Dr V V R SESHAGIRI RAO Name of Faculty Designation Associate Professor Regular Nature of Job/Appointment Date of Joining 24-05-2005 E-mail seshagirirao\_mech@cbit.ac.in **Education Qualifications** Name of the Degree Ph. D Doctor of Philosophy (Mechanical Engineering) Awarded PG M. Tech (Thermal & Fluids Engg) from IITB CGPA of 8.02 UG B. Tech (Mechanical Engg.) First Class **Work Experience** Teaching 32 Years (Includes research experience) Research 14 years Industry Others Area of Specialization Internal Combustion Engines, Alternative Fuels Life Member of Indian Society of Technical Education (ISTE) Professional Memberships (LM2348) Responsibilities held at Institution 1. Assistant Controller of Examinations (Evaluation) since January Level 2019. 2. ISO coordinator for Mechanical Engineering Department. Responsibilities held at Department 1. Member - Board of Studies Level 2. Coordinator - Course Expert Group - Thermal Engineering Stream. Research Guidance Awards Received Thermodynamics; Courses Handled at Under Graduate / Applied Thermodynamics; Applied Thermodynamics and Heat Transfer; Refrigeration Post Graduate Level. and Airconditioning; Thermal Turbo Machines; Advanced Thermodynamics; National Journals International Journals 22

National Conference - 02

Patents

No. of Papers Published

**Projects Carried out** 

## Granted:02, Published:01

International Conference - 01

Dr. M.V.S. Murali Krishna, Dr. N.Janardhan, Dr. R.P. Chowdary, Dr. V.V. R. Seshagiri Rao, A process Patent published with File No.: 202141044970 A, date of filing of application 04/10/2021 and

- Publication date: 05/11/2021 with title of Invention as 'Reduction of pollution levels in insulated partially adiabatic Diesel Engine (PADE) with an insulated piston operated with Methanol And vegetable oil. Patent got Granted on 09-03-2023.
- Dr. M.V.S. Murali Krishna, Dr. T.Ratna Reddy, Dr. R.P. Chowdary, Dr. V.V. R. Seshagiri Rao, A process Patent published with File No.: 202241039528 A, date of filing of application 06/07/2022 and Publication date: 15/07/2022 with title of invention as Control of Aldehydes in medium grade insulated Diesel engine with Inexpensive catalytic converter.
- M.V.S. Murali Krishna, R.P. Chowdary, V.V. R. Seshagiri Rao, N.Janardhan, A process Patent published with File No.: 202241038961, date of filing of application 06/07/2022 and Publication date: 15/07/2022 with title of Invention as Diesel engine with different levels of insulation for controlling pollution levels. Patent got Granted on 30-01-2023.

Technology Transfer
Invited Speaker

## No. of Books/Chapter Published with details :

1. Book published by National Level publishers, with ISBN/ISSN number: "Proceedings of National workshop programme on Alternate Liquids fuels in IC engines, ISBN 978-93-85518-11-9".

# <u>Details of Short-Term TrainingPrograms / Faculty Development Programs / Seminars / Workshops / Other</u> Trainings (Attended and/or <u>Organized</u>).

- 1. Coordinator for the TEQIP-II sponsored "A Two-Day National Workshop Programme on Alternative Liquid Fuels in I.C.Enginesconducted at CBIT, Hyderabad during 17-18, February 2017.
- 2. One-week STTP on "CNC & Robotics Programming in Manufacturing Industries" organized by Department of Mechanical Engineering, JNTU, Kakinada during 2<sup>nd</sup> -7<sup>th</sup> July 2018 (Sponsoring Agency: TEQIP).
- 3. Attended
- 4. Participated in the AICTE Recognized One week FDP Programme on "OBE for NEP Implementation", conducted by Mechanical Engineering Department, NITTTR, Chandigarh from 09/10/2023 to 13/10/2023.
- 5. Completed a SWAYAM-NPTEL 8 Weeks Course (FDP) on "Waste To Energy" during Jan March 2023.
- 6. Completed a SWAYAM-NPTEL 12 Weeks Course (FDP) On "Advanced Thermodynamics and Combustion" during July-Oct 2022(Elite Category).
- 7. Completed a SWAYAM-NPTEL 8 Weeks Course (FDP) on "Robotics" during July-Sept 22.
- 8. Completed a SWAYAM-NPTEL 12 Weeks Course (FDP) on "Non-Conventional Energy Resources" during Jan-Apr 2022
- Completed a SWAYAM-NPTEL 12 Weeks Course (FDP) on "Solar Energy Engineering and Technology" during July-Oct 2021(Elite Category).
- 10. Completed a SWAYAM-NPTEL 12 Weeks Course (FDP) on "Applied Thermodynamics for Engineers" during July-Oct 2021(Elite Category).
- 11. Completed a SWAYAM-NPTEL 12 Weeks Course (FDP) On "IC Engines and Gas Turbines" during Jan-April 2021(Elite Category).

- 12. Successfully Completed the course "Accreditation for Undergraduate Engineering Programmes" offered by SWAYAM and NITTR Bhopal during September 2020.
- 13. One -Week Online Faculty Development Program "Recent Advances in Mechanical Engineering: A Research Perspective; 6-10 July, 2020; Dept Of Mechanical Engineering (Mechatronics)MGIT.
- 14. One Week Faculty Development Program on "Latest Advancements in Mechanical Engineering (LAME-2020)" 13th- 17th July , 2020 CMR college of engineering & technology Hyderabad
- 15. 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
- 16. One week online FDP on "Research Avenues in Thermal Engineering" 26 to 30-07-2020, Vasavi College of Engineering, Hyderabad
- 17. One -Week Online Faculty Development Program in "Advanced Optimization Techniques for Research Problem Solving" 4 8 August 2020, Dept of Mechanical Engineering (Mechatronics) MGIT.
- 18. 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.
- 19. 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.
- 20. 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
- 21. 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
- 22. Attended online Training Program on "SOLAR PV INSTALLATION" from 27.04.2020 to 29.04.2020, Conducted by MSME Technology Development Centre, AGRA.
- 23. Attended Three-day workshop at IIT-Indore on "Measurement Techniques in Thermal Engineering: Recent Advances" during May-2014.

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

### International/National Journals from the Year 2017

- S.Narasimha Kumar, V.V.R.Seshagiri Rao, "Experimental Investigation On Performance Characteristics of Four Stroke Ceramic Coated Diesel Engine Operatining on Linseed Oil Biodiesel", Gradiva Review Journal, ISSN No.0363-8057, Volume 8, Issue 5, 875-895, May 2022.
- V.V.R.Seshagiri Rao, M.V.S.Murali Krishna, R.P.Chowdary and N.Janardhan, "Investigations on exhaust emissions of insulated engine fueled with rice brawn biodiesel", Gradiva Review Journal, ISSN No. 0363-8057, Volume 8, Issue 5, 428-446, May 2022.
- 3. D.S.Madhuri, V.V.R.Seshagiri Rao, "A Review on Electric Vehicles with respect to Range, Maximum Power and Charging Timet", GIS Science Journal, ISSN No. 1869-9391, Volume 9, Issue 4, 610-616, April 2022.
- V.V.R.Seshagiri Rao, Bairi Levi Rakshith, "Analysis of Failure, Die Temperatures and Pressure Field of Casting Die Using Ansys Software", International Journal of Innovative Science and Research Technology, ISSN No. 2456-2165, Volume 6, Issue 8, August 2021.
- 5. V.V.R.Seshagiri Rao, Bairi Levi Rakshith, "Evaporative Condenser Performance Analysis in VCRS with R-134A as Refrigerant", International Journal of Engineering Applied Sciences and Technology, ISSN No. 2455-2143, Volume 6, Issue 3, 204-206, July 2021.
- 6. V.V.R.Seshagiri Rao, Ch.Indira Priyadarshini, B.Levi Rakshith, "Laminar Free Convection From a Heated Square Cylinder in Bingham Plastic Fluids", The International Journal of Analytical and Experimental Modal Analysis, ISSN:0886-9367, Volume XIII, Issue VI, 754-761, June 2021.
- 7. V.V.R.Seshagiri Rao, P.V.R.Ravindra Reddy, "Regression Analysis for Estimation of Outer Surface Finish with the Variation of Feed Rate and Stagger of a Flow Formed Component", GIS Science Journal, ISSN:1869-9391, Volume 8, Issue 6, 1842-1847, June 2021.

- 8. S.Narasimha Kumar, V.V.R.Seshagiri Rao, "Experimental study on Performance characteristics of catalytic coated Spark Ignition engine with alcohol fuels with catalytic converter", Pensee Journal, ISSN:0031-4773, Volume 51, Issue 6, 850-856, June 2021.
- 9. V.V.R.Seshagiri Rao, S.Narasimha Kumar, "Emission Characteristics of Diesel Engine with Dual Fuel Operation", The International Journal of Analytical and Experimental Modal Analysis, ISSN:0886-9367, Volume XIII, Issue VI, 2301-2307, June 2021.
- 10. Dr V.V.R. Seshagiri Rao, P. Anjani Devi, "Design And Numerical Study of Piston for Different Aluminum Alloys", NOVIY MIR Research Journal, ISSN 0130-7673, Volume 6, issue 6, 252 to 257, June-2021.
- 11. P Anjani Devi, Dr G Laxmaiah ,K Y Sreeram, Dr V V Seshagiri Rao, "Fatique and Dynamic Analysis of Control Arm", NOVIY MIR Research Journal, ISSN 0130-7673, Volume 6, issue 6, 123-130, June-2021.
- 12. V.V.R.Seshagiri Rao, "Performance Parameters of Diesel Engine with Jaropha-Methanol Operation at Different Injection Timings and Injector Opening Pressures", Alochana Chakra Journal. ISSN: 2231-3990, Volume IX, Issue VI, 6427-6433, June 2020.
- 13. V.V.R.Seshagiri Rao, 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:0886-9367, Volume XII, Issue VI, 1424-1428, June 2020.
- 14. K.Kishor, V.V.R.Seshagiri Rao, "FE Thermal Analysis of Liner of a 2-Stroke Copper Coated SI Engine", Alochana Chakra Journal. ISSN: 2231-3990, Volume IX, Issue VI, 6400-6406, June 2020.
- 15. V.V.R.Seshagiri Rao, K.Kishor, "Emissions Characteristics of Diesel Engine With Jaropha-Methanol Operation at Different Injector Opening Pressures", Alochana Chakra Journal. ISSN: 2231-3990, Volume IX, Issue VI, 5907-5912, June 2020.
- 16. R.P.Chowdary, V.V.R.Seshagiri Rao, "Performance of Used Cooking Oil Based Biodiesel in a Low Heat Rejection Diesel Engine", International Journal of New Innovations in Engineering and Technology, Volume 13, Issue 3, 19-25, April 2020.
- 17. V.V.R.Seshagiri Rao, "Evaluation of Performance Parameters And Combustion Characteristics Of A Diesel Engine With Vegetable Oil Operation", Journal Of Emerging Technologies and Innovation Research, ISSN: 2349-5162, Volume 6, Issue 6, 234-242, June 2019.
- 18. V.V.R.Seshagiri Rao, "Comparative Analysis of Crude Jatropha Oil–Methanol operation in DI Diesel Engine", International Journal of Recent Innovation in Engineering and Research, ISSN:2456-2084, Volume 3, Issue 6, 26-33, June 2018.
- 19. V.V.R.Seshagiri Rao, "Effects Of Preheated Crude Jatropha Oil On Performance And Emissions Of DI Diesel Engine", International Journal of latest Trends in Engineering and Technology, ISSN:2319-3778, Volume 10, Issue 2, 071-076, April 2018.
- 20. V.V.R. Seshagiri Rao, "Experimental investigations on performance evaluation of DI diesel engine with crude jatropha oil with varying injection timings and injection pressures", Journal of Emerging Technologies and Innovative Research, ISSN:2349-5162, Volume 5, Issue 4, 305-312, April 2018.
- 21. V.V.R. Seshagiri Rao, "Experimental investigations on performance, emissions and combustion characteristics of conventional diesel engine with non-edible vegetable oil operation at varying injection timings", International Journal of Creative Research Thoughts, ISSN: 2320-2882, Volume 6, Issue 1, 420-429, March 2018.
- 22. 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, ISSN:1075-1079, Volume 37, Issue 4, 1075-1079, December 2018.

#### **International Conferences from the Year 2017**

 Ch.Indirapriyadarshini. V.V.R.Seshagiri Rao and P. Anjani Devi, "Numerical Analysis of Solar-Wind Hybrid Power Generation System", ICMPC 2023, E3S Web of Conferences, ISSN No. 25550403, 430, 01280 (2023).

