

Dr. B. Sudheer Prem Kumar M.Tech., Ph.D., FIE

Professor & Chairman(Board of Studies) Mechanical Engineering,

Department of Mechanical Engineering,

J. N. T. University,

Hyderabad – 500085

Telangana State, India.

Email: bsudheerpk@yahoo.co.in (Personal)

bsudheerpk@jntuh.ac.in

Contact No: +91 9849451103



Academic Chronicle:

- **Ph.D. (I.C. Engines)** from **Jawaharlal Nehru Technological Univeristy** Hyderabad, India in Feb. 2003.

***Thesis:** Development of an Intelligible and Reliable Tool to Predict the Performance, Emissions and Combustion Characteristics of a Four Stroke Direct Injection Compression Ignition Engine.*

- **M. E. (R&AC)** from **Coimbatore Institute of Technology, Bharathiar University**, Coimbatore, India, in 1989. **(First rank, Gold medallist)**

***Thesis:** A Balanced System Selection for the Milk Products Factory.*

- **B.Tech (Mechanical Engineering)** from **JNTU College of Engineering, Jawaharlal Nehru Technological University, Anantapur (Campus)** with **74%** in 1985.
- **Intermediate (M.P.C.)** from **Government Junior College**, Jammalamadugu, Kadapa (District), Andhra Pradesh. with **79%** in 1981. **(Topper in the M.P.C. Stream)**
- **S.S.C. (Composite Maths)** from **Government Junior College**, Jammalamadugu, Kadapa (District), Andhra Pradesh with **68%** in 1979.

Experience, Professional Memberships & Research Publications:

Work Experience	29 Yrs
Research Experience	15 Yrs
Professional Memberships	06
No. of Papers in International Journals	96
No. of Papers in International Conferences	18
No. of Papers in National Conferences	18
No. of Ph.Ds Guided	12
No. of Ph.Ds on going	11

Significant Contributions/ Recognitions/ Honors:

- Got the **Best Paper Award** in the **International Conference IFAMS 2000** –at C.I.T., Coimbatore in Jan'2000 for the paper titled “Feasibility of three dimensional computations to predict in cylinder flow field”
- Acted as **The International Jury member** in the **International Paper Contest of Cyient**, during Feb-March 2015, along with other members including from US.
- **Expert Committee Member of All India Council of Technical Education (AICTE)** for Inspection of different colleges all over India.
- **Chairman** for the **Design of Curriculum** for Mechanical Engineering Stream for **nearly 300 Colleges affiliated to JNTU Hyderabad.**
- **Key Person (Mechanical)** in the Development of **Choice Based Credit System (CBCS)** at the **JNT University Level & Autonomous College Level.**
- **Vice-Chancellor (JNT University) Nominee** for selections of Faculty in **National Teachers Training Institute (NTTI)**, Chennai, India.
- **Finance Co-ordinator** and **Quality Co-ordinator** at the JNT University level in the utilization of **World Bank Fund** (Nearly 12 Crore rupees) to the University under Technical Education Quality Improvement Programme (**TEQIP**) during 2011 to 2014.
- **Selection Committee Member of AP State Public Service Commission (APPSC)** in the selection process of Assistant Professors in Government Polytechnic Colleges and Assistant Motor Vehicle Inspectors.
- **Selection Committee Member of Staff Selection Committee** of SV University - Tirupati, JNT University - Ananthapur, JNT University - Kakinada & JNT University - Hyderabad.
- **Adjudicator for Ph. D & M. Tech** Theses of SV University – Tirupati, JNT University- Ananthapur, Andhra University-Vishakhapatnam, JNT University - Kakinada, Osmania University - Hyderabad & JNT University - Hyderabad.
- **Question Paper Setter** for the **State Level Examinations (for Andhra Pradesh & Odisha States)** like ECET, RECET, PGECET organized by different Government Organizations and other Pre-Ph.D exams.

- Deputed by JNTU Hyderabad as **Special Observer** (only Four Professors were deputed) to conduct Engineering Common Entrance Examination in the **State of Jharkhand** in 2007.
- Acted as **Central Level Observer** for Different Regional Centres in the States of Telangana & Andhra Pradesh for the Engineering and Medicine Common Entrance Examination since 2007.
- Completed **Consultancy Projects** to the tune of **26 lakh** rupees of **DRDO** (Heat Exchanger Design in Missile Applications) & **AP Govt.** (Tractor & Trailer Design) in 2013.
- Guided Students in **SAE-BAJA, GO-KART** Championship on **Hybrid Cars & All-Terrain Vehicles** using World Bank Fund for Three Batches to the extent of 25 Lakhs Rupees (Under TEQIP- II).
- **Organized** International & National Conferences and Workshops.
- **Member, Editorial Board** of **International Journal of Advances in Engineering & Technology**, India (Print). Also **Reviewer** for a **Chinese Journal of Mechanical Engineering**.
- **Reviewed** Text Books on **Heat Transfer & Thermodynamics** by **Yunus A Cengel** of **Tata McGraw-Hill Publishers**, New Delhi & **Heat Transfer** by **P.S. Ghoshdastidar** of **Oxford University Press**, New Delhi.
- Gave **Key Note Addresses & Guest Lectures** in the **National & State Level** Conferences & Workshops.
- **Chaired many sessions** in International Conferences and National Conferences.
- One of the **Investigating Team (Technical)** of **VOLVO Bus accident** at Mahabubnagar in 2013 by the Government of United Andhra Pradesh.
- Under my **Headship** the **Department** of Mechanical Engineering has acquired **National Board of Accreditation** (According to **Washington Accord**) for **FIVE years** for B. Tech Programs & **FIVE years** for M. Tech Program in JNT University.
- Visited **United States of America & Finland** to present Research Papers in **ASME International** Conference and International Conference (**CLIMA**) at Helsinki, Finland.
- My another Research Paper was presented in **Brazil (COBEM)** by my colleague.

- Visited **United States of America** to undergo **Advanced Leadership Training of Haggai** Institute at Hawaii, USA.
- Published **Three Text Books** (I.C. Engines, Engineering Drawing & Heat Transfer).
- Applied for **Three Patents** (Details Enclosed).
- Applied for **Research Projects** (Funding to the extent of **Rs.45lakhs**) to Defence organization & Department of Science & Technology, Govt. of India, New Delhi.
- Successfully Completed a workshop on "**Innovation**" by **Dale Carnegie Training** in September 2010 in the **Andaman & Nicobar Islands** in Association with Wipro Technologies.

Academic Distinctions:

- Bagged the **BEST PAPER AWARD** along with cash prize for the paper "*Feasibility of Three Dimensional Computations to Predict in Cylinder Flow Field*" in the **International Conference (IFAMS 2000)** at C.I.T., Coimbatore January 2000.
- **Gold Medallist** in M. Tech in Bharathiar University, Coimbatore, India in 1989.
- **College Topper** in Intermediate (10+2 Level) in Government Junior College, Kadapa, India in 1981.
- **Secured Cent Percent** in Mathematics at 10+2 Level.

Areas of Interest:

1. Internal Combustion Engines
2. Cryogenic Engineering
3. Refrigeration and Air-Conditioning
4. Heat and Mass Transfer
5. Thermal Engineering
6. Power Plant Engineering
7. Automobile Engineering
8. Engineering Drawing and Production Drawing

Subjects Taught:

Ph.D Level (Course Work):

1. Advanced IC Engines
2. Advanced Heat and Mass Transfer
3. Cryogenic Engineering
4. Alternate Sources of Energy & Alternate Fuels

Post Graduate (M. Tech) Level:

1. Advanced Thermodynamics
2. Advanced Fluid Mechanics
3. Advanced Heat and Mass Transfer
4. Thermal and Nuclear Power Plant Engineering
5. Non-Conventional Sources of Energy
6. Refrigeration and Air-Conditioning
7. Air-Conditioning Systems

Under Graduate (B. Tech) Level :

1. Thermodynamics
2. Heat and Mass Transfer
3. Fluid Mechanics
4. Refrigeration and Air-Conditioning
5. Design of Machine Members
6. Power Plant Engineering
7. Automobile Engineering
8. Machine Drawing
9. Engineering Drawing
10. Thermal Power Engineering
11. I.C. Engines
12. Alternate Sources of Energy

Laboratories Dealt at UG & PG Level:

1. Advanced Thermal Engineering Lab
2. Heat Transfer Lab
3. Refrigeration & Air Conditioning Lab
4. Fuels & Lubricants Lab
5. Thermal Engineering Lab
6. Internal Combustion Engines Lab
7. Basic Workshop Practicals for Engineering Students.
8. Engineering Drawing Practice
9. Production Drawing Practice
10. Machine Drawing Practice

Detail of Employment: Teaching: 29 Years & Administration: 18 Years

- **May 2006 till date** *Professor*, Department of Mechanical Engineering, JNTUH College of Engineering, Hyderabad, India.
- **July 2003 to April 2006** *Professor*, Department of Mechanical Engineering, KSRRM College of Engineering, Kadapa, India.

- **July 1993 to June 2003** *Associate Professor*, Department of Mechanical Engineering, KSRM College of Engineering, Kadapa, India.
- **July 1989 to June 1993** *Assistant Professor*, Department of Mechanical Engineering, KSRM College of Engineering, Kadapa, India.
- **July 1985 to June 1987** *Assistant Professor*, Department of Mechanical Engineering, KSRM College of Engineering, Kadapa, India

Administrative Positions:

- Presently Holding the responsibility of “**Chairman, Board of Studies**” for Department of Mechanical Engineering, Jawaharlal Nehru Technological University Hyderabad (**JNTUH**) from 2014 onwards.
- Acted as “**Chairman - Board of Studies**” (Autonomous) & Prepared the Curriculum for 5 year Integrated Engineering Course in collaboration with **Blekinge Institute of Technology (BTH), Sweden** in 2014.
- Acted as the “**Head of Mechanical Engineering Department**” JNTUH College of Engineering Hyderabad (Also **Chairman, Board of Studies for JNTUH College of Engineering Autonomous**), during 2012-2014
- Served as the **Vice-Principal & Incharge-Principal** at JNTUH College of Engineering, Jagityal, during 2010-2012.
- Acted as “**Training & Placement Officer**”, for JNTUH College of Engineering, Hyderabad and took care for 100% placement during 2008-2010.
- Acted as the “**Coordinator**” for M.Tech.(Thermal Engineering) in JNTUH College of Engineering for the Period of 2years from 2006 to 2008.
- Served as the “**Chief Superintendent of Examinations**” in K.S.R.M. College of Engineering during 1997 to 2006.
- Acted as Departmental “**Time Table In-charge**” in K.S.R.M. College of Engineering during 1993 to 1997.
- Instrumental in “**Developing**” Thermal & IC Engines Laboratories in K.S.R.M. College of Engineering during 1990 to 1993.

- Acted as **“Treasurer & Joint Secretary”** for Society of Automotive Engineers (SAE), Hyderabad Chapter during 2012-2014.
- Served as **“Regional (4 Districts) and District Level Secretary”**, in Union of Evangelical Students of India (Subsidory of **Inter Varsity Christian Fellowship**).

Additional Academic Positions:

- Presently **Member of Board of Studies**, Mechanical Engineering Dept. Yogi Vemana University, Kadapa, Andhra Pradesh.
- Presently **Member of Board of Studies**, Mechanical Engineering Dept. Sri Krishna Devaraya University, Anathapur, Andhra Pradesh.
- Presently **Member of Board of Studies**, Mechanical Engineering Dept. Vignan University, Guntur, Andhra Pradesh.
- **Special Invitee of Vice- Chancellor** JNTU Kakinada for Mechanical Engineering Dept. Board of Studies of Gudlavalleru Engineering College (Autonomous), Guntur, Andhra Pradesh.
- Presently **Member of Board of Studies**, Mechanical Engineering Department, Anurag Group of Institutions (Autonomous), Hyderabad, Telangana.
- Presently **Member of Board of Studies**, Mechanical Engineering Department, Vardhaman College of Engineering (Autonomous), Hyderabad, Telangana.
- Presently **University Nominee for Governing Body** of CMR College of Engineering, Hyderabad, Telangana.
- Presently **University Nominee for Governing Body** of Malla Reddy Institute of Technology, Hyderabad, Telangana.
- **Governing Body Member** for **Government Degree College**, Kukatpally, Hyderabad for the period of 2012-2014.

Professional Societies / Memberships:

- **Member**, American Society of Mechanical Engineers (ASME).
- **Member**, Society of Automotive Engineers (INDIA) (SAE).
- **Fellow**, Institution of Engineers (INDIA)(IEI)
- **Life Member**, Indian Society of Mechanical Engineers (ISME)

- **Life Member**, Indian Society for Technical Education (ISTE)
- **Alumnus of Haggai Institute (Hawaii, USA). (Spiritual)**

List of Patents (Applied):

1. ***"A Lifiable Vehicle Body Bottom Skirt along with Front and Rear Collapsible Wind Friction Reduction Attachments for Better Fuel Economy "*** Patent Application No: 1158/CHE/2014.
2. ***"Low Cost Operating Mechanism to Slide the Front Portion Glasses of Vehicle Provided with Collapsible Wind Friction Reduction Attachments for Better Visibility "*** Patent Application No:1161/CHE/2014.
3. ***"Low Cost Operating Mechanism to Open and Close the Collapsible Wind Friction Reduction Attachments of Bike"*** Patent Application No:1160/CHE/2014.

List of Papers Published in International Journals:

1. ***"A Comprehensive Study on Solar Power Plant at Educational Institute Level"*** Published in International Journal of Scientific Research Engineering Technology, Volume 1, Issue 4, July – 2015, ISSN (Online): 2395-566X.
2. ***"Experimental Study on Utilization of Exhaust Gas of an I.C. Engine"*** Published in International Journal of Research & Development Organisation, Vol 2, Issue 9, September 2015, ISSN -3855-0514
3. ***"Biodiesel Oil Production From Jatropa Curcas"*** Published in International Journal of Scientific Engineering and Research, Volume 4, Issue 18, June 2015, ISSN 2319-8885.
4. ***"Effect of CNG flow rate on the performance and emissions of a Mullite-coated diesel engine under dual-fuel mode"*** published in Taylors & Francis International Journal of Ambient Energy, 2015.
<http://dx.doi.org/10.1080/01430750.2015.1023835>
5. ***"Detailed Energy Audit and Conservation in a Cement Plant"*** Published in International Research Journal of Engineering and Technology, e-ISSN: 2395-0056, p-ISSN: 2395-0072, Vol.2, Issue.1, April 2015.
6. ***"An Investigation and Analysis of Ampacity in Buried Power Cables"*** Published in International Chamber of SME Association(ICOSA) , ISSN: 2277-4890 (Jan-Mar, 2014).

7. ***“Effect of Thermal Insulation on the Performance and Emission Characteristics of a CNG-Diesel Dual Fuel Engine”*** Published in International Journal of Engineering Studies. ISSN 0975-6469 Volume 6, Number 1(2014).
8. ***“Effect on Injection Pressure on performance and Emissions of CNG Diesel Dual Fuel Engine”*** Published in International Journal of Engineering Science & Technology(IJEST), ISSN : 0975-5462 Vol.6, No.6 Jun 2014.
9. ***“Reduction of Oxides of Nitrogen Emissions in single cylinder dual fuel engine using exhaust gas Recirculation and varying Pressures”*** Published in International Journal of Advanced Research in Engineering and Technology(IJARET); ISSN 0976-6480(print); ISSN 0976-6499(online) Volume 5, Issue 5, May 2014.
10. ***“Performance and Emission Analysis of Diesel Engine using CNG under Dual Fuel Mode with Exhaust Gas Recirculation”*** Published in Global Journal of Researches in Engineering: A Mechanical and Mechanics Engineering (USA). Online ISSN: 2249-4596 & print ISSN: 0975-5861, Volume 14 Issue 2 Version 1.0 Year 2014.
11. ***“Experimental Analysis and Modeling of Proton Exchange Membrane Fuel Cell”*** Published in International Journal of Research in Engineering and Technology; e-ISSN: 2319 -1163, P-ISSN: 2321-7308. Volume : 3 Issue:11, (Nov – 2014).
12. ***“Experimental Investigation on Performance Evaluation of a single basin solar still using Different Energy Absorbing Materials”*** Published in Proceedings of the ASME 2014, 8th International Conference on Energy Sustainability ES2014, June 30-July 2, 2014, Boston, Massachusetts, USA.
13. ***“Experimental Analysis & Performance Evaluation Of A Split Air Conditioning System Using R22, R407C And R410A”*** published in International Journal of Current Engineering and Technology, E-ISSN 2277 – 4106, P-ISSN 2347 – 5161 Vol.4, No.6, December 2014.
14. ***“Experimental Investigation on Heat Transfer Enhancement in a Horizontal Tube using Converging and Diverging Conical Strips”*** Published in Proceedings of the ASME 2014, Gas Turbine India Conference GTINDIA-2014, December 15-17, 2014, New Delhi, India.
15. ***“Performance and Analysis of Diesel Engine at various Injection Timings under various Cooling Rates during Shorter Injection Period”*** Published in 4th International Conference on Materials Processing and Characterization” Materials Today Proceedings, Elsevier(2014).

16. ***“Study on Bio-Fuels from Water borne Oleaginous Sources”*** Published in International Journal of Science and Research(IJSR), ISSN:2319-7064(online), Vol.3, Issue 12, December 2014.
17. ***“Heat Shielding Analysis of a Hypersonic Aerospace Vehicle Structure”*** Published in International Journal of Mechanical Engineering, Vol. 4, Issue 3, ISSN:2277-7059, March 2014.
18. ***“Experimental Investigation on performance Evaluation of a single basin solar still using different energy absorbing materials”*** Published in Proceedings of the ASME 2014 8th International Conference on Energy Sustainability ES2014, June 30 to July 2, 2014, Boston, Massachusetts, USA.
19. ***“Validation of hardness and tensile strength of Al 7075 based hybrid composites using artificial neural networks”*** Published in International Journal Mechanical Engineering and Technology, Vol.5, Issue 9, Sept 2014.
20. ***“Effect of Thermal insulation on the performance and emission characteristics of a CNG-Diesel dual fuel engine”*** published in International Journal of Engineering Studies, ISSN 0975-6469 Volume 6, Number 1(2014).
21. ***“Development of Automobile Catalytic Converter during last four decades – A Review”*** published International Journal for research in Applied Science & Technology (IJRASET) ISSN No: 2321 – 9653 Vol 2, Issue XI, Nov 2014.
22. ***“Progress of Developments in Automobile Catalytic converter materials & Their Manufacture in the last four decades”*** published in 5th National conference on Advances in Mechanical Engineering (AIM - 2014) organized by Vasavi College of Engg. During Nov 2014.
23. ***“Effect of Injection Pressure on Performance and Emissions of CNG Diesel Dual Fuel Engine”*** International Journal of Engineering Science and Technology, ISSN : 0975-5462, Vol.6, Issue 6, June 2014.
24. ***“Influence of reinforcements and heat treatment on mechanical and wear properties of Al 7075 based hybrid compsite”***. Published in Procedia material science(ELSEVIER) an International Journal, Vol.5(2014).
25. ***“Effect of Specific Heat Parameters on Performance of SI Engine”*** published in International Journal for Research in Applied Science & Engineering Technology (IJRASET), Volume 2 Issue XI, November 2014, ISSN: 2321-9653.

26. ***“Heat Shielding Analysis of a Hypersonic Aerospace Vehicle Structure”*** published in International Journal of Mechanical Engineering, Vol.4, Issue 3(March 2014) ISSN: 2277-7059.
27. ***“Performance Analysis of air Filters for Diesel Engine an Experimental Approach”*** Published in International Journal of Research in Engineering & Applied Sciences; ISSN 2249 -3905; Vol.4, Issue 2, February 2014.
28. ***“Emission Analysis of Diesel Engine by substituting CNG Under dual fuel Mode”*** Published in proceedings of International Conference on Advances in Computer Science and Engineering (ICACSE 2013)7th -8th January 2013.
29. ***“Evaluation of Mechanical and Wear Properties of Al7075, Fly Ash and E-Glass Fibre- Reinforced Hybrid Metal Matrix Composites”*** Published in Indian Foundry Journal, ISSN 0379-5446; Vol.59, No.2, February 2013.
30. ***“Evaluation of Ultimate Tensile Strength and Corrosion Resistance of Al-Mg-Si Based Hybrid Composite in Different Ageing Conditions”*** Published in International Journal of Material Science; ISSN 0973-4589 Volume 8, Number 1(2013).
31. ***“Effect of Pilot Fuel Quantity on The Performance and Emission Characteristics of a Pre-Mixed CNG Dual Fuel mode Engine”***, published in IOSRVJournal of Mechanical and Civil Engineering, e-ISSN2278-1684-.p-ISSN: 2320-334X, Volume 9, Issue 2 (Sep- Oct 2013), PP 01-09.
32. ***“ Effect of Variation in Compression Ratio on Characteristics of CI Engine Fuelled with Honge oil- Ethanol Blend”*** Published in International Journal of Mechanical Engineering and Technology (IJMET); ISSN 0976-6340(Print); ISSN 0976 – 6359(online), volume 4, Issue 4, July- August (2013).
33. ***“Performance Evaluation of Low Heat Rejection Diesel Engine using Fish oil Bio-diesel Blends”*** Published in International Conference on Alternate Fuels and I.C. Engines in NIT Jaipur , 6th -8th Feb 2013.
34. ***“Reduction of Diesel Engine Emission and its Analysis by using Exhaust gas Recirculation at Various Cooling Rates”*** Published in International Journal of Engineering and Innovative Technology(IJEIT) Vol.3, Issue 2, August 2013.
35. ***“Single Cylinder 4 Stroke VCR Diesel Engine Performance And Analysis at Various Blends of Fuels Under Various Cooling Rates”*** Published in International Journal of Innovative Research & Development, ISSN: 2278 – 0211(Online) Vol.2, Issue 8 (August, 2013).

36. ***“Engine Emission at Various Cetane Numbers with Exhaust Gas Recirculation”***
Published in IOSR Journal of Mechanical and Civil Engineering (IOSR-JMCE), e-ISSN:2278 – 1684, p-ISSN: 2320-334X, Volume 8, Issue 6 (Oct-2013).
37. ***“The Effect of change in the Temperature of fuel on the performance of PEM fuel cell”*** published in International Journal of Scientific & Engineering Research, ISSN 2229-5518, Volume 4, Issue 12, December 2013.
38. ***“Evaluation of mechanical and wear properties of Al 7075, fly ash and E-glass fiber reinforced hybrid metal matrix composites”***, published in Indian Foundry Journal, ISSN 0379-5446, Vol.59, No.2 Feb 2013.
39. ***“The State of the Art Research on Homogeneous Charge Compression Ignition (HCCI) Engines”*** Published in Recent Advances and challenges in Energy – 2012 in Manipal Institute of Technology, January 4-6, 2012.
40. ***“Performance Evaluation, Emission Characteristics and Economic Analysis of Four Non-Edible Straight Vegetable oils on a single cylinder CI Engine”*** Published in ARPN Journal of Engineering and Applied Sciences, ISSN 1819-6608, Vol. 7, No.2(Feb 2012).
41. ***“Performance and Emission Characteristics of straight vegetable Oil-Ethanol Emulsion in a compression ignition Engine”*** Published in ARPN Journal of Engineering and Applied Sciences in ISSN 1819-6608, Vol.7, No.4, April 2012.
42. ***“Experimental Investigation on effect of Injection timing on Performance, Combustion and emission characteristics Compression Ignition Engine fuelled with Vegetable oil – Ethanol Emulsion”*** Published in International Journal of Energy and Environment, ISSN 2076-2895(Print), ISSN 2076-2909(online) Vol.3,(2012).
43. ***“Comparative Analysis of Mahua and Honne oils as Alternative Bio-Diesel fuel in Agricultural CI Engine”*** Published in International Journal of Engineering Research and Industrial Applications, ISSN 0974-1518, Vol. 5, No. I(Feb-2012).
44. ***“Study of Use of Different Methods of using Vegetable oil as Fuel for compression Ignition Engine”***, Published in Global Journal of Researches in Engineering: A Mechanical and Mechanics Engineering (USA). Online ISSN: 2249-4596 & print ISSN: 0975-5861, Volume 12 Issue 4 Version 1.0 July 2012.
45. ***“Experimental Investigation on Effect of Injector opening Pressure on the performance and Emission Characteristics of Compression Ignition Engine Fuelled with Vegetable Oil-Ethanol Emulsion”*** Published in Research Journal of Applied Sciences, Engineering and Technology @ Maxwell Scientific Organization, 2012.

-
46. ***“Effect of Aging Conditions on Mechanical properties of A16061 Based Hybrid Composite”*** Published in International Journal of Advances in Engineering Research, Volume 3, Issue 4, April 2012.
 47. ***“Evaluation of Wear and Hardness of Al-Si-Mg Based Hybrid Composite at Different Aging Conditions”*** Published in International Journal of Scientific and Research publications, ISSN 2250-3153; Volume 2, Issue 8, August 2012.
 48. ***“Pem Fuel Cell – Attractive Source of Energy”*** Published in International Journal of Innovative Research & Development, ISSN: 2278-0211, Vol. 1 Issue 6(Sep- 2012).
 49. ***“Pem Fuel Cell – Alternative Source of Energy”*** Published in International Journal of Engineering Research & Industrial Applications, ISSN: 0974-1518, Vol.5, No. II(May 2012), pp 223-226.
 50. ***“Influence of Injection Pressure, Injection Timing and Compression Ratio on Performance, Combustion and Diesel Engine using Castor Methyl Ester Blends”*** Published in International Journal of Engineering Science & Technology, ISSN 0975-5462, Vol. 4, No.3 (March-2012)
 51. ***“Combustion Analysis of Mahua, Honne and Castor based Biodiesel as Fuel in CI Engine”*** Published in International Journal of Multidisciplinary Research & Advances in Engineering, ISSN 0975-7074, Vol.4, No.II (April 2012).
 52. ***“Evaluation of Corrosion Resistance and Hardness of Al-Mg-Si Based Hybrid Composite”*** Published in Indian Foundry Journal, Vol. 58, No.3, March 2012.
 53. ***“Evaluation of hardness and tensile properties of Al 7075 based composite”***, published in International Journal of Advances in Engineering & Research; ISSN: 2231-5152, Vol.3, Issue 1, January 2012.
 54. ***“Influence of of reinforcements and heat treatment on Mechanical and Tribological properties of hybrid composites formed by A 7075 reinforced”*** published in International Journal of Advanced Materials Science ; ISSN 2231-1211, Vol.3, No.3(2012).
 55. ***“Experimental Investigation on effect of Injection timing on Performance, Combustion and emission characteristics Compression Ignition Engine fuelled with Vegetable oil – Ethanol Blend”*** Published in International Journal of Engineering Research & Technology(IJERT), ISSN 2278-0181, Vol.1, Issue 10, December -2012.
 56. ***“Wear Properties of Aluminum (7075)-based metal matrix composites reinforced with fly ash particulates”*** published in Indian Foundry Journal , ISSN 0379-5446, Vol.58, No.4, April 2012.
-

-
57. ***“Effect of Ethanol addition to straight Vegetable oil on Performance and Emission Characteristics of Compression Ignition Engine”*** Published in International Journal of Scientific & Engineering Research Volume 3, Issue 10, October 2012.
 58. ***“Effect of Varying Operating Conditions on Performance of a CI Engine with Different Blends of Mahua(Madhuca Longifolia) Biodiesel”*** Published in International Journal of Emerging Technologies and Applications in Engineering, Technology and Sciences, ISSN 0974-3588, Volume 5, Issue 2, July 2012.
 59. ***“The Stage of the art Research on Homogeneous charge compression Ignition (HCCI) Engines”*** published in International Journal of Earth Sciences and Engineering; ISSN:0974-5904; January 4-6, 2012.
 60. ***“Effect of CNG and Neem oil blends on Performance and Emission Characteristics of a diesel engine- A comparative Analysis”*** Published in International Journal of Emerging Trends in Engineering and Development (IJETED), ISSN 2249-6149; Vol.5, Issue 2, July 2012.
 61. ***“Performance and Emission Characteristics of Straight Vegetable oil-Ethanol Emulsion in a Compression Ignition Engine”*** Published in ARPN Journal of Engineering and Applied Sciences, VOL. 7, NO. 4, APRIL 2012 ISSN 1819-6608
 62. ***“Performance of a CI Engine with Different Blends of Mahua Biodiesel under varying operating conditions”***, Published in International Journal of Engineering and Technology; ISSN: 2049 – 3444, Vol.2, Number 7, July 2012.
 63. ***“Comparative Experimental Investigation of Combustion, Performance and Emission in a single Cylinder Thermal Barrier Coated Diesel Engine using diesel and neem biodiesel”***, Published in International Journal of Engineering Research and Development, ISSN 2278-800X, Vol.3, Issue 2, August 2012.
 64. ***“Pem Fuel Cell – Future Source of Energy”*** Published in National Conference on ***“Emerging Trends in Mechanical Engineering*** published in International Journal of Engineering, Research and Industrial Applications (IJERIA) Vol. 5 No. II, ISSN 0974-1518 May 2012
 65. ***“Effect of Radiations on Unsteady Heat and Mass Transfer of a Chemically Reactive Fluid past a Semi-Infinite Vertical Plate with Viscous Dissipation”*** published in International Journal of Engineering, Research and Industrial Applications (IJERIA) Vol. 5 No. II, ISSN 0974-1518 May 2012

-
66. ***“Mechanical and Electrical Engineering Aspects of Long-distance Underground Power Transmission”*** Published in International Journal of Mechanical Engineering and Materials Science, ISSN 0974-584X Vol. 4 N0.2 July-December 2011.
67. ***“Investigation on Performance of Compression Ignition Engine Fuelled with Vegetable Oil-ethanol Emulsions”*** Published in International Journal of Engineering Research and Technology, ISSN 0974-3154 Volume 4, Number 3(2011).
68. ***“Dry Abrasive Wear Studies on Al-7.25Si-0.45Mg Alloy”*** Published in International Journal of Material Science, ISSN 0973-4589, Vol. 6, No. 1(2011).
69. ***“The Effect of Age Hardening Temperature on the dry sliding Wear Behavior of A356.0Alloy”*** Published in International Journal on Mechanical & Automobile Engineering, ISSN 0974- 231X, Vol. 14, Issue No. 1, March 2011- May 2011.
70. ***“Influence of Carbon Dioxide and Methane of Biogas in Biogas-Diesel Dual Fuel Engine”*** Published in International Journal of Applied Engineering Research, ISSN 0973-4562, Volume 6, Number 9 (2011).
71. ***“Wear Properties of Aluminium 7075 based metal matrix composites reinforced with fly ash particulars”*** Presented in 26th Indian Engineering Congress, at The Institute of Engineers held at Bangalore, Karnataka, from 15-18 December 2011.
72. ***“Application of Taguchi Experimental Design for optimization of Biodiesel production by Transesterification of used Cooking Oil with Methanol”*** Published in International Journal of Applied Engineering Research, ISSN 0973-4562; Vol.6, No. 13,2011 .
73. ***“Technology for biodiesel production from used cooking oil – A Review”*** Published in Energy for Sustainable Development (**Elsevier**) 14, 2010.
74. ***“Effect of Methyl Esters of Cotton seed oil as a fuel on the performance of Four Stroke Water Cooled Diesel Engine”*** Published in National Conference on Advances in Mechanical Engineering(AIM-2010) 18th -19th November 2010.
75. ***“Formation of Metal Matrix Composite of Aluminium(7075) Reinforced with Mica Particulates and Evaluation of Its Hardness”*** Published in International Conference on Novel Application of Nano Technology, in Arunai Engineering College, from Sep 29 – Oct 1, 2010.
76. ***“The Effect of Heat Treatment on the Dry Sliding wear Behavior of A356.0Alloy”*** Published in International Journal on Mechanical &Automobile Engineering, ISSN 0974-231X, Vol. 9, Issue 01, March 2010-May 2010.
-

-
77. ***"The Effect of Sliding Velocity on the Dry Sliding wear Behaviour of Heat Treated Al-7.25Si-0.45Mg Alloy"*** Published in International Journal of Material Science, ISSN 0973-4589, Vol. 5, No. 6(2010).
78. ***"Formation of Metal Matrix composites of Aluminum (7075) reinforced with Mica particulars and evaluation of its hardness"*** published in International conference on Novel Applications of Nano Technology (NANO T10) at Arunai Engineering College, Tiruvannamalai, Tamilnadu, 29 Sep-Oct 1, 2010.
79. ***"The Effect of Sliding Speed on the Dry Sliding wear Behavior of Al7.25Si-0.45Mg Alloy"*** Published in International Journal on Mechanical & Automobile Engineering, ISSN 0974- 231X, Vol. 8, Issue No. 3, December 2009- February 2010.
80. ***"The Study of Mechanical Properties and Fatigue Behaviour of Al-7.25 Si-0.45 Mg Alloy"*** Published in International Journal on Mechanical & Automobile Engineering, ISSN 0974-231X, Vol.11, Issue No.1, September 2010 – November 2010.
81. ***"Experimental Investigation on a phase change Material Encapsulated Building Roof for cooling Application"*** Published in Engineering Today Monthly Journal ; ISSN 0974-8377, volume 12, Issue 8, August 2010.
82. ***"Effect of Methyl Esters of Cotton seed oil as a fuel on the performance of four stroke water cooled diesel engine"*** published in National Conference on Advances in Mechanical Engineering (AIM-2010), at Vasavi College of Engineering, Hyderabad, 18th -19th November 2010.
83. ***"Optimization of biodiesel production from oils and fats with high free fatty acids"*** Published in Indian Journal of Science and Technology, Vol.3, No.3, March 2010, ISSN: 0974-6846.
84. ***"Calculation of Underground cable ampacity"*** published in International Journal of Innovations in Electrical Power systems, Vol. No. 2 July –December 2009.
85. ***"Performance Evaluation of a low Heat Rejection CI Engine using Vegetable Oils"*** Published in International Journal of Multidisciplinary Research and Advances in Engineering, ISSN 0975-7074, Vol. 1, No.I(2009).
86. ***"Calculation of Underground Cable Ampacity"*** Published in International Journal of Innovations in Electrical Power Systems, Vol.1, No.2, July-December 2009.
87. ***"Effect of Diesel -Water Emulsion and its combustion in Diesel Engines"*** Published in 1st International Conference on Computational Methods in Engineering Science in CBIT- Hyderabad(Jan 2009).
-

88. ***“Performance Analysis of a Single Cylinder Diesel Engine using Cotton Seed Oil”***
Published in International Journal of Applied Engineering Research, ISSN 0973-4562, Vol. 4, No. 7, (2009).
89. ***“Experimental Studies in a Single Cylinder Diesel Engine Using Palm Oil as Alternative Fuel”*** Published in International Journal of Applied Engineering Research, ISSN 0973-4562, Vol. 4, No. 7, (2009).
90. ***“Oxidation of Aldehydes from the Exhaust Gases of C.I. Engine using Alcohol blends with Diesel in Semi-Adiabatic Air-Gap Copper Crown Piston as Unconventional Catalytic Converter”*** Published in 7th Aisa-Pacific Conference on Combustion, at National Taiwan University, Taipei, Taiwan, 24-27 May 2009.
91. ***“Effects of Diesel – Water Emulsion and its Combustion in Diesel Engines”***
published in International conference on Computational Methods in Engineering & Sciences(ICMES-2009) 8-10th January 2009 at CBIT, Hyderabad.
92. ***“Simulation of a phase change Material Encapsulated Building Roof for Cooling Application”*** Published in The Technology World Quarterly Journal; Volume V, Issue I; ISSN 2180-1614.
93. ***“Feasibility Study of Alternate Fuels in a DI-CI Engine”*** Published in Research Journal of Engineering and Technology, Vol.1 Issue 1, (April –June 2008).
94. ***“Performance Evaluation of a low Heat Rejection CI Engine using Vegetable Oils”*** Published in Proceedings of IMECE 2008, ASME International Mechanical Engineering Congress and Exposition, October 31 – November 6, 2008 (USA).
95. ***“Investigations on the use of CNG in a Compression Ignition Engine”*** Published in Engineering Today (Aug-2006).
96. ***“Three zone model to Predict the performance of a four stroke direct Injection Diesel Engine”*** Published in the Journal of Engineering Today, October 2005.

List of Papers Published in International Conferences :

1. ***“Effect Of EGR On Exhaust Emissions Of CI Engine Using Biodiesel Blends”***
Presented & Published in International Conference on Emerging Trends in Science Technology Engineering and Management (ICETSTEM-2015) at Malla Reddy Engineering College on October 9th & 10th 2015.
2. ***“Air Standard Cycles demonstration using Computer Graphics”*** (INCARF’93 – International Conference at I.I.T., Delhi, Dec’1993).

3. ***"T.S.R's as auto savers for the editors WS and NE"*** (INCARF'93 – International Conference at I.I.T., Delhi, Dec'1993).
4. ***"Challenges ahead – Need for the multidimensional modeling of I.C. Engines"*** (IFAMS 2000 – International Conference at C.I.T., Coimbatore Jan'2000).
5. ***"Analysis of Turbo machinery flows Using Streamline Curvature Technique"*** (IFAMS 2000 – International Conference at C.I.T., Coimbatore Jan'2000).
6. ***"Analysis of Turbo Machinery using stream line curvature technique"*** (IFAMS 2000 – International Conference at C.I.T., Coimbatore Jan'2000).
7. ***"Feasibility of three dimensional computations to predict in cylinder flow field"*** (IFAMS 2000 – International Conference at C.I.T., Coimbatore Jan'2000), **This Paper bagged Best Paper Award.**
8. ***"The State of the Art Research of NOx Reduction in Diesel Engine"*** Published in International Conference on IC Engines and Combustion (ICONICE) at JNTU, Hyderabad. Dec 2007.
9. ***"Experimental Investigation on the Performance of Thumba Oil and its Blends in a single cylinder Compression Ignition Engine"*** Published in International Conference on IC Engines and Combustion (ICONICE) at JNTU, Hyderabad. Dec 2007.
10. ***"Study of Performance & Emission Characteristics of a Virgin Oil in a Semi-Adiabatic Engine"*** Published in International Conference on IC Engines and Combustion (ICONICE) at JNTU, Hyderabad. Dec 2007.
11. ***"Experimental Study of Emission Characteristics of A Palm oil Fuelled 5HP Kirloskar Diesel Engine"*** Published in International Conference on IC Engines and Combustion (ICONICE) at JNTU, Hyderabad. Dec 2007.
12. ***"Phenomenological three zone model prediction for fuel spray penetration and air entrainment of 4 stroke CI Engine."*** (19th International Congress of Mechanical Engineering Nov, 05-09, 2007 Brasilia Df).
13. ***"Optimization of Engine Operating Parameters"*** Presented in 2nd International Conference on Current Trends in Engineering and Mangement(ICCTEM2014); in Vidyavardhaka College of Engineering, Mysore during 17-19, July 2014.

14. ***“Computer Aided Design and Balanced Systems Selection of Split Air Conditioning Unit”*** Published in International Conference CLIMA (2007) at Helsinki, Finland, June 2007.
15. ***“Feasibility of Three Dimensional Computations to Predict in-cylinder flow field”*** Published in Proceedings of the International Conference of Intelligent flex Autonomous Manufacturing Systems (IFAMS 2000).
16. ***“Evaluation of hardness and tensile properties of Al 7075 based composite”*** Published in International conference on Advanced materials, Manufacturing, Management & Thermal Sciences(AMMMT-2010) at Siddaganaga Institute of Technology, Tumkur, Karnataka, during 18&19th November 2010.
17. ***“Critical Technical Aspects of Biodiesel Production”*** published in proceeding of the 3rd International Conference on Advances in Mechanical Engineering; January 4-6, 2010, at S.V. National Institute of Technology, Surat.
18. ***“Low Cost Feedstock for the production of Biodiesel”*** published in proceeding of the International Conference on Issues and challenges in Energy Conversation and management; December 18-20, 2009, at Institute of Technology, Banaras Hindu University, Varanasi.

List of Papers Published in National Conferences :

1. ***“Experimental Investigations on Turbulent flow Heat Transfer Enhancement in a Horizontal Tube Using Inserts”*** Presented & Published in the proceedings of the 17th ISME Conference during October 3-4, 2015, IIT Delhi, New Delhi.
2. ***“Heat Transfer Enhancement in a Double Pipe Heat Exchanger using Nano Fluids”*** Presented & Published in the proceedings of the 17th ISME Conference during October 3-4, 2015, IIT Delhi, New Delhi.
3. ***“Balanced System Selection in Refrigeration Applications”*** (VIII-ISME Conference, I.I.T. Delhi, March 1993).
4. ***“Study and analysis of C.I. Engine (4 Stroke) working conditions preparation of graphs using computers”*** (X – ISME Conference, Delhi College of Engineering, Delhi, December 1996).
5. ***“Prediction of the effect of Offset Bowl in piston on the fluid flow and spray distribution in a D.I., Diesel engine cylinder”*** (National Conference on fluid flow characteristics, I.I.T., Kanpur April 1999).

6. ***"The Future of the Diesel Engine for personal transportation"*** (MENAC 2000, JNTUCEA, June 2000).
7. ***"Numerical Solution of developing flow in a vertical channel with asymmetric wall temperature"***(MENAC 2000, JNTUCEA, June 2000).
8. ***"Low Heat Rejection Engines"*** (MENAC 2001, JNTUCEA, Oct 2001).
9. ***"Concepts of single zone scavenging models and reed valves"*** (MENAC 2001, JNTUCEA, Oct 2001).
10. ***"Effect of Varying Operating Conditions on Performance of CI Engine with Different Blends of Methyl Ester of Neem Oil"*** Published in National Conference on ETRE, 12-13 April, 2012 at GNDEC, Bidar.
11. ***"PEM Fuel Cell – Future Source of Energy"*** Published in National Conference on "Emerging Trends in Mechanical Engineering, at Raja Rajeshwari College of Engineering, Bengaluru.
12. ***"Corrosion Studies on Heat Treated A356.0 Alloy"*** Published in National Conference on Emerging Trends in Mechanical Engineering – NCETME 2011.
13. ***"Influence of reinforcements and heat treatment on hardness of A-Zn-Mg based hybrid composites"*** published at National Conference on Emerging Trends in Engineering & Management(NCETEM-13) organized by PES Institute of Technology & Management, Shivamogga, Karnataka, 01-02 March 2013.
14. ***"Microstructure and Dry Sliding Wear Behavior of Heat Treated(T4) A356.0 Alloy"*** Published in National Conference on Emerging Trends in Mechanical Engineering – NCETME 2011.
15. ***"Feedstocks for Biodiesel Production-A Review"*** Published in Proceedings of the National Conference on Recent Trends in Mechanical Engineering, November 23-24, 2009, at Vemana Institute of Technology, Bangalore, India.
16. ***" Evaluation of Hardness and Corrosion Resistance of Aluminium base hybrid composite"*** Presented at 26th Indian Engineering Congress 2011, Bangalore on 15th -18th December 2011.
17. ***"Quenching Effects on wear properties of A16061 based hybrid composte"*** Presented at Advanced Materials, Manufacturing, Management and Thermal Sciences(AMMMT-2010) at SIT Tumkur on 18th -19th November 2010.

18. “Heat Treatment Effects on Mechanical properties of AL6061 alloy based hybrid composite” at Recent Trends in Engineering & Technology (RTIES-2008) at RLJIT on 21st and 22nd Nov 2008.

RESEARCH WORK :

Ph.Ds Guided:

1. Mr. B. Nageswara Rao, on **“Analysis and Performance of a Diesel Engine by Using Dual Fuels”** in October 2015.
2. Mr. Bande Lakshmana Swamy, on **“Investigation on Performance Evaluation of 4 Stroke – DI Diesel Engine Under Cold Starting Conditions”** in October 2015.
3. Mr. Sanjeev Doijode, on **“Design and Development of Proton Exchange Membrane Fuel Cell”** in Aug.2015.
4. Mr. H. Ghanasyam Shenoy , on **“Evaluation of Mechanical and Tribological Properties of AS-CAST and Heat Transferred Aluminum 6061 Hybrid Composite Reinforced with Mica Particulates and E-Glass Short Fibers”** in June 2015.
5. Mr. M. Sreenivasa Reddy, on **“Evaluation of Mechanical and Tribological Properties of Hybrid Composite Formed by Aluminum (7075) Reinforced with Fly Ash and E-Glass Short Fibers”** in March 2015.
6. Mr. Nandkishore, on **“Investigations into Characteristics of C.I. Engine Characteristics Using Straight Vegetable Oils with Ethanol”** in April 2015.
7. Mr.S. Magbul Hussain, on **“Modeling and Simulation with Experimental Verification of the Influence of CO₂ on Combustion and Emissions in a Biogas-Diesel Dual Fuel Engine”** in April 2014.
8. Mr. Annaiah, on **“Effect of Heat Treatment Variables on the Mechanical Properties, Wear and Corrosion Characteristics of Aluminum-silicon-Magnesium Alloy”** in October 2013.
9. Mr. C. Mallikarjunayya, on **“A Novel Study on Low Cost Conversion Methods of Biodiesel and their Analysis on Compression Ignition Engine”** in December,2012.

10. Mr. Mallinath C. Navindgi, on “ *Experimental Investigation to Improve the Performance and Emissions Characteristics of Different Vegetable Oils in a Direct Injection Compression Ignition Engine*” in September 2015.
11. Mr. P. Vijay Kumar, on “*Development of Phase Change Material Wallboards for Cooling of Residential Buildings*” in April 2011.
12. Mr. H. Yerrenna, on “*Experimental Investigation of Vegetable Oils and Alcohol Blends in Semi-Adiabatic Diesel Engine*” in October 2010.

M. Tech & B. Tech Projects Guided:

1. More than **120 M. Tech Project works** were guided till now.
2. More than **235 B. Tech Project works** were guided till now.

Text Books Published :

1. Authored a book titled “ *Internal Combustion Engines*” by Standard Book House, New Delhi in 2013.
2. Authored a book titled “ *Computer Aided Engineering Drawing*” by New Age Publishers, New Delhi in 2014.
3. Authored a book titled “ *Heat and Mass Transfer*” by Tata McGraw Hill (Under Printing).

Personal Details:

Name	:	Dr. B. Sudheer Prem Kumar
Father's Name	:	Late Sri. B. Danam
Mother's Name	:	Late Smt. Lilly Deva Krupavathy
Spouse's Name	:	Dr. P. Anuradha
Elder Son's Name	:	Mr. B. Samuel Naveen Benadict
Younger Son's Name	:	Mr. B. Joseph Abhishek
Date of Birth	:	9th February 1964
Nationality	:	Indian
Religion	:	Christian

Residential address	:	Professor B. Sudheer Prem Kumar 8/ 67, Doctors Colony Pragathi Nagar Hyderabad- 500085, Telangana, INDIA
----------------------------	---	--

Address for Communication : **Professor B. Sudheer Prem Kumar**
Department of Mechanical Engineering,
JNT University, Kukatpally,
Hyderabad- 500085, Telangana, INDIA

Electronic communication : Phone: Mobile +91-9849451103
Phone: College: 040-23057787
E-mail: bsudheerpk@yahoo.co.in
bsudheerpk@jntuh.ac.in
bsudheerpk@gmail.com

References-India

1. Dr. K. Rajagopal
Vice-Chancellor
S. K. University
Ananthapuramu – 515003,
Andhra Pradesh – India.
Mobile: +91 9989666166
Mail id: rajagopalmail@gmail.com
2. Dr. Somashekhar S Hiremath
Department of Mechanical Engg,
Indian Institute of Technology Madras,
Chennai – 600036, Tamilnadu, India.
Mobile: +91 9445265688
Mail id: somashekhar@iitm.ac.in
3. Dr. P. Ravi Kumar
Professor of Mechanical Engg,
National Institute of Technology Warangal,
Warangal-506004,
Telangana, India.
Mobile: +91 9490378088
Mail id: ravikumar.puli@gmail.com
pravi@nitw.ac.in
4. The Rt Rev. K.B. Yesu Vara Prasad
Bishop Emeritus, Church of South India,
Rayalaseema Diocese,
Kadapa, Andhra Pradesh – 516001.
INDIA.
Mobile : +91 9966531629
Mail id: bp_kbyvp@yahoo.co.in

- 5 The Rev. Lenin Kumar KR
The Potters Home International
Banglore- 560033,
Karnataka State, India.
Mobile: +91 9341036196
Mail id: rev.lenin@live.com
rev.lenin@gmail.com
6. Dr. K. Vijaya Kumar Reddy
Professor of Mechanical Engg,
JNTU Hyderabad,
Telangana, India.
Mobile: +91 9866953636
Mail id: kvijayakumarreddy@gmail.com

References - USA

1. Mr. David Pottipadu M.Tech.,(IIT Madras)
Information Systems Analysit,
Shelter Insurance Companies,
1817 West Broad Way,
Columbia, Missouri, USA
65218 – 0001
Mobile: 573-268-1519
Mail id: dpottipadu@gmail.com
2. Dr. Jasthi Siva Ph.D (IIT Delhi)
Adjunct Faculty- Metropolitan State
University &
Consultant at Siemens PLM Software
5736 Pond Court, Shoreview, MN 55126
Mobile: 651.276.4671
Mail id: siva.jasthi@gmail.com