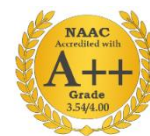





# SETHU INSTITUTE OF TECHNOLOGY

(An Autonomous Institution| Accredited with 'A++' Grade by NAAC)

Pulloor, Kariapatti –Taluk. Virudhunagar Dist-626115.



Department of Mechanical Engineering					
Name	Dr.R.MURALIKANNAN				
Date of Birth	02-04-1974				
Unique ID	1-421375791				
Educational Qualifications	B.E.,M.E., Ph.D				
Designation	Professor				
Email ID	muralikannan@sethu.ac.in				
Alternate Email ID	muralikannan6@gmail.com				
Experience	Industry	Teaching	Others	Total	
	7	16	4	27	
Date of Joining the Institution	21/01/2010				
Area of Specialization	Composite Materials , Crashworthiness				
Courses taught	Manufacturing Technology Composite materials & Mechanics Product Development and Planning Industrial Robotics				
Research Focus	Composite Materials Crashworthiness				
Research guidance (Number of Scholars)	8				
Subject Competency	Manufacturing Technology Composite materials & Mechanics Product Development and Planning Industrial Robotics				
No. of papers published	National Journals	International Journals		Conferences	
	2	27		3	
PG Specialization	M.E. CAD/CAM				
Ph.D. Specialization	Crashworthiness of Steel and composite Tubes				
Patents (Filed & Granted)	1				



Tel: 04566304600  
Web: www.sethu.ac.in

Email: sit@sethu.ac.in

### ***Academic Credentials***

<b>Level</b>	<b>Degree</b>	<b>Specialization</b>	<b>University</b>	<b>Year of Completion</b>
UG	B.E	Mechanical Engineering	Madurai Kamaraj University	1995
PG	M.E	CAD/CAM	Anna University	2004
Ph.D.	Ph.D	Crashworthiness of Steel and Composites tubes	IIT Madras	2011

### **Details of Journal Publication:**

1. Nijandhan Kulandaivel, R.Muralikannan, Deepak B , Thimiri Govindharaj, E L pradeesh **“The effect of fiber parameters and surface treatment in caster fiber- reinforced polyester composites”** International Journal of Polymer Analysis and Characterization
2. TS Senthilkumar, R Muralikannan, M Sridharan, SS Kumar, S.Rathnavel, **“AA4032-TiC-h-BN-realeted composites: a machine learning model-based experimental study with performance prediction”** *Journal of the Brazilian society of Mechanical Sciences and Engineering* Vol 46, Issue 1, PP 1-18 2024
3. M Prithviraj R Muralikannan **“Investigation of optimal Alkali-treated Perotis Indica Plant Fibers on Physical, Chemical and Morphological properties”** *Journal of Natural Fibers* Vol 19(7), PP 2730-2743
4. TS Senthilkumar, R Muralikannan, T Ramkumar **“Studies of kerf width and surface roughness using the surface response methodology in AA 4032-TiC composites”** *Journal of Process Mechanical Engineering* PP 1-9 2021
5. M Prithiviraj, R Muralikannan. **Investigation of optimal Alkali-treated Perotis indica Plant Fibers on Physical, Chemical, and Morphological Properties.** *Journal of Natural Fibers*, PP 1-14, 2020
6. TS Senthilkumar, R Muralikannan, SS Kumar, **“Surface morphology and parametric optimization of AWJM parameters using GRA on aluminum HMMC”**, *Materials Today: Proceedings* Vol. 22, PP 410-415, 2020

7. S Kailainathan, R Muralikannan, K Nijandhan, S Venkatachalam, “**High-strength hybrid particulate-fibre polymer composites: The role of process temperature on the mechanical strength.**” *Materials Research Express* Vol.6 No.12, PP 125313, 2019
8. Muralikannan R, Selvabharathi R, “**Investigation of tensile, flexural and impact properties of Neem- Indian almond hybrid fiber based epoxy composites**”, *Material Research Express* Vol.6, 2019
9. TS Senthilkumar, R Muralikannan, “**Evaluation of recast layer and parametric optimization of EDM process on aluminium based HMMCs using grey relational analysis**”, *Materials Research Express* Vol 6. No.10, PP 1065a6, 2019
10. TS Senthilkumar, R Muralikannan, “**Role of TiC and h-BN particles on morphological characterization and surface effects of Al 4032 hybrid composites using EDM process**”, *Journal of Mechanical Science and Technology* Vol.33 No.9, PP 4255-4264, 2019
11. R Karuppasamy, R Muralikannan, “**Damping, Thermal and Mechanical Analyses of Polycarbonate/Cerium Oxide Composites for Structural Applications**”, *International Polymer Processing* Vol. 34 No.3, PP 324-329, 2019
12. TS Senthilkumar, R Muralikannan “**Enhancing the geometric tolerance of aluminium hybrid metal matrix composite using EDM process**” *Journal of the Brazilian Society of Mechanical Sciences and Engineering* Vol. 41, No.1, PP 41, E-ISSN : 1806-3691, 2019
13. R Karuppasamy, R Muralikannan, “**Thermal degradation and lifetime estimation of polycarbonate–ceria composite for electronic applications**”, *Materials Research Express*, Vol 6, 2019
14. Nijandhan Kulandaivel, R.Muralikannan, “**Extraction and Characterization of Novel Natural Cellulosic Fibers from Pigeon Pea Plant**”, *Journal of Natural Fibers*, 2018
15. K Nijandhan, R Muralikannan, S Venkatachalam, “**Ricinus communis fiber as potential reinforcement for lightweight polymer composites**”, *Materials Research Express* Vol.5 No.9, PP 095307, 2018
16. R Selva Bharathi, N Siva Shanmugam, R Muralikannan, SA Vendan, “**Studies on the Parametric Effects of Plasma Arc Welding of 2205 Duplex Stainless Steel**” *High Temperature Materials and Processes* Vol.37 No.3, PP 219-232, 2018
17. R Selvabharathi, R Muralikannan, “**Influence of shot peening and plasma ion nitriding on tensile strength of 2205 duplex stainless steel using A-PAW**”, *Materials Science and Engineering* Vol. A 709, PP 232-240, 2018

18. S Sathyaraj, R Muralikannan, **“Spectra Fibre Reinforced Composite-A Review”**, *International Journal of Science and Research* Vol.6 No.6, 2017
19. N Vijayarangan, A Senthil Kumar, GD Sivakumar, R Muralikannan, **“Systems Design is Needed for Smart Manufacturing Curriculum to India”**. *International Conference on Research into Design*, PP 1007-1016, 2017
20. B NagarajaGanesh, R Muralikannan, **“Comprehensive characterization of lignocellulosic fruit fibers reinforced hybrid polyester composites”**, *International Journal of Materials Science and Applications*, Vol. 5, No. 6. 2016
21. M Prithiviraj, R Muralikannan, P Senthamaraiannan, SS Saravanakumar. **“Characterization of new natural cellulosic fiber from the Perotis indica plant”**, *International Journal of Polymer Analysis and Characterization* Vol.21 No.8, PP 669-674, 2016
22. B NagarajaGanesh, R Muralikannan, **“Extraction and characterization of lignocellulosic fibers from Luffa cylindrica fruit”** *International Journal of Polymer Analysis and Characterization*, Vol 21 No.3, PP 259-266, 2016
23. B NagarajaGanesh, R Muralikannan, **“Physico-chemical, thermal, and flexural characterization of Cocos nucifera fibers”**, *International Journal of Polymer Analysis and Characterization*, Vol 21 No.3, PP 244-250, 2016
24. S Kailainathan, R Muralikannan, SK Sundaram, K Nijandhan, **“Statistical analysis and pattern search optimization on the impact properties of talk particulates impregnated sisal fiber reinforced polyester composites”**, *Transactions of the Indian Institute of Metals* Vol 68 No.5, PP 859-865, 2015
25. B Nagaraja Ganesh, R Muralikannan, **“Tensile behavior of alkali treated natural fiber reinforced hybrid composites”** *International Journal of Applied Engineering Research*, ISSN 0973-4562 Vol. 10 No.28, PP 20830-20835, 2015
26. B Nagaraja Ganesh, R Murali Kannan, **Mechanical behavior of agricultural residue reinforced composites**, *Scientific Review* Vol 1 (1), PP1-4, 2015
27. R Velmurugan, R Muralikannan, SK Malhotra, V Sudharsan, **“Energy absorption characteristics of dual phase steel tubes under static and dynamic loading”** *Strain* Vol 47, PP e387-e401, 2011
28. R Muralikannan, R Velmurugan, GL Eswaraprasad, **“Energy absorption characteristics of circular composites tubes in quasi static and impact loading”** *Proceedings of the IMPLAST 2010 Conference*, PP 12-14, 2009
29. R Muralikannan, R Velmurugan, **“Energy absorption characteristics of annealed steel tubes of various cross sections in static and dynamic loading”**, *Latin American Journal of Solids and Structures*, PP 385-412, 2009

#### **Details of Conference attended:**

1. Participated in the **Interatomic Speration Method Using Impart Energy Absorption for Annealed Steel Tubes of Different Thickness in Vandarwaals Bonding Section in ICIESMS 2013** at Vickram College of Engineering, Enathi, Tamilnadu, India.
2. Participated in the **Investigation fo Mechanical Properties of Natural Fiber Reinforced Composites (ICAMER – 2K19)** Rohini College of Engineering and Technology.
3. Participated in the **Surface Morphology and Parametric Optimization of AWJM Parameters using GRA on Aluminium HMMC** at Adhi College of Engineering and Technology, Kanchipuram during 08 – 10<sup>th</sup> May 2019.

#### **Details of Book Chapter and Books Published:**

#### **Details of Patents Filed and Granted:**

**“Adjustable Breakdown Warning Alarm and Light Lantern”**

Patent number: 348579, granted on 05.10.2020.

#### **Expert Lecture Delivered:**

1. Invited as **Chairman of a Technical Session** during the National Conference on “Advances in Mechanical Engineering – NACAME-14 held on 21.02.2014 at Mepco Schelenk Engineering College, Sivakasi, Tamilnadu, India.
2. Invited as **Key Speaker** for the one day National Level Workshop on “**Research Issues in Reinforced Materials (RIM-13)**” on 08.10.2013 at Kalasalingam University.
3. Invited as **Gust Lecture** to a CSIR Sponsored National Seminar on “**Advanced Composite Material Processing & Applications**” held on 13.07.2012 at Kongu Engineering College, Erode, India.
4. Invited to deliver **Lecture** on “Finite Element Analysis” for the faculty Development Program Sponsored by Centre for Faculty Development, Anna University during 03.12.2012 to 09.12.2012 at Kongu Engineering College, Erode, India.
5. Invited to deliver a **Technical Talk** on “**Impact Energy Absorption Characteristics of Thin Walled Tubes**” in a workshop MBC-2012, Organized by Sri Venkateswara College of Engineering, and Chennai on 31.03.2012.

6. Invited as Guest Lecture to a CSIR Sponsored National Seminar on “Consumables through composites – Processing & Preparation” during 06.01.2012 and 07.01.2012 at Kongu Engineering College, Erode, India.