

CURRICULUM VITAE

1. Name : Dr.P.SHANMUGHASUNDARAM

2. Address for Communication :

Dr.P.Shanmughasundaram

Professor,

Department of Automobile Engineering,

Karpagam University, Karpagam Academy of Higher Education,
Coimbatore- 21

Email Id: shanmughasundaram.p@kahedu.edu.in

sunramlec@gmail.com

Mobile: 9842461672



3. Date of Birth: 02.06.1971 Age: 49 Marital Status: Married

4. District: Coimbatore State : Tamilnadu

5. Mother Tongue : Tamil

Nationality & Religion : Indian & Hindu

6. Academic Qualifications :

Degree / Diploma	Name of the Institution/ University studied	Year of Passing
PhD (Metal Matrix Composites)	Anna University, Chennai Research Centre -PSG college of Technology, Coimbatore	2013
ME - Full time (Refrigeration and Air Conditioning)	Coimbatore Institute of Technology Anna university, Chennai	2004
AMIE (INDIA) – Additional Degree Production Engineering	The Institution of Engineers (India)	2005
AMIE (INDIA) Mechanical Engineering	The Institution of Engineers (India)	2002
Post Diploma – 1 Year – Full time Production Engineering Full time	PSG Polytechnic, Coimbatore	1993
Diploma (MECH) 3 Years Full time	Board of Technical Education NL Polytechnic ,Coimbatore Government of Tamilnadu, India	1992

7. Professional / Teaching / Research Experience

Sl. No	Name of the Post	Employer	Period of Employment				Teaching/ Industrial/Research
			From	To	Yrs	Mon	
1	Assistant Professor	Karpagam College of Engg, Coimbatore	09.06.2005	01.10.2008	3	4	Teaching
2	Professor Department of Mechanical Engineering	Karpagam College of Engg, Coimbatore	09.06.2005	24.05.2017	12	3	Teaching & Research
3	Professor Department of Mechanical Engineering	Karpagam Academy of Higher Education, Coimbatore	29.05.2017	Till date	3	3	Teaching & Research

8. Membership of Professional Bodies : (i) The Institution of Engineers (India)
Fellow of Institution of Engineers (FIE)

(ii) MISTE Life member: LM – 53641

(iii) Tribology Society of India

(iv) Society of Automotive Engineers (SAE)

(v) Institute of Smart Structures and Systems

9. Field of interest:

- Automobile Engineering
- Refrigeration & Air-Conditioning
- Alternative fuels
- Composite Materials

10 .Subjects handled (UG and PG Courses):

- Automobile Engineering (UG)
- Alternative fuels and Energy
- Renewable Energy Sources
- Heat & Mass Transfer
- Thermal Engineering
- Composite Materials and Mechanics
- Applied Thermodynamics & Engineering Thermodynamics

11. International Journals Publications

(A) Published Papers in Journals

S. No.	Title	Authors	Publication year	Journal Name	Volume No.	Issue	Page No.
1	Effects of Heat Treatment on the Mechanical and Tribological Properties of Aluminium (LM6) Reinforced with Iron Oxide (Fe ₂ O ₃)	J. Arun Prakasha , P. Shanmughasundaramb , M. Vemburajc and P. Gowthamd	2020	International Journal of Vehicle Structures & Systems	12	3	269-273
2	Influence of temperature on tribological behaviour of dual reinforced aluminium MMCs	P.Shanmughasundaram, D.Prasanna Venkatesh, N.Ashok and Negussie Tadege Demeke.	2020	Journal of Mine, Metals & Fuels (Scopus)	68	6	189-195
3	Influence of heat treatment on the exit burr height in drilling of Al alloy 7075 – A statistical analysis by	N.Ashok , Negussie Tadege Demeke and P. Shanmughasundaram	2020	Journal of Mine, Metals & Fuels((Scopus)	68	6	214-218
4	Material Characterization and Parametric Optimization of Unconventional Machining of TiN and TaC reinforced Stir Casted Vitallium Metal Matrix Composite	P. Shanmughasundaram M. Prabhu	2020	Materials Research (SCI and WoS)	23	3	1-10
5	A Study on Accident Analysis in Steel Industries	P. Lakshmana Kumar P.Shanmughasundaram	2020	International Journal of Advanced Science and Technology	29.	3	2614-2618
6	A study on accident analysis in steel industries - A statistical approach	P. Lakshmana Kumar P.Shanmughasundaram	2020	International Journal of Advanced Research in Engineering and Technology	Vol.11	2	356-360
7	The influence of deep cryogenic treatment on the mechanical behaviour of aluminium metal matrix composites	D.Prasanna Venkatesh P.Shanmughasundaram	2019	International Journal of Innovative Technology and Exploring Engineering	Vol.9	1	1425-1431
8	The effect of cryogenic treatment on the wear resistance of al alloy-fly ash composites	D.Prasanna Venkatesh P.Shanmughasundaram	2019	International Journal of Engineering and Advanced Technology	Vol.9	1	5115-5120

9	The effect of nozzle-opening pressure on the performance and emission parameters of a diesel engine operated on aphanizomenon flos biodiesel-titanium dioxide (TiO ₂) nanofluid-diesel blend	G.Jayabalaji P.Shanmughasundaram	2019	International Journal of Engineering and Advanced Technology	Vol.9	1	6163-6167
10	Effect of titanium dioxide (TiO ₂) nano-fluid on performance and emission features of a diesel engine operated on aphanizomenon flos biodiesel-diesel blend	G.Jayabalaji P.Shanmughasundaram	2019	Materials Science Forum	Vol. 969,		421-426
11	Performance and emission characteristics of a CI engine fuelled with diethyl ether blended pongamia bio fuel	P.Shanmughasundaram	2019	UPB Scientific Bulletin, Series D: Mechanical Engineering	Vol.8 1	3	83-100
12	Heat Treatment of Aluminum Alloys (Book Chapter)	P.Shanmughasundaram Arne K.Dahle	2018	Reference Module in Materials Science and Materials Engineering			1-8
13	Desuperheater Nozzle Systems Spray Model For Droplet Sizes Based On The Linear Instability System Analysis	P. Ramkumar and P. Shanmughasundaram	2018	International Journal Of Mechanical Engineering And Technology	9	4	240-247
14	Effect of dry sliding wear behavior of A356/TiB ₂ aluminium Composite	S Rajesh Ruban, J David Raja Selvam, Leo Dev Win and P.Shanmughasundaram	2018	International Journal Of Mechanical Engineering And Technology	9	11	192–197
15	Effect Of Temperature, Particle Size, Load And Speed On The Dry Sliding Wear Behavior Of Aluminium 8011-Sic Composites	N. Ashok,P. Shanmughasundaram,Netsa net Ayele,Atkilt Mulu	2018	International Journal Of Mechanical Engineering And Technology	9	3	719–730
16	Performance analysis of diesel engine using corn oil biodiesel and preheating of Inlet Air: The Taguchi approach	V. Gopinath and P. Shanmughasundaram	2018	Ecology, Environment and Conservation	24	2	916-923
17	Performance Analysis Of A Variable Compression Ratio Ci Engine Using Pongamia Pinnata Bio Fuel	A. Antony Fernandez, K. K. Padmanabhan and P. Shanmughasundaram	2018	International Journal of Mechanical Engineering and Technology	9	2	125–135
18	An Investigation of Safety Technical Elements in Small and Non-Small-Scale Engineering Industries	Sebastian Joseph , Dr. P.Shanmugasundaram , Dr. P.Sivaprakash	2018	International Journal of Applied Engineering Research	13	8	5863-5876
19	Emission Analysis of an Engine Operating on Corn Oil Methyl Ester Blends with Air Pre-Heater	V.Gopinath, P. Shanmughasundaram, P.Suresh	2017	International Journal Of Renewable Energy Research	7	4	1682-1685

20	Performance and emission characteristics of a diesel engine runs with corn oil biodiesel blends and air pre-heater	P. Shanmughasundaram, V. Gopinath, P. Suresh	2017	Mechanika	23	3	462-468
21	Effect of Temperature, Load and Sliding Velocity on the Wear Behavior of AA7075–SiC Composites	P. Shanmughasundaram	2017	Mechanics and Mechanical Engineering	21	1	85-94
22	Effect Of Particle Size, Load And Speed On The Dry Sliding Wear Behavior Of Aluminium 8011-Sic Composites	N.Ashok P.Shanmughasundaram	2017	Carbon - Science and Technology	9	1	7-16
23	Effect of compression ratio, injection pressure and biodiesel blend on CI engine fuelled with pongamia biodiesel using Taguchi robust method	A. Antony Fernandez, K. K. Padmanabhan and P. Shanmughasundaram	2017	Journal of Mines, Metals & Fuels	65		1-7
24	Influence of reinforcements and its particle size on the mechanical and tribological behaviour of metal matrix composites – a review	N. Ashok, P. Shanmughasundaram Habtewolde Ababu	2017	Journal of Mines, Metals & Fuels	65		42-47
25	Improving performance of squeeze casting process forADC12 aluminium alloy castings through Taguchi method	K. K. Padmanabhan and P. Shanmughasundaram	2017	Journal of Mines, Metals & Fuels	65		65-68
26	Mechanical and tribological behaviour of aluminium metal matrix composites – an expatiated review	Arun Prakash J. and P. Shanmughasundaram	2017	Journal of Mines, Metals & Fuels	65		69-81
27	Optimization of wire cut EDM parameters of higher MRR for titanium alloy 6242	R. Prasanna, P. Shanmughasundaram M. Uthaykumar	2017	Journal of Mines, Metals & Fuels	65		146-149
28	Effect of reinforcements on micro structure on wear of squeeze cast hybrid (ADC12-SiC-Fly ash) composite	K. K. Padmanabhan and P. Shanmughasundaram	2017	Journal of Mines, Metals & Fuels	65		55-59
29	A Study On The Musculoskeletal Discomfort In Foundry Workers	A. Shanmuganathan ,N.M. Sivaram,P. Shanmughasundaram	2017	International Journal Of Mechanical Engineering And Technology	8	6	377–383
30	Discomfort Due To Work Environment And Safety Factors Among Workers In Foundry Industry	A. Shanmuganathan ,N.M. Sivaram,P. Shanmughasundaram	2017	International Journal Of Mechanical Engineering And Technology	8	8	820–826
31	Effect Of Particles Size On The Mechanical Properties Of Sic-Reinforced Aluminium 8011	Ashok, Shanmughasundaram	2016	Materiali In Tehnologije	51	4	667-672

	Composites						
32	experimental and statistical analysis on the noise reduction using chevron nozzle in supersonic free jet	P. kaleeswaran P. Shanmughasundaram	2016	UPB Scientific Bulletin, Series D: Mechanical Engineering	78	3	21-30
33	Experimental investigation on the emission characteristics of a variable compression ratio multi-fuel engine using palm biodiesel	P. Shanmughasundaram	2016	International Journal of Ambient Energy	38	6	576-581
34	Performance Analysis of Diesel Particulate Filter using Glass Fibers	K.R.Sandhya, D.Rekha, P. Shanmughasundaram.	2016	International Journal of Vehicle Structures & Systems	8	3	183-186
35	Statistical Analysis on Tribological Behaviour of An Al Alloy 7075 – Al ₂ O ₃ Composites	P. Shanmughasundaram	2016	Acta Metallurgica Slovaca	22	1	24-34
36	Emission Characteristics of Single Cylinder Diesel Engine Using Blends of Rubber Seed Biodiesel Using Taguchi Method	P.Shanmughasundaram T.I .Manosh	2015	Journal of Materials and Environmental Science	6	6	1719-1722
37	Statistical Analysis On Influence Of Heat Treatment, Load And Velocity On The Dry Sliding Wear Behavior Of Aluminium Alloy 7075	P. Shanmughasundaram	2015	Materials Physics and Mechanics	22	-	118-124
38	Effect Of Iron Oxide On Tribological Behaviour Of Al- Si Alloy – Iron Oxide Composites - Taguchi Approach	P.Shanmughasundaram	2015	UPB Scientific Bulletin, Series D: Mechanical Engineering	77	1	121-134
39	Performance of variable compression ratio CI engine using blends of palm biodiesel	P. Shanmughasundaram	2015	Oxidation Communications	38	4A	2199-2209
40	Influence of abrasive water jet machining parameters on the surface roughness of eutectic Al-Si alloy - graphite composite	P. Shanmughasundaram	2014	Materials Physics and Mechanics	19		1-8
41	Performance of single cylinder CI engine using Blends of rubber seed Biodiesel - Taguchi Method	P. Shanmughasundaram	2014	UPB Scientific Bulletin, Series D: Mechanical Engineering	76	4	165-172
42	Study of parametric optimization of burr formation in step drilling of eutectic Al–Si alloy–Gr composites	P. Shanmughasundaram R. Subramanian	2014	Journal of Materials Research and Technology	3	2	150-157

43	An Investigation on the Performance of a Diesel Engine Using Rubber Seed Oil–Diesel Blends	P. Shanmughasundaram, T. I. Manosh, R. Sivaprakasam	2014	Jurnal Teknologi	71	1	1-5
44	Dry sliding wear, Co-efficient of friction and Corrosion behaviour of Aluminium alloy 2024 Reinforced with Silicon Carbide and Fly ash Hybrid Metal Matrix Composites	M.Mahendra Boopathi , K.P. Arulshri, N. Iyandurai, and P.Shanmughasundaram	2014	International Journal of Mechanical & Mechatronics Engineering	14	4	44-53
45	Performance and Emission Characteristics of Low Heat Rejection Diesel Engine Fueled with Biodiesel and High Speed Diesel	T. Gopinathan, K.P. Arul Shri and P. Shanmughasundaram	2014	Research Journal of Applied Sciences, Engineering and Technology	8	13	1585-1589
46	Study on Tribology, Microstructure and Mechanical Properties of Metal Matrix Composites A Review on Advanced Applications	S. Prabakaran, G. Chandramohan, P. Shanmughasundaram	2014	INTERNATIONAL JOURNAL OF SCIENTIFIC RESEARCH	3	3	106-109
47	Analysis on dry sliding wear behaviour of AA6061 - B4C - Gr Hybrid Composite - Taguchi technique	S. Prabakaran, G. Chandramohan, P. Shanmughasundaram	2014	Research Journal of Applied Sciences	9	7	461-465
48	Influence of B4C on physical and mechanical properties of AA6061-B4C-Gr metal matrix composite	S. Prabakaran, G. Chandramohan, P. Shanmughasundaram	2014	International Journal of Applied Engineering Research	9	22	13193 - 13202
49	Study of parametric optimization of burr formation in step drilling of eutectic Al–Si alloy–Gr composites	PalanisamyShanmughasundaram,RamanathanSubramanian	2014	Journal of Materials Research and Technology	3	2	150-157
50	Investigation on the Wear Behaviour of Eutectic Al-Si Alloy- Al2O3 - Graphite Composites Fabricated Through Squeeze Casting.	P. Shanmughasundaram	2014	Materials Research	17	4	940-946
51	Influence of Graphite on Hardness and Wear Behaviour of AA 6061 – B4C Composite	S. Prabakaran G.Chandramohan P.Shanmughasundaram	2013	Materials and Technology	48	5	661-667
52	Analysis of Burr Formation and Surface Roughness in Step Drilling of AA 2024– SiC - Fly Ash Hybrid Composites	M. Mahendra Boopathi, K. P. Arulshri, P. Shanmughasundaram	2013	International Review of Mechanical Engineering	7	7	1347-1354
53	Influence of Fly ash / Gr Reinforcements on Corrosion Behaviour of Aluminium Matrix Composites”,	P. Shanmughasundaram R. <u>Subramanian</u> A.R. Ravikumar	2013	International Review of Mechanical Engineering	6	4	790-795
54	Wear Behaviour of Eutectic Al-Si Alloy-Graphite Composites Fabricated by Combined Modified Two-Stage Stir Casting and Squeeze Casting Methods	P. Shanmughasundaram R. <u>Subramanian</u>	2013	Advances in Materials Science and Engineering	2013		1-10

55	Analysis of Dry Sliding Wear Behaviour of Aluminium-Fly Ash Composites: The Taguchi Approach	P. Shanmughasundaram R. <u>Subramanian</u>	2013	Advances in Mechanical Engineering	548		264-270
56	Influence of graphite and Machining Parameters on Surface Roughness in Turning of Al-Fly ash /Gr Hybrid Composite– A Taguchi Approach	P. Shanmughasundaram R. <u>Subramanian</u>	2013	Journal of Mechanical Science and Technology (Springer)	27	8	2445-2455
57	Prediction on Dry Sliding Wear behaviour of Al –Fly Ash Composites – ANN Approach	P. Shanmughasundaram R. <u>Subramanian</u>	2012	International Journal of Balkan Tribological Association	18	4	507–521
58	Burr Minimization in Step Drilling of Al - Fly Ash / Gr Hybrid Composites by Taguchi Method	P. Shanmughasundaram R. <u>Subramanian</u>	2012	Advanced Materials Research	548		264-270
59	Influence of Magnesium and Stirrer model in Production of Al–fly ash Composites– A Taguchi Approach	P. Shanmughasundaram R. <u>Subramanian</u>	2012	Journal of Applied Sciences Research	8	3	1646-1653
60	Synthesis of Al-Fly Ash Composites by Modified Two Step Stir Casting Method	P. Shanmughasundaram R. <u>Subramanian</u> G. Prabhu	2012	Advances in Mechanical Engineering	488		775-781

12. Paper Presented In International Conferences : 27

Paper Presented In National Conference : 12

13. Work shop /Seminar Attended : 53

STTP / FDP Attended : 10

14. Work shop /Seminar organized : 25

(International -1 National -10)

National Conference organized : 6

15. Reviewer for International Journals

- ✓ International Journal of Materials Science and Applications
- ✓ Ain Shames Engineering Journal(**Elsevier**)
- ✓ Materials and Design (**Elsevier**)
- ✓ Journal of Materials and Environmental Science
- ✓ Material Research Innovations SCIE-indexed journal
- ✓ International Journal of Materials Research
- ✓ Journal of Petroleum and Gas Engineering
- ✓ International Journal of Materials and Product Technology (**Inderscience**)
- ✓ International Journal of Metals (Hindawi Publishing Corporation)

- ✓ Journal of Polymer Materials-An International Journal. (DRDO, Ministry of Defense)
- ✓ Engineering Science and Technology, an International Journal (Elsevier)
- ✓ International Journal of Materials Research (formerly: Zeitschrift fuer Metallkunde)
- ✓ Tribology Letters
- ✓ Universiti Putra Malaysia Journal
- ✓ Materials Performance and Characterization (ASTM International)
- ✓ Results in Materials (Elsevier)
- ✓ Journal of Cleaner Production(Elsevier)
- ✓ Tribology in industry

16. Book Chapter Published

Reference Module in Materials Science and Materials Engineering (Elsevier) 2017

Heat Treatment of Aluminum Alloys (<https://doi.org/10.1016/B978-0-12-803581-8.03374-9>)

17. Patent applied

Name of the Inventor	Title of the Patent	Number	Patent Status Filed / Published	Year
Dr.P.Shanmugha sundaram	Smart Crushing Cum Moulding Machine For Plastic Components	202041012011	Applied	2020

18. Revenue generated from Consultancy Project

Name of the Consultancy Project	Consulting/Sponsoring Agency with contact details	Revenue generated (in Rs.) (Year 2015-2020)
- Fabrication of Composite Materials Using Stir Casting Furnace - Tribology - Engine testing	Students and Research Scholars of other Institutions	Rs.225000

Place: Coimbatore

(Dr.P.Shanmughasundaram)