

Research Activity Report (July 2016- Dec 2016)

1. Research activities of the faculty members:

Number of faculty in the Department : 39
 Number of faculty with PhD qualification : 15
 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	S.Yeshwant Raj, Himanshu Gupta	Systematic retrofit methodology for chemical batch processes to improve economic and production performance	Int. J. Business excellence, vol. 10, no. 2, 2016, International journal of business excellence, Inderscience publications
2	S.Yeshwant Raj, P Selva Kumar, R Sairam, G Sathish	A Quantitative Analysis of 3PL Providers and Their Workload in Automotive Industries	Middle-east journal of scientific research 24 (s1): 149-154, 201, Idosi publications, 2016
3	S.Arumugam, K.Pitchandi, J.Venkatesan, P.Karthikselvan	Experimental and mathematical modeling in a DICI engine with Spherical and Toroidal combustion chambers	TIDEE (TERI Information Digest on Energy and Environment) Volume: 15, Issue: 1 (online August 2016), pp: 11-17.
4	S.Arumugam, K.Pitchandi, P.Karthikselvan R.J.Ganesh	Design and fabrication of High pressure Diesel spray Chamber	Middle East Journal of Scientific Research (MEJSR) Volume: 24, Issue: 9, pp: 2948-2951. September 2016.
5	S.Arumugam, K.Pitchandi, P.Karthikselvan	Experimental and mathematical modeling in a DICI engine with various combustion chambers	Journal of Chemical and Pharmaceutical Sciences Volume: 9, Issue: 2, pp: 809-812. April - June 2016.
6	B.Rajesh Kumar, T.MuthuKkumar, V.Krishnamoorthy, S.Saravanan	A Comparative Evaluation and optimization of performance and emission characteristics of a DI diesel engine fueled with n-propanol/diesel, n-butanol/diesel and n-pentanol/diesel blends using response surface methodology	RSC Advances. Volume: 6, 19 June 2016
7	B.Rajesh Kumar, S.Saravanan, D.Rana, A.Nagendran	Combined effect of injection timing and exhaust gas recirculation (EGR) on performance and emissions of a DI diesel engine fuelled with next-generation advanced biofuel-diesel blends using response surface methodology	Energy Conversion and Management, Volume: 123, pp: 470-486. (2016)

8	B.Rajesh Kumar, S.Saravanan , D.Rana, A.Nagendran	Use of some advanced biofuels for overcoming smoke/NOx trade-off in a light-duty DI diesel engine	RenewableEnergy; Volume:96, pp: 687-699. (2016)
9	B.Rajesh Kumar, S.Saravanan , R.Niranjan Kumar, B.Nishanth, D.Rana, A.Nagendran	Effect of lignin-derived cyclohexanol on combustion, performance and emissions of a direct-injection agricultural diesel engine under naturally aspirated and exhaust gas recirculation (EGR) modes	Fuel; Volume:18, pp: 630–642. (2016)
10	B.Rajesh Kumar, S.Saravanan , D.Rana, A.Nagendran	A comparative analysis on combustion and emissions of some next generation higher-alcohol/diesel blends in a direct-injection diesel engine	Energy Conversion and Management; Volume:119, pp: 246–256. (2016)
11	B.Rajesh Kumar, S.Saravanan , D.Rana, V.Anish, A.Nagendran	Effect of sustainable biofuel –n-octanol- on the combustion, performance amd emissions of a DI diesel engine under naturally aspirated and exhaust gas recirculation (EGR) modes	Energy Conversion and Management; Volume: 118, pp: 275–286. (2016)
12	B.Rajesh Kumar, S.Saravanan	Partially premixed low temperature combustion using dimethyl carbonate (DMC) in a DI diesel engine for favourable smoke/NOx emissions	Fuel; Volume:180, pp: 396–406. (2016)
13	S.Gopinath , M.Ramanathan, N.Arul Sankar, K.Narasimhan	Supply Chain Issues in Medium Scale Autocomponent Manufacturers: Case Study Approach	Middle-East Journal of Scientific Research. pp:245-249, 2016, ISSN: 1990-9233
14	P.Raghu , N.Nallusamy	Spray Characteristics of Biodiesel Fuel in Constant Volume Chamber using Multi-response Optimization Technique	Journal of Thermal Science. Volume: 25, pp: 581-588. May 2016
15	P.Raghu , R.Parthiban, K.Pitchandi, N.Nallusamy	Multi response optimization of spray characteristics of biodiesel in constant volume chamber	Journal of Chemical and Pharmaceutical Research, 2016. ISSN: 0975-7384. Pp: 726-732. Volume: 8(2)
16	S.Ponnuvel , T.V.Moorthy, P.Hariharan	Effect of Multi-Walled Carbon Nanotubes on Surface Roughness and Material Removal Rate in Drilling Epoxy/Glass Fabric Composite	Journal of the Balkan Tribological Association. Volume: 22. 2016
17	J.Raju, A.Balasubramaniam, M.Gajendiran , N.Madhan Raj	Investigation of Performance and Emission Characteristics using Low Reactivity Fuel and Biodiesel Blended Nanoparticles in Diesel Engine	International Journal of Engineering Research and Technology. Volume:5, 03 March 2016, ISSN:2278-0181
18	M.Arulkumar T.Arjun	Design of Single Axis Solar Tracking System Using PLC	Middle-East Journal of Scientific Research 24 (S2): 01-05, 2016 ISSN 1990-9233IDOSI Publications, 2016

19	M.Arulkumar Vijey V.S Uthish Shankar.S	Design And Analysis of A Three Fingere d Robotic Arm	International Journal of Advanced Technology in Engineering and Science, Vol.No.4, Issue No.08, Aug- 2016, ISSN 2348-7550
20	Sakthivel.K , Prem Ananth.M	Analytical Investigation of Tribological Performance of DLC Coating	IJETST- Vol.03, Issue 03, Pages 24-27, March 2016, ISSN 2348- 9480

**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	Arulkumar M	Design And Analysis of A Three Fingere Robotic Arm	4th International Conference on recent trends in Engineering Science and management (ICRTESM- 2016)	07/08/2016
2	Arulkumar M	Investigation on Mechanical Property Evaluation of Sisal- Glass Fiber Reinforced Composites	International Conference on Advances in Mechanical and Material Science 2016	27~28 Aug 2016
3	Saravanan S	Comparison of factors influencing NOX emission of a stationary diesel engine fuelled with diesel and biodiesel blend	International Conference On Advances In Science ICAS	31-08-2016 to 2-09- 2016

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	A.Kumaraswamy	Learn and Teach Engineering Graphics through Solid Modeling	SKR Engineering College, Nazarathpet, Ponnammallee, Chennai-600123	23-07-2016
2	M.Maheswaran	-do-	-do-	-do-
3	G.Kirubakaran	-do-	-do-	-do-
4	M.Arulkumar	-do-	-do-	-do-
5	M.Arulkumar	Role of Mechatronics in Intelligent Robotics and Automotive Control	Department of Mechanical Engineering, IIT Madras	14~19, Nov 2016
6	M.Ananth Kumar	8th Summer School in Tribology	Department of Mechanical Engineering, IISc Bangalore	25~29 July 2016
7	K.Ram Prasad	FDP on GE 6152-Engineering Graphics	Department of Mechanical Engineering, SVCE, Sriperumbudur	13~18 June 2016
8	G.Kirubakaran	-do-	-do-	-do-

9	E.Suresh	5 Day course on Friction Stir Processing	Department of Mechanical Engineering, IIT Madras	5~9 Sept 2016
10	J.sivaramapandian	FDTP on Mechanics of solids	Sri Venkateswara College of Engineering, Sriperumbudur	6~14 June 2016
11	S.Ilayavel	FDP on Entrepreneurship iNNOVATION AND iNCUBATION	VIT Vellore	5-17 Dec 2016
12	G.Kirubakaran	Power Plant Piping System, organised by M/S BHEL Piping Division in association with SVCE	SVCE	12-04-2016
13	M.Arulkumar	-do-	-do-	-do-
14	E.Suresh	Formulation and Preparation of Project Proposals	Mepco Schlenk Engineering college	18~19 Oct 2016
15	J.sivaramapandian	-do-	-do-	-do-
16	A.Kumaraswamy	-do-	-do-	-do-
17	G.Suresh	-do-	-do-	-do-
18	M.Kalaimani	-do-	-do-	-do-
19	R.Ramesh	DST-SERB Sponsored National Level Seminar On "Processing And Mechanical Behavior Of Nano Composite Materials For Aerospace Structures	SNS College of Technology, Coimbatore	15~16 Dec 2016.
20	C.Senthamaraikannan	-do-	-do-	-do-
21	G.Suresh	Thermal Energy Systems	Sree Vidyanikethan Engineering College, Tirupati	19~23 Dec 2016.

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 Incharge
1	Faculty Development Program on GE6152 - Engineering Graphics	SVCE	13/06/16 to 18/06/16	SVCE, Western Airducts, RC Dass Engg. Pvt Ltd, Micromech Instruments	National	Dr. S. Ramesh Babu & Mr. V. Sridharan
2	Computer Aided Drafting – AUTOCAD Software training program	SVCE	28/12/16 to 30/12/16	NIL	College Level	Dr. M. Prem Ananth & M.Maheswaran
3	Faculty Development Program on ME6601- Design of Transmission Systems	SVCE	14/12/2016 To 19/12/2016	Nil	National Level	Dr.T.Raja & Mr.J.sivaramapandian

4	Guest Lecture on “Latest Welding Methods & their Applications”	SVCE	11/08/2016	Nil	Department Level	Mr. P. Dheeraj Kumar, AGM, DYMOS LEAR AUTOMOTIVE PVT LTD
5	Guest Lecture on “Advanced Finite Element Method to Modeling Aspects of Piezoelectric Materials”	SVCE	20/08/2016	Nil	Department Level	K Jayabal, Assistant Professor, IIITDM Kancheepuram.

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	Comparison of Dynamic and In-vehicle Fuel Measurement of Commercial Vehicles and Mathematical Modeling for Real Time Conditions	SERB – New Delhi	July 2016 19.5 lakhs	Dr.S.Saravanan
2	Noise, Vibration and Durability Analysis of an Automotive CI Engine Fuelled with Biodiesel Blends	SERB – New Delhi	July 2016 19.2 lakhs	Dr.S.Saravanan
3	Surface Modification of Light Metal Substrates Through Laser Texturing and Surface Coating for Enhanced Service Life	SERB – New Delhi	28.29 Lakhs (27-07-2016)	Dr.M.Prem Ananth & Dr.S.Ponnuvel
4	Study of Combined effect of cooling rate and grain modifiers on the microstructure and mechanical properties of Aluminium alloy castings.	SERB – New Delhi	31.77 Lakhs (30/07/2016)	Dr. M. Mohandass & Dr. J. Venkatesan

D) Research centre status of the department:

- Yes, our department research center status was renewed up to June 2017

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	P Selva Kumar, R Sairam, G Sathish	A Quantitative Analysis of 3PL Providers and Their Workload in Automotive Industries	Middle-east journal of scientific research 24 (s1): 149-154, 201, Idosi publications, 2016

2	P.Karthikselvan	Experimental and mathematical modeling in a DIC1 engine with Spherical and Toroidal combustion chambers	TIDEE (TERI Information Digest on Energy and Environment) Volume: 15, Issue: 1 (online August 2016), pp: 11-17.
3	P.Karthikselvan R.J.Ganesh	Design and fabrication of High pressure Diesel spray Chamber	Middle East Journal of Scientific Research (MEJSR) Volume: 24, Issue: 9, pp: 2948-2951. September 2016.
4	P.Karthikselvan	Experimental and mathematical modeling in a DIC1 engine with various combustion chambers	Journal of Chemical and Pharmaceutical Sciences Volume: 9, Issue: 2, pp: 809-812. April - June 2016.
5	M.Ramanathan, N.Arul Sankar, K.Narasimhan	Supply Chain Issues in Medium Scale Autocomponent Manufacturers: Case Study Approach	Middle-East Journal of Scientific Research. pp:245-249, 2016, ISSN: 1990-9233
6	R.Parthiban	Multi response optimization of spray characteristics of biodiesel in constant volume chamber	Journal of Chemical and Pharmaeutical Research, 2016. ISSN: 0975-7384. Pp: 726-732. Volume: 8(2)
7	J.Raju, N.Madhan Raj	Investigation of Performance and Emission Characteristics using Low Reactivity Fuel and Biodiesel Blended Nanoparticles in Diesel Engine	International Journal of Engineering Research and Technology. Volume:5, 03 March 2016, ISSN:2278-0181
8	T.Arjun	Design of Single Axis Solar Tracking System Using PLC	Middle-East Journal of Scientific Research 24 (S2): 01-05, 2016 ISSN 1990-9233IDOSI Publications, 2016
9	Vijey V.S Uthish Shankar.S	Design And Analysis of A Three Fingered Robotic Arm	International Journal of Advanced Technology in Engineering and Science, Vol.No.4, Issue No.08, Aug-2016, ISSN 2348-7550
10	Sakthivel.K	Analytical Investigation of Tribological Performance of DLC Coating	IJETST- Vol.03, Issue 03, Pages 24-27, March 2016, ISSN 2348-9480

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	Akash Trasy	ICAE -2016	Intenational Conference	Bejing, China	06~13 Oct 2016
2	Abhinav Shankar S	ICAE -2016	Intenational Conference	Bejing, China	06~13 Oct 2016
3	Akshay kumar M	ICAE -2016	Intenational Conference	Bejing, China	06~13 Oct 2016
4	Prithvi Govind	International Conference on Material Science and Engineering Technology	Intenational Conference	Tokyo, Japan	29~31 Oct 2016
5	Gowri shankar M	International Conference on Design and Manufacturing	Intenational Conference	IIITDM Kancheepuram	16~17 Dec 2016
6	Gowri shankar M	International Conference on Scientific Research and Technology	Intenational Conference	IOSRD, Chennai	9~10 Oct 2016
7	Nishanth Paul V	Technical Symposium	Symposium	Rajalakshmi Engineering College	26-09-2016

8	Nitheesh Kumar U	Technical Symposium	Symposium	Rajalakshmi Engineering College	26-09-2016
9	Arunram S P	Kaizen robotics program	Workshop	SVCE	8~18 Dec 2016
10	Chathur Vel R	Entrepreneurship Awareness Program	Workshop	PMO-IEDP, Anna University	22~23 Dec 2016

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 Faculty	Date	Title of he Paper	Name of the Conferences/ symposiums/ workshops	Venue	Sponsorship Amount

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

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

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

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

II) Sponsorship for Students:

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

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

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

Sl.No.	Name of Student	Date	Title of he Paper	Name of the Conferences/ symposiums/ workshops	Venue	Sponsorship Amount
1	Prithvi Govind	29~31 Oct 2016	Multi-Criteria- Based Prioritization of Threats Affecting Sustainability of Micro and Small Scale Industries using AHP and Mitigating the Major Threats using Retrofitting.	International Conference on Material Science and Engineering Technology	Tokyo, Japan	Rs.1, 07,703.20

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

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

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, Composites, 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. 20,000/- (Rupees Twenty thousand only)
- [ii] Western Thomson India (P) Ltd. = Rs. 30,000/- (Rupees Thirty thousand only)
- [iii] Vibration Lab & FRP Cell = Rs. 2000/- (Rupees Two thousand only)

7) Patent information:

Research Coordinator

Head of the Department