### Dr. K. Srinivasa Rao



**Designation**: Professor, Dept. of Mech.Engg.

&

Controller of Examinations

**Qualification**: B.Tech., M.Tech, Ph. D.

**Experience** : 19 Years

**Specialization**: Mechanical Engineering

(Thermal Engineering & Energy Systems)

**Date of Joining** : 28-06-2018 **Ph.No**. : +919849885080

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### **ACADEMIC QUALIFICATIONS:**

- ➤ Ph.D. (Mechanical Engineering Thermal Engineering) from Andhra University, Visakhapatnam, for the thesis titled "Comparative Performance Evaluation, Combustion and Emission Characteristics of Diesel Engine Using Chicken Fat Biodiesel" in 2015.
- ➤ M. Tech. (Energy Systems) from Jawaharlal Nehru Technological University (Campus), Hyderabad, in 2000
- ➤ B. Tech (Mechanical Engineering) from Nagarjuna University, Guntur, in 1998.

### **EXPERIENCE:** Total Teaching – 19 Years (Approx.)

### At CMR College of Engineering & Technology, Hyderabad – 1 Year

★ Have been working as Professor and Head of centre for Thermal Sciences of the department of Mechanical Engineering in CMR College of Engineering & Technology since 28/06/2018

### At Sai Spurthi Institute of Technology, Sathupally – 14 Years

- **★** Worked as **Professor** and Head of the department of Mechanical Engineering in **Sai Spurthi Institute of Technology**, Sathupally **from** 01/08/2011 to 27/06/2018.
- **★** Worked as **Associate Professor** and Head of the department of Mechanical Engineering in **Sai Spurthi Institute of Technology**, Sathupally from **July 2006 to June 2011**.
- \* Worked as Assistant Professor of Mechanical Engineering Department in Sai Spurthi Institute of Technology, Sathupally from July 2004 to June 2006.

# At Nagarjuna Institute of Technology & Science, Miryalaguda- 4 Years

- ★ Worked as Assistant Professor of Mechanical Engineering Department in Nagarjuna Institute of Technology & Science, Miryalaguda from Sep 2000 to July 2004.
- ★ Worked as Assistant Professor of Mechanical Engineering Department in Nagarjuna Institute of Technology & Science, Miryalaguda form Oct 1998 to Jan 1999.

**AREA OF INTREST**: I.C Engines,

Combustion, Alternative Fuels, Thermodynamics

Thermal Engineering and

Heat Transfer

# RESEARCH PUBLICATIONS

**International Journals: 21** 

- 1. V. V. Kondaiah, Ravi Kumar Panthangi, **K. Srinivasa Rao**, "Analysis of Deep Groove Ball Bearings Using Ansys" Global Journal Of Engineering Science And Researches, Special Issue of ICAME 2018 Conference. (ISSN: 2348-8034) (UGC Approved Journal: Serial No.64316) <u>Link</u>
- 2. K B Mutyalu, V C Das and **K Srinivasa Rao**, Experimental Investigation on Performance and Emission Characteristics of DI-CI Engine Fueled with Preheated Shea Olein Biodiesel, International Journal of Mechanical Engineering and Technology, 9(11), **2018**, pp. 2006–2014. (**Scopus indexed**). Link
- 3. **K. Srinivasa Rao**, Ravi Kumar Panthangi & V. V. Kondaiah, Comparative vibration study of a diesel engine fueled with chicken fat biodiesel, International Journal of Engineering & Technology, 7 (4) (2018) 3195-3198, doi: 10.14419/ijet.v7i4.19421, ISSN: 2227-524X, (Scopus indexed). Link
- 4. **K. Srinivasa Rao**, Ravi Kumar Panthangi & V. V. Kondaiah, An Experimental Study on the Characteristics of Di-Ci Engine with the Preheated Waste Cooking Oil Methyl Ester, International Journal of Mechanical and Production Engineering Research and Development (IJMPERD) ISSN(P): 2249-6890; ISSN(E): 2249-8001Vol. 8, Issue 6, Dec **2018**, 47-58. (**Scopus indexed**) <u>Link</u>
- K Srihitha, K Polaiah and K Srinivasa Rao, Experimental Investigation of SI Engine Characteristics with Methanol Blended Petrol, International Journal of Research in Advent Technology, Vol.6, No.9, September 2018, pp. 2375-2378. (UGC approved Sl. No. 48768). Link

- 6. V. V. Kondaiah, Ravi Kumar Panthangi and **K. Srinivasa Rao**, Microstructure and Mechanical Properties of Flyash Particle Reinforced Aluminum Composite, International Journal of Mechanical Engineering and Technology, 9(8), **2018**, pp. 893–897. (**Scopus indexed**). Link
- 7. K B Mutyalu, V C Das and **K Srinivasa Rao**, Experimental Investigation on Characteristics of DI-CI Engine Fueled with Shea Olein Biodiesel, International Journal of Mechanical Engineering and Technology, 9(7), **2018**, pp. 1014–1021. (**Scopus indexed**). Link
- 8. K B Mutyalu, Dr. V C Das, **Dr. K Srinivasa Rao**, "Effect of Fuel Injection Pressure on Performance and Emission Characteristics of DI- CI Engine with Shea Olein Biodiesel" Materials Today: Proceedings Volume 5, Issue 1, part1, (2018) 494–500, Science Direct Materials Today(ISSN: 2214-7853): ELSEVIER Link
- 9. Shaik Chand Mabhu Subhani, S.Koteswara Rao, P.Durga Neeharika, **Dr. K. Srinivasa rao** and N.Vijay kumar, "An Experimental Investigation of Performance, Combustion and Emission Characteristics of Diesel Engine Fueled with Bio Diesel and its Blends "International Journal of Engineering, Science and Mathematics, Volume 6, Issue 8 (**2017** Special Issue) pp. 379-390. <u>Link</u>
- 10. **K Srinivasas Rao,** "Studying the Effect of Compression Ratio on DI-CI Engine Performance and Emission Characteristics Fueled with Ethanol Blended Diesel", International Journal of Applied Engineering Research, Volume 12, Number 12 (**2017**) pp. 3426-3430. (**Scopus indexed**). Link
- 11. **K Srinivasa Rao**, "An Experimental Study of Diesel Engine Characteristics Fueled with Ethanol Blended Diesel", International Journal of Thermal Technologies, Vol.7, No.1, Jan **2017**, pp. 1-5. <u>Link</u>
- 12. **K Srinivasa Rao**, "Combustion Characteristics of DI-CI Engine with Biodiesel Produced from Waste Chicken Fat" ARPN Journal of Engineering and Applied Sciences, VOL. 11, NO. 17, SEPTEMBER **2016**, pp. 10346-10355. (peer-reviewed, IF=2.56 & indexed in Scopus). Link
- 13. **K Srinivasa Rao**, "Effect of EGR on Diesel Engine Performance and Exhaust Emission Running with Cotton Seed Biodiesel" International Journal of Mechanical & Mechatronics Engineering IJMME-IJENS, **Vol:16** No:02, April **2016**, pp. 64-69. (**IF=1.826 &** indexed in **Scopus**). <u>Link</u>
- 14. **K Srinivasa Rao,** K Bhaskara Mutyalu and A Ramakrishna, "Effect of Exhaust Gas Recirculation on Performance and Emission Characteristics of Diesel Engine Fueled with Waste Cooking Oil Methyl Ester" ARPN Journal of Engineering and Applied Sciences, **VOL. 10**, NO. 11, JUNE **2015**, pp. 4799-4804. (**peer-reviewed, IF=2.56 &** indexed by **Scopus**). Link

- 15. **K Srinivasa Rao** and Dr. A Ramakrishna, "Cost Estimation Analysis of Biodiesel Production from Waste Chicken Fat" International Journal of Applied Engineering Research, **Volume 10**, Number 4 (**2015**) pp. 8863-8870. (indexed by **Scopus**). <u>Link</u>
- 16. **K Srinivasa Rao,** K Bhaskara Mutyalu and Dr. A Ramakrishna "Diesel Engine Performance and Emission Characteristics with Chicken Fat Biodiesel Compared to other Biodiesels" International Journal of Modern Trends in Engineering and Research, Volume 2, Issue 7, [July-2015] Special Issue of ICRTET'2015, pp. 1638-1647. Link
- 17. **K Srinivasa Rao**, Dr. A Ramakrishna and P V Rao, "Effect of Fuel Injection Pressure on Performance and Emission Characteristics of DI-CI Engine Fueled with Chicken Fat Biodiesel", International Journal of Thermal Technologies, vol.3, No.2, pp 53-59, **2013**.(**IF=1.75**). Link
- 18. **K Srinivasa Rao**, Dr. A Ramakrishna and P V Rao, "Performance and Emission Characteristics of DI-CI Diesel Engine with Preheated Chicken Fat Biodiesel", International Journal of Mechanical Engineering and Technology, vol.4, Issue 3, pp 177-190, **2013**. (**IF=5.77**). <u>Link</u>
- 19. **K Srinivasa Rao**, Dr. A Ramakrishna and Dr. B S K Sundara Siva Rao, "Experimental Studies on the Characteristics of Diesel Engine with Chicken Fat Methyl Ester", International journal of Automotive Technology, vol.29, Issue1, pp 1114-1122, **2013**. (**IF=3.41**)
- 20. **K Srinivasa Rao,** S V K Narendra and P V Rao, "Characteristics of A DI-CI Engine Fueled with Preheated Corn Biodiesel" International Journal of Mechanical Engineering, Vol.40, Issue.10, pp 350-357, **2012**. (**IF=3.221**). <u>Link</u>
- 21. **K Srinivasa Rao**, P V Rao, and Dr. B S K Sundara Siva Rao, "Performance, Combustion and Emission Characteristics of DI-CI Engine Fueled with Corn Methyl Ester and its Diesel Blends" International Journal of Advances in Engineering Research, vol.3, Issue 5, pp 56-68, **2012**. <u>Link</u>

#### **International Conference: 5**

- **1.** V. V. Kondaiah, Ravi Kumar Panthangi, **K. Srinivas Rao**, "Analysis of Deep Groove Ball Bearings Using Ansys" Proceedings of 1<sup>st</sup> International Conference on Advances in Mechanical Engineering, **ISBN: 978-81-923800-1-8**, 21<sup>st</sup> & 22<sup>nd</sup> December, 2018, Department of Mechanical Engineering, CMR College of Engineering & Technology, Hyderabad. Pp 127-134. Link
- 2. K B Mutyalu, Dr. V C Das, Dr. K Srinivasa Rao, "Effect of Fuel Injection Pressure on Performance and Emission Characteristics of DI- CI Engine with Shea Olein Biodiesel" International Conference on Processing of Materials, Minerals and Energy (July 29th 30th) 2016, Ongole, Andhra Pradesh, India, Science Direct Materials Today: ELSEVIER Proceedings (2016).

- **3. Dr. K Srinivasa Rao,** "A DI-CI Engine Characteristics with Ethanol Blended Diesel", International Conference on Research Challenges in Engineering and Technology ICRCET'2016, Siddharth Institute of Engineering and Technology, Puttur, AP., on18-19 August 2016.
- **4. K Srinivasa Rao,** K Bhaskara Mutyalu and Dr. A Ramakrishna "Diesel Engine Performance and Emission Characteristics with Chicken Fat Biodiesel Compared to other Biodiesels" ICRTET'2015, July 2-4, **2015**, pp. 43-51., Proceedings published by **Mc Graw Hill Education, ISBN:978-93-392-2288-8**
- **5. K Srinivasa Rao**, G Bhanu Veera Prasad and Dr. A Ramakrishna, "Performance and Emission Characteristics of DI-CI engine using Corn Biodiesel at Different Fuel Injection Pressures", ICRTET **2014**, **ELSEVIER** Science and Technology Proceedings, **ISBN**: **978-93-5107-222-5**, **28-30** march **2014**, **pp. 31-35**

## **National Conferences: 3**

- **1. K. Srinivasa Rao**, Ravi Kumar Panthangi & V. V. Kondaiah, "Effect of EGR on Characteristics of Diesel Engine Fueled with Corn Biodiesel, Proceedings of National Conference on Emerging Trends in Mechanical and Chemical Engineering, Organized by Anurag Group of Institutions on 24<sup>th</sup> and 25<sup>th</sup> January 2019.
- **2. K Srinivasa Rao**, Dr. A Ramakrishna and P V Rao, "Performance Evaluation, Combustion, Emission and Vibration Characteristics of DI-CI engine using Chicken Fat Biodiesel" Proceedings of National Conference NCIET **2013**, **ISBN: 978-1-4276-5484-7**, pp. 176-181.
- **3.** P Srinivasa Rao, **K Srinivasa Rao**, and G Venkateswara rao "Performance and Emission Characteristics of Diesel Engine Fuelled by Biodiesel Derived from Linseed Oil" Proceedings of National Conference NCIET **2013**, **ISBN: 978-1-4276-5484-7**, pp. 182-187.

### PROFESSIONAL BODY MEMBERSHIPS:

Name of society	Grade of membership	Date of election	Whether still member
ISTE	Member-LM 59386	2008	yes
MCI-IS	Member-LMC 1229	2013	yes
MIE	LM-146565-6	2013	yes
IAENG	LM 205645	2017	yes
MISHMT	LM-1255	2018	yes
SMAE	LM 02141	2018	yes

### **OTHER IMPORTANT DETAILS:**

- Completed **NPTEL Online Certification** with **Elite+Silver** from MHRD, Govt. of India, for the course **IC Engines and Gas Turbines** offered by **IIT Guwahati** with consolidated **score of 75%(Stood in top 5% TOPPER)**, During Jan-Apr 2019(12 week course).
- Completed **NPTEL Online Certification** with **Elite** from MHRD, Govt. of India, for the course **Engineering Thermodynamics** offered by **IIT Kanpur** with consolidated **score** of 81%(Stood in top 5%- TOPPER), During July-October 2018(12 week course).
- Experienced in establishing Mechanical Engineering Laboratories.
- Ratified by JNTUH University selection committee as Associate Professor in 2009 and Asst. Professor in 2002
- Editorial Board Member of International Journal of Mechanical Engineering & Technology (IJMET- Scopus indexed), ISSN.NO:0976-6340
- Reviewer for International Journal of Technology (IJTech), a Scopus indexed journal, ISSN No.2087-2100.
- Reviewer for International Journal of Renewable Energy Research (IJRER), a Scopus indexed journal, ISSN: 1309-0127
- Reviewer for International Journal of Engineering Research and Technology (IJERT), a peer-reviewed journal, ISSN: 2278-0181
- International advisory committee member of International Conference on Alternate Fuels (ICAF 2016), Turkey. (http://www.icaf-e.com/2016/committees.html)
- In-charge for Academic Section in **Spurthi Institute of Technology** from October 2005 to December 2016
- Discharged the responsibilities of the officer in charge of examination section in **Spurthi Institute of Technology** from October 2005 to December 2016, in addition to the regular class work.
- Acted as the officer in charge of exams in Nagarjuna Institute of Technology & Science, Miryalaguda for 2 years. 6 months.
- **Governing Body Member** of Spurthi Institute of Technology from July 2011 to June 2018.

#### FDPS / WORKSHOPS / SEMINARS ATTENDED

- Participated in Two-Week faculty development program (FDP) on METAHEURISTIC OPTIMIZATION ALGORITHMS IN ENGINEERING, Organized by E&ICT Academy at CMR College of Engineering & Technology(Autonomous) from 6<sup>th</sup> 15<sup>th</sup> May, 2019.
- Completed NPTEL course equivalent to 1.5 FDP (12 week course) on IC Engines and Gas Turbines offered by IIT Guwahati with consolidated score of 75%(Stood in top 5% TOPPER), During Jan-Apr 2019(12 week course).
- Participated in **Two-Week** faculty development program on **Entrepreneurship Development**, Sponsored by DST-NIMAT Project 2018-19 held at S R Engineering College, Warangal, during 26<sup>th</sup> November to 8<sup>th</sup> December 2018.

- Participated in IonIdea-sponsored ICTIEE 2019 Workshop on IONCUDOS Outcome Based Education Platform on Jan 7<sup>th</sup>, 2019 at Malla Reddy Engineering College (Autonomous), Hyderabad, India.
- Attended **International Conference on Transformations in Engineering Education** as Delegate on 7<sup>th</sup> and 8<sup>th</sup> January 2019 at Malla Reddy Engineering College (Autonomous), Hyderabad, India.
- Participated in **Two day** National Level "**Workshop on Additive Manufacturing Technology**" held at CMR Institute of Technology, Hyderabad on 26<sup>th</sup> and 27<sup>th</sup> of October 2018 Organized by Department of Mechanical Engineering.
- Participated in "A Hands on Workshop on MOOC Development" held at CMR College of Engineering & Technology, Hyderabad on 6<sup>th</sup> and 7<sup>th</sup> of October 2018 Conducted by leadingIndia.ai, a nationwide initiative by Bennett University, Greater Noida, India
- Participated in **One Day** invited lecture on **Current Trends in Precision Engineering** by Prof. V C Venkatesh, University of Nevada, Las Vegas, USA on 7<sup>th</sup> September 2018, organized by Department of Mechanical Engineering, CMR College of Engineering & Technology, Hyderabad.
- Participated in **One-Week** faculty development program on **Effective Methods of Teaching the Course on Internal Combustion Engines and Alternate Power Sources for Automobiles,** Organized by Department of Mechanical Engineering in association with Teaching Learning Centre(MHRD), **NIT Warangal**, during 19<sup>th</sup> 24<sup>th</sup> of June 2017.
- Participated in **2-week** faculty development program on **Current Trends in Materials** and **Manufacturing** held from 15<sup>th</sup> to 27<sup>th</sup> may 2017, organized by Department of Mechanical Engineering, CMR College of engineering & technology, Hyderabad
- Participated in **National Seminar** on **Advances in Composite Materials** (ACM-2017) sponsored by **DST** on 21-22 April 2017 organized by R.V.R & J. C College of Engineering, Guntur.
- Participated in the **one week Faculty Development Program** on **Thermal and Fluid Analysis: CFD Approach** (**TFA 2017**) organized during 27<sup>th</sup> Feb to 4<sup>th</sup> March 2017 under TEQIP-II by Gokaraju Rangaraju Institute of Engineering and Technology, Hyderabad.
- Participated in **HOD & Faculty orientation** program for JNTUH-e learning solutions and two way delivery mechanism for Teachers & students (e LSDH), on 11/08/2014, at S.B.I.T. Khammam.
- Attended **Workshop** on "**Challenges in Structural Design, Dynamics & Testing: Indian Perspective in the Global Scenario** (CSDDT-2014), on 30<sup>th</sup> & 31<sup>st</sup> jan-2014, A.U College of Engineering, Andhra University.
- Attended **Workshop** on "**Advanced Trends in IC Engines and Combustion**", Feb-2013, J.N.T.U.H College of engineering, Hyderabad.
- **Coordinator** for **Workshop** "**ROBOTRYST 2012**", a national level robotic championship, held on 18<sup>th</sup> & 19<sup>th</sup> Nov-2011, at Sai Spurthi Institute Of Technology.

- Attended national **Seminar** on "Alternate Fuels", 24<sup>th</sup>Dec-2010, K L University, Guntur.
- Attended **workshop on Autodesk inventor professional**, on 29<sup>th</sup> Dec-2009, organized by AKADEMY of Design and Architecture.

## **GUEST LECTURES DELIVERED**

- Delivered invited lecture on "**Processing and Characterization of Chicken Fat Biodiesel**" on 15/09/2018 at Sai Spurthi Institute of Technology, Sathupally, Khammam.
- Delivered invited lecture on "**Biodiesel A Promising Alternative Fuel**" on 06/08/2018 at Sai Spurthi Institute of Technology, Sathupally, Khammam.
- Delivered **Guest Lecturer** on "**Thermal Engineering and Its Applications**" on 22/09/2016 at, CMR College of Engineering & Technology, Kandlakoya, Hyderabad
- Delivered **Guest Lecturer** on "**Effect of Fuel Injection Pressure on DI-CI Engine Characteristics**" on 03/09/2016 at, Samskruti College of Engineering and Technology, Kondapur, Hyderabad
- Delivered Guest Lecturer on "Diesel Engine Characteristics with Various Bio fuels" on 18/03/2016 at, Anu Bose Institute of Technology, Paloncha.
- Delivered Guest Lecturer on "Preparation and Characterization of Alternative Fuels" on 16/02/2016 at, CMR College of Engineering & Technology, Kandlakoya, Hyderabad.
- Delivered **Guest Lecturer** on "**Combustion Characteristics of Diesel Engine**" on 30/12/2015 at, Anu Bose Institute of Technology, Paloncha.
- Delivered Guest Lecturer on "Effect of EGR on DI-CI Engine Fueled with Biodiesel" on 17/12/2015 at, CMR College of Engineering & Technology, Kandlakoya, Hyderabad.
- Delivered **Guest Lecturer** on "**Advances in IC Engines**" on 17/07/2015 at, Samskruti College of Engineering and Technology, Kondapur, Hyderabad
- Delivered **Guest Lecturer** on "**Basics of Thermodynamics**" on 29/01/2015 at, Anu Bose Institute of Technology, Paloncha.
- Delivered **Guest Lecturer** on "**Fundamentals of Thermodynamics**" on 15/02/2014 at, Ramachandra Engineering College, Eluru.
- Delivered **Guest Lecturer** on "**Thermodynamics & Applications**" on 02/11/2012 at, G.V.V.I.T, Bhimavaram.
- Delivered Guest Lecturer on "Basic of I.C engine & Combustion" on 7<sup>th</sup> & 8<sup>th</sup> March2012 at SRR Engineering college, Karepally.

#### **SYMPOSIUMS ORGANIZED**

- Convener for AZURA-2K18 (A National Level Students Symposium), organized by CMR COLLEGE OF ENGINEERING & TECHNOLOGY, Hyderabad on 28<sup>th</sup> & 29<sup>th</sup> December 2018.
- **Convener** for **MECHRISER -2016** (A National Level Mechanical Engineering Students Technical Symposium), organized by Department of Mechanical Engineering, SAI SPURTHI INSTITUTE OF TECHNOLOGY on 16<sup>th</sup> & 17<sup>th</sup> September 2016.
- **Co- convener** for **NTSERT-14** (National Technical Symposium in Engineering Recent Trends-2014), organized by SAI SPURTHI INSTITUTE OF TECHNOLOGY on 15<sup>th</sup> March 2014.

- **Convener** for **MECHRISER -2014** (A National Level Mechanical Engineering Students Technical Symposium), organized by Department of Mechanical, SAI SPURTHI INSTITUTE OF TECHNOLOGY on 10<sup>th</sup> & 11<sup>th</sup> March2014.
- **Co- convener** for **NTSERT-13** (National Technical Symposium in Engineering Recent Trends-2013), organized by SAI SPURTHI INSTITUTE OF TECHNOLOGY on 15<sup>th</sup> & 16<sup>th</sup> march 2013.
- **Coordinator** for **MECHRISER-2012** (A National Level Mechanical Engineering Students Technical Symposium), organized by Department of Mechanical, SAI SPURTHI INSTITUTE OF TECHNOLOGY on 2<sup>nd</sup> & 3<sup>rd</sup> March2012.