

Research Activity Report (January 2018 – June 2018)

1. Research activities of the faculty members:

Number of faculty in the Department : 38

Number of faculty with PhD qualification : 17

Number of faculty pursuing PhD : 12

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

Sl. No.	Name of Authors	Title of Paper	Journal Name, Vol. No. Page No. ISSN & Impact Factor
1	S.Saravanan	Effective utilization of waste plastic oil in a direct injection diesel engine using high carbon alcohols as oxygenated additives for cleaner emissions	Energy Conversion and Management 166,(2018):pp.81–97 (Impact factor: 5.589)
2.	S. Yeshwant Raj, K. Karthee, S. Kalyana Sundaram, M. Nishal and K. Ram Prasad	Increasing reliability and productivity in hypermarkets by queuing theory analysis and a smart shopping cart-based system	International Journal of Business Excellence Vol.14, No.4, (2018) DOI: 10.1504/IJBEX.2018.090317 (Impact factor: 0.81 ANNEXURE: I)
3	N.Muthukrishnan M.Naresh babu	Experimental analysis in drilling of AA 5052 using copper nanofluids under minimum quantity lubrication	Australian journal of Mechanical Engineering, 2018 DOI:10.1080/14484846.2018.1455267
4	K.Ganesan, M.Naresh babu, M.Santhana kumar, N.Muthukrishnan	Experimental investigation of copper nanofluid based minimum quantity lubrication in turning of H 11 steel	Journal of the Brazilian society of Mechanical sciences and engineering 2018 DOI:10.1007/S40430-018-1093-9
5	Santhana kumar Muthuvel, M.Naresh babu, N.Muthukrishnan	Copper nanofluids under minimum quantity lubrication during drilling of AISI 4140 Steel	Australian journal of Mechanical Engineering, 2018 DOI:10.1080/14484846.2018.1486694
6	K Govindaraj and M Prem Ananth,	Analytical Investigation of Dimple Geometry and DLC Coating with Chromium Interlayer on Various Substrates Using Pin on Disc Test Conditions	International Journal of Innovative Research Explorer Volume 5, Issue 5, May/2018, Issn No: 2347-6060.
7.	Dr.R.Ramesh, C.Senthamaraikanan,	Evaluation of Mechanical and Vibration Behavior of Hybrid Epoxy Carbon Composite Beam Carrying CTBN Rubber And Nano Silica Particulates	Proceedings of the Institution of Mechanical and Applications Engineers, Part L: Journal of Materials Design, Sage Publications, Accepted for Publication.2018, doi/10.1177/1464420718784315

8	N Sankara Manikandan P V Lakshman Ramesh Rajesh and P Raghu	Optimization of Fuel In Diesel Engines	International Journal of Science And Innovative Engineering & Technology, May 2018 Issue Vol1
9	P. Raghu, A.J Arun Theja, G. Ashwin Raj, T.G Adithya Arvind	Study of Spray Breakup Regimes of Preheated Biodiesel Fuel	International Journal of Engineering Research in Mechanical and Civil Engineering (IJERMCE) Vol 3, Issue 2, February 2018, pp150-154, impact factor 3.8,
10	A.Rajaraman, V.Subash, surendar.K P. Raghu,	Optimisation of spray characteristics of Response surface methodology	International Journal of Modern trends in Engineering Science, Vol.5, Issue 3, pp 1-3, impact factor 4.64
11	P. Vengatesh, P. Raghu N. Nallusamy	Spray Characteristics of Diesel Fuel Using Numerical Simulation	International Research Journal of Engineering and Technology (IRJET) Volume: 05 Issue: 04 Apr-201 pp.1072-1074,,Impact Factor value: 6.171
12	M.Dyanesh, Nishanth Paul.V, Girish Ethiraj P Raghu	Numerical Simulation for Spray Characteristics of Diesel and Biodiesel fuel	International Research Journal of Engineering and Technology (IRJET) Volume: 05 Issue: 03, Apr-2018 ,pp.2812-2815 Impact Factor value: 6.171
13	S. Ponnuvel M. Prem Ananth	Effect of Specific Surface Area of MWCNTS on Surface Roughness and Delamination in Drilling Epoxy/Glass Fabric Composite	Material Research Express, Vol.5 No.3, March 2018, ISSN no.2053-1591, Impact Factor: 1.151

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

Sl. No	Faculty Name	Title of Paper	Conference Details	Venue
1	K Govindaraj and M Prem Ananth,	Analytical Investigation of Dimple Geometry and DLC Coating with Chromium Interlayer on Various Substrates Using Pin on Disc Test. Conditions.	International conference on “Green Manufacturing, Analysis, Automation, Processes, products, Energy & Structures”	Rajalakshmi Engineering College, Chennai on 28 th and 29 th March, 2018.
2	K Govindaraj and M Prem Ananth	Effect Of Dimple Geometry And Wear Performance Of Dlc Coating On Uni-Directional Sliding Contact Conditions	“International conference on Automobile Marine and Mechanical Engineering (ICAMME-2018)	Sri Venkateswara College of Engineering, Chennai on 4 th and 5 th May, 2018.

3	Senthil Kumar A, Sandeep Raghavan T, Sathya Sai Prasath R.N, Govindaraj K, Dr. Prem Ananth M	Tribological Study Of Coated Non Ferrous Alloy Substrate	International conference on Automobile Marine and Mechanical Engineering (ICAMME-2018)	Sri Venkateswara College of Engineering, Chennai on 4 th and 5 th May, 2018.
4	Karthee K, Vishal Sankar, Yeshwant Raj S	Improvement of Overall Performance of Micro/Small Scale Industries (MSSI) using Multi-Criteria Decision Making (MCDM)	2nd International Conference on Advances in Mechanical Engineering (ICAME 2018)	SRM Institute of Technology and Science 22-24th March 2018
5	P. Raghu P. Vengatesh N. Nallusamy	Simulation of Spray Characteristic fuelled with diesel	International conference on advanced in Engineering and technology, ICAET- 2018	Karpagam Academy of higher Education, Coimbatore, March 8 and 9th 2018
6	P. Raghu, A.J Arun Theja, G. Ashwin Raj, T.G Adithya Arvind	Study of spray breakup regimes of preheated biodiesel fuel	International conference on mechanical and production Engineering (ICMPC- 2018	Science society, chennai, 17th February-208
7	P.Raghu, R.Sundarrajan, R.Rajaraman M.Ramaswamy,S. Sathyanaryanan	Heat transfer Investigation on a Single Cylinder Diesel Engine using Diesel and Biodiesel	International conference on Automobile Marine and Mechanical Engineering (ICAMME-2018)	Sri Venkateswara College of Engineering, Chennai on 4 th and 5 th May, 2018.
8	A.Anish M.Ananth Kumar	Characterization of Aluminium Matrix reinforced with Tungsten Carbide and Molybdenum disulphide Hybrid Composite.	2nd International Conference on Advances in Mechanical Engineering (ICAME 2018)	SRM Institute of Technology and Science 22-24th March 2018

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

Sl. No.	Faculty Name	Date	Title of Event	Venue
1.	Dr.M.Ananth Kumar	14-18 May 2018	Powder X-Ray Diffraction, Theory,Practical and Applications	QIP Centre, IISc Bangalore.
2.	K.Kathee	27 & 28th March 2018	National workshop on green energies and vehicles for sustainable Environment	SVCE, Chennai

3.	S.Yeshwant Raj	27 & 28th March 2018	National workshop on green energies and vehicles for sustainable Environment	SVCE, Chennai
4.	M.Balakumar	27 & 28th March 2018	National workshop on green energies and vehicles for sustainable Environment	SVCE, Chennai
5.	Dr.C.Senthamarai kannan	21st to 23rd June 2018	Three Days Hands training on Machine Learning using Python	Sri Ramakrishna Engineering College Coimbatore
6.	P.Raghu	27 & 28th March 2018	National workshop on green energies and vehicles for sustainable Environment	SVCE, Chennai
7.	M.Balakumar	7th to 11 th May 2018	Industrial Training in process control, Low cost Automation, Machine Maintenance.	Western Thomson (India) Limited, Gummidipoondi

2) Departmental research activities:

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

Sl.No.	Coordinator/ Faculty Name	Title of Event	Dates
1	Dr.S.Ramesh Babu Dr.M.Mohandass Dr.KEK.Vimal	International Conference On Automobile, Marine And Mechanical Engineering	4-5 May 2018.
2	Dr.S.Saravanan	National Workshop On Green Energies And Vehicles For Sustainable Environment 2018	27-28 March 2018
3.	Dr.S.Ramesh Babu Dr.T.Raja Mr.G.Suresh Mr.Nishal M Mr.Ram Prasath	Career Awareness	07/02/2018
4.	Dr.S.Ramesh Babu Dr.T.Raja Mr.G.Suresh Mr.Nishal M Mr.Ram Prasath	Career Building	13/02/2018
5.	Dr.S.Ramesh Babu Mr.G.Suresh	Energy Conservation And Green Buildings	16/02/2018
6.	Dr.S.Ramesh Babu Mr.Maheswaran	An Introduction in Hypermesh	20/02/2018.

7	Dr.S.Ramesh Babu Dr.C.SenthamaraiKannan	What The Industry Expects From Me As An Engineer And What I Can Expect In Return	20/02/2018
8	Dr.S.Ramesh Babu Dr.T.Raja Mr.G.Suresh Mr.Nishal Mr.Ram Prasad	IOT for Mechanical Engineers	28/03/2018

B) Ongoing funded projects in the in the Department:

Sl. No.	Name of the Project	Funding Agency	Amount	Project Coordinators
1.	Surface Modification of Light Metal Substrates Through Laser Texturing and Surface Coating for Enhanced Service Life	AICTE - RPS	Rs.17,94,118/-	Dr. M. Prem ananth Dr. S. Ponnuvel
2.	Machinability Studies On High Strength Temperature Resistance Alloys Using Vertical Machining Center	AICTE - MODROBS	Rs. 7,00000/-	Dr. S. Ramesh Babu Dr. S. Ponnuvel

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

Sl. No	Title of Project	Funding Agency	Amount applied (Rs)	Project Coordinators
1	Enhancing Tribological Properties and Biocompatibility of Articulating Joint Implants Through Surface Modifications	SERB	33,79,800	Dr. S. Ilaiyavel Dr. M. Mohandass
2	Mechanical Behavior of Hybrid Polymer Composites	SERB	32,40,000	Dr.T.Raja, Mr.G.Kirubakaran
3	Parametric analysis of Wire cut Electric Discharge Machining (EDM) of Aluminium hybrid Metal Matrix Composites (MMC).	SERB	11,82,050	Dr.N.Muthukrishnan Mr.M.Kalaimani
4	Experimental forced vibration study on simplified physical structural model made up of nano:graphite/clay/rubber particulates blended, carbon-epoxy functional composite, for machine tool structural applications	SERB	29,50,130	Dr.R.Ramesh, Dr.C.SenthamaraiKannan

5	Experimental and Numerical Simulation of Heat transfer Investigation in a Modern Diesel engine using diesel and biodiesel fuel.	SERB	12,30,000	Dr.P.Raghu Dr.K.Pitchandi
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D) Research centre status of the department:

- Our department research centre 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 Student	Title of Paper	Journal Details
1.	Rahul R, Tanishq Philip Alexander Rinkkesh and Vikram H	“Structural Analysis of Exoskeleton Model through Human Synchronzation Parameters	International journal of bioscience, biochemistry and bioinformatics

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

Sl. No.	Name of Student	Name of Event	National/ International	Venue	Date
1	Tanishq Philip Alexander	ICRIS 2018	International conference	Netherlands	21-23 Feb 2018
2	Rahul Rajan	ICRIS 2018	International conference	Netherlands	21-23 Feb 2018
3	Goutham D	ICBMSI	International conference	Chennai	27 May 2018
4	Sharan P	ICFM 2018	International conference	Kancheepuram	25-26 June 2018

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 Paper	Name of the Conferences/ symposiums/ workshops	Venue	Sponsorship Amount(Rs.)

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

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

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

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

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

Sl. No	Name of the Student	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.58590/-

[ii] Machine Shop = Rs.6254/-

[iii] TAFE Training = Rs.65000/-

[iv] FRP Cell = Rs.17433/-

[v] Western Thomson =Rs.50000/-

7) Patent information:

Sl.No.	Name of Applicant	Title of Patent	Date
1.	Mr.M.Sivaprakash, UG Student/ME Dr.KEK Vimal,AP/ME	Mesquite Tree Destroyer	02/02/2018
2.	Dr.KEK Vimal,AP/ME	Design and development of automated 3D printer using IOT and adaptive control for mass production	11/04/2018
3.	Dr.R.Ramesh,Prof/ME Dr.C.Senthamaraiann,AP/ME	Design and development of higher order device with adjustable deflection corrective mechanism	27/04/2018
4.	Mr.Arunram, UG Student/ME	Edible and Biodegradable packaging Film	28/6/2018

**Research Coordinator
(Dr.M.Ananth Kumar)**

**Head of the Department
(Dr.S.Ramesh Babu)**