



LAKIREDDY BALI REDDY COLLEGE OF ENGINEERING

(AUTONOMOUS)

Accredited by NAAC & NBA (CSE, IT, ECE, EEE & ME)

Approved by AICTE, New Delhi and Affiliated to JNTUK, Kakinada

L.B.Reddy Nagar, Mylavaram-521230, Krishna Dist, Andhra Pradesh, India

DEPARTMENT OF MECHANICAL ENGINEERING **(Thermal Sciences Research Group)**

Head of the Group: Dr.P.Vijay Kumar, Professor

Introduction: The success of any organization depends greatly on the group work or collaborative work. The innovative ideas from a small group of people eventually will be transformed into a reality in the form of a quality research work or a project work or a patent or working/prototype model. Also the collaborative working environment not only brings out the inherent potential, skills and expertise of the faculty members but also provides an opportunity to develop leadership qualities, team work, sharing of ideas and knowledge. This will improve the interest and confidence levels of the faculty members when they have an inclination towards R&D activities. The faculty members can contribute their wisdom in research group interactions and periodical meetings. With this motto, the Department of Mechanical Engineering created the Thermal Sciences group which will function with the following aims.

Research Group Aiming:

- ❖ To identify the burning topics and key areas of research in thermal sciences and work seriously in that direction.
- ❖ To develop a system/experiments beyond the curriculum.
- ❖ To have the updated information regarding project proposals from different funding agencies (DST, UGC, AICTE, MNRE, ISRO, DRDO etc.,) and motivate the faculty to prepare and submit quality project proposals for the above funding agencies.
- ❖ To have collaborative work among the members and produce quality paper publications with mutual sharing of skills and expertise.
- ❖ To motivate the young faculty towards developing interest in R&D activities and guide them to register for Ph.D programmes under IIT/NIT/IIIT/JNTUK/AU.

Thermal Sciences Research Group-Members:

S.No	Faculty Name	Designation	Mobile Number
1	Dr.K.Appa Rao	Professor& Principal	9948263890
2	Dr.P.Vijaya Kumar	Professor	9490817851
3	Dr.P.Ravindra Kumar	Professor	9490381201
4	Dr.K.Dilip Kumar	Professor	9703169479
5	Dr.V.Dhana Raju	Associate Professor	9848363670
6	Dr.N.Sunil Naik	Associate Professor	9441174723
7	Mr.S.Rami Reddy	Asst.Professor	9490907709
8	Mr.A.Naresh Kumar	Sr.Asst.Professor	9666574150
9	Mr.K.Lakshmi Prasad	Asst.Professor	9885827526
10	Mr.D.Mallikarjuna Rao	Asst.Professor	9059722219
11	Mrs.B.Kamala Priya	Asst.Professor	9030548830
12	Mr.K.Saibabu	Asst.Professor	8074473131
13	Mr.K.Srinivasa Rao	Asst.Professor	8790555415
14	Mr.S.Uma Maheswara Reddy	Asst.Professor	9949212979

Research Facilities/Equipments:

Facilities available for Thermal Sciences Research Group

- i) PC based Four stroke diesel engine test rig
- ii) Four stroke variable compression ratio engine test rig
- iii) Exhaust gas analyser
- iv) Smoke meter
- v) Fuel testing facility
- vi) Thermal conductivity of liquids
- vii) Solar concentrating parabolic collector

A) Equipment Details (To Carryout Research work)

R&D Facilities in Thermal Engineering lab:

B) Facilities available for Research

- viii) PC based Four stroke diesel engine test rig
- ix) Multi gas analyser and smoke meter
- x) Four stroke single cylinder diesel engine test rig
- xi) Fuels testing Facilities
- xii) Solar concentrating parabolic collector
- xiii) CRDI Diesel Engine
- xiv) AVL five gas analyser

C) Equipment Details (To Carryout Research work)

Sl.	Name of the laboratory	Description of the Equipment	Total Cost	Salient features of the equipment
1	Thermal Engineering	(i) PC based four stroke single cylinder diesel engine test rig with advancing and reduction of fuel injection	4,64,000/-	<ul style="list-style-type: none"> ❖ Evaluation of Performance and combustion characteristics ❖ Variable compression ratio, Injection pressure, and Injection timing ❖ HRR & P-Theta graphs
		(ii) Multi gas analyser and Smoke meter model	2,83,000/-	<ul style="list-style-type: none"> ❖ Measurement of exhaust gases and smoke level
		(iii) Single cylinder four stroke diesel engine test rig with mechanical rope brake dynamometer	1,14,918	<ul style="list-style-type: none"> ❖ Performance testing of various biodiesels
		(iv) Fuels testing Facilities	61,898/-	<ul style="list-style-type: none"> ❖ Viscosity ❖ Calorific Value ❖ Flash and Fire point ❖ Specific gravity

		(v) Computerised VCR engine CRDI with EGR and Open EC Diesel, constant speed, Power range 12-18:1 with eddy current (Modrobs)	735,000/-	<p>Performance optimization with Open ECU</p> <ul style="list-style-type: none"> • Tests at different CR and EGR • Plotting of Torque and Power Curves • Determination of Specific Fuel Consumption • Determination of Volumetric Efficiency and Air –Fuel Ratio • Heat Balance Sheet • Performance Test under different Load • P- θ and PV Diagram • Combustion analysis
		“AVL Gas Analyzer for diesel engine Make India Ltd.” Model: AVL444 (HC, CO, CO ₂ , O ₂ , NO _x) (Modrobs)	2,90,000/-	<ul style="list-style-type: none"> ➤ To measure the exhaust emissions.
2	Renewable energy technology	Parabolic Solar concentrator	4,60,500/-	<ul style="list-style-type: none"> ➤ Measurement of solar radiation ➤ Performance characteristics ➤ Adjustable Sun Tracking system
		Solar PV Training and research system	2,37,448/-	<ul style="list-style-type: none"> ➤ Performance evaluation of PV module ➤ Simulate the various performance parameters

D) Research Activities in the Research Centre:

Students of LBRCE and students of outside colleges are carrying out their mini and main research projects on the four stroke diesel engine. Also doing the

transesterification process for various biodiesels before testing on the engine. Earlier experiments have been done on HCCI engine as part of a Ph.D work by Dr.K.Apparao Sir, Principal, and LBRCE. Faculty from outside institutes also doing experimental tests on diesel engine using various biodiesels.

E) Consultancy:

Revenue is generating in Thermal Engineering laboratory by offering the available facility to the outside institute faculty and students done their research work.

F) Publications:

Good number of journals was published based on the work carried out in this laboratory.

G) Funding agency: AICTE-MODROBS

Modernization and Removal of Obsolesce of Thermal Engineering Laboratory

PRINCIPAL INVESTIGATOR: **Dr. K. Appa Rao**

SANCTION AMOUNT: 12, 50,000/-

Reference Number : 9-158/RIFD/MODROB/policy-1/2016-17.

H) Research Activities in the Research Centre:

Students of LBRCE and students of outside colleges are carrying out their mini and main research projects on the four stroke diesel engine. Also doing the transesterification process for various biodiesels before testing on the engine. Earlier experiments have been done on HCCI engine as part of a Ph.D work by Dr.K.Apparao Sir, Principal, LBRCE.

Research Guides under JNTUK Research Center:

S.No.	Name of the Faculty	Designation
1	Dr.K.Appa Rao	Professor & Principal
2	Dr.P.Vijaya Kumar	Professor
3	Dr.P.Ravindra Kumar	Professor
4	Dr.K.Dilip Kumar	Professor
5	Dr.V.Dhana Raju	Associate Professor
6	Dr.N.Sunil Naik	Associate Professor

Summary for Details of grants/Sponsored Project awarded:

S.No.	Name of project	Name of Faculty	Amount	Funding Agency/ Scheme	Sanctioned Year	Status
1.	Evaluation of engine parameters affecting the performance of enzymatic transesterification process using test fuel blends	Dr.N.Sunil Naik	22,81,000	DST/SERB/EEQ/ 2018/000097	2019-20	Ongoing
2.	Experimental Investigation on Homogeneous Charge Compression Ignition (HCCI) Engine	Dr.K.Appa Rao	1,55,000	UGC F.No:4-4/2015-16(MRP/UGC-SERO)	2016-17	Completed
3.	Modernization and Removal of Obsolescence of Thermal Engineering Laboratory	Dr.K.Appa Rao	12,50,000	AICTE Ref.No:9-158/RIFD/MODRO B/Policy-1/2016-17	2017-18	Completed

Research Publications of Thermal Sciences Research Group:

A.Y:2019-20

Publications Summary:

SCI	Scopus	UGC	Total
11	11	2	24

S.No	Title of paper	Name of the author/s	Name of journal	Year of publication	ISBN/ISSN number
1	Experimental research on fixed tube type shell and tube heat exchanger	GunaSahithiMadala, Dilip Kumar K , Jaya Prakash Chilaka, Lakshmi Prasad Kadari	Journal of emerging technologies and Innovative Research	July 2019	2349-5162 UGC
2	Enhancement of COP of vapour compression refrigeration system by using Diffusers	G.Naga Raju, K.Dilip Kumar , T.Srinivasa Rao	International journal of Recent technology and Engineering	July 2019	2277-3878 Scopus
3	Assessment of performance, combustion and emission characteristics of the diesel	E.Ramakrishna Reddy, Y.Subbalakshmi, V.Dhana Raju K.Appa Rao, M.Harun	International Journal of Ambient Energy (Taylor & Francis)	July 2019	2162-8246 SCI

	engine powered with corn biodiesel blends	Kumar, S.Rami Reddy, P.Tharun Sai			
4	Experimental studies on the influence of antioxidant additive with waste tamarind biodiesel on the diverse characteristics of diesel engine	V.Dhana Raju, K.Saibabu, K.Appa Rao, S.Rami Reddy, P.Tharun Sai	International Journal of Ambient Energy. (Taylor & Francis)	July 2019	2162-8246 SCI
5	Novel Water Hyacinth biodiesel as a potential alternative fuel for existing unmodified diesel engine: Performance, Combustion and Emission characteristics	Karthikeyan Alagu, Harish Venu, Jayaprabhakar Jayaraman, V.Dhana Raju , Lingesan Subramani, Prabhu Appavu, Dhanasekar S	Energy (Elsevier)	July 2019	0360-5442 SCI
6	Emission reduction in DI diesel engine using exhaust gas recirculation (EGR) of palm biodiesel blended with TiO ₂ nano additives	Harish Venu, L.Subramani, V. Dhana Raju	Renewable Energy (Elsevier)	July 2019	0960-1481 SCI
7	Experimental study on the performance and emission characteristics of corn seed oil methyl ester along with Decanol as an Additive in Diesel engine	K.Madhubabu, B.Prasanth Kumar, A.Naresh Kumar, K.Somasekhar	International Journal of Advanced Research in Science, Engineering and Technology	Aug 2019	2350-0328 UGC
8	Fabrication and experimental analysis of Absorber based LiBr-Water absorption refrigeration system	Ch.Jaya Prakash, K.Dilip Kumar, T.Srinivasa Rao	International Journal of Engineering and Advanced Technology	Aug 2019	2249-8958 Scopus
9	Energy, Exergy and Energy Audit Analysis of Vijayawada Thermal Power Station	B.Sairamkrishna, P.Vijaya Kumar, Y.Appala Naidu	International Journal of Engineering and Advanced Technology	Aug 2019	2249-8958 Scopus
10	Numerical Simulation of shell and Tube heat exchanger using Ansys Fluent	Kamala Priya B, B.Udaya Lakshmi, A.Hari Krishna	International Journal of Innovative technology and exploring Engineering	Sep 2019	2278-3075 Scopus
11	Experimental Evaluation of Palmyra oil blends in VCR diesel engine by using EGR systems	Pilli Uday Kumar, P.Vijay Kumar, A.Naresh Kumar	International Journal of Innovative technology and exploring Engineering	Sep 2019	2278-3075 Scopus

12	Experimentation on Augmenting Heat Transfer Characteristics of (Ethylene Glycol + Water) Mixture in a combined (pipe in pipe and Shell & Tube) Heat Exchanger	M.P.V.L. Prasanna, P.Ravindra Kumar , B.Emmanuel, K. Lakshmi Prasad	International Journal of Recent Technology and Engineering	Sep 2019	2277-3378 Scopus
13	Mat Lab Coding and Experimental Analysis of Heat Transfer Rate in Multi Air Jet Impingement	K.Srinivasa Rao, K.Lakshmi Prasad , P.Tharun Sai , M.Pulla Rao	International Journal of Recent Technology and Engineering	Sep 2019	2277-3378 Scopus
14	Fabrication and Experimental Analysis Characteristics of Acetone/Water by using Tube in Tube and Shell and Tube Heat Exchanger	B.Emmanuel, P.Ravindra Kumar , M.P.V.L. Prasanna	International Journal of Innovative technology and exploring Engineering	Oct 2019	2278-3075 Scopus
15	Effect of 1-butanol on the characteristics diesel engine powered with novel tamarind biodiesel for the future sustainable energy source	DLSVN Swamy, Y.Kowsik, V.Dhanaraju , K.Appa Rao , Harish Venu, L.Subramani, K.Bala Prasad	Energy Sources Part A: Recovery, Utilization and Environmental effects	Oct 2019	1556-7230 , 1556-7036 SCI
16	Experimental assessment on the regulated and unregulated emissions of DI diesel engine fuelled with Chlorella emersonii methyl ester (CEME)	Harish Venu, V.Dhana Raju , LingesanSubramani	Renewable Energy	Nov 2019	0960-1481 SCI
17	Experimental investigation on the performance and emission characteristics of a diesel engine powered with waste mango seed biodiesel blends	B.Prasanth Kumar, K.Appa Rao , V.Dhanaraju , S.Rami Reddy , D.Mallikarjuna Rao , J.Subba Reddy	International Journal of Ambient Energy (Taylor & Francis)	Dec 2019	2162-8246 SCI
18	Experimental assessment of various fuel additives on the performance and emission characteristics of the spark ignition engine	T.Srinivas Rao, Sk.JakeerHussain, V.Dhanaraju , Harish Venu, LingesanSubramani	International Journal of Ambient Energy (Taylor & Francis)	Dec 2019	2162-8246 SCI
19	Experimental investigation of Ultrasonic flaw defects in weld clad materials using NDT technique	P. Ravindra kumar , G. Vijay kumar, K. Naga Murali, R. B. S. S. Kishore	A Book Chapter in Lecture Notes in Mechanical Engineering-Springer	Feb2020	2195-4356 Scopus
20	Effect of EGR on diverse characteristics of diesel engine operated with corn seed biodiesel blend	E.Rama Krishna Reddy, BVS Keerthana, V.Dhana Raju , A.SaiMahith and B.Dhanush	International journal of Ambient Energy	March 2020	2162-8246 SCI
21	Enhancement of Efficacy and heat transfer characteristics of TIO ₂	K.Dilip Kumar , T.Srinivasa Rao, M.Srinivas, K.Ashok	International journal of Mechanical	March 2020	0976-6359 Scopus

	Nano fluids under turbulent flow conditions in parabolic trough collector	Reddy	Engineering and Technology		
22	Optimization of Diesel Engine performance by Taguchi Grey Relational analysis using fuel blends	A.Naresh Kumar , K.Madhu Babu, B.Prasanth Kumar, S.Kiran Kumar, P.S.Kishore	International Journal of Recent Technology and Engineering	April 2020	2277-3878 Scopus
23	Experimental study on engine parameters variation in CRDI engine fuelled with palm biodiesel	A.Naresh Kumar , P.S.Kishore, K.Brahma Raju, K.Nanthagopal, B.Ashok	Fuel-Elsevier	May 2020	0016-2361 SCI
24	Influence of decanol as fuel additive on the diverse characteristics of the diesel engine powered with mango seed biodiesel blend	S.Rami Reddy, G.Murali, V. Dhana Raju	International journal of Ambient Energy	March 2020	2162-8246 SCI

A.Y:2018-19

SCI	Scopus	UGC	Total
8	5	14	27

S.No	Title of paper	Name of the author/s	Name of journal	Year of publication	ISBN/ISSN number
1	Experimental performance analysis of solar heat pipes	N. Naresh babu, P.Ravindra Kumar, K.Lakshmi Prasad, N.Sudheer	International journal of Management, Engineering and Technology	July 2018	2249-7455 (UGC)
2	Performance study of Spiral Heat exchanger	Motupalli Anil, K.Lakshmi Prasad, A.Naresh Kumar	International journal for research in Engineering application and Management	July 2018	2454-9150 (UGC)
3	Experimental analysis of jet impingement on aluminium heat sink	EsubBasha, K.Lakshmi Prasad, G.kartheek, K.V.Viswanath	International journal of mechanical engineering and technology	July 2018	1129-1140 (Scopus)
4	Numerical investigations of optimal distribution of discrete heat sources under natural convection	MagantiSairam, Mr.R.Veeranjaneyulu and Dr. PullaraoMuvvala	International Journal of Mechanical Engineering and Technology	July 2018	0976-6340 (Scopus)
5	Numerical investigations of the effect of impingement plate parameters on jet impingement heat transfer from a flat plate	R.Veeranjaneyulu, Mr.MagantiSairam, Dr.PullaraoMuvvala	International Journal of Management, Technology and Engineering	July 2018	2249-7455 (UGC)
6	Influence of injection timing on the performance, combustion and emission characteristics of diesel engine powered with tamarind seed biodiesel blend	M.HarunKumar, V. Dhana Raju, P. S. Kishore & Harish Venu	International Journal of Ambient Energy	August 2018	0143-0750 (Esci)
7	Optimization of intake parameters for diesel engine fuelled with diesel-tamarind seed methyl ester biodiesel blend by Taguchi method	P.S. Kishore, V. Dhana Raju &MurahariKolli	International Journal of Ambient Energy	August 2018	0143-0750 (Esci)
8	Comparative Performance Analysis of Domestic Refrigerator using R12, R134a and R600a Refrigerants	S.Umamaheswara Reddy , V.Dhana Raju, P.TharunSai	International journal of research and analytical reviews	July 2018	<i>e ISSN</i> 2348-1269, <i>Print ISSN</i> 2349-5138 (UGC)
9	Performance analysis of vapour compression refrigeration system by inserting twisted strip in condenser along with liquid suction heat exchanger	A.Pratyush, Dr.K.Dilip kumar, Dr.K.Apparao	International journal for research in Engineering application and Management	July 2018	2454-9150 (UGC)
10	Experimental analysis of vapour compression Refrigeration system with	M.Venkata Krishna Reddy, Dr.P.Vijay Kumar	International Journal of Mangement, technology and Engineering	July 2018	2249-7455 (UGC)

	R134a and R404a mixed in different proportions				
11	Development of phase change material/cooling plate coupled battery thermal management system using CFD	D.Omkar, Dr.P.Vijay kumar	International journal for research in Engineering application and Management	July 2018	2454-9150 (UGC)
12	An Experimental study on Active solar still connected with Evacuated tubes and Reflector	K.Anji Reddy, Dr.K. Dilip kumar	International Journal of scientific research and review	July 2018	2279-543X (UGC)
13	Procuring Magnetic field to liquid channel of Nano lubricant (CuO&PAG oil) rigged VCR system by using R134a Refrigerant	Gudlavalleti V V S Vara Prasad, K.Dilip Kumar	Materials Today proceedings	August 2018	2214-7853 (Scopus)
14	Combined impact of EGR and Injection pressure in performance improvement and NOx control of a DI diesel engine powered with tamarind seed biodiesel blend	Dhanaraju Vallapudi , Harun kumar Makineni, Srinivas Kishore Pisipaty, Harish Venu	Environmental science and Pollution Research	October 2018	0944-1344 (SCI)
15	Engine Parametric optimization of palm oil Biodiesel as alternative fuel in CI engine	Akula Naresh Kumar , Pisipaty Srinivas Kishore, Kalidindi Brahma Raju, Nanthagopal Kasinantham, Ashok Bragadeshwaran	Environmental science and Pollution Research	October 2018	0944-1344 (SCI)
16	Eichhorniacrassipes biodiesel as a renewable green fuel for diesel engine applications: Performance, combustion and emission characteristics	Harish Venu, Dhinakaran Venkatar aman, Prince Purushothaman, Dhanaraju Vallapudi	Environmental science and Pollution Research	March 2019	0944-1344 (SCI)
17	Combined effect of influence of nano additives, combustion chamber geometry and injection timing in a DI diesel engine fuelled with ternary (diesel-biodiesel-ethanol) blends	Harish Venu, V.Dhanaraju , Lingesan Subramani	Energy	February 2019	0360-5442 (SCI)
18	Emission reduction in a DI diesel engine using exhaust gas recirculation (EGR) of palm biodiesel blended with TiO2 nano additives	Harish Venu, Lingesan Subramani, V.Dhanaraju	Renewable Energy	March 2019	0960-1481 (SCI)
19	Influence of injection timing on torroidal re-	Harish Venu, V.Dhana Raju ,	Heat and Mass Transfer	May 2019	0947-7411 (SCI)

	entrant chamber design in a single cylinder DI engine fuelled with ternary blends	LingesanSubramani			
20	Refrigeration system performance by inserting twisted strip in condenser along with liquid suction heat exchanger	T.Srinivasa Rao, K.Dilip Kumar, K.Appa Rao	International journal of Engineering and Advanced technology	December-2018	2249-8958 (SCOPUS)
21	Modelling and analysis of thermo electric cooler module using ANSYS	P.Ravindra Kumar, A.Sekharam, P.VeniMadhav, G.ChittiBabu, V.SaiBabu	International Journal of Mechanical and Production Engineering Research and Development	June-2019	2249-6890 (P), 2249-8001 (E) (Scopus)
22	Fabrication of prototype for cargo delivery Hexacopter	SankararaoVinjava rapu, Mallikarjuna Rao Dandu, Dr.P.Vijay Kumar, S.JoshiBabu	Journal of emerging technologies and innovative research	June-2019	2349-5162 (UGC)
23	Influence of addition of CU doped ZNO nanoparticles to diesel fuel on a four stroke CI engine performance: Experimental study	Dr.P.Vijay Kumar, Sankararao.V, K.Somasekhar	International Journal of Research and Analytical reviews	May-2019	2349-5138 (UGC)
24	Design and fabrication of self-charging parallel hybrid electric vehicle with variable platform	K.Somasekhar, V.Sankara Rao, Mallikarjuna Rao Dandu, B.Deepak Kumar	International Journal of Research and Analytical reviews	May-2019	2349-5138 (UGC)
25	Experimental Studies on the Thermal performance of a closed loop pulsating heat pipe using water-ethanol binary working fluids	P.Venkataramana, P.Vijay Kumar, B.Balakrishna	International Journal of Recent Technology and Engineering	March 2019	2277-3878 (UGC)
26	Experimental investigation on heat transfer enhancement by using Al ₂ O ₃ nano-fluid in a tube in tube heat exchanger	Mallikarjuna Rao Dandu, S.Rami Reddy, K.Somasekhar, N.Sreenivasa Rao	Journal of Emerging technologies and Innovative Research	May-2019	2349-5162 (UGC)
27	Steady State thermal analysis of compound fin using ANSYS	P.Tharun Sai, Dr.K.Appa Rao, E.Renuka Rao	International Journal of Research and Analytical reviews	June-2019	2349-5138 (UGC)

A.Y: 2017-18

SCI	Scopus	UGC	Total
1	5	22	28

S.No	Title of paper	Name of the author/s	Name of journal	Year of publication	ISBN/ISSN number
1	An experimental study on the effect of nanoparticles with novel tamarind seed methyl ester for diesel engine applications	V.Dhanaraju, P.S.Kishore, K.Nanthagopal, B.Ashok	Energy Conversion and Management	March 2018	0196-8904
2	Effect of fuel additives in Tamarind seed methyl esters Biodiesel fuelled diesel engine	V.Dhanaraju, P.S.Kishore	International journal of mechanical Engineering and technology	July 2017	0976-6340
3	Some experimental studies on effect of exhaust -gas recirculation on performance and emission characteristics of a compression ignition engine fuelled with diesel and lemon - peel oil blends	A.NareshKumar,Dr.K.BrahmaRaju, Dr.P.Srinivas Kishore, K.Narayana	Elsevier-materials today proceedings	March 2018	2214-7853
4	A CFD Investigation of Heat transfer Enhancement of shell and tube Heat exchanger using Al ₂ O ₃ -water Nano fluid	K.Somasekhar, K.N.D.Malleswara Rao, V.Sankara Rao, Raffi Mohammed, M.Veerendra, T.Venkateswara Rao	Elsevier-materials today proceedings	February 2018	2214-7853
5	Effect of exhaust gas recirculation on performance and emission characteristics of a diesel engine fuelled with tamarind biodiesel	V.Dhanaraju, P.S.Kishore	International Journal of Ambient Energy	January 2018	0143-0750
6	Experimental studies on natural aspirated diesel engine Fuelled with corn seed oil methyl ester as a bio-diesel.	E.Rama Krishna Reddy ,V.DhanaRaju	IOP Conf. Series: Materials Science and Engineering	January 2018	1757-899X

7	Green synthesis of Zinc oxide Nano particles using extracts of ocimumtenuiflorum and its characterization	Dr.K.Dilipkumar, K.Narayana, Dr.K.Appa Rao	Journal of Nano science, Nano engineering & Applications	April 2018	2321-5194
8	Fabrication and performance analysis of Prototype PEM Fuel cell Hybrid vehicle	S.Ramireddy, Mallikarjuna Rao Dandu, A V V R Prasad Y	International Journal of Engineering and Techniques	May 2018	2395-1303
9	Optimization of performance of Water-Lithium Bromide Refrigeration system by second Law analysis using MATLAB	P.TharunSai, Dr.K.Appa Rao	International journal of Advanced engineering and Research development	April 2018	2348-6406
10	Improving energy efficiency of a vapour compression refrigeration system using a phase change material	Mallikarjuna Rao Dandu, Dr.P.Vijaykumar. J.Venkatasomireddy	International Journal of creative research thoughts	April 2018	2320-2882
11	Experimental studies on Four stroke diesel engine fuelled with Tamarind seed oil as potential alternative fuel for sustainable green Environment	V.Dhanaraju,Dr.P.S.Kishore, K.Yamini	European Journal of Sustainable Development	January 2018	2542-4742
12	Simulation and performance analysis of solar parabolic trough collector	M.KusumaKumari, Dr.P.Ravindrakumar	International journal Thermal Energy and applications	November 2017	-----
13	CFD analysis and experimental investigation on Ranque-Hilsch counter flow vortex tube for optimizing tube length by using compressed air	Sk.Nayeem, Dr.K.Dilipkumar	International journal of mechanical dynamics and analysis	November 2017	-----

14	Performance enhancement of vapour compression refrigeration system by using solar thermoelectric Sub-cooler	M.Ravikiran, Dr.K.Dilipkumar	Journal of Refrigeration, Air conditioning, Heating and ventilation	November 2017	2394-1052
15	Performance enhancement of R-134a refrigeration cycle by using solar PeltierSubcooler	M.Ravikiran, Dr.K.Dilipkumar	International journal Thermal Energy and applications	November 2017	-----
16	Performance of Air Power Engine Fuelled with Oxygen Gas, Compressed Air and Engine Exhaust Gas	S.VenkateswaraRao,Dr.P. Ravindra Kumar	International Journal of Thermal Energy and Applications	November 2017	-----
17	Effect of operational Temperatures in Efficiency of shell and Tube Heat Exchanger	Kamala Priya.B	International journal of scientific & Engineering Research	September 2017	2229-5518
18	Performance of Air power engine powered with compressed Air and engine exhaust Gas	A.S.Venkateswara Rao, Dr.P.RavindraKumar,Dr.P .Vijay Kumar	International journal of Innovative research in technology	August 2017	2349-6002
19	Performance analysis of VCR system by applying Magnetic field to liquid line using R134a Refrigerant	G.V.V.S.V.Vara Prasad, Dr.K.Dilipkumar	International journal for science and advanced research in technology	August 2017	2395-1052
20	Experimental investigation on diesel engine using Linseed oil and Sunflower+coconut oil methyl esters	B.Rajsekhar, Dr.K.Appa Rao	International journal for research in science engineering and technology	July 2017	2394-739X
21	CFD analysis of a closed loop pulsating Heat pipe using water and Methanol	B.Prakash, Dr.P.Vijay Kumar	International journal of current	July 2017	XXXXXXXXX

			research in Engineering and Technology		
22	Heat transfer analysis by simulation on corrugated plate Heat exchanger	B.Sreechaitanya, Dr.P.Vijaykumar	International journal for research in science engineering and technology	July 2017	2394-739X
23	CFD analysis of Mixed Ejector	D.Kameswara Rao, Dr.P.Vijaykumar	International journal for science and advanced research in technology	July 2017	2395-1052(online)
24	Performance and Emission Characteristics of CI engine fuelled with Mango seed and Jatropha Biodiesels	TummaLakshman Kumar, Dr.P.Ravindrakumar	International journal for science and advanced research in technology	July 2017	2395-1052(online)
25	Performance analysis of vortex tube refrigerator	Sk.Nayeem, Dr.K.Dilipkumar	International journal for research in science Engineering and technology	July 2017	2394-739X
26	Experimental studies on diesel engine fuelled with Cashew nut shell oil as an Alternative fuel	G.V.V.N.Sivanjaneyulu, V.Dhanaraju	International journal of engineering sciences and Research technology	July 2017	2277-9655
27	Characteristic comparison of the start-up performance of various working fluids in a Heat pipe at different lengths at different angles	S.Ashok, K.Lakshmi Prasad	International journal for science and advance research in technology	July 2017	2395-1052

28	Experimental investigation of the copper oscillating Heat pipe using Nano fluid	J.N.V.M.Vamsi Krishna, K.Lakshmi Prasad, A.V.V.R.Prasad Y	International journal for science and advance research in technology	July 2017	2395-1052
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