

Name of Faculty Dr. R. P. Chowdary  
 Designation Associate Professor  
 Nature of Job/Appointment Regular  
 Date of Joining 19 – 10 - 2000  
 E-mail rpchowdary\_mech@cbit.ac.in



**Education Qualifications**

	<b>Name of the Degree</b>	<b>Class</b>
Ph. D	Doctor of Philosophy (Mechanical Engg)	Awarded
PG	M. Tech (Thermal Engineering)	First/Distinction
UG	B.E(Mechanical Engineering)	First

**Work Experience**

Teaching	23 Years
Research	15 years
Industry	10 years
Others	----

Area of Specialization Thermal Engineering,

Professional Memberships  
 1. Institution of Engineers(M-125263)  
 2. Indian Society for Technical Education(LM-34872)

Responsibilities held at Institution Level  
 1. Worked as I/c Staff Transport from 2001 to 2009.  
 2. Worked as I/c Students Transport from 2017 to 2023.  
 3. Convener IPMEC Committee

Responsibilities held at Department Level  
 1. Member BOS, Department of Mechanical Engg.  
 2. Member PAQIC, Department of Mechanical Engg.  
 3. In charge Thermal Engineering Lab.  
 4. Member, CEG, Thermal Engg.

Research Guidance No. of Scholars (Awarded/Progress)

Courses Handled at Under Graduate / Post Graduate Level.  
 Engineering Graphics, Thermodynamics, Applied Thermodynamics, Heat Transfer, Elements of Mechanical Engineering, Renewable Energy Sources, Environmental Pollution, Advanced IC Engines, Design of Wind and Solar Systems, Engine Emissions and Pollution Control.

No. of Papers Published  
 National Journals – 11 International Journals – 17  
 National Conference – --- International Conference – 03

Projects Carried out  
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Patents 1 granted and 2 Patents got Published

Technology Transfer 1979 -----

Invited Speaker (Few Important/Prominent) -----

No. of Books/Chapter Published with details  
 1. Ch. Indira Priyadarshini, A. Anjani Devi, R.P. Chowdary, R. Navaneetha, Published book chapter with title “Analysis of Cooling System Parameters by Solar Concentrating Panel with Fresnel Lens” in the book “Research Highlights in Science and Technology” BP International, Vol 8, 7 Aug 2023, PP 68-82, ISBN: 978-81-19491-23-0

1. Attended One week FDP Program on “Application of AI/ML Using Pattern Recognition & Intellectual Property Rights” conducted by Dept of ECE and MED during 29 Jan to 05 Feb

Details of Short-Term Training Programs/Faculty Development Programs/Seminars/Workshops. Other Trainings (**Attended and/or Organized**).

- 2024.
2. Successfully Completed the one month Summer Internship Program on “Python Image Processing Using Open CV and Innovative Projects” from 19-06-23 to 14-07-2023 by CBIT in association with AICTE IDEA Lab.
3. Completed a SWAYAM-NPTEL 8 Weeks Course (FDP) on “Waste To Energy” during Jan - March 2023.
4. Completed a SWAYAM-NPTEL 12 Weeks Course(FDP) On “Advanced Thermodynamics and Combustion” during July-Oct 2022(Elite Category).
5. Completed a SWAYAM-NPTEL 8 Weeks Course (FDP) on “Robotics” during July-Sept 22.
6. Completed a SWAYAM-NPTEL 12 Weeks Course(FDP) on “Non-Conventional Energy Resources” during Jan-Apr 2022
7. Completed a SWAYAM-NPTEL 12 Weeks Course (FDP) on “Solar Energy Engineering and Technology” during July-Oct 2021(Elite Category).
8. Completed a SWAYAM-NPTEL 12 Weeks Course(FDP) on “Applied Thermodynamics for Engineers” during July-Oct 2021(Elite Category).
9. Completed a SWAYAM-NPTEL 12 Weeks Course(FDP) On “IC Engines and Gas Turbines” during Jan-April 2021(Elite Category).
10. Successfully Completed the course “Accreditation for Undergraduate Engineering Programmes” offered by SWAYAM and NITTR Bhopal during September 2020.
11. One -Week Online Faculty Development Program “Recent Advances in Mechanical Engineering: A Research Perspective; 6-10 July, 2020; Dept Of Mechanical Engineering (Mechatronics)MGIT.
12. One Week Faculty Development Program on “Latest Advancements in Mechanical Engineering (LAME-2020)” 13th-17th July , 2020 CMR college of engineering & technology Hyderabad
13. One -Week Online Faculty Development Program On “Recent Advances In Renewable Energy & Energy Efficiency Technologies 21-25 July, 2020 . Dept of Mechanical Engineering(Mechatronics) MGIT
14. One week on line FDP on “ Research Avenues in Thermal Engineering” 26 to 30-07-2020, Vasavi College of Engineering, Hyderabad
15. One -Week Online Faculty Development Program in “Advanced Optimization Techniques for Research Problem Solving” 4 – 8 August 2020, Dept of Mechanical Engineering(Mechatronics) MGIT.
16. Day National Level FDP on “ Emerging Trends in Automotive and Energy Systems 23-08-21 to 27-08-2021, Mechanical Engineering Department Sree Vidya Niketan Engineering College Tirupati.
17. Completed 12 weeks Swayam NPTEL Course on “ Accreditation For Undergraduate Programmes in Engineering” during September 2020.
18. Completed 12 weeks Swayam NPTEL Course on “ I.C. Engines and Gas Turbines” Jan- April 2021
19. Completed 12 weeks Swayam NPTEL Course on “ Solar Energy Engineering and Technology” July-Oct 2021
20. Completed 12 weeks Swayam NPTEL Course on “ Applied Thermodynamics for Engineers” July-October 2021
21. Completed 12 weeks Swayam NPTEL Course on “ Non-Conventional Energy Resources” Jan-April 2022
22. Attended one Week Online Faculty Development Program (FDP) on “INDUSTRY 4.0 – A VISION OF DESIGN AND

- MANUFACTURING", organized by the Department of Mechanical Engineering CBIT during 16th - 20th June, 2020.
23. Attended one Week Online FDP on "DESIGN OF SOLAR PV SYSTEM USING PVSYST SOFTWARE" Organized by Vaagdevi College of Engg(A) from 9th to 13th June 2020.
  24. Attended one week online FDP on "Out Come based Education and NBA Accreditation Process" organized by CBIT(A) from 28-05-2020 to 01-06-2020
  25. Attended one week online FDP development program on "OUTCOME BASED EDUCATION:A STEP TOWARDS EXCELLENCE" from 11-15 May 2020 under Margdarshan Scheme of AICTE, organized by Government College of Engg, Karad, Maharashtra
  26. Attended online Training Program on "SOLAR PV INSTALLATION" from 27.04.2020 to 29.04.2020, Conducted by MSME Technology Development Centre, AGRA.
  27. Attended one week program on "Energy Management and Efficiency" conducted by IIT-Guwahati during May 2016.
  28. Attended STTP on "Smart Technologies and Emerging Trends" Conducted by ESCI & JNTUH during 2016.
  29. Attended Three day workshop at IIT-Indore on "Measurement Techniques in Thermal Engineering: Recent Advances" during May-2014.
  30. Attended Two Week FDP program organized by JNTU Hyderabad on "Recent Advances in Thermal Engineering" during the year 2001.
  31. Organized A Two-Day National Conference on "Role of Engineers in the Development of New State of Telangana "NC-REDNEST; 23-24 JAN 2015
  32. Organized National Conference on "Advances in Mechanical Engineering and Renewable Energy" (AMERE)during 25-26 March-2013.

Details of Journal Publications/  
Conferences (**National and International**)

**International Journal**

1. R. Shivashankar, K. Vetri velmurugan, Kistan andiyappan, D. Raja ramesh, A. D. Urade, **R. P. Chowdary**, Prashant sunagar. Investigating the Wear Resistance of Zn-Co-Ni Alloy Coatings on Polymer Substrates; Journal Of The Balkan Tribological Association, Vol 29, No 3, June 2023, PP 350-358
2. Dr.R.P.Chowdary, Dr.Ch .Indira Priyadarsini, B. Shashikanth, "Design and Simulation of Downdraft Gasifier for various Biomass", NOVIY MIR Research Journal, ISSN NO: 0130-7673; Vol-6, Issue -6, PP. 80-87, June 2021
3. Dr. R.P. Chowdary, K. Sai Deepak Reddy, M.Shashank, D.Vinay Lalit "Fabrication and Performance Analysis of Wind Chill Refrigeration System" Journal of Emerging Technologies and Innovative Research, ISSN: 2349-5162, Vol-7, Issue-12; Dec-2020, PP-339-347.
4. V.V.R.SeshagiriRao, R.P.Chowdary "Pollution Levels of Diesel Engine With Vegetable oil-Alcohol Operation at Different Injection Timings", The International journal of analytical and experimental modal analysis, ISSN NO:0886-9367, Volume XII, Issue VI, June-2020; PP -1424 -1428
5. Dr. R.P.Chowdary, Dr. V.V.R.SeshagiriRao, "Performance of Used Cooking Oil Based Biodiesel in a Low Heat Rejection Diesel Engine", International Journal of New Innovations in Engineering and Technology, ISSN: 2319-6319 Volume 13 Issue 3 April 2020, PP-19-25.
6. R.P. Chowdary, N.Janardhan, "Performance of Waste Fried Oil based Biodiesel in a Stationary Diesel Engine" International Journal of Innovative Technology and Exploring Engineering (IJITEE) ;ISSN: 2278-3075, Volume-9 Issue-6, April 2020, PP 1595-1599.
7. N.Janardhan, R.P. Chowdary, "Performance of Semi Adiabatic DI Diesel Engine with Supercharged air

- using Crude Jatropha Oil”, International Journal of Soft Computing and Engineering (IJSCE) ISSN: 2231-2307, Volume-9 Issue-5, January 2020, PP-10-16.
8. Dr. R.P. Chowdary, “An Experimental Investigation of Performance and Pollution levels on DI Diesel Engine with Waste Fried Cooking oil and its Bio diesel”, International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) ISSN(P): 2249-6890; ISSN(E): 2249-8001 Vol. 9, Issue 3, Jun 2019, PP 1793-1802
  9. M.V.S. Murali Krishna, R.P. Chowdary, T.Kishen Kumar Reddy and P.V.K. Murthy, 2015 ,‘Performance evaluation of waste fried vegetable oil in a medium grade low heat rejection diesel engine’, Journal of Computational and Applied Research in Mechanical Engineering,(Iran) 2228-7922, Vol 4, No 2, Spring-2015, PP 101-120 (Impact factor=0.49)
  10. R.P.Chowdary, M.V.S. Murali Krishna, T.Kishen kumar reddy, “ Studies on Exhaust Emissions From Ceramic Coated Diesel Engine With Waste Fried Vegetable Oil Based Biodiesel” International Journal of Mechanical Engineering & Technology’, Vol 5, Issue 7, July 2014, PP 27-35.
  11. Krishna,M and Chowdary,R., “Comparitive Studies on Performance Evaluation of Waste Fried Vegetable Oil in Crude Form and Biodiesel Form in Conventional Diesel Engine.SAE Paper No 2014-01-1947
  12. M.V.S. Murali Krishna, R.P.Chowdary , T.Kishen Kumar Reddy , and P.V.K. Murthy” Performance, Emissions and Combustion Characteristics of Waste Fried Vegetable Oil Based Biodiesel in high Grade Low Heat Rejection Diesel Engine” ‘British Journal of Applied Science & Technology’,Vol -3, issue -4: PP1345-1367,2013.
  13. R.P.Chowdary, T.Kishen Kumar Reddy, M.V.S.Murali Krishna, and P.V.K. Murthy “ Studies on Emissions And Combustion Characteristics Of Waste Fried Vegetable Oil in Crude Form And Biodiesel Of High Grade Low Heat Rejection Diesel Engine” ‘International journal of Automobile Engineering Research & Development’, Vol 3,issue 1,Mar 2013,PP 63-74.
  14. M.V.S. Murali Krishna, R.P.Chowdary, T.Kishen kumar reddy, P.V.K. Murthy “ Performance Evaluation of Waste Fried Vegetable oil in A Low Grade Low heat Rejection Diesel Engine” International Journal Of Research in Mechanical Engineering, Volume 2, Issue 2, July-Dec 2012, PP 35-44.
  15. M.V.S. Murali Krishna, R.P.Chowdary ,T.K.K.Reddy, and P.V.K. Murthy “A Comparitive Study Of The Performance Of A Low Heat Rejection Engine With Three Different Levels Of Insulation With Waste Fried Vegetable Oil Operation”. International Journal Of Science and Technology , Volume2, No 6, June 2012,PP 358-371
  16. R.P.Chowdary, M.V.S. Murali Krishna, T.K.K.Reddy, P.V.K. Murthy “ Performance Evaluation Of A High Grade Low Heat Rejection Diesel Engine With Waste Fried Vegetable Oil” International Journal Of Engineering And Technology , Volume2, No 3, March 2012,PP 440-450
  17. Naga s. Sarada, Kalyani K. Radha, Reddy T.K.K, Murali Krishna M.V.S, R.P. Chowdary, Shanker “Performance Evaluation of A Low Heat Rejection Diesel Engine With Waste Fried Vegetable Oil” International Journal Of Mechanical Engineering And Material Sciences, Volume 3, Number 1; Jan-Jun 2010,PP 1-8

**National Journal:**

1. Dr. R.P. Chowdary, Dr. Ch.Indira Priyadarsini, B. Sashikanth “Design and Simulation of Downdraft Gasifier For Various Biomass”; NOVIY MIR Research Journal, ISSN; 0130-7673, Vol-6, Issue- 6, June 2021, PP- 80-87.
2. Dr. R.P. Chowdary, Ch. Swaraj Reddy, Ch. Sri Krishna Shailesh, G. Uday Kiran; “Thermoelectric Cooling And Heating By Peltier Effect”, Journal of Emerging Technologies and Innovative Research,ISSN-2349-5162, Vol-7, Issue-4, April 2020, PP-1147-1153.
3. R.P. Chowdary, M. Ravi Chandra and M.V.S. Murali Krishna; “Effect of Air Gap Thickness on Exhaust Emissions of Partially Adiabatic Diesel Engine with Tamarind Biodiesel”, “Pollution Research”. Vol 38 ,

Issue (2) : Feb -2019, ISSN 0257–8050, PP. 254-260.

4. N. Venkateswara Rao, M.V.S. Murali Krishna, R. Peraiah Chowdary, N. Janardhan, V.V.R. Seshagiri rao and T. Ratna Reddy; "Experimental Investigations on Pollution Levels from Supercharged Partially Adiabatic Diesel Engine with Tamarind Biodiesel Blended With Diethyl Ether", "Pollution Research". Vol-37, Issue (4) : Aug 2018, ISSN 0257–8050; PP-1075-1079.
5. Dr. R.P. Chowdary, Dr.M.V.S. Murali Krishna, "Experimental Investigations of Performance Parameters on Direct Injection Diesel Engine with Alternative Fuels", "Journal of Emerging Technologies and Innovative Research" June 2018, Volume 5, Issue 6, ISSN-2349-5162, PP-287-292.
6. R. P. Chowdary, T. Kishen Kumar Reddy, M. V. S. Murali Krishna, and P. V. K. Murthy, "Performance, Emissions and Combustion Characteristics of Waste Fried Vegetable Oil Based Biodiesel in high Grade Low Heat Rejection Diesel Engine" Journal of Mechanics & Industry Research, Vol 1(2), PP 33-43
7. M.V.S. Murali Krishna, T.K.K.Reddy, V.V.R.Seshagiri Rao, and R.P. Chowdary "Comparative Studies Of Pollution Levels Of High Grade Insulated Engine With Jatropa Oil and Pongamia Oil Based Bio Diesel" Ecology.Environment & Conservation. 17(3): 2011 PP (575-579)
8. M.V.S. Murali Krishna, G.Sarita, V.V.R.Seshagiri Rao, R.P. Chowdary, and Ch.V.Ramana Reddy "performance and Emission characteristics of a low heat rejection engine with different air gap thicknesses with Jatropa oil based bio-diesel" 'Environment.Science & Engg' Vol 52, No 2, PP 97-102, April 2010
9. M.V.S. Murali Krishna, P.V.K.Murthy, R.P. Chowdary, And V.V.R.Seshagiri Rao," Matching Of Injection Timing In High Grade Low Heat Rejection Engine For Improved Performance With Pongamia Oil Based Bio Diesel' 'Enviro Media' Volume 28, Number 2, 2009, PP 171-180
10. M.V.S. Murali Krishna, T.K.K.Reddy, V.V.R.Seshagiri Rao, and R.P. Chowdary " Performance and Emission characteristics of a low heat rejection engine with different air gap thicknesses with pongamia oil based bio-diesel" 'Engineering today ' Volume x, Number -10: October 2008, PP 17-28.
11. M.V.S. Murali Krishna, R.P. Chowdary, A.Satish Chandra, V. Shiva Krishna and CH.Raju "performance Evaluation Of Low Heat Rejection diesel Engine with Blends of Diesel and Waste Fried Vegetable Oil." 'Enviro Media' Volme 26 ,Number3 , 2007 PP 429-434

#### **International Conferences:**

1. Dr. R. P. Chowdary, Dr. Ch. Indira Priyadarshini, V.Jaipl Reddy, P.Anjani Devi, A. Chandrakanth, T.N. Aditya; "Solar Powered Sensors for Efficient Routing Without Power Constraints", 3<sup>rd</sup> International Conference on Innovative Practices in Technology and Management"(ICIPTM-2023); 22-24<sup>th</sup> Feb at AMITY University, NOIDA
2. R.P. Chowdary, M.V.S. Murali Krishna, T. Kishen Kumar Reddy, B.Sudheer Prem Kumar and K.Ravi Kumar" Comparative Studies on Exhaust Emissions of Waste Fried Vegetable Oil in Crude Form and BioDiesel of High Grade Semi Adiabatic Diesel Engine"; International Conference on Current research topics in Power, Nuclear and Fuel Energy(PNFE)-2016', organized by St.Peter's Engineering College, Hyderabad during 25<sup>th</sup> to 27<sup>th</sup> October 2016
3. Raavi peraiiah chowdary, Maddali. V.S. Krishna, T.Kishen Kumar Reddy, D.Srikanth, P.V.Krishna Murthy, N.Janardhan; "Experimental investigations on DI diesel engine with low heat rejection combustion chamber with waste fried vegetable oil and its biodiesel", Paper Number: IMECE2015-53202 ;ASME International Mechanical Engineering Congress& Exposition; Nov. 13-19, 2015, pp.V08BT10A059; 14 Pages doi:10.1115/IMECE 2015-53202 , Houston,Texas.

#### **Patents**

<b>S. no.</b>	<b>Title of Invention</b>	<b>Names of the Investigators</b>	<b>Process / product /</b>	<b>Filed / published / granted with No. &amp; Date</b>
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		<b>design</b>				
1	Reduction of pollution levels in insulated partially adiabatic Diesel Engine operated with Methanol And vegetable oil	1) Dr. M.V.S. Murali Krishna 2) Dr. N.Janardhan 3) Dr. R.P. chowdary 4) Dr. V.V. R. Seshagiri Rao	Process	Published 202141044970 A Dt. 04-10-2021	05-11-2021	
2	Control of Aldehydes in medium grade insulated Diesel engine with Inexpensive catalytic converter	1) Dr. M.V.S. Murali Krishna 2) Dr. T. Ratna reddy 3) Dr R.P. Chowdary 4) Dr. V.V. R. Seshagiri Rao	Process	Published 202241039528 A Dt. 06-07-2022	15-07-2022	
3	Diesel engine with different levels of Insulation for controlling pollution levels	1.M.V.S.Murali Krishna 2.R.P.Chowdary 3.V.V.R.Seshagiri Rao 4.N.Janardhanan	Process	Published 202241038961 Dt. 06-07-2022	15-07-2022	

