

Research Activity Report (January 2017- June 2017)

1. Research activities of the faculty members:

Number of faculty in the Department : 38

Number of faculty with PhD qualification : 14

Number of faculty pursuing PhD : 13

A). Papers published by the faculty members in National and International Journals:

Sl. No	Name of the faculty with coauthors	Title of the paper	Name of the Journal and details
1	Karthee K, S.Yeshwant Raj, Prithvi Govind	Multi-Criteria-Based Prioritization of Threats Affecting Sustainability of Micro and Small Scale Industries Using AHP and Mitigating the Major Threats Using Retrofitting	International Journal of Mechanical Engineering and Robotics Research Vol. 6, No. 1, January 2017
2	S.Arumugam, K.Pitchandi, P.Karthikselvan	Effect of Karuvel methylester in a DIC engine Spherical and Toroidal combustion chambers	Asian Journal of Research in Social science and Humanities. Accepted on 26.11.2016 and to be published in March 2017
3	K.Palani Kumar, A Shadrach Jeya Sekaran, K Pitchandi	Investigation on mechanical properties of woven alovera/sisal/kenaf fibres and their hybrid composites	Bull. Mater. Sci., Volume: 40, No. 1, pp: 117-128. February 2017
4	R.Sathiyamoorthi, G.Sankaranarayanan, K.Pitchandi	Combined effect of nanoemulsion and EGR on combustion and emission characteristics of neat lemongrass oil (LGO)-DEE-diesel blend fuelled diesel engine	Applied Thermal Engineering, Vol.112,2017,1421-1432
5	Srivathsan.A, B.Vijayaram, R.Ramesh, Gokuldass	Investigation on Mechanical Behaviour Of Woven Fabric Glass/Kevlar Hybrid Composite Laminates Made Of Varying Fibre Inplane Orientation And Stacking Sequence	Materials Today Proceedings, Elsevier, Accepted for Publication
6	K.Madhivanan, M.Senthilkumar, R.Ramesh	Vibration Signal Responses Classification in AA6063 Aluminium Alloy Friction Stir Welded joint Using Optimal Neural Network	International Journal of Business Intelligence and Data mining, Inderscience Publishers, Accepted for publication.
7	D.Damodharan, A.P.Sathiyagnanam, D.Rana, B.Rajesh Kumar, S.Saravanan	Extraction and characterization of waste plastic oil (WPO) with the effect of n-butanol addition on the performance and emissions of a DI diesel engine fueled with WPO/diesel blends	Energy Conversion and Management, Volume 131 (1); pp:117–126. (2017)
8	R.Dhanasekaran, V.Krishnamoorthy, D.Rana, S.Saravanan, A.Nagendran, B.Rajesh Kumar	A sustainable and eco-friendly fueling approach for direct-injection diesel engines using restaurant yellow grease and n-pentanol in blends with diesel fuel	Fuel. Volume: 193, (2017) pp:419–431
9	J.Ravikumar, S.Saravanan	Performance and emission analysis on blends of diesel, restaurant yellow grease and n-pentanol in direct-injection diesel engine	Environmental Science and Pollution Research, ISSN 09441344, doi: 10.1007/s11356-016-8298-1

10	S.Gopinath , Srivats Balan.K Ramanathan.M, Narasimhan.K	Measure of Utilization of Government Schemes and Support by Small and Medium Enterprises(SME): Service Providers Perspective	Applied Mechanics and Materials ISSN: 1662-7482, Trans Tech Publications (Accepted for Publishing)
11	S.Ilayavel Vijayasarithi, P Suresh Prabhu, P	Experimental investigation of wear characteristics on TiCN-coated AISI 410 steel', Materials Science & Processing	Appl. Phys., A, vol. 122, pp. 1-8
12	Vijayasarithi, P, Ilayavel, S , Suresh Prabhu, P	Evaluation of sliding wear resistance of PVD coatings by the ball-cratering test method	Journal of Engineering Materials and Technology
13	Vijayasarithi, P, Ilayavel, S , Suresh Prabhu, P Sornakumar T	Wear Characteristics of AlCrN Coating on AISI410 steel by Ball-Cratering Test Method	Industrial Lubrication and Tribology
14	M.Naresh Babu N.Muthukrishnan	Exploration on Kerf- angle and surface roughness in abrasive waterjet machining using response surface method	Journal of The Institution of Engineers (India): Series C, DOI 10.1007/s40032-017-0366-x
15	M.Premananth R.Ramesh	Sliding wear characteristics of solid lubricant coating on titanium alloy surface modified by laser texturing and ternary hard coatings	Transactions of Nonferrous Metal Society of China, Vol. 27, pp. 839-847, (2017).
16	Rajesh Kumar, S. Saravanan Balaji Sethuramasamyraja, D. Rana	Screening oxygenates for favorable NOx/smoke trade-off in a DI diesel engine using multi response optimization	Fuel 199(2017), PP. 670–683
17	Rajesh Kumar S. Saravanan D.Rana A.Varadharajan	Optimization of DI diesel engine parameters fueled with iso-butanol/diesel blends – Response surface methodology approach	Fuel 203 (2017) 658–670
18	KEK Vimal	Application of fuzzy QFD for improving the process sustainability characteristics: a case study	International Journal of Service and Operations Management
19	S.Natarajan , M.Akshay kumar, A.U.Meenakshi Sundareswaran	Computational analysis of an Early Direct Injected HCCI engine using Bio ethanol and Diesel Blends as Fuel	Energy Procedia Journal ,Elsevier Publications, 105 (2017) 350 – 357
20	S.Natarajan , S.Abhinav Shankar, A.U.Meenakshi Sundareswaran	Early Injected PCCI engine fueled with Bio Ethanol and Diesel blends – An Experimental Investigation	Energy Procedia Journal,Elsevier Publications,105 (2017) 358 – 366.
21	S.Natarajan , K.Akash Trasy, N.Srihari, S.Raja	Effects of Injection Timing on CI Engine fueled with Algae oil blend with Taguchi technique	Energy Procedia Journal, Elsevier Publications,105 (2017) 1043 – 1050.

B). Papers presented by the faculty members in National and International conferences/ Symposiums/ workshops:

Sl. No.	Name of Faculty	Title of the paper	Name of the Conference/ symposium/workshop	Date
1	S.Gopinath	Implementation of 5s in small and Medium Enterprises	2 nd International Conference on Recent Challenges in Engineering and Technology (ICRCET -17)	23-24, Feb2017
2	J.Sivaramapandian	-do-	-do-	-do-
3	R.Ramesh	Investigation of Experimental modal response of hybrid carbon composite plates, composed of varying weight fraction of micro rubber particulates	7 th International conference on advances in science, engineering and technology	24 April 2017
4	C.SenthamaraiKannan	-do-	-do-	-do-
5	J.Sivaramapandian	Enterprises Environment operational enhancement in SME through 5S Effectuation	International conference on Women Entrepreneurship, E-commerce, Management, Law, Gender Studies, Humanities & Social Sciences	30 Mar, 2017
6	J.Sivaramapandian	Product Quality risk elimination and performance improvement analysis through FMEA implementation in a Manufacturing process.	International conference on recent Advances in Mechanical Engineering.	31 Mar, 2017
7	J.Sivaramapandian	Structural Analysis of ladder chassis using Finite Element Method	-do-	31 Mar, 2017

C). National and International Conferences/ symposiums/ workshops attended by the Faculty members:

Sl. No.	Name of Faculty	Name of the Conference/ symposium/workshop	Place	Date
1	V.Sridharan	Advanced Lightweight Materials and Processes for Automotive Industries	Dept. of Automobile Engg, PSG College of Technology, Coimbatore	10-11 Feb 2017
2	G.Kirubakaran	Creo 3.0® Software Training	Department of Mechanical Engg, SVCE	17-18 Feb 2017
3	M. Arul Kumar	-do-	-do-	-do-
4	M.Maheswaran	-do-	-do-	-do-
5	G. Saravanaram	-do-	-do-	-do-
6	R. Kaliyana Sunder	-do-	-do-	-do-
7	E. Suresh	-do-	-do-	-do-
8	A.Kumarasamy	One-day Workshop on Genetic Algorithm & Fuzzy Logic	SSN College of Engineering, Chennai	24 Feb, 2017
9	M.Arulkumar	-do-	-do-	-do-
10	M.Kalaimani	-do-	-do-	-do-
11	G.Suresh	Advanced Engines and Emission Control	Internal Combustion Engineering Division, College of Engineering, Guindy, Chennai-25	3-4 Mar, 2017
12	M.Gajendiran	Opportunities and Challenges in Energy Storage systems for Building, Solar and Wind Sectors	Institute of Energy Studies, Department of Mechanical Engg, College of Engineering, Guindy, Chennai-25	4 Mar, 2017

13	Muniraj	Mechanical Vibration, Mitigation Approaches and Measurement Techniques for Structural Applications	Department of Mechanical Engg, SVCE	30 Mar, 2017
14	G.Kirubakaran	-do-	-do-	-do-
15	M. Arul Kumar	-do-	-do-	-do-
16	M.Maheswaran	-do-	-do-	-do-
17	J.Sivaramapandian	-do-	-do-	-do-
18	M.Kalaimani	-do-	-do-	-do-
19	Dr.M.Ananth Kumar	Electron Microscopy	Center for Continuous Education, IISc, Bangalore.	22-26 May, 2017
20	Dr.R.Ramesh	FDP on ME6007 Composite Materials and Mechanics	University College of Engineering, Villupuram	24-30 May, 2017
21	C.Senthamaraikannan	-do-	-do-	-do-
22	Dr.S.Ilayavel	Special talk on Data Science	Training & Placement Cell, Dept. of Information technology, SVCE.	13 June, 2017
23	V.Senthilvelan	-do-	-do-	-do-
24	G.Suresh	-do-	-do-	-do-
25	Dr.M.Ananth Kumar	Evolution of Green and Materials Processing Technology	SVCE, Sriperumbudur	2-3 Mar, 2017

2) Departmental research activities:

A). Symposium, Conferences, Workshop and Guest lectures Conducted:

Sl. No.	Name of Event	Place	Date	Funding Agency	National/ International	Coordinator/Faculty In-Charge
1	Two Day Creo® 3.0 software training program	SVCE	17-18 Feb, 2017	-	Department level	Dr.M.PremAnanth M.Maheswaran
2	Mechanical Vibration, Mitigation Approaches and Measurement Techniques for Structural Applications	SVCE	30 Mar, 2017	ISTE	State level	Dr.R.Ramesh, C.Senthamaraikannan
3	Hands on training course on “Special Purpose Machine Tools”	SVCE	24-26 April, 2017	-	State level	Dr.S.Ponnuvel
4	A National Conference on Evolution of Green and Materials Processing Technology	SVCE	2-3 Mar, 2017	CSIR	National level	Dr.S.Saravanan Dr.N.Muthukrishnan
5	Advanced Automotive technologies	Govt. College of Engg, Bargur	24 Jan, 2017	-	State level	G.Suresh
6	Entrepreneurship Development	SSN College of Engg	22 Feb, 2017	-	State level	V.SenthilVelan
7	FDP on Kinematics of Machinery	Jeppair Institute of Tech,	23 Mar, 2017	-	State level	Dr.N.Muthukrishnan
8	FDP on Gas Dynamics and Jet Propulsion	St.Joseph College of Engg,	25 Mar, 2017	-	State level	Dr.P.Raghu
9	Experimental Free and forced vibration characteristics of carbon fiber reinforced hybrid composite plates and beams	Rajalakshmi Engg College	29 April, 2017	-	National level	Dr.R.Ramesh
10	FDP on ME6503 Design of Machine Elements	Panimalar Engg. College	22 May, 2017	-	State level	Dr.R.Ramesh

11	FDP on ME6503 Design of Machine Elements	Panimalar Engg. College	25 May, 2017	-	State level	Dr.S.Rameshbabu
12	FDP on ME6503 Design of Machine Elements	Panimalar Engg. College	29 May, 2017	-	State level	Dr.T.Raja

B) Ongoing funded projects in the in the Department: -NIL

C).Projects submitted to Funding Agencies by the Department:

Sl. No.	Name of the Project	Funding Agency	Period & Amount applied	Coordinators
1	Experimental study on the effect of fuel spray and combustion characteristics of optical engine fuelled with biodiesel and its blends using engine videoscope	Cognitive Science Research Initiative (CSRI) DST	30.6.2017 Rs.51, 65,000/-	Dr.P.Raghu Dr.K.Pitchandi
2	Study of Combined Effect of Cooling Rate and Grain Modifiers on the Microstructure and Mechanical Properties of Aluminium Alloy Castings	AICTE-RPS	07.01.2017 Rs. 16,95,000/-	Dr. M. Mohandass Dr. J. Venkatesan
3	Assessment of Damage Induced By Sea Water Absorption In Natural Fiber Reinforced Polymer Composites For Marine Applications	AICTE-RPS	07.01.2017 Rs. 17,00000/-	Dr. S. Ponnuvel Dr. M. Prem Ananth
4	Machinability Studies On High Strength Temperature Resistance Alloys Using Vertical Machining Center	AICTE-MODROBS	10.01.2017 Rs. 19,50000/-	Dr. S. Ramesh Babu Dr. S. Ponnuvel
5	Prediction of tensile strength of Spin Arc Air cooled Mechanized Rotating Arc welded Magnesium Alloy joints with adaptive neuro-fuzzy inference system (ANFIS) and neural network	AICTE-RPS	10.01.2017 Rs 23,75,000/-	Dr.N.Muthukrishnan Mr.V.Gurusamy
6	Tool wear analysis of Poly crystalline diamond (PCD) 1300, 1500 and 1600 grades on machining Al/SiC (15p)Metal matrix composite	SERB	04-01-2017 Rs 15,33,500/-	Dr.N.Muthukrishnan Mr.M.Kalaimani
7	Comparison of Dynamic and In-vehicle Fuel Measurement of Automotive Vehicles and Mathematical Modelling for Real Time Condition	AICTE-RPS	10.01.17 Rs. 19, 60,750	Dr.S.Saravanan Mr.R.Kaliyanasunder
8	Noise, Vibration and Durability Analysis of an Automotive HCV Engine Fuelled with Biodiesel Blends	AICTE-RPS	10.01.17 Rs.24, 21,250	Dr.S.Saravanan Dr.M.Anandan
9	Fuel Measurement Model for Automotive Vehicles Through Test on Chassis Dynamometer	SERB	29.07.2017 18,86,250	Dr.S.Saravanan Mr.R.Kaliyanasunder
10	Surface Modification of Light Metal Substrates Through Laser Texturing and Surface Coating for Enhanced Service Life	AICTE-RPS	07.01.2017 Rs. 21,00,000/-	Dr. M. Prem ananth Dr. S. Ponnuvel
11	Development of methodology and technology to support sustainable end of life options for toner cartridge cores	DST SERB New Delhi ECR	31-Jan-2017 Rs. 20,26,840/-	Dr. Vimal KEK

D) Research centre status of the department:

- Our department research center status was renewed up to June 2020.

3) Student Research Activities:

A) Research Publications by students in National and International Journal:

Sl. No.	Name of the Student	Title of the Paper	Journal Details
1	Prithvi Govind	Multi-Criteria-Based Prioritization of Threats Affecting Sustainability of Micro and Small Scale Industries Using AHP and Mitigating the Major Threats Using Retrofitting	International Journal of Mechanical Engineering and Robotics Research Vol. 6, No. 1, January 2017
2	P.Karthikselvan	Effect of Karuvel methylester in a DICI engine Spherical and Toroidal combustion chambers	Asian Journal of Research in Social science and Humanities. Accepted on 26.11.2016 and to be published in March 2017
3	Srivats Balan.K Ramanathan.M, Narasimhan.K	Measure of Utilization of Government Schemes and Support by Small and Medium Enterprises(SME): Service Providers Perspective	Applied Mechanics and Materials ISSN: 1662-7482, Trans Tech Publications (Accepted for Publishing)
4	M.Akshay kumar, A.U.Meenakshi Sundareswaran	Computational analysis of an Early Direct Injected HCCI engine using Bio ethanol and Diesel Blends as Fuel	Energy Procedia Journal ,Elsevier Publications, 105 (2017) 350 – 357
5	S.Abhinav Shankar, A.U.Meenakshi Sundareswaran	Early Injected PCCI engine fueled with Bio Ethanol and Diesel blends – An Experimental Investigation	Energy Procedia Journal,Elsevier Publications,105 (2017) 358 – 366.
6	K.Akash Trasy, N.Srihari, S.Raja	Effects of Injection Timing on CI Engine fueled with Algae oil blend with Taguchi technique	Energy Procedia Journal, Elsevier Publications,105 (2017) 1043 – 1050.

B) Research Presentations by students in National and International Conferences/ Symposiums/ Workshops:

Sl. No.	Name of Student	Name of the Conferences/ symposiums/ workshops	National/ International	Venue	Date
1	Muhammad Zishan P. R	Fuzzy set and its applications in science and Engineering	National Seminar	SVCE	14 Feb, 2017
2	Ashwin Muthiah M	Quality risk management I small and medium enterprises	International conference	IOSRD, Chennai	10-11 Feb, 2017
3	Akash raj S	-do-	-do-	-do-	-do-
4	Ajith Kumar V	-do-	-do-	-do-	-do-
5	Siva prakash M	Project presentation	Symposium	Pannimalar engineering college	11 Feb, 2017
6	Siva prakash M	Project Expo	Symposium	Chennai Institute of Technology, Chennai	Mar 2017
7	Siva prakash M	Project Display	Symposium	MIT, Chromepet	4 Mar, 2017
8	Sudarsan B	Project Display	Symposium	MIT, Chromepet	4 Mar, 2017
9	Sudarsan B	Project presentation	Symposium	Pannimalar engineering college	11 Feb, 2017
10	Arunram S P	Evolution of Green and Materials Processing Technology	National conference	SVCE	2-3 Mar,2017
11	Karthick Thangaraj D	Autotrix, Construction Project Management	National Workshop	NIT, Trichy	2-5 Mar, 2017

12	Syed Mohammed Hussain	Mechanical Vibration, Mitigation Approaches and Measurement Techniques for Structural Applications	State level Workshop	SVCE	30 Mar 2017
13	Arunram S P	Mechanical Vibration, Mitigation Approaches and Measurement Techniques for Structural Applications	State level Workshop	SVCE	30 Mar 2017
14	D Dinesh	Recent Innovation and Trends in Mechanical Engineering NCRITME17	National conference	Rajalakshmi Institute of Technology,	23-24 Mar, 2017
15	C Dinesh	Recent Innovation and Trends in Mechanical Engineering NCRITME17	National conference	Rajalakshmi Institute of Technology,	23-24 Mar, 2017

D) National and International Conferences/ symposiums/ workshops attended by the students:

Sl. No.	Name of Student	Name of the Conferences/ symposiums/ workshops	National/ International	Venue	Date

4) Sponsorship details of faculty and students:

A) Faculty sponsored for presentation in National Conferences/ symposiums/ workshops: Nil

Sl. No	Name of the Faculty	Date	Title of the Paper	Name of the Conferences/ symposiums/ workshops	Venue	Sponsorship Amount(Rs.)

B) Faculty sponsored for presentation in International Conferences/ symposiums/ workshops: Nil

Sl. No.	Name of the Faculty	Date	Title of the Paper	Name of the Conferences/ symposiums/ workshops	Venue	Sponsorship Amount(Rs.)

C) Faculty sponsored for attending National Conferences/ symposiums/ workshops: Nil

Sl. No	Name of the Faculty	Date	Name of the Conference/ symposium/ workshop	Venue	Sponsorship Amount(Rs.)

II) Sponsorship for Students:

A) Students sponsored for presentation in National Conferences/ symposiums/ workshops: Nil

Sl. No.	Name of the Faculty	Date	Title of the paper	Name of the Conference/ symposium/ workshop	Venue	Sponsorship Amount(Rs.)

B) Students sponsored for presentation in International Conferences/ symposiums/ workshops: Nil

Sl. No.	Name of the Faculty	Date	Title of the paper	Name of the Conference/ symposium/ workshop	Venue	Sponsorship Amount(Rs.)

C) Students sponsored for attending national Conferences/ symposiums/ workshops: Nil

Sl. No.	Name of the Faculty	Date	Name of the Conference/ symposium/ workshop	Venue	Sponsorship Amount(Rs.)

5) Research cell(s) /area(s) of research in the department:

Faculty members carry out research in the following fields:

Fluid Mechanics & Machinery, Heat & Mass transfer, Thermodynamics, Composite Materials, Machinability study, Optimization, Tribology, Mechanical behaviour of Engineering Materials, Vibration, I C engines, Heat transfer equipments, Super plastic formation, Friction stir welding, Non-ferrous metal joining processes, metal matrix composites, tribological characterization, multi-layer coating, FEM, Material Characterization, Surface Engineering, Polymeric Materials, Metal Casting, Fluid Power, Mechatronics.

6) Consultancy work in the department:

- [i] Thermal Engineering lab = Rs. 18,4970.00 (Rupees Eighteen thousand four hundred and seventy only.)
- [ii] Vibration Laboratory = Rs. 5000.00 (Rupees Five thousand only.)
- [iii] FRP Cell = Rs. 17500.00 (Rupees Seventeen thousand five hundred only.)

7) Patent information:

Filled an Indian patent by Dr.KEK Vimal via application No. TEMP/E1/43381/2016-CHE for
“WATER EFFICIENT SPRINKLER FOR IRRIGATION OF NONCIRCULAR FIELD”

Research Coordinator

Head of the Department