

FACULTY PROFILE

Name (Capital Letters) : Dr. K. Karuppasamy
Designation : Assistant Professor
Department : Mechanical Engineering
Mail Id : kksamy1973@gmail.com
Education Qualification :

Degree	Specialization	University	Awarded Year
B.E	Mechanical Engineering	Madurai Kamarajar University	1997
M.E	Internal Combustion Engineering	Anna University Chennai	1999
Ph.D	Mechanical Engineering	Anna University Chennai	2014

Professional Experience:

Name of Company / Institutions	Designation of Post	From	To	Experience in Year
SACS MAVMM Engineering College	Lecturer	01-06-1999	30-06-2005	6 Y 1M
Shanmuganathan Engineering College	Assistant Professor	01-07-2005	12-07-2007	2 Y
Sudharsan Engineering college	Assistant Professor	13-07-2007	28-10-2009	2 Y
Anna University Regional Campus-Tirunelveli	Assistant Professor	29-10-2009	Till date	11 Y 1M

Area of Specialization: Internal Combustion Engines.

Academic / Additional Responsibilities:

- Serving as Head of the Department from 06/02/2020
- Serving as Executive Warden for Boys and Girls Hostel from 04/11/2020.
- Served as NSS Programme officer in Anna University, Tirunelveli. (23/11/2009 to 20/12/2010)
- Served as board of studies in Anna University, Tirunelveli.
- Served as Transport Incharge in Anna University of Technology, Tirunelveli from 17/10/2010 to 24/01/2011.

- Served as the **Chief Superintendent for Anna University Theory Exams** at Regional Centre of Anna University held on **November/ December 2015 and January 2016.**
- Served as Nodal officer for Anna University Theory Exam at Regional Centre of Anna University held on **November/ December 2015 and January 2016.**
- Served as Chairman and Vice chairman for Central Valuation.
- Camp officer for Central Valuation, November/December 2017 and April/May 2018.
- Organizing Secretary for the National Conference on Advances in Mechanical Engineering (NME 2015) held at Anna University Regional Centre on 30/04/2015.
- Co-ordinator for National Conference on Emerging Technologies (NACET-2011) held at Anna University of Technology, Tirunelveli on 06/05/2011.
- Co-ordinator for TECHNO FAIR 2016 held at District Science Centre, Tirunelveli 3-5th March 2016.(Jointly organized by District Science Centre and Anna University Tirunelveli Region, Tirunelveli-627007)
- Thermal Engineering lab for M.E Thermal Engineering Programme (New Lab Developed)
- Energy Engineering lab for M.E. Energy Programme (New Lab Developed)
- Served as Transport Incharge from 07.08.2014 to 04/11/2020.
- Served as NSS Programme officer in Anna University, Tirunelveli. (July 2018 to 04/11/2020)

Committee Member: (Representation in any Committee)

- Served as Purchase Committee Member in Anna University of Technology, Tirunelveli.
- Member for Affiliation of Inspection for Self Engineering College

Professional Membership:

- Life Member in Indian Society for Technical Education

Research Guidance (mention the total count in each)

- i. PG : Completed : 70 , Ongoing: 02
- ii. Ph.D: Completed : 01, Ongoing: 04

Publications (National/International):

a. International Journals:

1. Sharon, H., **Karuppasamy, K.**, Soban Kumar, D. R., Sundaresan, A., A test on DI diesel engine fueled with methyl esters of used palm oil, Renewable Energy, Vol. 47, pp.160—166, 2012.
2. Sharon, H., Jayaprakash, R., Karthigai selvan, M., Soban kumar, D. R., Sundaresan, A., **Karuppasamy, K.**, Biodiesel production and prediction of engine performance using SIMULINK model of trained neural network, Fuel, Vol:99, pp.197–203, 2012.
3. **Karuppasamy, K.**, Syed Abu Thaheer A., Ahmed Basha, C. and Manivannan A., Effect of biodiesel blends on single cylinder DI diesel engine and optimization using Response Surface Methodology, European Journal of Scientific Research, Vol. 84 No. 3, pp.365-376, 2012.

4. **Karuppasamy, K.**, Syed Abu Thaheer, A. and Ahmed Basha, C., Biosynthesis and characterization of biodiesel from cottonseed oil using *pseudomonas fluorescences* lipase and the performance of its blend (B20) in diesel engine, Chemical and Biochemical Engineering quarterly, Vol.27, No.2, 2013.
5. Vinoth, T., **Karuppasamy, K.**, Santhosh Kumar, D., and Dhanuskodi, R., “Numerical investigation of heat and mass flux effects on heat transfer characteristics of supercritical water in an upward flow vertical tube”, Applied Mechanics and Materials Vols. 592-594, pp. 1667-1671, 2014.
6. Sivaram AR., **Karuppasamy K.**, Rajavel R., Jagadesh Vikram,C., “Performance analysis of a inverted downdraft biomass wood stove”, International Journal of Mechanical Engineering and Technology, Volume 6, Issue 8, Aug 2015, pp. 144-155.
7. N Sathya, **K Karuppasamy**, P Suresh, Asan K Mohideen, Vijaya P Kumar, N Rathika, “[Curvelet Transform based Enhancements on Retinal Blood Vessel Segmentation Compared with Contourlet Transform](#)”, Asian Journal of Research in Social Sciences and Humanities, 2016, Vol.6, Issue.9, pp. 1344-1358
8. **Karuppasamy, K.**, Chandrasekhar, S., Sathiyamoorthy K., “[The Impact of various Nano Additives Blended with Diesel and Biodiesel on DI Diesel Engine Performance, Combustion and Emission Parameters-A Mini-Review](#)”, Asian Journal of Research in Social Sciences and Humanities, 2017, Vol. 7, (2), pp.483-496.
9. S. Chandra Sekhar, **K.Karuppasamy** and K.Sathiyamurthy, “Study on Optimization of Cottonseed oil Transesterification Process”, International Journal of ChemTech Research, 2017, Vol. 10(5): pp.122-130.
10. N Sathya, **K Karuppasamy**, P Suresh, ‘ [Contourlet transform and morphological reconstruction based retinal blood vessel segmentation](#)’, International Journal of Biomedical Engineering and Technology, 2017 vol.25 No.(2-4), pp.105-119.
11. Chandra Sekhar S, **Karuppasamy K**, Vedaraman N, Kabeel A.E., Ravishankar Sathyamurthy Medhat Elkelawy, Hagar Alm ElDin Bastawissi, “Biodiesel production process optimization from Pithecellobium dulce seed oil:Performance, combustion, and emission analysis on compression ignition engine fuelled with diesel/biodiesel blends”, Energy Conversion and Management, 2018, Vol.161, pp.141–154.

b. National Journals:

1. Vinukumar, K., **Karuppasamy, K.**, Jegesh David, M., Vedaraman, N., “Design of combustor fueled with methyl esters of cottonseed oil” CiiT International Journal of Programmable Device Circuits and Systems, vol.3, No.10, 2011.
2. Sivaram AR., **Karuppasamy K.**, Rajavel R., Arun Prasad B., “Experimental Investigations on the Performance of a Water Heater using Waste Heat from an

Conferences (National/International):

a. International Conferences:

1. Ramesh, AS, **Karuppasamy K**, “Hydraulic and thermal characterization of a cryogenic feed circuit” INCOTEE 2011, Kalasalgam University, Srivilliputtur, Tamilnadu, 24-26th March 2011.
2. Arun, S., **Karuppasamy K**, “Optimization of Rocket Nozzle parameter to augment static thrust” ICCIAMR 2012, at Dr. MGR University, Chennai, 19-20 April 2012.
3. Yogesh P., **Karuppasamy K**, “Performance and emission characteristics of biodiesel-Butanol blended fuel in CI engine” ICCIAMR 2013, at Dr. MGR University, Chennai 5&6th April 2013.
4. Ramesh Babu, S., **Karuppasamy K**, “Experimental analysis of on shell and tube heat exchanger with titanium dioxide and water + ethylene glycol nanofluid”, first international conference on innovation at explorations in computing electrical, electronics, mechanical and civil technologies at Holycross Engineering college, (ICCICMET14) Thoothukudi, Tamilnadu, 22nd March 2014.
5. Selva Ganapathy V., **Karuppasamy K**, “Comparative studies of pungamia bio diesel derived from pyrolysis & Trans esterification and its performance studies in diesel Engine”, ICCICMET14, at Holycross Engineering college, (ICCICMET14) Thoothukudi, Tamilnadu, 22nd March 2014.
6. Vinoth, T., **Karuppasamy K**, “Numerical investigation on heat transfer characteristics of super critical water in a upward flow vertical tube” ICCICMET14, at Holycross Engineering college, (ICCICMET14) Thoothukudi, Tamilnadu, 22nd March 2014.

b. National Conferences:

1. Prabhu, N., **Karuppasamy K**, “Impact of water-biodiesel emulsion fuel with nano-additive on the performance of diesel engine”, OPTTEST 2014, at Bannari Amman institute of Technology, Sathiyamangalam, Tamilnadu, 04-05th April, 2014.
2. Satheeskumar, S., **Karuppasamy K**, “Theoretical Analysis of cascade Refrigeration system”, RAIME’14, National Engineering College, Kovilpatti, Tamilnadu, 28th March, 2014.
3. Sivaram, AR., **Karuppasamy K**, “Performance analysis of a water heater using waste heat from an Air conditioning system”, RAIME’14, National Engineering College, Kovilpatti, Tamilnadu, 28th March, 2014.

4. Sarathkumar, P., **Karuppasamy K**, “Experimental analysis of solar pond using encapsulated PCM”, RAIME’14, National Engineering College, Kovilpatti, Tamilnadu, 28th March, 2014.
5. Jeyasri, J., **Karuppasamy K**, Performance Analysis of a Gasketed plat heat Exchanger by Varying port diameter” DISENO’2K14, Adhiyamaan College of Engineering, Hosur, Tamilnadu, 26th Feb’ 2014.
6. Sundaramahalingam, A., **Karuppasamy K**, “synthesis of biodiesel from castor oil and its combustion studies in diesel engine” Eighth national conference on optimization techniques in engineering sciences and technologies, (OPTTEST 2014) at Bannari Amman institute of Technology, Sathiyamangalam, pp.301-309, 2013.
7. Ajith Rathina Kumar, P., **Karuppasamy K**, “Effect of injection timing on the performance of DI diesel engine with Tamnu oil Biodiesel”, RAIME’13, National Engineering College, Kovilpatti, Tamilnadu, 16-17th April, 2013.
8. Deepa, N., **Karuppasamy K**, “Performance, combustion and emission characteristics of diesel engine using rice bran oil methyl ester blend” RAIME’13, National Engineering College, Kovilpatti, Tamilnadu, 16-17th April, 2013.
9. Ram senthil Murugan, K., **Karuppasamy K**, “Developing a dual axis solar tracking system based on solar mapping and controlled by micro controller”, RAIME’13, National Engineering College, Kovilpatti, Tamilnadu, 16-17th April, 2013.
10. Pratheesh, J P., **Karuppasamy K**, “Development of small domestic wind turbine tower and blades systems: An optimization approach”, Emerging technology in mechanical science and Engineering, Noorul Islam university, Nagarcoil, Tamilnadu, March 2013.
11. Chadrasekar S., **Karuppasamy K**, “The performance and Emission characteristics of DI diesel engine fueled with blends of diesel-biodiesel-ethanol”, RRME’12, 21st April 2012.
12. Deepak Kumar, R., **Karuppasamy K**, “Computational Analysis of Combustion in single cylinder DI diesel engine”, RRME’12, 21st April 2012.
13. Vinukumar, K., **Karuppasamy K**, “Production of Biodiesel obtained from cotton seed oil”, NCOMM 2011, 18th March 2011.
14. Prakash, T., **Karuppasamy K**, “Design of Radiator for 150cc four stroke engine”, NCIMMBS-2011, 29th & 30th April 2011.
15. Arunraj, T., **Karuppasamy K**, “Thermal behavior of municipal solid waste feed long stick biomass gasifier” NCIME 2011, 26th March 2011

Book / Chapter: NIL

Expert Lecture Delivered:

- Delivered a guest lecturer on “Internal Combustion Engines” at Infant Jesus College of Engineering and Technology, on 28/04/2010.
- Delivered a guest lecturer on “Advance in IC Engines” at National College of Engineering, on 03/03/2015.

- Delivered a guest lecturer on “Combustion Aspect in Engines” at Dr. Sivanthi Aditanar College of Engineering, on 04/08/2017.
- Delivered an expert lecturer on the topic “Turbo Machinery”, (Engineering Service Coaching Class) held at Government College of Engineering, Tirunelveli on 24/02/2018.
- Delivered an expert lecturer on the topic “Theory of Jet Propulsion – Pulse jet and Ram jet Engines”, (Engineering Service Coaching Class) held at Government College of Engineering, Tirunelveli on 17/03/2018.
- Delivered an expert lecturer on the topic “Reciprocating and Rotary compressor – Theory and Application”, (Engineering Service Coaching Class) held at Government College of Engineering, Tirunelveli on 07/04/2018.

Short Term Courses, Seminars, Workshop

Organized : NIL

Attended:

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S.No	Topic	Organised By	Period		Duration
			From	To	
1.	Short term course on Introduction to numerical Heat Transfer, Fluid flow and its Applications (INHTEFA)	CIT Coimbatore	28-05-2018	03-06-2018	1 week
2.	Short term course on Geoinformatics for Forest Fire Management	Indian Institute of Remote Sensing, Dehradun.	02-04-2018	07-04-2018	1 week
3.	AICTE approved FDP (FDP101x) on Foundation Program in ICT for Education	IIT BOMBAY	08-03-2018	12-04-2018	2 week
4.	Short term course on Recent development in Conventional and Non Conventional Energy Resources	Pondicherry Engineering College, Puducherry.	06-11-2017	10-11-2017	1 week
5.	Short term course on First course in Computational Fluid Dynamics	IIT BOMBAY	29-05-2017	02-06-2017	1 week
6.	Workshop on Biofuels Combustion and Research	NIT TRICHY	26-09-2016	01-10-2016	1 week
7.	Faculty development training programme on Finite element Analysis	Anna University Regional Campus, Tirunelveli	5 th , 9 th to 12 th , & 14 th December 2016	15 th December 2016	1 week
8.	Faculty development training programme on Heat and Mass Transfer	Regional Office of Anna University, Tirunelveli	12-06-2015	19-06-2015	1 week
9.	ISTE WorkShop on Environmetnal Studies	IIT Bombay	02-06-2015	12-06-2015	2 week
10.	ISTE Workshop on Engineering Thermodynamics	IIT Bombay	11-12-2012	21-12-2012	2 week
11.	ISTE Workshop on Fluid Mechanics	IIT kharagpur	20-05-2014	30-05-2014	2 week
12.	Finite Element Analysis	Anna University, Chennai	11-06-2007	23-06-2007	2 week
13.	Engineering & technological Aspects of Environmental Pollution Control	BITS, Sathyamangalam	15-11-2004	20-11-2004	1 week
14.	Ansys Academic teaching Introductory Version 15.0-50 Users	Anna University, Chennai	20-03-2014	22-03-2014	3 days
15.	FDP on Professional Ethics	K.L.N College of Engineering, Madurai	10-06-2004	12-06-2004	3 days
16.	Effective Teaching and Self Development Techniques	SACS MAVMM Engineering college	23.08.2002	25.08.2005	3 days
17.	Application Of Intelligent Optimization Techniques Using Mat Lab-7.0	Mohamed Sathak Engineering College, Kilakarai	29-01-2011	30-01-2011	2 days
18.	Technology Options for Greener Environment	Mount Zion College of	08-03-2007	09-03-2007	2 days

		Engineering & Technology			
19.	Operation & Maintenance Of Bio mass gasifier Systems	Madurai Kamaraj University	27-03-2000	28-03-2000	2 days
20.	Advances in automotive technology	PSG,Coimbatore	10-10-2003	11-10-2003	2 days
21.	National workshop on small hybrid (Wind and solar)Power generation system	PET,Tirunelveli	19-10-2012	20-10-2012	2 days
22.	ISTE workshop on AAKASH for Education	IIT,bombay	10-11-2012	11-11-2012	2 days
23.	Modelling and optimizations for engineering applications	PET,Tirunelveli	13-01-2012	-	1 day
24.	National programme on Technology Enhanced Learning	IIT, Madras	20-04-2013	-	1 day
25.	Advance in automobile industry and Technology	Sudharsan College of Engineering	29.03.2008	-	1 day
26.	Latest Trends in Vehicle Technology	Sri Ramakrisna Engineering College	31.08.2000	-	1day

Research Projects (ongoing/completed provide details in separate table): NIL

Name of the Project :	
Funding Agency :	
Amount Sanctioned :	
Duration of the Project :	

Consultancy Projects (ongoing/completed provide details in separate table): NIL

Name of the Project :	
Funding Agency :	
Amount Sanctioned :	
Duration of the Project :	

Patents: NIL

Type	National	International
Details		

Honours / Awards:

- Qualified in **GATE 1996** and Received **MHRD Scholarship** For Pursing M.E Degree at **College of Engineering Guindy, Anna University, Chennai- 600025**
- Qualified in **GATE 2001**.