457 (E)	Peer Reviewed		

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

1) Rapid Prototyping and Manufacturing Technologies, Department of Mechanical Engineering, NIE, Mysore. Duration: November 12, 2011.
2) International Conference and Exhibition on “Additive Manufacturing Technologies”. Nimhans Convention Centre, Bangalore. Duration: August 27-28, 2012.
3) Empowering Teachers, Department of Industrial and Production Engineering, MCE Hassan. Duration: October 24-25, 2013.
4) Hydraulic, Pneumatic Systems in Industrial Automation, MCE-Bosch Rexroth, MCE, Hassan. Duration: November 27-29, 2014.
5) Analytical and Numerical Techniques in Applied Mathematics and Engineering, Department of Mathematics, MCE Hassan. Duration: July 28 to August 2, 2014.
6) Finite Element Analysis Using Ansys, Department of Mechanical Engineering, NIT Calicut. Duration: August 16-18, 2014.
7) Essentials Skills for Mechanical Engineers, Department of Mechanical Engineering, MCE Hassan. Duration: September 1-5, 2014.
8) Advances in Bio-Lubricants and Cutting Fluids, Department of Mechanical Engineering, MCE Hassan. Duration: December 8-12, 2014.
9) Materials Microstructure Characterization using Optical & Scanning Electron Microscopy, IIT Hyderabad. Duration: December 20-24, 2015.
10) Feel Teacher, MCE Hassan. Duration: June 6-11, 2016.

11) Realistic Approach to Wear Measurements and Mechanisms, Department of Mechanical Engineering, NMIT, Bangalore. Duration: September 19-21, 2016.
12) Virtual Laboratory, Department of E&C Engineering, MCE Hassan, Duration: February 16, 2017.
13) Technology Involved in Rapid Prototyping and Reverse Engineering, III Cell, MCE Hassan. Duration: February 20, 2017.
14) Emerging Trends in Materials and Manufacturing Technology, III Cell, MCE Hassan. Duration: February 27 to March 3, 2017.
15) Advanced Material Characterization Techniques, CMTI, Bengaluru. Duration: March 13-15, 2017.
16) Advances in Tribology and Surface Engineering, Department of Mechanical Engineering, MCE Hassan. Duration: March 20-21, 2017.
17) Research Methodology and Intellectual Property Rights, Department of Mechanical Engineering, MCE Hassan. Duration: March 23-25, 2017.
18) Advanced Materials & Manufacturing Technology, Department of Mechanical Engineering, RIT, Bangalore. Duration: December 4-16, 2017.
19) Challenges in Non-Conventional Energy Sources, Department of Automobile Engineering, MCE Hassan. Duration: April 9-13, 2018.
20) Total Quality Management, Department of Industrial and Production Engineering, MCE Hassan. Duration: May 28 – June 1, 2018.
21) Recent Trends in Automotive Technology, Department of Automobile Engineering, MCE Hassan. Duration: June 25-29, 2018.
22) Hands on Training Program for Mechanical Engineering Faculty Members on Thermo- Mechanical Simulator, Department of Metallurgical and Materials Engineering, IIT Roorkee. Duration: July 17-20, 2018.
23) Outcomes Based Education, MCE Hassan. Duration: August 4-5, 2018.
24) Being a Great Teacher, Department of Mechanical Engineering, MCE Hassan. Duration: November 3-4, 2018.
25) Lightweight Structures for Engineering Applications through Composites and Topology Optimization, GEC, Hassan. Duration: January 27 to February 7, 2020.
26) Tailor Made Nanomaterials for Applications in Sensors, LED's & Water Remediation, Department of Mechanical Engineering, ACS College of Engineering & RajaRajeswari College of Engineering, Bengaluru. Duration: June 5, 2020.
27) Advances in Automotive Engines, Department of Automobile Engineering & Department of Mechanical Engineering, Jain (Deemed to be University), Bengaluru. Duration: June 6, 2020
28) A Paradigm Shift in Management, Department of Mechanical Engineering, BITM, Ballari. Duration: June 16-20, 2020.
29) Advances in Machining Process, Department of Mechanical Engineering, PESITM, Shivamogga. Duration: June 17-19, 2020.
30) Composite Materials and its Characterizations, Department of Mechanical Engineering, AIT, Bengaluru. Duration: June 22-26, 2020.
31) Intellectual Property Rights and Innovations, East West Institute of Technology, Bengaluru. Duration:June23-27, 2020.
32) Nuclear Energy: Myth v/s Reality,School of Mechanical Engineering,REVA University, Bengaluru. Duration: June 29, 2020.
33) Trends in Energy Conservation Technologies, Department of Mechanical Engineering, Vidyavardhaka College of Engineering,Mysuru. Duration:July 6-11, 2020.

34) Advanced Technologies in Materials & Manufacturing Engineering, Department of Mechanical Engineering, Dayananda Sagar University School of Engineering, Bengaluru. Duration: July 6-11, 2020.
35) Advancements in Dynamic Analysis of Machine Elements, Department of Mechanical Engineering, Vidyavardhaka College of Engineering, Mysuru. Duration: July 27-29, 2020.
36) Recent Advances & Trends in Mechanical Engineering & Material Science, Department of Mechanical Engineering, K. S. Institute of Technology, Bengaluru. Duration: July 27-31, 2020.
37) Challenges and Opportunities in Biocomposites, School of Automotive and Mechanical Engineering, Kalasalingam Academy of Research & Education, Tamilnadu. Duration: July 29, 2020.
38) Developments in Solar Energy Applications and Solar Tracking System, Departments of Mechanical and E & C Engineering, University BDT College of Engineering, Davanagere and Department of Mechanical Engineering, SDM Institute of Technology, Ujire. Duration: July 27 - 31, 2020.
39) Advanced Nano Materials, Nano FabricationTechniques & Devices, Department of Mechanical Engineering, BMS Institute of Technology and Management, Bengaluru. Duration: August 10 – 14, 2020.
40) Computational Fluid Dynamics, Department of Mechanical and Manufacturing Engineering, Ramaiah University of Applied Sciences, Bengaluru. Duration: August 12 – 14, 2020.
41) Research & Innovation, Department of Information Science and Engineering, VVCE, Mysuru. Duration: August 17 – 21, 2020.
42) Basic Concepts in Turbo Machinery and its Applications, Department of Mechanical Engineering, The National Institute of Engineering, Mysuru. Duration: August 24 – 28, 2020.
43) 3D Printing & Design(ATAL FDP), BMS College of Engineering, Bengaluru. Duration: September 1 – 5, 2020.
44) Recent Advances in Tribology and Surface Engineering: Series 2 of 4 – *Tribology of Machine Components and Applied Tribology*, Department of Mechanical Engineering, Saintgits College of Engineering, Kottayam, Kerala. Duration: September 14 – 19, 2020. (AICTE sponsored STTP).
45) Recent Advances in Tribology and Surface Engineering: Series 3 of 4 – *Introduction to Special Topics like – Nanotribology, Biotribology, Space tribology, Biomimetics and Tribology in Industry*, Department of Mechanical Engineering, Saintgits College of Engineering, Kottayam, Kerala. Duration: October 12 – 17, 2020. (AICTE sponsored STTP).
46) Creating Smart and Green Society through Advance Technology of Green Energy (Phase 1), Malnad College of Engineering, Hassan, Karnataka. Duration: December 10 – 15, 2020. (AICTE sponsored STTP).
47) Creating Smart and Green Society through Advance Technology of Green Energy (Phase 2), Malnad College of Engineering, Hassan, Karnataka. Duration: December 17 – 22, 2020. (AICTE sponsored STTP).
48) Renewable Energy for Sustainable Development, Bharatratna Indira Gandhi College of Engineering, Solapur.Duration: 1 - 5 March 2022.
49) Make in India: Through 3D Printing and Industry 4.0 for Indian Industries – Phase II, Department of Mechanical Engineering, Kamaraj College of Engineering and Technology (Autonomous), Madurai, Tamilnadu. Duration: April 12 - 17, 2021.(AICTE Sponsored Online STTP).
50) Sources of Research Grants and Art of Writing a Research Paper. Department of Mechanical Engineering, R L Jalappa Institute of Technology, Doddaballapur, Bengaluru Rural District. Duration: June 3, 2021.
51) Novel Materials for Next-Generation Applications (ATAL FDP), M S Ramaiah Institute of Technology, Bengaluru. Duration: July 12 - 16, 2021.
52) Refresher course on Advanced Pedagogy (STTP). NITTTR, Kolkata. Duration: Jan 24 - Feb 4, 2022.
53) Robotics and Artificial Intelligence (ATAL FDP), Lakireddy Bali Reddy College of Engineering, Mylavaram. Duration: Feb 7 – 11, 2022.

54) Application of Geoinformatics and Remote Sensing in Engineering & Technology, Dept. of Civil Engineering, Bharat-Ratna Indira Gandhi College of Engineering, Kegaon, Solapur, Maharashtra, Duration: 19 - 23 September 2022.
55) Advanced Tools and Techniques for Best Research, Department of Information Science & Engineering and IPR-Cell, RV Institute of Technology and Management, Bengaluru. Duration: 26 - 30 September 2022.
56) Recent Trends in Composites, Department of Mechanical Engineering, Alliance College of Engineering and Design (ACED), Alliance University, Bengaluru. Duration: 2-6 Jan 2023.
57) Opportunities and Challenges in Entrepreneurship, JSSATE, Science & Technology Entrepreneurship Park, Bengaluru. (NSTEDB), Dept. of Science & Technology, GOI. Duration: 3rd – 19th January 2024.
58) Advances in Materials Technology for Next Generation Manufacturing, Ballari Institute of Technology & Management, Ballari. Duration: 1st to 5th February 2024.
59) Sustainable & Eco-friendly products, Digital & E-commerce Businesses, JSSATE, Science & Technology Entrepreneurship Park, Bengaluru. (NSTEDB), Dept. of Science & Technology, GOI. Duration: 7th – 24th February 2024.
60) Brainstorming session on Intellectual Property Rights, KSCST, IISc Campus, Bengaluru in association with Vemana-KSCST IP Cell, VIT, Bengaluru. Duration: 29th February 2024.
61) IoT, Embedded Systems & AI, JSSATE, Science & Technology Entrepreneurship Park, Bengaluru. (NSTEDB), Dept. of Science & Technology, GOI. Duration: 4th – 29th March 2024.
62) GenAI, Ten Days FDP, Department of Information Science & Engineering, Vidyavardhaka College of Engineering, Mysuru. Duration: August 26th - September 5th, 2024.
63) Advanced Materials for Defence and Aerospace Applications, Ballari Institute of Technology and Management, Ballari. Duration: Jan 27 – Feb 1, 2025.
64) Microwave Processing and 3D Printing of Functional Materials – From Fundamentals to Future Technologies (ATAL FDP), K.L.S. Gogte Institute Of Technology. Duration: Feb 3 - 8, 2025.
65) Next-Gen Data Science: Deep Learning, NLP and Responsible AI, Department of CSE, CMR Institute of Technology, Bengaluru. Duration: June 16 - 20, 2025.
66) Current Trends in Metal Additive Manufacturing, Malaviya Mission Teaching Training Centre, IIT(ISM), Dhanbad, Jharkhand. Duration: July 7 - 18, 2025.
67) Design Thinking and Innovation (ATAL FDP), Sant Gajanan Maharaj College Of Engineering, Maharashtra, India. Duration: Nov 17 - 22, 2025.
68) Advanced Manufacturing and Materials Systems: Processing, Characterization and Testing (AMMS'26), Ramco Institute of Technology, Tamil nadu. Duration: Jan 5 - 9, 2026.

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	Mechanical, Water Absorption, and Morphological Studies on Jute-Carbon Hybrid Composites Reinforced with Tamarind Seed Filler	International Conference on Developments in Sustainable & Innovative Design for Manufacturing, Mobility & Energy Systems – 2026,	February 27th & 28th 2026	Dayananda Sagar College of Engineering in collaboration with King Mongkut's University of Technology North	International

				Bangkok, Thailand	
2	Experimental Investigation of SiC/ Al_2O_3 Reinforced Al 6082 Hybrid Metal Matrix Composites	International Conference on Trends in Mechanical Engineering Sciences (ICTMES-2020),	August 6-7th 2020	Malnad College of Engineering, Hassan	International
3	Effect of Nano Fillers on Glass/ Silk Fibers Based Reinforced Polymer Composites	International Conference on Advanced Trends in Mechanical & Aerospace Engineering (ATMA-2019)	February 7-9th 2019	Dayananda Sagar University, Bengaluru, Karnataka	International
4	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
5	Natural Fibers and Its Composites for Engineering Applications: An Overview	SARC International Conference on Mechanical and Production Engineering (ICMAPE – CHENNAI),	December 3rd, 2017	Chennai, India	International
6	Study on Tensile Behaviour of Century/Carbon Fiber Reinforced Polyester Based Composites	14th State Level ISTE Student's Annual Convention and 5th National Conference on Emerging Trends in Engineering, Research and Management (NCETERM - 2017),	8th and 9th September 2017	GM Institute of Technology, Davangere, Karnataka, India	National

Note: Do not leave any blank rows and columns. Add/Delete rows/columns appropriately.