



# 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	Assistant Professor & 10 Years 3 Months
6.	Teaching Experience: U.G. (in Years)	10 Years & 3 Months
<b>Research Experience (in Years)</b>		
7.	a) Total Number of years	8 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	81
	ii. National Journals	-
	iii. Conference Proceedings	02
	e) Total No. of Conferences/ Seminar/ Workshop Attended	
	i. International	04
	ii. National	01
8.	Awards/ Prizes/ Honor's/ Recognitions	<ul style="list-style-type: none"> <li>➤ 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 and 2022.</li> <li>➤ Young Researcher Award - 2022 for the article "A review on synthesis and characterization of commercially available natural fibers: Part-I" from Institute of Scholars (InSc).</li> <li>➤ Young Researcher (RSL078) from Global Academicians &amp; Researchers Network (RSquareL) for the article "Characterization and properties of</li> </ul>

		<p>natural fiber polymer composites: A comprehensive review”.</p> <ul style="list-style-type: none"> <li>➤ Top cited article 2020-21 “A comprehensive review on cellulose nanocrystals and cellulose nanofibers: Pretreatment, preparation, and characterization” Polymer Composites, Wiley.</li> <li>➤ Top cited article 2021-22 “A comprehensive review on cellulose nanocrystals and cellulose nanofibers: Pretreatment, preparation, and characterization” Polymer Composites, Wiley.</li> <li>➤ Top cited article 2021-22 “Influence of nanofillers on biodegradable composites: A comprehensive review” Polymer Composites, Wiley.</li> <li>➤ Editorial Board Member for Journals - Advancement in Mechanical Engineering and Technology, New Environmentally-Friendly Materials, Archives of Advanced Engineering Science, International Journal of Materials Science and Applications.</li> <li>➤ Review Editor on Editorial Board for Polymeric and Composite Materials - Frontiers in Materials</li> <li>➤ Editor of Special Issue - Applied Science and Engineering Progress</li> <li>➤ Reviewer of International Journals – 35 + Journals (Elsevier, Wiley, Sage, Springer)</li> <li>➤ Reviewer/ Member of International Conferences</li> <li>➤ Reviewer of International Grants/ Book proposals</li> </ul>
9.	Fields of Specialization under the Subject/ Discipline	Mechanical Engineering, Materials Engineering, Composite Materials
10.	Orientation/ Refresher Course/ Summer School/ Winter School/ Workshops attended	56

## **PART-B**

### **1. List of Publications:**

#### **Articles Published:**

<b>Sl. No.</b>	<b>Title</b>	<b>Name of the Journal, Vol. No., Year</b>	<b>ISSN/ ISBN/ Number</b>
1.	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
2.	Wear behaviour of hybrid (boron carbide-graphite) aluminium matrix composites under high temperature	Journal of Engineering and Applied Science. 2023 Dec;70(1):1-23	25369512
3.	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
4.	Thermal analysis of sustainable and micro-filler Basalt reinforced polymer biocomposites for lightweight applications	Journal of Building Engineering. 2023 Nov 15;79:107869	23527102
5.	Experimental and artificial neural network-based slurry erosion behavior evaluation of cast iron	International Journal on Interactive Design and Manufacturing (IJIDeM). 2023 Nov 13:1-1	19552513, 19552505
6.	High-Temperature Tensile Behaviour of Ceramic-Hybridized Metal Matrix Composites for Above-Room-Temperature Applications	Silicon. 2023 Nov 10:1-2	18769918, 1876990X
7.	Enhancing tribological performance: A review of ceramic reinforced aluminum hybrid composites for high-temperature engineering applications	Hybrid Advances. 2023 Oct 1:100094	2773-207X
8.	Mechanical characterization of B4C-Gr Al2618 based composites synthesized by stir casting method	Applied Science and Engineering Progress. 2023 Aug 23;16(3):6579-6579	26730421, 26729156
9.	Biopolymer-Based Composites: An Eco-Friendly Alternative from Agricultural Waste Biomass	Journal of Composites Science. 2023 Jun 11;7(6):242	2504477X
10.	Effects of tertiary ceramic additives on the micro hardness and wear characteristics of Al2618+ Si3N4-B4C-Gr hybrid composites for automotive applications	Journal of Alloys and Metallurgical Systems. 2023 May 31:100014	2949-9178
11.	Development of banana fabric incorporated polymer composites for printed circuit board application	Biomass Conversion and Biorefinery. 2023 Apr 29:1-4	21906815, 21906823
12.	A novel study on the development of sisal-jute fiber epoxy filler-based composites for brake pad application	Biomass Conversion and Biorefinery. 2023 Apr 25:1-3	21906815, 21906823
13.	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
14.	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
15.	Drilling characteristics and properties analysis of fiber reinforced polymer composites: A comprehensive review	Heliyon. 2023 Mar 1	24058440
16.	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. 2023 Feb 3:1-9	21906815, 21906823
17.	Conjectured hybrid power with artificial intelligence and single-axis solar tracking wind turbine	International Journal of Energy and Water	2538-3604

		Resources. 2023 Jan 24:1-7	
18.	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. 2023:09544062231196038	20412983, 09544062
19.	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
20.	Extraction and characterization of natural lignocellulosic fibres from Typha angustata grass	International Journal of Biological Macromolecules. 2022 Dec 1;222:1840-51	01418130, 18790003
21.	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
22.	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
23.	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
24.	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	22387854
25.	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
26.	Areca/Synthetic fibers reinforced based epoxy hybrid composites for semi-structural applications	Polymer Composites. 2022 Aug;43(8):5222-34	02728397, 15480569
27.	Mechanical and thermal properties of flax/carbon/kevlar based epoxy hybrid composites	Polymer Composites. 2022 Aug;43(8):5649-62	02728397, 15480569
28.	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	17542340, 00405000
29.	Comparative evaluation of areca/carbon/basalt fiber reinforced epoxy/bio epoxy based hybrid composites	Polymer Composites. 2022 Jul;43(7):4179-90	02728397, 15480569
30.	A comprehensive review on 3D printing advancements in polymer composites: technologies, materials, and applications	The International Journal of Advanced Manufacturing Technology. 2022 Jul;121(1-2):127-69	02683768, 14333015
31.	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
32.	Influence of stacking sequence on flax/kevlar hybrid epoxy composites: Mechanical and morphological studies	Polymer Composites. 2022 Jun;43(6):3782-93	02728397, 15480569
33.	Role of polymer composites in railway sector: an overview	Applied Science and Engineering Progress. 2022 May 27;15(2):5745-5745	26730421, 26729156
34.	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	22387854
35.	Recent developments and challenges in natural fiber composites: A review	Polymer Composites. 2022 May;43(5):2545-61	02728397, 15480569
36.	Review on Nitride compounds and its polymer composites: A multifunctional material	Journal of Materials Research and Technology. 2022 May 1;18:2175-93	22387854

37.	Waste coconut leaf sheath as reinforcement composite material with phenol-formaldehyde matrix	Polymer Composites. 2022 Apr;43(4):1985-95	02728397, 15480569
38.	A comprehensive review on polymer composites in railway applications	Polymer Composites. 2022 Mar;43(3):1238-51	02728397, 15480569
39.	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
40.	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
41.	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
42.	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
43.	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
44.	Influence of nanofillers on biodegradable composites: A comprehensive review	Polymer Composites. 2021 Nov;42(11):5691-711	02728397, 15480569
45.	Bacillus-mediated silver nanoparticle synthesis and Its antagonistic activity against bacterial and fungal pathogens	Antibiotics. 2021 Nov 1;10(11):1334	20796382
46.	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	22387854
47.	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
48.	Pongamia pinnata shell powder filled sisal/kevlar hybrid composites: Physicomechanical and morphological characteristics	Polymer Composites. 2021 Sep;42(9):4434-47	02728397, 15480569
49.	A comprehensive review on cellulose nanocrystals and cellulose nanofibers: Pretreatment, preparation, and characterization	Polymer Composites. 2021 Apr;42(4):1588-630	02728397, 15480569
50.	A new study on flax-basalt-carbon fiber reinforced epoxy/bioepoxy hybrid composites	Polymer Composites. 2021 Apr;42(4):1891-900.	02728397, 15480569
51.	Mechanical and chemical properties evaluation of sheep wool fiber–reinforced vinylester and polyester composites	Materials Performance and Characterization. 2021 Mar 15;10(1):99-109	21653992
52.	Effect of nano fillers on glass/silk fibers based reinforced polymer composites	Materials Today: Proceedings. 2021 Jan 1;46:9032-5	22147853
53.	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
54.	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
55.	A novel approach for development of printed circuit board from biofiber based composites	Polymer Composites. 2020 Nov;41(11):4550-8	02728397, 15480569
56.	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;28:2823-36	15728900, 15662543
57.	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

58.	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
59.	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
60.	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
61.	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
62.	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	15308057, 15280837
63.	A review on synthesis and characterization of commercially available natural fibers: Part-I	Journal of Natural Fibers. 2018 Apr 5	1544046X, 15440478
64.	Characterization and properties of natural fiber polymer composites: A comprehensive review	Journal of Cleaner Production. 2018 Jan 20;172:566-81	09596526, 18791786
65.	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
66.	Natural Fibers and Its Composites for Engineering Applications: An Overview	In SARC International Conference, Chennai India, 2018 Dec.	-
67.	Polymer matrix-natural fiber composites: An overview	Cogent Engineering. 2018 Jan 1;5(1):1446667	23311916
68.	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):1103-7	2319-7064
69.	Electrical Power Generation by Footsteps using Piezo-electric Transducers	International Journal of Recent Trends in Engineering & Research. 2016	2455-1457

#### 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	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.	Potential of natural/ synthetic hybrid composites for aerospace applications	Sustainable composites for aerospace applications, Woodhead Publishing, 2018	978-0-08-102131-6
2.	Effect of process engineering on the performance of hybrid fiber composites	Hybrid fiber composites: materials, manufacturing, process engineering, 2020	978-3-527-34672-1
3.	Mechanical, electrical and thermal behaviour of additively manufactured thermoplastic	Additive and subtractive manufacturing of composites, 2021	978-981-16-3183-2

	composites for high performance applications		
4.	Plastics in automotive applications	Encyclopedia of Materials: Plastics and Polymers, 2020	978-0-12-823291-0
5.	Introduction to bio-based fibers and their composites	Advances in Bio-Based Fiber, Woodhead Publishing, 2022	9780128245439
6.	Introduction to plant fibers and their composites	Plant Fibers, their Composites, and Applications, Woodhead Publishing, 2022	9780128245286
7.	Metallic lightweight materials: properties and their applications	Lightweight and Sustainable Composite Materials, Woodhead Publishing, 2023	9780323951890
8.	Lightweight and sustainable materials for aerospace applications	Lightweight and Sustainable Composite Materials, Woodhead Publishing, 2023	9780323951890
9.	Lightweight and sustainable materials for structural 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.	Multi-Socketed Terminal Board with Wireless Audio Player	6299074	26/07/2023	International (UK) (Design)	Granted	09/08/2023
3.	Development of Toolbox Material from Hybrid Composites Reinforced with NC, NDL, NK, GF and NP-MMC	201941045139	29/11/2019	National (Indian)	Published	-
4.	Device and System to Mend Polymer and Composite Sheets on Greenhouses and Polysheet Shadenet Structures	202241044724	12/08/2022	National (Indian)	Published	-

5.	Multi-Socketed Terminal Board with Wireless Audio Player	396980-001	07/10/2023	National (Indian) (Design)	Published	-
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### Ongoing Research Projects / Consultancies

Sl. No.	Title	Agency	Period	Grant / Amount Mobilized (Rs Lakhs)
1	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.	Convener, Technical Club
2.	Department Seminar Co-Ordinator
3.	Department Timetable Officer
4.	Department CIE Co-Ordinator
5.	Department Contineo Co-Ordinator
6.	Department Project Co-Ordinator
7.	Department R&D Committee Member
8.	College level Interdisciplinary Projects Committee Member
9.	IPR Activity Coordinator (IIC)
10.	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

<b>43.</b>	2023-24	B.E.	Computer Aided Engineering Drawing
<b>44.</b>			Introduction to Mechanical Engineering

<b>Professional Development Activities</b>		
	Membership in profession related committees at state and national level a) At International b) At national level c) At state	<b>06</b>
	Participation in subject associations, conferences, seminars without paper presentation	<b>04</b>
	Participation in short term training courses less than one week duration in educational technology, curriculum development, professional development, Examination reforms, Institutional governance	<b>25</b>
	Membership/ participation in State/ Central Bodies/ Committees on Education, Research and National Development	<b>05</b>
	Publication of articles in newspapers, magazines, or other publications (not covered in category 3); radio talks; television programmes	<b>-</b>
	Invited Expert Talks	<b>-</b>

**PART-C**

**RESEARCH, PUBLICATIONS AND ACADEMIC CONTRIBUTIONS**

**1. Published Papers in Journals**

<b>Sl. No.</b>	<b>Title</b>	<b>Journal with Vol. Year &amp; Page No.</b>	<b>ISSN / ISBN No.</b>	<b>Whether peer reviewed. Impact factor, if any</b>	<b>No. of Co-authors</b>	<b>Whether you are the main author or Guide/mentor</b>
1.	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, Q1, 6.4	03	Co-Author
2.	Wear behaviour of hybrid (boron carbide-graphite) aluminium matrix composites under high temperature	Journal of Engineering and Applied Science. 2023 Dec;70(1):1-23	25369512	Peer reviewed	05	Co-Author
3.	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	04	Co-Author
4.	Thermal analysis of sustainable and micro-filler Basalt reinforced polymer biocomposites for lightweight applications	Journal of Building Engineering. 2023 Nov 15;79:107869	23527102	SCIE, Q1, 6.4	04	Co-Author

5.	Experimental and artificial neural network-based slurry erosion behavior evaluation of cast iron	International Journal on Interactive Design and Manufacturing (IJIDeM). 2023 Nov 13:1-1	19552513, 19552505	Scopus, Q2, 2.1	05	Guide/ Mentor
6.	High-Temperature Tensile Behaviour of Ceramic-Hybridized Metal Matrix Composites for Above-Room-Temperature Applications	Silicon. 2023 Nov 10:1-2	18769918, 1876990X	SCIE, Q2, 3.4	05	Co-Author
7.	Enhancing tribological performance: A review of ceramic reinforced aluminum hybrid composites for high-temperature engineering applications	Hybrid Advances. 2023 Oct 1:100094	2773-207X	DOAJ	02	Guide/ Mentor
8.	Mechanical characterization of B4C-Gr Al2618 based composites synthesized by stir casting method	Applied Science and Engineering Progress. 2023 Aug 23;16(3):6579-6579	26730421, 26729156	Scopus, Q2	05	Guide/ Mentor
9.	Biopolymer-Based Composites: An Eco-Friendly Alternative from Agricultural Waste Biomass	Journal of Composites Science. 2023 Jun 11;7(6):242	2504477X	Scopus, Q2, 3.3	05	Guide/ Mentor
10.	Effects of tertiary ceramic additives on the micro hardness and wear characteristics of Al2618+ Si3N4-B4C-Gr hybrid composites for automotive applications	Journal of Alloys and Metallurgical Systems. 2023 May 31:100014	2949-9178	DOAJ	05	Co-Author
11.	Development of banana fabric	Biomass Conversion and Biorefinery. 2023 Apr 29:1-4	21906815, 21906823	SCIE, Q3, 4.0	06	Co-Author

	incorporated polymer composites for printed circuit board application					
12.	A novel study on the development of sisal-jute fiber epoxy filler–based composites for brake pad application	Biomass Conversion and Biorefinery. 2023 Apr 25:1-3	21906815, 21906823	SCIE, Q3, 4.0	06	Co-Author
13.	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, Q2, 2.7	05	Guide/Mentor
14.	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, Q2, 3.5	06	Guide/Mentor
15.	Drilling characteristics and properties analysis of fiber reinforced polymer composites: A comprehensive review	Heliyon. 2023 Mar 1	24058440	SCIE, Q1, 4.0	10	Co-Author
16.	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. 2023 Feb 3:1-9	21906815, 21906823	SCIE, Q3, 4.0	03	Co-Author

17.	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	2538-3604	Peer reviewed	05	Co-Author
18.	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. 2023:09544062231196038	20412983, 09544062	SCI, Q2, 2.0	05	Guide/Mentor
19.	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, Q2, 3.9	05	Guide/Mentor
20.	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, Q1, 8.2	09	Co-Author
21.	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, Q2, 3.5	07	Main Author
22.	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, Q2, 3.5	04	Co-Author
23.	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, Q2, 3.5	08	Main Author

24.	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	22387854	Scopus, Q1, 6.4	09	Co-Author
25.	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, Q1, 5.2	08	Co-Author
26.	Areca/Synthetic fibers reinforced based epoxy hybrid composites for semi-structural applications	Polymer Composites. 2022 Aug;43(8):5222-34	02728397, 15480569	SCIE, Q1, 5.2	05	Co-Author
27.	Mechanical and thermal properties of flax/carbon/kevlar based epoxy hybrid composites	Polymer Composites. 2022 Aug;43(8):5649-62	02728397, 15480569	SCIE, Q1, 5.2	04	Co-Author
28.	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	17542340, 00405000	Scopus, Q2, 1.7	04	Guide/Mentor
29.	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, Q1, 5.2	04	Co-Author
30.	A comprehensive review on 3D printing advancements in polymer composites:	The International Journal of Advanced Manufacturing Technology. 2022 Jul;121(1-2):127-69	02683768, 14333015	SCIE, Q1, 3.4	07	Co-Author

	technologies, materials, and applications					
31.	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, Q2, 2.7	11	Co-Author
32.	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, Q1, 5.2	07	Guide/Mentor
33.	Role of polymer composites in railway sector: an overview	Applied Science and Engineering Progress. 2022 May 27;15(2):5745-5745	26730421, 26729156	Scopus, Q2	03	Guide/Mentor
34.	Structural investigation of Cu doped calcium ferrite (Ca <sub>1-x</sub> Cu <sub>x</sub> Fe <sub>2</sub> O <sub>4</sub> ; 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	22387854	Scopus, Q1, 6.4	10	Co-Author
35.	Recent developments and challenges in natural fiber composites: A review	Polymer Composites. 2022 May;43(5):2545-61	02728397, 15480569	SCIE, Q1, 5.2	05	Co-Author
36.	Review on Nitride compounds and its polymer composites: A multifunctional material	Journal of Materials Research and Technology. 2022 May 1;18:2175-93	22387854	Scopus, Q1, 6.4	09	Guide/Mentor
37.	Waste coconut leaf sheath as reinforcement composite material with phenol-formaldehyde matrix	Polymer Composites. 2022 Apr;43(4):1985-95	02728397, 15480569	SCIE, Q1, 5.2	05	Guide/Mentor



38.	A comprehensive review on polymer composites in railway applications	Polymer Composites. 2022 Mar;43(3):1238-51	02728397, 15480569	SCIE, Q1, 5.2	07	Co-Author
39.	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, Q2, 2.7	10	Co-Author
40.	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, Q1, 5.0	08	Co-Author
41.	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	SCIE, Q1, 5.2	04	Co-Author
42.	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, Q2, 3.9	07	Co-Author
43.	A review on extraction, chemical treatment, characterization of natural fibers and its	Polymer Composites. 2021 Dec;42(12):6239-64	02728397, 15480569	SCIE, Q1, 5.2	03	Co-Author

	composites for potential applications					
44.	Influence of nanofillers on biodegradable composites: A comprehensive review	Polymer Composites. 2021 Nov;42(11):5691-711	02728397, 15480569	SCIE, Q1, 5.2	03	Co-Author
45.	Bacillus-mediated silver nanoparticle synthesis and Its antagonistic activity against bacterial and fungal pathogens	Antibiotics. 2021 Nov 1;10(11):1334	20796382	SCIE, Q1, 4.8	09	Co-Author
46.	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	22387854	Scopus, Q1, 6.4	10	Co-Author
47.	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	SCIE, Q2, 2.7	10	Co-Author
48.	Pongamia pinnata shell powder filled sisal/kevlar hybrid composites: Physicomechanical and morphological characteristics	Polymer Composites. 2021 Sep;42(9):4434-47	02728397, 15480569	SCIE, Q1, 5.2	07	Co-Author
49.	A comprehensive review on cellulose nanocrystals and cellulose nanofibers: Pretreatment,	Polymer Composites. 2021 Apr;42(4):1588-630	02728397, 15480569	SCIE, Q1, 5.2	07	Co-Author

	preparation, and characterization					
50.	A new study on flax-basalt-carbon fiber reinforced epoxy/bioepoxy hybrid composites	Polymer Composites. 2021 Apr;42(4):1891-900.	02728397, 15480569	SCIE, Q1, 5.2	04	Co-Author
51.	Mechanical and chemical properties evaluation of sheep wool fiber–reinforced vinylester and polyester composites	Materials Performance and Characterization. 2021 Mar 15;10(1):99-109	21653992	Scopus, Q3	05	Co-Author
52.	Effect of nano fillers on glass/silk fibers based reinforced polymer composites	Materials Today: Proceedings. 2021 Jan 1;46:9032-5	22147853	Scopus, Q2	04	Main Author
53.	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, Q1, 5.2	07	Main Author
54.	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, Q1, 5.2	07	Main Author
55.	A novel approach for development of printed circuit board from	Polymer Composites. 2020 Nov;41(11):4550-8	02728397, 15480569	SCIE, Q1, 5.2	05	Co-Author

	biofiber based composites					
56.	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;28:2823-36	15728900, 15662543	SCIE, Q1, 5.3	05	Co-Author
57.	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	SCI, Q1, 5.1	05	Main Author
58.	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	Main Author
59.	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, Q1, 6.4	05	Main Author
60.	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, Q2, 3.5	05	Main Author
61.	Effect of various chemical treatments of Prosopis juliflora fibers as composite reinforcement: Physicochemical, thermal, mechanical,	Journal of Natural Fibers. 2018 Oct 22	1544046X, 15440478	SCIE, Q2, 3.5	06	Main Author

	and morphological properties					
62.	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	15308057, 15280837	SCIE, Q2, 3.2	06	Co-Author
63.	A review on synthesis and characterization of commercially available natural fibers: Part-I	Journal of Natural Fibers. 2018 Apr 5	1544046X, 15440478	SCIE, Q2, 3.5	05	Main Author
64.	Characterization and properties of natural fiber polymer composites: A comprehensive review	Journal of Cleaner Production. 2018 Jan 20;172:566-81	09596526, 18791786	SCIE, Q1, 11.1	05	Co-Author
65.	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	Peer reviewed	03	Guide/Mentor
66.	Natural Fibers and Its Composites for Engineering Applications: An Overview	In SARC International Conference, Chennai India, 2018 Dec.	-	Peer reviewed	04	Guide/Mentor
67.	Polymer matrix-natural fiber composites: An overview	Cogent Engineering. 2018 Jan 1;5(1):1446667	23311916	Scopus, Q2, 1.9	05	Co-Author
68.	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):1103-7	2319-7064	Peer reviewed	00	Main Author
69.	Electrical Power Generation by	International Journal of Recent Trends in	2455-1457	Peer reviewed	05	Main Author

	Footsteps using Piezo-electric Transducers	Engineering; Research. 2016				
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## 2. Training Courses, Teaching-Learning-Evaluation Technology Programs, Faculty development Programmes

Sl. No.	Name of Course/ Summer/ Winter School	Duration	Organized By
1.	Advanced Materials & Manufacturing Technology	Two weeks	RIT, Bangalore
2.	Analytical and Numerical Techniques in Applied Mathematics and Engineering	One week	MCE, Hassan
3.	Essentials Skills for Mechanical Engineers	One week	MCE, Hassan
4.	Advances in Bio-Lubricants and Cutting Fluids	One week	MCE, Hassan
5.	Emerging Trends in Materials and Manufacturing Technology	One week	MCE, Hassan
6.	Pedagogy workshop on "FEEL TEACHER"	One week	MCE, Hassan
7.	Challenges in Non-Conventional Energy Sources	One week	MCE, Hassan
8.	Total Quality Management	One week	MCE, Hassan
9.	Recent Trends in Automotive Technology	One week	MCE, Hassan
10.	Lightweight Structures for Engineering Applications through Composites and Topology Optimization	Two weeks	GEC, Hassan
11.	Advanced Technologies in Materials & Manufacturing Engineering	One week	DSUSE, Bengaluru
12.	Recent Advances & Trends in Mechanical Engineering & Material Science	One week	KSIT, Bengaluru
13.	Heating, Ventilation, Air Conditioning & Refrigeration	One week	VVCE, Mysore
14.	Advanced Nano Materials, Nano Fabrication Techniques & Devices	One week	BMSIT and Management, Bengaluru
15.	Research & Innovation	One week	VVCE, Mysuru
16.	3D Printing & Design (ATAL FDP)	One week	BMSCE, Bengaluru
17.	Recent Advances in Tribology and Surface Engineering: Series 2 of 4 – Tribology of Machine Components and Applied Tribology	One week	Saintgits College of Engineering, Kottayam, Kerala
18.	Make in India: Through 3D Printing and Industry 4.0 for Indian Industries – Phase II	One week	Kamaraj College of Engineering and Technology (Autonomous), Madurai, Tamilnadu

19.	Novel Materials for Next-Generation Applications	One week	MSRIT, Bengaluru
20.	Refresher course on Advanced Pedagogy	Two weeks	NITTTR, Kolkata
21.	Robotics and Artificial Intelligence	One week	Lakireddy Bali Reddy College of Engineering, Mylavaram
22.	Renewable Energy for Sustainable Development	One week	Bharatratna Indira Gandhi College of Engineering, Solapur

### 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 7-9th 2019	Dayananda Sagar University, Bengaluru, Karnataka	International

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