

Dr. K. THOUFIQ MOHAMMED,

Associate Professor, Mechanical Engineering.

DOB: 19.09.1990

+91 8122798849

thoufiqmohammedk@gmail.com

<https://www.linkedin.com/in/dr-k-thoufiq-mohammed-1207b1156/>



Educational Qualification

<i>Ph.D. in Mechanical Engineering</i> Anna University, Chennai.	2024
<i>M.E. Degree in Engineering Design</i> Government College of Engineering Guindy, <i>Anna University, Guindy</i> , First class <i>with 8.2 CGPA</i>	2014
<i>B.E. Degree in Mechanical Engineering</i> <i>National Engineering College, Kovilpatti, Tuticorin</i> First class with 8.35 CGPA	2012
<i>H.S.C in Mathematics-Biology, with 81% marks</i>	2008
<i>S.S.L.C, with 93.4% marks</i>	2006
St. Xavier's Higher Secondary School, Palayamkottai, Tirunelveli	

Working Experience

Assistant Professor at RMK Engineering College, Chennai - 601206

From May'14 – April'18 (4 years)

Assistant Professor (Senior Grade) at National Engineering College, Tuticorin - 628503

From May'18 – Present (8 years 4 Months*)

Publications in SCI Journals:

Sr. No.	Title of Paper/Report/Book	Author(s)	Name, Volume, Number of Journal, and Year of Publication	Impact Factor
1	Mechanical and Dry Sliding Wear Behaviour of AZ31-TiO ₂ and AZ31-TiO ₂ -Sn Metal Matrix Composites	Thoufiq Mohammed, K. , Manisekar, K.	International Journal of Metalcasting, Volume 17, pages 1883–1898, 2023	2.6
2	Effect of Sn Addition on in vitro Degradation and wear Behaviour of AZ31-xSn/1.5TiO ₂ Composites in Simulated Body Fluid	Thoufiq Mohammed, K. , Manisekar, K.	International Journal of Metalcasting, Volume 18, pages 251–268, 2023	2.6
3	Characteristics Study of Mechanical and Tribological Behaviour of Gr/Sn Dispersed Al-7Si Alloy Matrix Composite Processed Through Bottom Pouring Stir Casting Technique	Ajay, C.V., Thoufiq Mohammed, K. , Hariharasakthisudhan, P., Kumar, V.N., Vishnu, R.	Silicon, Volume 15, pages 5089–5104, 2023	2.8
4	In vitro degradation and dry sliding wear behaviour of AZ31-Sn/Al ₂ O ₃ nano metal matrix composites in simulated body fluid for biomedical application	Ajay, C.V., Manisekar, K., Thoufiq Mohammed, K. ,	Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and	2.5

			Applications, Volume 238, Issue 1, 2023	
5	A comprehensive study on dry sliding wear and in-vitro degradation of AZ31 composite with 6 wt% Sn and 1.5 wt% TiO ₂ fabricated by stir casting	Thoufiq Mohammed, K., Manisekar, K.	Physica Scripta, Volume 99, Number 10, 2024	2.6
6	Influence of silicon nitride (Si ₃ N ₄) reinforcement on mechanical properties and wear behaviour of AZ31-Nano alumina (Al ₂ O ₃) composites developed through the stir casting route	Veera Ajay, C., Manisekar, K., Thoufiq Mohammed, K.,	Physica Scripta, Volume 99, Number 4, 2024	2.6
7	In vitro degradation and dry sliding wear characteristics of AZ31/TiO ₂ nanocomposites for biomedical application	Thoufiq Mohammed, K., Manisekar, K.	Physica Scripta, Volume 99, Number 2, 2024	2.6
8	Analyzing the synergistic effects of hard ceramic SiC and Sn on the mechanical properties and wear performance of stir-cast eutectic A356 aluminium alloy composites	C Veera Ajay, Thoufiq Mohammed K, Vadivelvivek V	Engineering Research Express, Volume 7, Number 2, 2025	1.6
9	Optimization and prediction of the tribological parameters of biocompatible AZ31/Al ₂ O ₃ /Si ₃ N ₄ metal matrix composites using CCD-RSM, MOORA and FNN models	Veera Ajay, C., Manisekar, K., Andrews, A. Thoufiq Mohammed, K.,	International Journal on Interactive Design and Manufacturing, 2025	2.1

Journals Published in SCOPUS-indexed journals:

Sr. No.	Title of Paper/Report/Book	Author(s)	Name, Volume, Number of Journal, and Year of Publication
1	Study on the Wear Behaviour of Magnesium Metal Matrix Composites Reinforced with Titanium Dioxide (TiO ₂).	Yadu Krishnan, J., Thoufiq Mohammed, K., Veera Ajay, C., Manisekar, K. (2023).	Lecture Notes in Mechanical Engineering. Springer. 2023
2	Investigation into the mechanical properties of heat-treated magnesium metal matrix composites reinforced with TiO ₂ and Sn particles	Siva Sankar, L.V., Ebenezer, Thoufiq Mohammed, K., K., Manisekar, K.	Interactions, Volume 245, article number 142, 2024

Funded Projects Completed / Ongoing as Principal Investigator or Co-Investigator:

SLNo	Project Title	PI / Co-PI	Agency	Amount	Status / Duration
1	AI-Based Prediction and Optimization of Mechanical Properties in Magnesium MMCs Reinforced with Hydroxyapatite and Tin Under Various Heat Treatment Conditions	Dr. A. Andrews / Dr. Thoufiq Mohammed K	NEC	₹ 3,51,000	Experimentation – In Progress
2	Tabletop Pounder for Brown Rice Making	Dr. S. Tamil Selvi / Dr. Thoufiq	NewGen IEDC	₹ 2,50,000	Completed, patent granted

		Mohammed K			
3	Coconut Breaker and Milk Extractor	Dr. Thoufiq Mohammed K / Mr. C. Veera Ajay	NewGen IEDC	₹ 2,50,000	Fabrication Completed, Patent Drafting – in Progress
4	Cocoa pod breaker	Mr. Thoufiq Mohammed K	NewGen IEDC	₹ 2,50,000	Patent Published

Achievements in Product Development/ Patent:

- i. No. of Product Developed: **08**
- ii. Patent Published / Granted: Granted – **01** & Published - **02**

S. No.	Project Title	Funding Agency	Funding Amount	Status
1	A Tabletop Apparatus for the Pounding of Cereal Grains	NewGen IEDC	₹2.50 Lakhs	Patent Granted
2	Coconut Breaker and Milk Extractor	NewGen IEDC	₹2.50 Lakhs	Fabrication Completed, Patent Drafting – in Progress
3	Cocoa Pod Breaker	NewGen IEDC	₹2.50 Lakhs	Patent Published
4	An apparatus for extruding base material for making a string hopper	Self-Initiated	—	Patent Published
5	Density Measuring Device	Self-Initiated	—	Fabrication Completed
6	Cashew Shell Breaker	Self-Initiated	—	Fabrication Completed
7	Design and development of an adjustable multi-blade fish slicer	Self-Initiated	—	Fabrication Completed, Patent Drafting – in Progress
8	Blade-based fine fertilizer spreader	Self-Initiated	—	Fabrication Completed, Patent Drafting – in Progress

Guest Lecture Delivered

“Prototype Design and Development,” One-day Workshop - PSN College of Engineering and Technology, Tirunelveli.

Conferences Presented

- International Conference - ICSIMMA 2024 - Materials interaction on physical, chemical, and mechanical science - Investigation into the mechanical properties of heat-treated magnesium metal matrix composites reinforced with TiO₂ and Sn particles.
- International Conference - ICEMT 2021 - Study on wear behavior of Magnesium metal Matrix Composites reinforced with Titanium dioxide.
- National Conference - Advances in Materials and Manufacturing Systems 2020 - Study on the Wear Behavior of Magnesium – Titanium oxide (TiO₂) Metal Matrix Composites.
- National Conference - RAIME 2014 - Tribological study on TiN coated Austenitic stainless steel by Chemical vapour deposition method.



Yours Faithfully,
(K. THOUFIQ MOHAMMED)