Malnad College of Engineering, Hassan



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

## Faculty Biodata

## **GENERALINFORMATION AND ACADEMIC BACKGROUND**

## PART-A

1	Name(inBlockLetters)	Dr YASHAS GOWDA T G
2.	Qualification	M.Tech, Ph.D
3.	Date of joining the service at MCE	31/01/2017
4.	Department	Mechanical
5.	Currenct Designation & Experience in MCE	Assistant Professor (06 years)
6.	<b>Teaching Experience:</b> P.G. (in Years) : U.G. (in Years) :	NIL 07
	Research Experience (i	n Years)
7.	<ul> <li>a) Total Number of years</li> <li>b) Years spent in M. Phil. / Ph.D.</li> <li>c) Years of Guiding Ph.D. / M. Phil.</li> </ul>	06 3 years 8 months
	<ul> <li>d) Total No. of papers Published in <ol> <li>International Journals</li> <li>National Journals</li> <li>Conference Proceedings</li> </ol> </li> <li>e) Total No. of Conferences / Seminar/ Workshop Attended <ol> <li>International</li> <li>National</li> <li>State Level</li> </ol> </li> </ul>	37 Nil Nil 03 20
8.	Awards /Prizes/ Honor's / Recognitions	<ol> <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 2022.</li> <li>Young Researcher Award 2022 from Institute of Scholars (InSc).</li> </ol>
9.	Fields of Specialization under the Subject / Discipline	Composite Materials, Natural Fiber Composites, Natural Fibers, Bio- Composites, Polymer Matrix Composites, Mechanical testing of natural fiber composites

10.

# .<u>PART-B</u>

### 1. List of Publications:

SI. No.	Title	Name of the Journal, Vol. No., Year	ISSN/ISBN/Number
1.	"Hybrid Aluminium Metal Matrix Composites and Reinforcement Materials: A Review"	International Journal of Innovative Research in Science, Engineering and Technology,2016,	ISSN : 23470-6710
2.	"Tribological and mechanical properties of Al6082 reinforced with B4C particles produced by powder metallurgy technique"	IRJET,Volume 03,Issue 7,July 2016,	ISSN: 2395 -0056
3.	"Effect of Tungsten Carbide on Mechanical and Tribological Properties of Jute/Sisal/E- Glass Fabrics Reinforced NaturalRubber/Epoxy Composites"	SAGE, Journal of Industrial Textiles, 2017.	
4.	"Polymer matrix-natural fiber composites: An overview" TAYLOR & FRANCIS GROUP	, Cogent Engineering, 2018.	
5.	"Studies on Mechanical Properties of Bamboo/Carbon Fiber Reinforced Epoxy Hybrid Composites Filled with SiC Particulates	" International Journal of Engineering Research and General Science Volume 6, Issue 5, September-October, 2018	
6.	"Natural Fibers as Sustainable and Renewable Resource for Development of Eco- friendly Composites: A Comprehensive Review"	Frontiers in Materials, Polymeric and Composite Materials, 2019	
7.	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 28, no. 11 (2020): 2823-2836.	
8.	"A novel approach for development of printed circuit board from biofiber based composites	." Polymer Composites 41, no. 11 (2020): 4550- 4558.	
9.	Mechanical and chemical properties evaluation of sheep wool fiber-reinforced vinylester and polyester composites.	Materials Performance and Characterization, 10(1), pp.99-109	
10.	"Novel Muntingia Calabura bark fiber reinforced green-epoxy composite: A sustainable and green material for cleaner production."	Journal of Cleaner Production 294 (2021): 126337	
11.	"A new study on flax-basalt-carbon fiber reinforced epoxy/bioepoxy hybrid composites"	Polymer Composites, 2021	
12.	"A comprehensive review on the effect of synthetic filler materials on fiber-reinforced hybrid polymer composites."	The Journal of the Textile Institute (2021): 1-9.	
13.	"Effect of natural filler materials on fiber reinforced hybrid polymer composites: An Overview"	Journal Of Natural Fibers 2022, VOL. 19, NO. 11, 4132–4147	

14.	. "Pongamia pinnata shell powder filled sisal/kevlar hybrid composites: Physicomechanical and morphological characteristics."	Polymer Composites 42, no. 9 (2021): 4434-4447.	
15.	"Carbon fiber reinforced areca/sisal hybrid composites for railway interior applications: Mechanical and morphological properties."	Polymer Composites 43, no. 1 (2022): 160- 172	
16.	"Jute/Hemp bio-epoxy hybrid bio-composites: Influence of stacking sequence on adhesion of fiber-matrix."	International Journal of Adhesion and Adhesives 113 (2022),	
17.	"Influence of stacking sequence on flax/kevlar hybrid epoxy composites: Mechanical and morphological studies.",	Polymer Composites. 2022	
18.	"Comparative evaluation of areca/carbon/basalt fiber reinforced epoxy/bio epoxy- based hybrid composites	" Polymer Composites, 2022,	
19.	Areca/synthetic fibers reinforced based epoxy hybrid composites for semi-structural applications"	Polymer Composites, 2022,	
20.	"Mechanical and thermal properties of flax /carbon/kevlar based epoxy hybrid composites"	Polymer Composites, 2022.	
21.	An artificial neural network and Taguchi prediction on wear characteristics of Kenaf– Kevlar fabric reinforced hybrid polyester composites"	Polymer Composites 2022	
22.	Biopolymer-Based Composites: An Eco- Friendly Alternative from Agricultural Waste Biomass.	Journal of Composites Science, 7(6), p.242.	
23.	Development of banana fabric incorporated polymer composites for printed circuit board application.	Biomass Conversion and Biorefinery, pp.1- 14.	
24.	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	
25.	Advancing the Performance of Ceramic - Reinforced Aluminum Hybrid Composites: A Comprehensive Review and Future Perspectives,	Applied Science and Engineering Progress 17(02):7034	
26.	Innovative polymer science: Groundbreaking materials for a sustainable future.	Insight-Material Science. 2023 Oct 9;6(1).	

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.)

SI. No	Responsibilities
1.	Department Internship Co-Ordinator
2.	Department CIE Co-Ordinator
3.	Department R&D Committee Member
4.	Department MERISE Coordinator
5.	Department Research Co-Ordinator
6.	Department Swayam Co-Ordinator
7.	Institute level IIC member
8.	Valuation Centre Coordinator
9.	Board of studies

10.	Board of Examiners
11.	Department Academic Committee
12.	Anti ragging committee

### 3. Details of Teaching Related Activities

SI. No.	Academic Year	(B. E/M.Tech)	Course Title
1.	2017-18	B. E	<ul> <li>Engineering drawing</li> <li>Dynamics of Machines</li> </ul>
2.	2018-19	B. E	<ul> <li>Engineering drawing</li> <li>Kinematics of Machines</li> <li>Dynamics of Machines</li> <li>Elements of Mechanical Engineering</li> </ul>
3.	2019-20	B. E	<ul> <li>Engineering drawing</li> <li>Kinematics of Machines</li> <li>Dynamics of Machines</li> <li>Elements of Mechanical Engineering</li> </ul>
4.	2020-21 2021-22	B. E	<ul> <li>Engineering drawing</li> <li>Kinematics of Machines</li> <li>Dynamics of Machines</li> <li>Elements of Mechanical Engineering</li> </ul>
5.	2022-23	B. E	<ul> <li>Engineering drawing</li> <li>Composite Materials</li> <li>Introduction to Python Programing</li> <li>Theory of Machines</li> </ul>

Professional Development Activities	
Membership in profession related committees at state and national level a) At International b) At national level: c) At state :	02 01
Participation in subject associations, conferences, seminars without paper presentation	02
Participation in short term training courses less than one week duration in educational technology, curriculum development, professional development, Examination reforms, Institutional governance	10
Membership/participation in State/Central Bodies/Committees on Education, Research and National Development	02
Publication of articles in newspapers, magazines, or other publications (not covered in category 3); radio talks; television programmes	NIL
Invited Expert Talks	NIL

## PART-C

# **RESEARCH, PUBLICATIONS AND ACADEMIC CONTRIBUTIONS**

#### 1. Published Papers in Journals

SI. 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	"Hybrid Aluminium Metal Matrix Composites and Reinforcement Materials: A Review"	International Journal of Innovative Research in Science, Engineering and Technology,2016,	ISSN : 23470- 6710		04	No
6.	"Tribological and mechanical properties of Al6082	IRJET,Volume 03,Issue 7,July 2016,	ISSN: 2395 - 0056		04	No

	reinforced with B4C				
	particles produced by				
	powder metallurgy				
	technique"				
	"Effect of Tungsten				
	Carbide on				
	Mechanical and				
	Tribological				
7	Properties of	SAGE, Journal of	 Yes/3 2/Q2	7	No
	Jute/Sisal/E-Glass	Textiles, 2017.			
	Fabrics Reinforced				
	NaturalRubber/Epoxy				
	Composites"				
	"Polymer matrix-				
	natural fiber				
8.	composites: An	, Cogent	 Yes/1.9/Q2	6	Yes
	overview" TAYLOR &	Engineering, 2018.			
	FRANCIS GROUP				
	"Studies on Mechanical	" International			
	Properties of	Journal of			
	Bamboo/Carbon Fiber	Engineering			
9.	Reinforced Epoxy	Research and General Science	 No	5	No
	Hybrid Composites	Volume 6, Issue 5,			
	Filled with SiC	September-			
	Particulates	October, 2018			
	"Natural Fibers as				
	Sustainable and				
	for Dovelopment of	Frontiers in Materials.			
10.	Eco- friendly	Polymeric and	 Yes/1.9/Q2	4	Yes
	Composites: A	Composite			
	Comprehensive	Materials, 2019			
	Review"				
	Alkaline effect on				
	characterization of				
	discarded waste of	Journal of			
11.	Moringa oleifera fiber	Environment 28,	 Yes/5.3/Q1	6	No
	as a potential eco-	no. 11 (2020):			
	friendly reinforcement	2823-2836.			
	for biocomposites."				

	"A novel approach for					
	development of printed	." Polymer				
12.	circuit board from	Composites 41, no.		Yes/5.3/Q1	6	
	biofiber based	4558.				
	composites					
	Mechanical and					
	chemical properties	Matoriale				
10	evaluation of sheep	Performance and				
13.	wool fiber-reinforced	Characterization,		Yes/3.5/Q2	6	No
	vinylester and polyester	10(1), pp.99-109				
	composites.					
	"Novel Muntingia					
	Calabura bark fiber					
	reinforced green-epoxy	Journal of Cleaner				
14.	composite: A	Production 294		Yes/11.1/Q2	8	No
	sustainable and green	(2021): 126337				
	material for cleaner					
	production."					
	"A new study on flax-					
	basalt-carbon fiber			Yes/5.2/Q1		
15.	reinforced	Polymer Composites, 2021			6	Yes
	epoxy/bioepoxy hybrid					
	composites"					
	"A comprehensive					
	review on the effect of					
10	synthetic filler materials	The Journal of the		Vac/4 7/00	0	Nie
16.	on fiber-reinforced	(2021): 1-9.		Tes/1.7/QZ	0	NO
	hybrid polymer					
	composites."					
	"Effect of natural filler					
	materials on fiber	Journal Of Natural				
17.	reinforced hybrid	Fibers 2022, VOL. 19, NO, 11, 4132–		Yes/3.5/Q2	6	No
	polymer composites:	4147				
	An Overview"					
	. "Pongamia pinnata					
	shell powder filled					
	sisal/kevlar hybrid	Polymer				
18.	composites:	9 (2021): 4434-		Yes/5.2/Q1	8	No
	Physicomechanical and	4447.				
	morphological					
	characteristics."					

	"Carbon fiber				
	reinforced areca/sisal				
	hybrid composites for				
	railway interior	Polymer			
19.	applications:	Composites 43, no.	 Yes/5.2/Q1	8	No
	Mechanical and	1 (2022). 100-172			
	morphological				
	properties."				
	"Jute/Hemp bio-epoxy				
	hybrid bio-composites:	International			
20.	Influence of stacking	Adhesion and	 Yes/5.2/Q1	6	No
	sequence on adhesion	Adhesives 113			
	of fiber-matrix."	(2022),			
	"Influence of stacking				Yes
	sequence on flax/kevlar				100
	hybrid epoxy				
21.	composites:	Polymer	 Yes/5.2/Q1	6	
	Mechanical and	Composites. 2022			
	morphological				
	studies.",				
	"Comparative				Yes
	evaluation of				
	areca/carbon/basalt				
22.	fiber reinforced	" Polymer	 Yes/5.2/Q1	6	
	epoxy/bio epoxy-	Composites, 2022,			
	based hybrid				
	composites				
	Areca/synthetic fibers				Yes
	reinforced based epoxy	<b>_</b> .			
23.	hybrid composites for	Polymer Composites 2022	 Yes/5.2/Q1	6	
	semi-structural	001110031003, 2022,			
	applications"				
	"Mechanical and				Yes
	thermal properties of	Dehmer			
24.	flax /carbon/kevlar	Composites, 2022.	 Yes/5.2/Q1	6	
	based epoxy hybrid	;;			
	composites"				
	An artificial neural				
	network and Taguchi	Dolymor			
25.	prediction on wear	Composites 2022	 Yes/5.2/Q1	8	No
	characteristics of				
	Kenaf–Kevlar fabric				

reinforced hybrid			
polyester composites"			

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

# **Attended**

SI. No.	Name of Course/Summer/Winter School	Duration	Organized By	
1.	Ansys –Solutions For General Mechanical Engineering Problems	23rd -27th February 2015	KSIT,Bengaluru	
2.	Faculty Development Program on Emerging Trends in Materials and Manufacturing Technology (ETMMT)	27th February– 03rd March, 2017	Malnad College of Engineering, Hassan	
3.	Exclusive Faculty Development Training Programme on Geometric Dimensioning and Tolerancing	20th -24th March 2017	CMTI,Bengaluru	
4.	Recent trends in solar energy applications	27th to 28th March 2017	Malnad College of Engineering, Hassan	
5.	Three day workshop on Design and analysis of Airbus 350-900XWB and CFD applications	March 2017	Malnad College of Engineering, Hassan	
6.	Materials & Manufacturing Technology	December 4th to 16th 2017	Ramaiah Institute of Technology, Bengaluru	
7.	Challenges in Non Conventional Energy Sources	April 9th to 13th 2018	MCE, Hassan, Karnataka	
8.	Total Quality Management	May 28th to June 1st 2018	MCE, Hassan, Karnataka	
9.	Recent Trends in Automotive Technology	June 25th to 29th 2018	MCE, Hassan, Karnataka	
10.	Thermo- Mechanical Simulator	July 17th to 20th 2018	IIT Roorkee, Roorkee (Uttarakhand)	
11.	Being a great teacher	November 3rd and 4th November 2018	Mce,Hassan,Karnataka	
12.	ATAL Online FDP on "Novel Materials"	5 TO 10 DEC 2020	Pillai College of Engineering	
13.	Short Term Training Programme (STTP) Series on RECENT ADVANCES IN TRIBOLOGY AND SURFACE Series 2 of 4	14 TO 19 SEP 2020	Saintgits College of Engineering, Kottayam Kerala	
14.	AICTE Training And Learning (ATAL) Academy Online FDP on "3D Printing & Design"	1 to 5 September 2020	Vidya Vardhaka College of Engineering, Mysore	

15.	FDP on Advancements in Dynamic Analysis of Machine elements	27th to 29th July 2020	Vidya Vardhaka College of Engineering, Mysore
16.	FDP on Heating , Ventilation ,Air Condittioning and Refrigeration	3-8 August 2020	Vidya Vardhaka College of Engineering, Mysore
17.	ATAL Online FDP on "3 D Printing & 01st to 5 Design " 2020		B.M.S College of Engineering
18.	Short Term Training Programme (STTP) Series on Recent Advances In Tribology And Surface Series 3 Of 4	12th to 17th October 2020	Saintgits College of Engineering, Kottayam Kerala
19.	Outcome based Education	19 th September to 23rd September 2022	Malnad College of Engineering, Hassan
20.	International Workshop on Hybrid composites for railway applications	18th February 2022	KMUTNB (Virtual mode)
21.	Recent Trends in Composites, Department of Mechanical Engineering, Alliance College of Engineering and Design (ACED)	2-6 Jan 2023	Alliance University, Bengaluru.

# **Organised**

SI. No.	Name of Course/Summer/Winter School	Duration	Organized By
1.	International Conference on Trends in Mechanical Engineering Sciences - 2020 (ICTMES-2020) on organized by	6 <sup>th</sup> and 7 <sup>th</sup> August 2020	Department of Mechanical Engineering Sciences at Malnad College of Engineering, Hassan.
2.	International Conference on Green Trends in Mechanical Engineering Sciences - 2018 (GTMES- 2018)	3rd to 5th October 2018	Department of Mechanical Engineering Sciences at Malnad College of Engineering, Hassan.
3.	International Conference on Advances in Mechanical Sciences (ICAMS-2017) on	3rd to 5th May 2017	Department of Mechanical Engineering Sciences at Malnad College of Engineering, Hassan.
4.	"Being a Great Teacher	November 3-4, 2018	Malnad College of Engineering, Hassan
5.	"Outcome based Education	September 1-5, 2022.	Malnad College of Engineering, Hassan

SI. No.	Title	Title of Conference/Seminar etc.	Dates of the Event	Organized by	Conference type
1	"Mechanical Property Evaluation of Hybrid Areca/Basalt/Carbon fibers Reinforced Epoxy/Bio-Epoxy Composites	Research, Invention, and Innovation Congress Bangkok, Thailand,	1 – 2 September 2021	KUUTNB	International
2	Mechanical and thermal properties of flax /carbon/kevlar based epoxy hybrid composites.	International conference on sugar palm and allied fibre polymer composites 2021	11 DECEMBER 2021	Universiti Putra Malaysia	International

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

### Other details

### **Editorial Board Member for Journals**

- 1. Editorial Board Member in editorial board of Frontiers in Mechanical Engineering https://www.frontiersin.org/journals/mechanical-engineering
- 2. Editorial Board Member in editorial board of Frontiers in Materials

#### **Reviewer of International Journals**

Details: (https://www.webofscience.com/wos/author/record/AAE-2448-2020)

- International journal of pressure vessels and piping.
- Journal of Materials Research and Technology.
- Journal of Reinforced Plastics and Composites
- Journal of the mechanical behavior of biomedical materials.
- Sugar Tech- An International Journal of Sugar Crops and Related Industries

#### **Reviewer/ Member of International Conference Proceedings**

 International Conference on "Trends in Mechanical Sciences (ICTMES 2020)". Duration: August 6-7, 2020, at Dept. of Mechanical Engineering Sciences, MCE, Hassan, Karnataka, India.

- International Scientific Committee member in International Symposium on Lightweight and Sustainable Polymeric Materials (LSPM'23), Feb 17, 2023, King Mongkut's University of Technology North Bangkok (KMUTNB), Bangkok, Thailand.
- Reviewer for the First Joint International Conference on Advances in Mechanical and Aerospace Engineering Alliance University, India & University of Strathclyde, United Kingdom November 28-30, 2023
- Scientific Committee Member for "International Conference on Eco-friendly Fibers and Polymeric Materials (EFPM'24)" which will be held in a hybrid mode on February 19-20, 2024, at Bangkok, Thailand.

## **Membership of Professional Societies**

- Member, MIAENG-172340 (2015) International Association of Engineers (IAENG).
- LMINSC, Life Member of Institute of Scholars (2022).

## **Projects/ Research Grants**

• Investigation on Ballistic Mechanical Characteristics of Ramie-Hemp-Kevlar Based Vinyl Ester Hybrid Composites (2021-22) (KSCST – Student Project (Rs. 7000/-)) (45S\_BE\_0987)

## <u>Book (1)</u>

1. Sanjay Mavinkere Rangappa, Jyotishkumar Parameswaranpillai, Yashas Gowda T G, Suchart Siengchin, M. Ozgur Seydibeyoglu "Nanoparticle-Based Polymer Composites" Woodhead Publishing Series in Composites Science and Engineering. Elsevier Inc.

## **Book Chapters (9)**

- 1. **T.G Yashas Gowda**, Sanjay M R, Jyotishkumar Parameswaranpillai, Suchart Siengchin, Klaus Friedrich, "**Tribological Applications of Polymer Composites**" In Book. Tribology of Polymer Composites: Characterisation, Properties, and Applications, Elsevier Inc
- 2. Yashas Gowda T G, Vinod A, Madhu.P.Sanjay M R, Jyotishkumar Parameswaranpillai, Suchart Siengchin "Plastics in automotive applications", Encyclopedia of Materials: Plastics and Polymers.Elsvier.
- 3. P Madhu, **T G Yashas Gowda**, Sanjay M R, Jyotishkumar Parameswaranpillai, Suchart Siengchin, "Effect of process engineering on the performance of hybrid fiber composites" In book. Hybrid Fiber Composites. Materials, Manufacturing, Process Engineering. Wiley.
- 4. Jagadeesh, Praveenkumara, Madhu Puttegowda, Yashas Gowda Thyavihalli Girijappa, Sanjay Mavinkere Rangappa, Munish Kumar Gupta, and Suchart Siengchin. "Mechanical, electrical and thermal behaviour of additively manufactured thermoplastic composites for high performance applications." In Additive and Subtractive Manufacturing of Composites, pp. 167-199. Springer, Singapore, 2021.
- Vinod, A., Yashas Gowda, Senthilkumar Krishnasamy, M. R. Sanjay, and Suchart Siengchin. "Thermal Properties of Hybrid Natural Fiber-Reinforced Thermoplastic Composites." Natural Fiber-Reinforced Composites: Thermal Properties and Applications (2022): 17-30.
- 6. Yashas Gowda T.G , Sanjay Mavinkere Rangappa , Suchart Siengchin , and Jyotishkumar

Parameswaranpillai "Introduction to nanoparticle-based materials and their composites" "Nanoparticle-Based Polymer Composites" Woodhead Publishing Series in Composites Science and Engineering.

- 7. Nagaraju, S.B., Priya, H.C., **Yashas Gowda T.G** and Puttegowda, M., 2023. Lightweight and sustainable materials for aerospace applications. In *Lightweight and Sustainable Composite Materials* (pp. 157-178). Woodhead Publishing.
- 8. Sathyanarayana, K., Puttegowda, M., Rangappa, S.M., Siengchin, S., Shivanna, P., Nagaraju, S.B., Somashekara, M.K., Girijashankar, P.B. and **Yashas Gowda T.G** 2023. Metallic lightweight materials: properties and their applications. In *Lightweight and Sustainable Composite Materials* (pp. 47-67). Woodhead Publishing.
- Jagadeesh, P., Puttegowda, M., Yashas Gowda T.G., Sathyanarayana, K., Rangappa, S.M., Siengchin, S. and Hassan, S.A., 2023. Lightweight and sustainable materials for structural applications. In *Lightweight and Sustainable Composite Materials* (pp. 197-217). Woodhead Publishing

## **For Further Details**

<b>Google Scholar</b>	:	Dr.Yashas Gowda Thyavihalli Girijappa - Google Scholar
Research gate	:	https://www.researchgate.net/profile/Yashas-T-G
Web of Science	:	Thyavihalli Girijappa, Yashas Gowda - Web of Science Core Collection
Scopus	:	https://www.scopus.com/authid/detail.uri?authorId=57200792043
Orcid	:	https://orcid.org/my-orcid?orcid=0000-0003-3233-4462
Vidwan-ID	:	<u>123604</u>