

KINGS COLLEGE OF ENGINEERING (AUTONOMOUS)

DEPARTMENT OF MECHANICAL ENGINEERING

Name : Dr.M.MELWIN JAGADEESH SRIDHAR	
Designation :	Associate Professor
Qualification:	B.Tech.,ME.,Ph.D.,
Area of Specialization:	Manufacturing Engineering, Material Science
Experience:	Teaching : 11 years
	Industry: 3 years
No.of workshop/Conference/FDP attended:	32
Publications:	Journal National : Nil International : 10
	Conference National : 5 International : 14
Membership:	1. International Association of Engineers (IAENG) (Membership ID: 253095) 2. Universal Association of Mechanical and Aeronautical Engineers (UAMAE) (Membership ID: AM10100054212) 3. The Institution of Engineers (India) (Membership ID: AM10100054212)

PUBLICATIONS

INTERNATIONAL JOURNALS

1. **M Melwin Jagadeesh Sridhar**, M Ravichandran, G Veerappan ‘Microstructure and Properties of Silicon Carbide and Yttrium Oxide Reinforced Copper Matrix Hybrid Composites (Cu-SiC-Y₂O₃)’, Materials Research, 2025. Vol 25, pages e20240406. <https://doi.org/10.1590/1980-5373-MR-2024-0406>.
2. **M Melwin Jagadeesh Sridhar**, M Ravichandran, M Meignanamoorthy, V Mohanavel ‘Effect of Silicon Carbide on Microstructural, Mechanical and Corrosion Behavior of Electrolytic Copper Matrix Composite Produced by the Powder Metallurgy Route’, Silicon, 2022, vol 14, issue 11, pages 5877-5886, Springer Netherlands. <https://doi.org/10.1007/s12633-021-01369-w>.
3. PP Shantharaman, **M Melwin Jagadeesh Sridhar**, S Sabanayagam ‘Mechanical Properties of Aluminium Metal Matrix Composites Using Stir Casting Method’, Journal of Huazhong University of Science and Technology, 2021, Volume 50 , Issue 3 Publication date 2021/3.
4. **M Melwin Jagadeesh Sridhar**, M.Ravichandran and M.Meignanamoorthy ‘Influence of different reinforcements on properties of copper matrix composites: A review’ AIP Conference Proceedings, 2020, Volume 2283 Issue 1 Pages 020129 Publisher AIP Publishing LLC Publication date 2020/10/29. <https://doi.org/10.1063/5.0029257>.
5. MM Pavithra V Mohanavel, M Ravichandran, S Suresh Kumar, **M Melwin Jagadeesh Sridhar**, S Dineshkumar ‘Microstructural and tribological characterization of Al/Egg shell ash composites prepared by liquid metallurgy process’, Journal of the Balkan Tribological Association, 26,2,319-326. 2020/5/30.
6. **M Melwin Jagadeesh Sridhar** and B. Adhichelvan ‘Influence of Friction Stir Welding Parameters on Microstructural and Mechanical Properties of Dissimilar AA6061 and AA7075 Alloy Joints’ IJSTE - International Journal of Science Technology & Engineering, Volume 4, Issue 5, November 2017, ISSN (online): 2349-784X.

7. **M Melwin Jagadeesh Sridhar** and P.Sathish Kumar ‘Effect of Process Parameters on Surface Roughness of Cylindrical Grinding Process on OHNS (AISI 0-1) Steel Rounds using ANOVA’, International Journal of Engineering Trends and Technology (IJETT) – Volume 33 Number 9- March 2016 ISSN: 2231-5381.
8. **Melwin Jagadeesh Sridhar M**, Kannan TTM, Baskaran R and Giridharan S ‘Experimental Investigation on Machining Time of Cylindrical Grinding Process on OHNS (AISI 0-1) Steel Rounds Using ANOVA’, Journal of Manufacturing Engineering, March 2016, Vol. 11, Issue. 1, pp 035-040.
9. **M Melwin Jagadeesh Sridhar**, TTM.Kannan, R.Baskaran and V.Kalaiyaran ‘Heat Generation Analysis and Process Parameter Optimization of Cylindrical Grinding on OHNS (AISI 0-1) Steel Rounds’, International Journal of Applied Engineering Research ISSN 0973-4562 Volume 10, Number 3 (2015).
10. **M Melwin Jagadeesh Sridhar**, M.Manickam, V.Kalaiyaran, M.Abdul Ghani Khan and TTM.Kannan ‘Optimization of Cylindrical Grinding Process Parameters of OHNS Steel (AISI 0-1) Rounds Using Design of Experiments Concept’, International Journal of Engineering Trends and Technology (IJETT) – Volume 17 Number 3 – Nov 2014 ISSN: 2231-5381.

INTERNATIONAL CONFERENCE

1. Presented a paper entitled ‘Experimental Investigation and Microstructural Studies on Cu-Y₂O₃ Metal Matrix Composites using Powder Metallurgy Technique’ in International Conference on Sustainable Technologies in Engineering and Science (ICSTES’25) on 08th and 09th May 2025, organized by the Centre for promotion of research (CPR), Kings College of Engineering, (Autonomous) Pudukkottai.
2. Presented a paper entitled ‘Automated Anesthesia Injector with Targeted Drug Delivery System’ in International Conference on Sustainable Technologies in Engineering and Science (ICSTES’25) on 08th and 09th May 2025, organized by the Centre for promotion of research (CPR), Kings College of Engineering, (Autonomous) Pudukkottai.

3. Presented a paper entitled '5G Enabled D Band Antenna System for Ultra High-Speed Wireless Communication' in International Conference on Sustainable Technologies in Engineering and Science (ICSTES'25) on 08th and 09th May 2025, organized by the Centre for promotion of research (CPR), Kings College of Engineering, (Autonomous) Pudukkottai.
4. Presented a paper entitled 'Effect on Bamboo fiber Reinforcement and Concrete Strength on Flexural Behavior on Concrete Beams' in International Conference on Sustainable Technologies in Engineering and Science (ICSTES'25) on 08th and 09th May 2025, organized by the Centre for promotion of research (CPR), Kings College of Engineering, (Autonomous) Pudukkottai.
5. Presented a paper entitled 'Investigations on Properties of Copper Matrix Composites Produced Through Additive Manufacturing Process' in International Conference on Sustainable Technologies in Engineering and Science (ICSTES'25) on 08th and 09th May 2025, organized by the Centre for promotion of research (CPR), Kings College of Engineering, (Autonomous) Pudukkottai.
6. Presented a paper entitled 'Impact of the SiC addition on the Morphological, Structural and Mechanical Properties of Cu-SiC Composites Prepared by Powder Metallurgy Route' in the 4th International Conference on Intellectual Research in Science, Engineering and Management (ICIRSEM 2024) held on 24th April 2024, organized by the St. Joseph College of Engineering and Technology, Elupatti, Thanjavur.
7. Presented a paper entitled 'Performance Combustion and Emission Characteristics of CI Engine by Using Pumkin and Maize Bio Diesel' in the 4th International Conference on Intellectual Research in Science, Engineering and Management (ICIRSEM 2024) held on 24th April 2024, organized by the St. Joseph College of Engineering and Technology, Elupatti, Thanjavur.
8. Presented a paper entitled "Grey Relational Analysis to Determine the Optimum Process Parameter of Cylindrical Grinding Processes on OHNS (AISI O-1) Steel Rounds' in Recent Advances in Civil and Mechanical Engineering (RACME) on 27th April 2023 at Kings College of Engineering, Pudukkottai.

9. Presented a paper entitled 'Influence of Friction Stir Welding Parameters on Microstructural and Mechanical Properties of Similar AA6063 Alloy Joints' in Recent Advances in Civil and Mechanical Engineering (RACME) on 27th April 2023 at Kings College of Engineering, Pudukkottai.
10. Presented a paper entitled "Influence of machining Parameters on Turning Operation of EM 31 Alloy Steel' in Recent Advances in Civil and Mechanical Engineering (RACME) on 27th April 2023 at Kings College of Engineering, Pudukkottai.
11. Presented a paper entitled "Experimental Investigation on Concrete using Metakaolin and Polypropylene Fiber and Non-Newtonian Fluid' in Recent Advances in Civil and Mechanical Engineering (RACME) on 27th April 2023 at Kings College of Engineering, Pudukkottai.
12. Presented a paper entitled "enhancement of efficiency of solar panel of modeling of photovoltaic module with boost conductors' in Recent Advances in Civil and Mechanical Engineering (RACME) on 27th April 2023 at Kings College of Engineering, Pudukkottai.
13. Presented a paper entitled "Influence of Aluminium Oxide Additive on the Performance of a Diesel Engine Fueled with Jatropa Oil and Diesel Fuel' in Recent Advances in Civil and Mechanical Engineering (RACME) on 27th April 2023 at Kings College of Engineering, Pudukkottai.
14. Presented a paper entitled "Heat Generation Analysis and Process Parameter Optimization of Cylindrical Grinding on OHNS (AISI O-1) Steel" in "Advancements in Engineering and Technology" Organized by Acharya College of Engineering Technology, Puducherry on 13th and 14th March 2015.

NATIONAL CONFERENCE

1. Presented a paper entitled "Mechanical Testing and characteristics of Copper matrix composites through powder metallurgy route' National Conference on Energy and Manufacturing Scenario (NCEMS -2021) held on 31st march 2021 at Kings College of Engineering Punalkulam, Pudukkottai.

2. Presented a paper entitled 'Tribological Behavior and Characterization Studies on Metal Matrix Composites' National Conference on Energy and Manufacturing Scenario (NCEMS - 2021) held on 31st march 2021 at Kings College of Engineering Punalkulam, Pudukkottai.
3. Presented a paper entitled 'Grey relational Analysis to determine the Optimum process parameters for cylindrical grinding process on OHNS (AISI 0-1) steel rounds', in Recent Advances in Mechanical Engineering (NCRAME'19) held on 16th March 2019 at Kings College of Engineering Punalkulam, Pudukkottai.
4. Presented a paper entitled 'Influence of Friction Stir Welding Parameters on Microstructural and Mechanical Properties of Dissimilar AA6061 and AA7075 Alloy Joints', in Recent Trends in Mechanical Engineering (NCRAME'16) held on 29th December 2016 at Kings College of Engineering Punalkulam, Pudukkottai.
5. Presented a paper entitled 'Experimental Investigation on Machining Time of Cylindrical Grinding Process on OHNS (AISI 01) Steel Rounds using ANOVA' in Wireless Networks, Robotics and Renewable Energy (NCWRR'15) held on 20th February 2015 organized by PR Engineering College, Thanjavur.

SEMINAR, WORKSHOP AND OTHER EVENTS

1. Participated one day workshop on 'What We Don't Teach about Research at Colleges' on 08th August 2017, organized by Department of Mechanical Engineering sponsored by ISME & IEEE, Kings College of Engineering, Pudukkottai.
2. Participated one day workshop on 'Dismantling and Assembling of IC Engines' (RPM – 2017) on 12th September 2017, organized by Department of Mechanical Engineering, Kings College of Engineering, Pudukkottai.
3. Participated in the all-India workshop on 'Recent Development in Additive Manufacturing Process' organized by the Institution of Engineers (IEI), Tiruchirapalli Local Centre under the aegis of Mechanical Engineering Division Board, IEI in association with K.Ramakrishnan College of Engineering, Tiruchirapalli on 24th and 25th may 2024.

4. Participated in the National level seminar on 'Aero Engines & Air Frames' held on 28th September 2018 at Kings College of Engineering, Punalkulam, Pudukkottai.
5. Participated in the National level seminar on 'Recent Trends in Supercritical Boilers (NSRTB-18)' held on 19th March 2018 at Kings College of Engineering, Punalkulam, Pudukkottai.
6. Participated in one the one day workshop on 'Optimization Techniques in Engineering and Management' held on 26th August 2009 at PRIST University, Thanjavur.
7. Participated in the Faculty Development Programme on 'Advanced Tools and Techniques for Research in Engineering Problems – (ATTRE 2019)' organized by the Department of Production Engineering and Department of Mechanical Engineering, NIT Trichy. From 18.11.2019 to 23.11.2019 under AICTE Margdarshan scheme.
8. Completed short term training programme through ICT mode on 'Development of Laboratory Instruction and Manual' Organized by National Institute of Technical Teachers Training and Research (NITTTR), Kolkata, from 04.02.2019 to 08.02.2019.
9. Completed short term training programme through ICT mode on 'Modern Manufacturing Systems' Organized by National Institute of Technical Teachers Training and Research (NITTTR), Kolkata, from 18.02.2019 to 22.02.2019.
10. Participated in one day 'Faculty Knowledge sharing Programme' Organized by IBS (ICFAI Business school), Trichy on 25th August 2018.
11. Participated in two days 'Faculty Orientation Programme' Organized by PRIST University, Thanjavur on 05th and 06th June 2013.
12. Participated in the 'Mini-Project Exhibition' Conducted by the Mechanical Engineering Association held on 18th March 2010.
13. Participated short course on 'PHOTONICS (SCP 2006)' Conducted on 09th December 2006 at PREC, Thanjavur.

RESOURCE PERSON

1. Delivering expert talk on 'Materials and Characterization Studies' on Online Faculty Development Program on 28th may 2024, organized by the St. Joseph College of Engineering and Technology, Elupatti, Thanjavur.
2. Seminar on 'Material characterization' held on 30.09.2021 organized by ISTE Staff Chapter (TN 205), Kings College of Engineering, Punalkulam, Pudukkottai.

REVIEWER

1. Elsevier's Reviewer Hub - Materials Today: Proceedings.
2. IOP - Physica Scripta.