

## Research Activity Report (July 2017- December 2017)

### 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 : 10

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

Sl. No.	Name of The Faculty(All Coauthors)	Title of The Paper	Name of The Journal Vol. No, Pages, Issn No. And IF
1	M. Prem Ananth, R. Ramesh	Sliding Wear Characteristics Of Solid Lubricant Coating On Titanium Alloy Surface Modified By Laser Texturing And Ternary Hard Coatings	Trans. Nonferrous Met. Soc. China 27(2017) 839–847 Issn No:1003-6326 Impact Factor=1.523
2	N.Muthukrishnan M.Naresh Babu	Exploration Of Kerf Angle And Surface Roughness In Abrasive Water Jet Machining Using Response Surface Method	Journal Of The Institute Of Engineers (India) Series C (2017) Doi.Org/10.1007/S40032-017-0366-X
3	N.Muthukrishnan M.Naresh Babu	Experimental Estimation Of Minimum Quantity Lubrication In Turning On AISI 410 Stainless Steel	International Journal Of Machining And Machinability Of Materials Vol:19,No:6 2017 Pp 522 -537
4	S. Yeshwant Raj, Sughosh S.D & Sedhuraman M.J	Prioritizing Critical Factors For Establishing An Automotive Component Manufacturing Facility: An AHP-Pareto Approach	Journal Of Advanced Research In Dynamical And Control Systems 11 (July 2017) Pp.448 - 459
5	Pitchandi K Mothilal T	Computational Fluid Dynamic Analysis On The Effect Of Particles Density And Body Diameter In A Tangential Inlet Cyclone Heat Exchanger	Thermal Science , Vol. 21, No. 6b Pp. 2883-2895 Year 2017 Impact Factor: 1.093
6	P.Raghu S. Krishna Sagar R. Sabarinath M. Gowtham A.K.Boobalasantilraj	Optimisation Of Spray Parameters Of Diesel And Biodiesel Fuels Using Multi-Response Signal To Noise (Mrsn)Ratio	International Journal Of Science And Innovative Engineering & Technology
7	P.Raghu Ganesh Kumar. S Pitchandi. K Nallusamy. N	Spray Characteristics Of Chicha Oil Methyl Ester Anddiesel Fuel In A Constant Volume Chamber	International Journal Of Advanced Research In Basic Engineering Sciences And Technology Impact Factor 5.023
8	P.Raghu S. Krishna Sagar R. Sabarinath M. Gowtham A.K.Boobalasantilraj	Experimental Investigation On Fuel Spray Parameters And Characteristics Of Diesel And Bio-Diesel Blend	International Journal Of Advanced Research In Basic Engineering Sciences And Technology (Ijarbest) Impact Factor 5.023
9	S.Natarajan Abhinav Shankar	Early Injected Pcci Engine Fuelled With Bio Ethanol And Diesel Blends-An Experimental Investigation	Energy Procedia, Volume:105, May 2017,Page.No:358-366, Issn No: 1876-6102 Impact Factor:1.16

10	S.Natarajan Akshaykumar	Computational Analysis Of An Early Direct Injected Hcci Engine Fuelled With Bio Ethanol And Diesel Blends	Energy Procedia, Volume:105, May 2017, Page.No:350-357, Issn No: 1876-6102 Impact Factor:1.16
11	S.Natarajan Akashtrasy Srihari.N Raja.S	Effects Of Injection Timing On Ci Engine Performance Fuelled With Algae Oil Blend Using Taguchi Analysis	Energy Procedia, Volume:105, May 2017, Page.No:1043-1050, Issn No: 1876-6102 Impact Factor:1.16
12	B. 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	(2017) Fuel 199, Pp. 670–683 (Impact Factor :4.601)
13	S. Saravanan B. Rajesh Kumar A. Varadharajan D. Rana Balaji Sethuramasamyraj G. Lakshmi Narayana Rao	Optimization Of Di Diesel Engine Parameters Fueled With Iso-Butanol/Diesel Blends – Response Surface Methodology Approach	Fuel 203 (2017) 658–670 (Impact Factor :4.601)
14	B. Rajesh Kumar S. Saravanan	Diesel Reformulation Using Bio-Derived Propanol To Control Toxic Emissions From A Light-Duty Agricultural Diesel Engine	Environmental Science And Pollution Research 2017 Jul;24(20):16725-16734, Impact Factor :2.760
15	S.Ilayavel K.Senthilnathan	Experimental Investigation Of Polymer Matrix Composite Gears With Different Fiber Proportions	International Journal Of Advanced Research In Management ,Architecture, Technology And Engineering (Ijarmate) Vol.3, Special Issue 9, March 2017 ,Page 80-84, Issn:2454-9762 Impact Factor:40231
16	S.Ramesh Babu, M. Nithin, S. Pavithran, B. Parameshwaran	Friction Stir Spot Welding Of Az31b Magnesium Alloy”	Applied Mechanics And Materials Journal, Vol. 867, Pp 105-111 Issn: 1662-7482 (2017)
17	S. Ramesh Babu & K. Thirumalai Kannan	Tribological Behavior Of Modified Jojoba Oil With Graphene Nanoparticle As Additive In Sae20w40 Oil Using Pin On Disc Tribometer	Energy Sources, Part A: Recovery, Utilization And Environmental Effects, Vol. 39, Issue 17, Pp. 1842 – 1848, Issn 1556-7036. (2017)

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

Sl. No.	Name of the Faculty	Title of the Paper	Conference Details	Venue
1.	Dr.K.S.Badrinathan	Participation	International conference on Manufacturing Technology and Simulation held on 7, 8 July 2017	Indian Institute of Technology, Madras, Chennai

2.	Mr.S.Gopinath	Risk Assessment of Suppliers (SMEs) from Customer Perspective by Cluster Analysis	International conference in Science , Technology and Management held on 16-17 Sept 2017	NUS, Singapore
3.	Dr.M.Mohandass	Participation	Asian Symposium on Computational heat transfer, 2017	Indian Institute of Technology, Madras, Chennai
4.	Dr.M.Gajendiran			
5.	Mr.S.Arumugam			

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

Sl. No.	Name of the Faculty	Date/ Duration	Title of the FDP/Workshop	Venue
1	Dr.K.S.Badrinathan	23,24 August 2017	Two day workshop on 'Restructuring and Redesigning the Higher Education Curriculum to Meet Industry Needs'	Jeppiar Engineering College, Chennai.
2	Mr.S.Arumugam	24/08/2017	One day national level workshop on "Optimisation techniques"	Kings Engineering College, Sriperumbudur – 602117
3	Mr.S.Gopinath	24/08/ 2017	One day national level workshop on "Optimisation techniques"	Kings Engineering College, Sriperumbudur – 602117
4	Mr.S.Gopinath	21/09/2017 to 23/09/2017	Hands on workshop on innovative design & Manufacturing Education	IIITDM, Kanchipuram
5	Mr.V.Senthivelan	22/09/2017 to 23/09/2017	Fabrication and Characterisation of Advanced composites	Selvam College of Technology, Namakkal
6	Dr.S.Ilayavel	11/9/2017 to 15/9/2017	Entrepreneurship Faculty Educator Program	Entrepreneurship Development Institute, Chennai
7	Mr.V.Senthivelan	11/9/2017 to 15/9/2017	Entrepreneurship Faculty Educator Program	Entrepreneurship Development Institute, Chennai

8	Mr.V.Sridharan	12/10/2017 to 13/10/2017	AICTE Sponsored National Seminar on Environmental Friendly Material Processes for Surface Engineering	Panimalar Engineering College, Chennai
9	Mr.A.Kumarasamy	29/10/2017 to 11/11/2017	AICTE Sponsored FDP on Industrial Hydraulics and Pneumatics	PSG Tech, Coimbatore.
10.	Dr.S.Ponnuvel	July – August 2017	NPTEL course on Spur and Helical Gear Cutting	Online Portal, NPTEL
11.	Mr.M.Arulkumar	29/10/2017 to 05/11/2017	AICTE Sponsored short term course on “ Material Chemistry: solids, Nanomaterials and Semiconductors’	Centre for Continuing Education, IITM, Chennai
12.	Dr.M.Ananth Kumar	30/10/2017 to 12/11/2017	AICTE Sponsored FDP on Current Scenario in Advanced Material Science & Engineering	Coimbatore Institute of Technology, Coimbatore.
13.	Dr.R.Ramesh	10/11/2017 & 11/11/2017	AICTE Sponsored Two day National level Seminar on Vibration and Noise Engg	Dr.Mahalingam College of Engineering and Technology,Coimbatore
14.	Dr.C.Senthamarai kannan	10/11/2017 & 11/11/2017	AICTE Sponsored Two day National level Seminar on Vibration and Noise Engg	Dr.Mahalingam College of Engineering and Technology,Coimbatore
15.	Dr.R.Ramesh	27/11/2017 to 1/12/2017	Engineering Metallurgy	Mepco Schlenk Engg College,Sivakasi.
16.	Dr.C.Senthamarai kannan	27/11/2017 to 1/12/2017	Engineering Metallurgy	Mepco Schlenk Engg College,Sivakasi.
17.	Mr.S.Arumugam	06/11/2017 to 21/11/2017	AICTE Sponsored two week Faculty development program on Theory and performance evaluation of Automotive vehicle subsystems using Modern Tools and Equipment	Department of Automobile Engg, Sri Venkateswara College of Engineering, Sriperumbudur – 602117
18.	Dr.P.Raghu			
19.	Dr.S.Natarajan			
20.	Mr.A.KIrubakaran			
21.	Mr.G.Suresh			
22.	Dr.M.Gajendiran			
23.	Dr.V.Sridharan			

24.	Mr.G.Logachandar			
25.	Mr.M.Maheswaran			
26.	Mr.R.Kaliyanasund ar			
27.	Dr.R.Ramesh	24/11/2017 & 25/11/2017	AICTE Sponsored seminar on Challenges and Recent Developments in Welding of Non-Ferrous Alloys	Department of Mechanical Engg, Sri Venkateswara College of Engineering, Sriperumbudur – 602117
28.	Dr.S.Ilaiyavel			
29.	Dr.M.Mohandass			
30.	Dr.M.Premananth			
31.	Dr.S.Ponnuvel			
32.	Dr.C.Senthamarai kannan			
33.	Dr.V.Sridharan			
34.	Dr.S.Natarajan			
35.	Mr.R.kaliyanasund er			
36.	Mr.M. Muniraj			
37.	Mr.V.Senthilvelan			
38.	Mr.E.Suresh			
39.	Mr.M.Kumarasamy			
40.	Mr.M.Kumarasama y			
41.	Mr.G.Suresh	27/11/2017 to 1/12/2017	Internal Combustion Engines under QIP of AICTE, New Delhi	Indian Institute of Science, Bangalore
42.	Dr.S.Natarajan	1/12/2017 to 2/12/2017	Two day workshop on Application of CFD in Science & Engineering	R.M.K College of Engineering and technology, R.S.M nagar, Pudevoyal- 601206

**2) Departmental research activities:**

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

Sl. No.	Faculty member	Programme details	Dates
1	Dr.S.Rameshbabu, HoD/ME Mr.M.Maheswaran	AICTE Sponsored Seminar on “Challenges and Recent advances in welding of non-ferrous metals”	24/11/2017 & 25/11/2017
2	Dr.M.PremAnath	CREO 3 Training Program	17/08/2017 & 18/08/2017
3	Mr. Venkataramanan B, Asst. General Manager & Head Specification Management team, Hyundai Motor India limited, Chennai	Engineer Your Life Engineer The Nation	14/07/2017
4	Mr. N.Sridhar, Director, TESPATools PVT LTD, Anna Nagar, Chennai - 600 102	Metrology In Industries	04/08/2017
5	Dr. C. Balaji, Professor, Department of Mechanical Engineering, IIT MADRAS	A Non-Technical Introduction To Energy Conversion	23/08/2017
6	Dr. S. Aravindan Professor, Department of Mechanical Engineering, IIT Delhi	Nano Manufacturing	28/08/2017
7	Dr.Karthik Silaipillayarputhur, Assistant Professor, King Faisal University, Al Ahsa, Kingdom of Saudi Arabia	Maintenance Engineering In Process Plants	28/08/2017
8	Dr.Sabuj Mallik, Professor, UNIVERSITY OF DERBY	Advances In Motorsport Engineering,	30/08/2017
9	Mr.K.V.Ramanan General Manager Western Thomson India Ltd, Chennai	Prominence Of Quality In The Contemporary Industrial Scenario	26/10/2017

**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. 7,00,000/-	Dr. S. Ramesh Babu Dr. S. Ponnuvel

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

Sl. No.	Name of the Project	Funding Agency	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	DST	Rs.51, 00,000/-	Dr.P.Raghu Dr.K.Pitchandi

**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

**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	Dyanesh M	National Conference on Waste to Energy, Carbon Capture & Storage	National Conference	NIT Rourkela	3-5 Aug, 2017
2	Karthick	-do-	-do-	-do-	-do-
3	Raghul vaidya G,	International Conference on Innovative Research in Science, Technology and Management	International Conference	NUS Singapore	16-17 Sept 2017.
4	Vikram H	-do-	-do-	-do-	-do-
5	Vaskhua Mithran	-do-	-do-	-do-	-do-
6	Rinkkesh V	International conference at Emirates Research Publishing	International Conference	Emirates	28-30 Sep 2017
7	Sooraj Narayanan S	-do-	-do-	-do-	-do-
8	Ramanathan N	-do-	-do-	-do-	-do-
9	Dyanesh M	International Conference on Advances in Energy Research	International Conference	IIT Bombay	12-14 Dec 2017
10	Karthick R	-do-	-do-	-do-	-do-

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

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/participation in International Conferences/ symposiums/ workshops:**

Sl. No.	Name of the Faculty	Date	Title of the Paper	Name of the Conferences/ symposiums/ workshops	Venue	Sponsorship Amount(Rs.)
1	Dr.M.Mohandass	10-13, Dec 2017	-NA-	Asian Symposium on Computational heat transfer and Fluid Flow	IIT Madras	Rs.4500/-
2	Dr.M.Gajendiran	-do-	-do-	-do-	-do-	-do-
3	Mr.S.Arumugam	-do-	-do-	-do-	-do-	-do-

**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 the paper	Name of the Conference/ symposium/ workshop	Venue	Sponsorship Amount(Rs.)

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

Sl. No.	Name of the Student	Date	Title of the paper	Name of the Conference/ symposium/ workshop	Venue	Sponsorship Amount(Rs.)
1	Vikram H	16-17 Sept 2017	Risk Assessment of Suppliers (SMEs) from Customer's Perspective by Cluster Analysis	International Conference on Innovative Research in Science, Technology and Management	NUS Singapore	Rs.43639/-



2	Dyanesh M	12-14 Dec 2017	Optimization of spray characteristics of biodiesel fuel by varying injection pressure using taguchi method	International Conference on Advances in Energy Research	IIT Bombay	Rs.4720/-
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**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. 41,910.00 (Rupees Fourty one thousand nine hundred and ten only.)

[ii] Machine Shop = Rs. 4,750.00 (Rupees Four thousand seven hundred and fifty only.)

[iii] CAD/CAM laboratory = Rs. 23,400.00 (Rupees Twenty three thousand four hundred only.)

**7) Patent information:**

-Nil-

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

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