

CURRICULUM VITAE

Dr. S.MAHENDRAN
Assistant Professor,
Department of Mechanical Engg,
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➤ **Research Area:**

- LEAN MANUFACTURING
- COMPOSITE MATERIALS
- MACHINING, WELDING

➤ **Educational Qualifications:**

Qualification	College/University	Year of completion	Percentage	Class
Ph.D. (Mechanical Engg)	Anna university- Chennai	2017
M.E. (Manufacturing Engg)	Alagappa chettiar Govt. college of Engg and Tech, Karaikudi. / Anna university chennai	2006	76.38 %	First class with distinction
B.E. (Mechanical Engg)	Alagappa chettiar Govt. college of Engg and Tech, Karaikudi. / M.K. University	2003	72.63 %	First class

Experience: (chronological order)

Name of Company / Institutions	Designation of Post	From	To	Experience in Year
Mailam Engineering college, Mailam, Tindivanam.	Lecturer	July 2006	April 2007	1 year
Kings College of Engineering, Punalkulam, Pudukkottai (dt)	Lecturer	June 2007	Nov 2007	0.5 year

University College of Engineering - Thirukkuvalai	Assistant Professor	Aug 2009	Sep 2014	5 years
University College of Engineering – Pattukkottai (Deployment)	Assistant Professor	Sep 2014	Dec 2019	5 years
University College of Engineering - Thirukkuvalai	Assistant Professor & HOD(i/c)	Dec 2019	July 2023	3.5 years
University College of Engineering – BIT campus-Tiruchirappalli	Assistant Professor	July 2023	Till date

➤ **Awards / Honours Received:**

1. SKCT- AWARD FOR EXCELLENCE IN TEACHING- 2020.
2. International Research Awards on New Science Inventions – Best Researcher Award- 2022.

➤ **Additional / Academic Responsibilities at University:**

- 1. Residential tutor -17/9/2012 to 30/6/2014
- 2. Placement co ordinator (Mech) - 12/08/2015 to 30/06/2017
- 3. Transport officer - 27/07/2015 to 09/12/2019
- 4. Mess co-ordinator- - 04/07/ 2012 to 30/07/ 2013
- 5. Generator –co ordinator - 05/07/ 2018 to 09/12/ 2019
- 6. Time table Co ordinator - 04/07/2010 to 30/6/2014
- 7. ID card Co ordinator - 02/01/2015 to 30/06/2016
- 8. Co operative store incharge - 05/07/2015 to 09/12/2019
- 9. HOD (i/c)/ Mechanical Engg - Dec 2019 to July 2023
- 10. NAD Co ordinator - March 2021 to July 2023

➤ **Membership of Scientific and Professional Societies:**

MEMBERSHIP IN PROFESSIONAL BODIES

- Life Member in the Indian Society for Technical Education (ISTE)-LM 83720 - 2012to Till date.

➤ **Fellowships and Grants received:**

- Nil

➤ **Completed PG/UG Projects:**

- Number of PG Projects Completed: NIL
- Number of UG Project Completed: 40 batches

➤ **Research Guidance (M.S/Ph.D.) (Completed):**

Sl. No	Name of the scholar	Title of the thesis	Year of registration	Date of viva voce
1.	SR.Hariharan	EFFECT OF REINFORCEMENTS ON MECHANICAL AND TRIBOLOGICAL PROPERTIES OF LM24 ALUMINIUM METAL MATRIX COMPOSITES	Jan 2020	27/03/2023

➤ **Research Guidance (Ph.D.) (Ongoing):**

Sl. No	Name of the scholar	Tentative Title of the thesis	Year of registration	Status
1.	Sakthi S	EXPERIMENTAL INVESTIGATIONS ON MECHANICAL, CORROSION, TRIBOLOGICAL AND MACHINING BEHAVIOR OF AZ61/B4C NANOCOMPOSITES FABRICATED BY STIRCASTING PROCESS	Jan 2021	Thesis submitted
2.	Sivaranjani U	INVESTIGATION AND IMPLEMENTATION OF REAL TIME MONITORING AND	Jan 2021	ongoing

		CONTROLLING SYSTEM FOR MECHATRONICS APPLICATION		
3.	Vimal kumar M	TO INVESTIGATE MECHANICAL AND WEAR CHARACTERISTICS OF MAGNESIUM ALLOY COMPOSITE	Jan 2022	ongoing

➤ **Publications:**

a. Books / book chapters:

Book:

1. Experimental Investigation of Aluminium Based Composite: Composite Materials
By S. Sukumar(Author), S. Mahendran(Author), T. T. M. Kannan(Author). Publisher :Scholars' Press
(May- 2021). ISBN- 978-6138953654.

Book chapters:

1. Emerging trends in Engineering and Technology – Mechanical characteristics of Aluminium 6061 with calcium oxide reinforcement composite materials- Manglam Publications- Delhi, ISBN- 978-81-945125-7-8.

b. International Journals:

Journals Published:

1. **Mahendran, S**, Senthilkumar, A &Jeyapaul, R 2016, 'Lean manufacturing in a manufacturing industry through value stream mapping and simulation study' published in 'International Journal of Advanced Engineering Technology' vol. 7, no. 1, pp. 554-558.
2. **Mahendran, S** &Senthilkumar, A 2012, 'Reducing the wastage in supply chain management using lean principle' published in CIIT International Journal of Automation and Autonomous System, vol 4, no. 7.
3. **Mahendran, S**, Senthilkumar, A &Loganathan, p 2015, 'Analysis of Lean manufacturing in Supply Chain Management- Reference in a Manufacturing industry' published in 'International Journal of Applied Engineering Research', ISSN 0973-4562, vol. 10 ,no.50, pp. 874-878.
4. **Mahendran, S**, Senthilkumar, A &Loganathan, p 2015, 'Wastage reduction by lean supply chain management in manufacturing industry' published in 'International Journal of Applied Engineering Research', ISSN 0973-4562, vol. 10, no. 50, pp. 796-801.

5. **Mahendran, S**, Senthilkumar, A &Jeyapaul, R 2018, 'Analysis of lean manufacturing in an automobile industry- a case study' published in 'International Journal of Enterprise network management" Vol. 9, No.2, pp 129-142. Inderscience Publishers.
6. **MahendranS**,Senthilkumar A 2018, 'Implementing lean manufacturingprinciple in an automobile valve manufacturing industry with simulationanalysis – a case study', Journal of the Balkan tribological association ,Vol.24, No.3, pp. 600 – 607.
7. **Mahendran S**, Jeyapaul R 2018, 'Preparation of aluminiumcalcium oxide compositematerial using stir casting methodand testing of its mechanical properties', Comptesrendus de Academiebulgare des Sciences, Vol.71, No.10, pp. 1388-1393.
8. **Mahendran S**, K.K. Saravanan 2020, 'Aluminium 6082-boron carbideComposite materials preparation and investigate mechanical-electrical properties with CNC turning', 'Materials Today: Proceedings', Elsevier publications, Vol.21, No.1,pp. 93-97.
9. Sakthi S, Hariharan SR, **Mahendran S**, Azhagunambi R, 2021, 'Effect of nanoadditives on magnesium alloy during turning operation with minimum quantity lubrication', Materials Today: Proceedings, Elsevier publications(<https://doi.org/10.1016/j.matpr.2021.04.238>).
10. Hariharan S R, **Mahendran S**,Meignanamoorthy M &Ravichandran M 2022, 'Microstructure, mechanical and wear behavior of LM24/SiC/MoS2 hybrid composites produced via liquid metallurgy process', Surf. Topogr.:Metrol. Prop. (<https://doi.org/10.1088/2051-672X/ac4f39>)
11. Hariharan S R, **Mahendran S** & Jaya Suthahar S T 2022, 'A Review on Mechanical Properties of Aluminum Silicon (LM series) Based Metal Matrix Composites', Periodico Di Mineralogia(<https://doi.org/10.37896/pd91.3/91320>)
12. Sakthi S, **Mahendran S**, JAYAKUMAR K & Jaya Suthahar S T 2022, 'Investigation of Mechanical and Corrosion behaviour of AZ61 Mg nanocomposites with boron carbide particles, Periodico Di Mineralogia (<https://doi.org/10.37896/pd91.3/9132>)
13. S. SAKTHI*, M.VIMAL KUMAR, **MAHENDRAN.S**, S.T.JAYA SUTHAHAR "Analysis of shape memory effect on honeycomb made of nitinol", International Journal of Research and Analytical Reviews (IJRAR), E-ISSN 2348-1269, August 2022, Volume 9, Issue 3.
14. SAKTHI1*, M.VIMAL KUMAR, **MAHENDRAN. S**, S. T. JAYA SUTHAHAR "Performance validation of newly Developed minimum quantity lubrication(MQL) setup on capstan lathe", International Journal for Research Trends and Innovation (IJRTI), Volume 7, Issue 8, ISSN: 2456-3315.
15. S. SAKTHI*, S.R. HARIHARAN, **S. MAHENDRAN**, S. T. JAYA SUTHAHAR "Influence of MgO& SiC on Mechanical and Wear Characteristics of AA6061 Hybrid Matrix Composites Synthesized by Stir Casting" Journal of Applied Research and Technology., vol.21, Issue.2, 162-168, 2023.

16. S.SAKTHI*, **S.MAHENDRAN**, S.T.JAYASUTHAHAR, 2022 “A Review of AZ61 Magnesium Matrix Composite Reinforced with Various Reinforcements” Neuroquantology, Vol.20, Issue.14, 917-922.

17. S.SAKTHI*, **S.MAHENDRAN**, S.T.JAYASUTHAHAR, 2023, “An effect of nano-SiC with different dielectric mediums on AZ61/7.5% B₄C nano composites studied through electrical discharge machining and Taguchi based complex proportional assessment method”. Revista Materia, vol.28, Issue.2, DOI: <https://doi.org/10.1590/1517-7076-RMAT-2023-0058>.

18. S.R. Hariharan , **S.MAHENDRAN**, C.Saravanan , 2022, “Comparative Study of the Reinforcements on AlSi8Cu3Fe (LM 24) Aluminium Metal Matrix Composite”, Silicon, Springer, (online published) <https://doi.org/10.1007/s12633-022-02244-y>.

c. National Journals:

NIL

➤ **Patents:**

1. Granted a design patent on DESIGN OF MICRO PIN FIXTURE - Approval date- Nov 2021

➤ Sponsored Research Projects:

Sl.No	Name of the project	Funding agency	Project value (Rs.)	Duration	Status
	<u>NIL</u>				

➤ Consultancy Activities:

Sl.No	Name of the work	Role (PI/Co PI)	Agency	Amount	Duration
	NIL				

➤ List of Seminar / Short Term Course /FDP/ Workshop organized:

- 1.National conference Organaised:

Co-ordinator for National conference on Recent advances in science and Engineering held at University college of Engineering- pattukkottai on 13/04/2017.

➤ **List of Seminar / Short Term Course /FDP/ Workshop attended:**

FDP attended:

- 1. Attended FDTP on ME 2301- THERMAL ENGINEERING organized by department of Mechanical Engineering at UCE-Pattukkottai on 23-6-2014 to 29-06-2014 (7 days).
- 2.Attended FDTP on ME2353- Finite Element Analysis organized by department of Mechanical Engineering at UCE-panruti on 8-12-2014 to 14-12-2014 (7 days).
- 3. Attended FDTP on ME6404- Thermal Engineering organized by department of Mechanical Engineering at UCE-Villupuram on 14-12-2015 to 20-12-2015 (7 days).
- 4. Attended FDTP on ME6503- Design of Machine Elements organized by department of Mechanical Engineering at UCE-panruti on 17-05-2017 to 23-05-2017 (7 days).
- 5. Attended TEQIP-II sponsored- Two weeks FDP on “Advanced Manufacturing Process for automobiles” organized by department of Mechanical Engineering at BIT Campus, UCE- Trichy from 20/5/2015 to 2/6/2015 (14 days).
- 6. Attended TEQIP-II sponsored- Two weeks FDP on “THERMAL ENGINEERING APPLICATIONS FOR SUSTAINABLE IMPROVEMENT” at BIT Campus, UCE- Trichy from 15/6/2015 to 28/6/2015 (14 days).
- 7. Attended AICTE sponsored 2 weeks FDP on Advances in research and development of intelligent mobile robots organized by department of Mechanical Engineering at EGS pillay Engineering college, Nagapattinam on 20-11-2017 to 03-12-2017(14 days).

Workshop attended:

1. Attended one day national level workshop on nanocomposite materials at Dept of Mechanical Engg. at UCE- pattukkottai on 11/3/2015 (1 day)

2. Attended one day seminar on Recent trends in Mathematics at UCE-pattukkottai on 27/3/2015 (1 day).

3. Participated in one day workshop on CRYOGENICS AND ITS APPLICATIONS

Sponsored by AICTE held at J.J.College of Engg and Tech, Trichy at 14.8.2010 (1 day).

➤ **National / International Conferences organized / Participated:**

International conferences Participated:

- 1. Presented a paper “ Implementing lean manufacturing principle in an automobile valve manufacturing industry- a case study” on ICMMMS 2016 (International Conference on Mechanical, Materials and Manufacturing systems) held at Sairam Engineering college, Chennai-44 on 24 and 25/2/2016.
- 2. Presented a paper “Applying lean manufacturing principle in an automobile industry- value stream mapping analysis” at International conference on contemporary design and analysis of manufacturing and industrial engineering systems conducted by National Institute of Technology, Trichirappalli on 18/01/2018.
- 3. Presented a paper “Lean manufacturing principle applications in manufacturing industry- value stream mapping tool” at International conference on advances in industrial engineering applications conducted by College of Engineering, guindy, Anna university Chennai on 04/01/2018.
- 4. Presented a paper “Implementing lean manufacturing principles in an automobile valve manufacturing industry- a case study” at International conference on Innovations in Engineering technology and science conducted by K.Ramakrishnan college of Engineering, trichy- 621112 on 13/03/2018.
- 5. Presented a paper “ Mechanical properties and machinability studies on AA6082- B4C composite material using CNC” at International conference on science and innovative Engineering conducted by Organisation of science and innovative Engg and Tech with JawaharEngg college, Chennai on 01/04/2018.
- 6. Presented a paper “ Mechanical properties and machinability studies on AA6082- B4C composite material using CNC” at International conference on science and innovative Engineering- 2018 conducted by Organisation of

science and innovative Engg and Tech with JawaharEngg college, Chennai on 01/04/2018.

- 7. Presented a paper “Preparation of aluminium calcium oxide composite material using stir casting method and testing of its mechanical properties” at International conference on science and innovative Engineering- 2018 conducted by Organaisation of science and innovative Engg and Tech with JawaharEngg college, Chennai on 01/04/2018.

National conferences Participated:

1. Presented a paper “ Analysis of lean manufacturing in supply chain management-Reference in a manufacturing industry” at National conference on Advancements in Mechanical, Environmental, safety and health Engineering at Knowledge institute of Technology, salem on 9/5/ 2015.

2. Presented a paper “Wastage reduction by lean supply chain management in manufacturing industry” at National conference on Advancements in Mechanical, Environmental, safety and health Engineering at Knowledge institute of Technology, salem on 9/5/ 2015.

3. Presented paper “ Analysis of lean supply chain management” at National conference on Recent advances in manufacturing and materials at Chenduran college of Engineering and technology, Pudukkottai on 8 and 9th april 2011.

➤ **Professional recognitions:** (details like chairperson/member of a committee, reviewer, editor ...etc)

REVIEWER OF JOURNALS AND BOOKS ETC:

- Reviewer of Materials Today- Proceedings, Elsevier publications.
- Reviewer of Advances in Materials Science and Engineering, Hindawipublications.
- Reviewer of Silicon journals publications.
- Reviewer of Fuel- Elsevier publications

(A) Chairperson for conferences / Seminar / Technical symposia:

- Nil

(B) Guest lectures delivered:

Sl. No.	Guest lecture	Name of the EVENT	Organization	Month & year
1	Resource Person	Faculty Development Programme on Engineering Mechanics	University College of Engineering- Ramanathapuram	12.12. 2018
2	Resource Person	Faculty Development Programme on FEA	Government college of Engineering- Thanjavur.	11.12.2018
3	Resource Person	Guest Lecture on Lean Manufacturing.	Kings college of Engineering, Pudukkottai (dt)	15.02.2020