

Name : **Dr.NARSIMHULU SANKE**  
 Designation : Professor  
**Department of Mechanical Engineering,**  
**University College of Engineering (Autonomous)**  
**Osmania University, Hyderabad-500007, India.**



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Date of Joining: 31-12-2001

**Degrees obtained (Univ. Year, Specialization)**

| S.No | Degree | University/Institute | Year       | Specialization                      |
|------|--------|----------------------|------------|-------------------------------------|
| 1    | B.E    | Osmania University   | May-1997   | Mechanical Engineering              |
| 2    | M.E    | Osmania University   | Jan – 2000 | Turbomachinery                      |
| 3    | PDIT   | ESCI-CMC, Hyderabad  | Jun – 2000 | Computers, Information Technology   |
| 4    | Ph.D   | Osmania University   | Jan – 2014 | Biomass Energy for Power Generation |

**Employment Record in Teaching**

| S.No | University         | Designation         | Period            |
|------|--------------------|---------------------|-------------------|
| 1    | Osmania University | Professor           | 2017 to till date |
| 2    | Osmania University | Associate Professor | 2014 to 2017      |
| 3    | Osmania University | Assistant Professor | 2001 to 2014      |

Publications (Papers Published / Presented) : 71  
 Paper reviewed in International Conferences : ICREPQ'2009 - 2024  
 Number of M.E dissertations guided : 75  
 Ph.D Awarded : 10 + 1 (Submitted)  
 Ph.D pursuing : 1

**Fellowship of academic body and Professional societies:**

- Life Fellow, Indian Institute of Plant Engineers (IIPE, LF-1137)
- Life Member, The Indian Society for Technical Education (ISTE, LM-83247)
- Life Member, Solar Energy Society of India (SESI, LM/1875/2012)
- Life Member, Indian Society for Heat and Mass Transfer (ISHMT, LM-815)
- Life Member, National Society of Fluid Mechanics and Fluid Power (NSFMFP)
- Life Member, Indian Society of Theoretical and Applied Mechanics (ISTAM, L/501)
- Life Member, Osmania Graduate Association (OGA)
- Member, Society of Automotive Engineers (SAEINDIA)
- Member, Renewable Energy and Power Quality (Spain)
- Member, World Academy of Science, Engineering and Technology (USA)

**Countries Visited**

- Greece, Spain, China, USA and Canada

**Areas of Interest**

Biomass, New and Renewable Energy Sources, Heat Transfer, Applied Thermodynamics, Thermal Engineering, Turbomachinery, Computer Programming in C & C++.

### Ph.Ds Awarded

1. **Mr.Ravi Gugulothu**, (1005-2017-6026) “*Experimental Investigations on Augmentation of Heat Transfer in Shell and Tube Heat Exchangers*”, (Press Note No: 775/Ph.D/Exams/2023, PHD44390, Dt: 19-Sep-2023).
2. **Mr. Pagidipalli Saidulu** (1005-2017-6041) “*Experimental Investigation on the Performance and Emission Characteristics of Compression Ignition Engine with Exhaust Gas Recirculation and Karanja Biodiesel Blends*”, (Press Note No: 886/Ph.D/Exams/2024, PHD45191, Dt: 23-Aug-2024).
3. **Mr.Ravi Kumar**, (1005-2017-6023) “*Experimental Investigation of an Integrated Downdraft Gasifier for the Co-Gasification of Segregated Dry Municipal Solid Waste (SDMSW) and Biomass*”) (Press Note No: 893/Ph.D/Exams/2024 PHD45241, Dt: 13-Sept-2024).
4. **Mr. Ajay Babu Merugu**, (1005-2017-6066) “*Effect of Nano Particles in Enhancing the Rate of Heat Transfer of Double Pipe Heat Exchanger with Aluminium Twisted Tape Inserts*”, (Press Note No: 903/Ph.D/Exams/2025, PHD45318, Dt: 09-Oct-2024).
5. **Mr.V.Suman Raju** (1005-2017-6045) “*Optimization of Steam Flow Parameters to Improve Efficiency of Cogeneration System Power Plant*”, (Press Note No: 943/Ph.D/Exams/2025, PHD45623, Dt: 14-Feb-2025).
6. **Mr M. Sai Krishnakanth** (1005-2017-6054) “*Experimental Investigations on CNG with Carburetted Ethanol on Semi Adiabatic Diesel Engine*”, (Press Note No: 943/Ph.D/Exams/2025, PHD45627, Dt: 14-Feb-2025).
7. **Mr.Laxman Banothu**, (1005-2017-6073) “*Experimental Analysis of Vapour Compression Refrigeration System with and without Heat Pipe Heat Exchanger (HPHX) for Annual Energy Saving*”, (Press Note No: 994/Ph.D/Exams/2025, PHD46010, Dt: 11-Jul-2025).
8. **Mr. P.Srinivas Reddy**, (1005-2018-6012) “*Experimental Investigations on Insulated Diesel Engine with Algae Oil Blended with Copper Nano Particles*” (Press Note No: 1011/Ph.D/Exams/2025, PHD46113, Dt: 02-Aug-2025).
9. **Mr. Bhukya Balu** (1005-2018-6079) “*Performance Evaluation and Emission study of Compression Ignition Engine by using Biodiesel with Additives*”. (Press Note No: 1019/Ph.D/Exams/2025, PHD46153, Dt: 08-Aug-2025).
10. **Mr.Nagu Naik Bukhya**, (1005-2017-6062) “*CFD Simulation studies on Heat Transfer Augmentation in a Circular tube Fitted with Inserts using Nanofluidies*”. (Press Note No: 1028/Ph.D/Exams/2025, PHD46205, Dt: 01-Sep-2025).

### **Short term courses organized / participated**

| S.No | Name of the Programme                                                    | Organizing Institute                                                       | Year | Organized/<br>Participated |
|------|--------------------------------------------------------------------------|----------------------------------------------------------------------------|------|----------------------------|
| 1    | Computer Applications in Manufacturing Technology                        | Dept. of Mechanical Engineering, UCE, Osmania University, <b>Hyderabad</b> | 2002 | Participated               |
| 2    | Emission Controls and Latest Technologies in Internal Combustion Engines | Indian Institute of Technology, <b>KANPUR</b> Kanpur                       | 2002 | Participated               |

|    |                                                                                  |                                                                         |                      |              |
|----|----------------------------------------------------------------------------------|-------------------------------------------------------------------------|----------------------|--------------|
| 3  | Energy and Cryogenic Engineering                                                 | Vellore Institute of Technology, <b>VELLORE</b> (Deemed University)     | 2004                 | Participated |
| 4  | Nano Technology and Its Applications                                             | JNTU - <b>Hyderabad</b>                                                 | 2004                 | Participated |
| 5  | Mathematical Techniques for Industry with a Special Focus on Nanotechnology(CFD) | Indian Institute of Technology, <b>KHARAGPUR</b>                        | 2005                 | Participated |
| 6  | Industrial Applications of Turbomachines                                         | Indian Institute of Technology, <b>Guwahati</b>                         | 2007                 | Participated |
| 7  | Spray and Combustion                                                             | Indian Institute of Technology, <b>KANPUR</b>                           | 2007                 | Participated |
| 8  | Pedagogical Training (Module-I)                                                  | NITTTR, <b>Chandigarh</b>                                               | 2013                 | Participated |
| 9  | Faculty Development Programme in Entrepreneurship                                | Entrepreneurship Development Cell, Osmania University, <b>Hyderabad</b> | 2013-2014            | Participated |
| 10 | Management Capacity Enhancement Programme for Administrators                     | Indian Institute of Management Lucknow, <b>Noida Campus</b>             | 2015                 | Participated |
| 11 | Faculty Development Programme in Entrepreneurship (2 weeks)                      | Entrepreneurship Development Cell, Osmania University, <b>Hyderabad</b> | April 18-30, 2016    | Participated |
| 12 | Professional Development Training (PDT) TEQIP-III                                | Indian Institute of Management ( <b>IIM</b> ), <b>Raipur</b>            | August 26-30, 2019   | Participated |
| 13 | Professional Development Training (PDT) TEQIP-III                                | Indian Institute of Management ( <b>IIM</b> ) <b>Jammu</b>              | January 20-24, 2020  | Participated |
| 14 | Training on Future Skill technologies on 'Internet of Things (IoT)'              | Indian Institute of Technology, <b>Bombay</b>                           | February 24-28, 2020 | Participated |

**Orientation Course** organized / participated

| S.No | Name of the programme                 | Organizing Institute                                      | Year                     | Organized/ Participated |
|------|---------------------------------------|-----------------------------------------------------------|--------------------------|-------------------------|
| 1    | Orientation Course in Value Education | UGC-Academic Staff College, Osmania University, Hyderabad | 02.01.2003 to 01.02.2003 | Participated            |

**Workshops** organized / participated

| S.No | Name of the Programme                                                        | Organizing Institute                                                           | Year | Organized / Participated    |
|------|------------------------------------------------------------------------------|--------------------------------------------------------------------------------|------|-----------------------------|
| 1    | Working Principles of an Internal Combustion Engines and Latest Technologies | Dept. of Mechanical Engineering, UCE, OU. ForM/S Neo-Petcon Pvt. Ltd.Hyderabad | 2003 | Organized & Resource person |

|    |                                                                  |                                                                    |                      |               |
|----|------------------------------------------------------------------|--------------------------------------------------------------------|----------------------|---------------|
| 2  | Wind Energy & Energy Efficiency / Conservation                   | NEDCAP, Govt. of A.P Hyderabad                                     | 2004                 | Participated. |
| 3  | Air Conditioning System Design and Energy Conservation           | C.B.I.T – Hyderabad                                                | 2005                 | Participated  |
| 4  | Responsive Manufacturing                                         | DRDL – Hyderabad                                                   | 2005                 | Participated  |
| 5  | Teaching and Learning Practices                                  | Dept of Civil Engg & English, UCE,OU                               | April 19,2006        | Participated  |
| 6  | SUN Faculty workshop on Java Programming Language                | APSCHE-NASSCOM, UCE,OU, Hyderabad                                  | 2007                 | Participated  |
| 7  | Mission 10x                                                      | Wipro Technologies-Hyderabad                                       | 2008                 | Participated  |
| 8  | User Acceptance Test (UAT) of Management Information System(MIS) | NPIU, TEQIP, SVB Hyderabad                                         | October 18-21, 2011  | Participated  |
| 9  | Quality Enhancement for Teachers of Engineering Education        | Indian Institute of Technology, KHARAGPUR                          | November 16-17, 2011 | Participated  |
| 10 | Nano Technology and Its Applications (NANO-2012)                 | C.B.I.T – Hyderabad                                                | February 27-28, 2012 | Participated  |
| 11 | FDP on New Technologies in Automotive Industry                   | CII & Bosch Ltd, Bangalore.                                        | August 04-06, 2014   | Participated  |
| 12 | Industry-Institute and Defense Labs Interaction                  | Dept of Mech.Engg Osmania University                               | August 30, 2014      | Participated  |
| 13 | Future of Indian Aerospace “SoFIA-2015                           | Indian Institute of Technology, Hyderabad                          | January 23-24, 2015  | Participated  |
| 14 | How to write Research Proposal                                   | Univ. College of Engineering, Osmania University, Hyderabad        | September 18, 2016   | Participated  |
| 15 | One day Induction Program                                        | Univ. College of Engineering, Osmania University, <b>Hyderabad</b> | January 20, 2018     | Participated  |

#### International Training / Workshop

| S.No | Name of the Programme                                                                 | Organizing Institute                                                                                              | Duration                                           | Organized/ Participated |
|------|---------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|----------------------------------------------------|-------------------------|
| 1    | International Training Workshop on Technology and Utilization of Biomass Gasification | Department of International Cooperation , Ministry of Science and Technology & LIER , <b>Yingkou , P.R .China</b> | November 1 <sup>st</sup> - 20 <sup>th</sup> , 2008 | Participated            |
| 2    | Online Certificate Course on “ <b>COVID-19 Contact Tracing</b> ”                      | <b>Johns Hopkins University, USA</b>                                                                              | May 05-24, 2020                                    | Participated            |

## Webinars

| S.No | Name of the Programme                                                                     | Organizing Institute                                                                                                     | Duration           | Organized/ Participated |
|------|-------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|--------------------|-------------------------|
| 1    | One Week FDP on "Maximum Utilization of ICT tools for Online Teaching Learning Process"   | Dept. of Applied Science and Humanities, Rajakiya Engineering College, Ambedkar Nagar, UP                                | May 09-13, 2020    | Participated            |
| 2    | Role of Nanocomposites in the development of Industry 4.0                                 | SR Institute of Management & Technology, Lucknow                                                                         | June 06, 2020      | Participated            |
| 3    | 5 Day Online STTP on "Internet of Things (IOT) & IT's Applications in Industry"           | Dept. of Instrumentation Engineering, Ram Rao Adik Institute of Technology, Navi Mumbai and B&R Automation Pvt.Ltd. Pune | June 08-12, 2020   | Participated            |
| 4    | Government e-Marketplace                                                                  | National Project Implementation Unit (NPIU) and Hosted by State Project Implementation Unit, U.P                         | July 07, 2020      | Participated            |
| 5    | A National Level Five Days Virtual FDP on "Research Directions in Wireless Communication" | Dr Ambedkar Institute of Technology, Bengaluru                                                                           | August 17-21, 2020 | Participated            |

## Publications (Journals/National and International Conferences)

1. **Narsimhulu Sanke**, Prof.D.N.Reddy, Dr.M.V.Ramana Murthy "An Experimental Investigation of heat recovery from Bio-mass energy", National Conference on State of the Art of Technologies in Mechanical Engineering (NCSAME-2004), JNTU, Hyderabad, India. 29th - 30th June 2004.
2. Upender Miryala, **Narsimhulu Sanke**, Dr.P.Mallesham, "Assessment of tool wear in Drilling using vibration and Force parameters for Tool Condition Monitoring", NCSAME-2004, JNTU, Hyderabad, India. 29th - 30th June 2004.
3. K.Ashok Kumar, **Narsimhulu Sanke**, S.S.Prasad, "The use of Micro Turbine Generators in Hybrid Electric Vehicles", NCSAME-2004, JNTU, Hyderabad, India. 29th - 30th June 2004.
4. **Narsimhulu Sanke**, GangaramShinde, UpenderMiryala, "Biomass fuel mix of Thermo Chemical Conversion for Gaseous Products on Pyrolytic aspects", AIM-2005 (National Conference on Advances in Mechanical Engineering) 13th – 14th May, 2005. Vasavi College of Engineering, Hyderabad
5. **Narsimhulu Sanke**, "Biomass is an alternative Source fuel for Energy Generation" 2nd **International Conference** on Renewable Energy Sources and Energy Efficiency (ENERTECH 2007) 18-21 October 2007, **Athens, Greece**(funded by TEQIP,UCE,OU)
6. **Narsimhulu Sanke**, Dr.D.N.Reddy "Biomass for power and energy generation" **International Conference** on Renewable Energy and Power Quality (ICREPQ'08) 12-14 March 2008, Santander, **Spain**.(funded by TEQIP,UCE,OU)

7. **Narsimhulu Sanke**(et,al) "*Eucalyptus Globulus Waste as Fuel in a Power Plant*" . **International Conference** on Renewable Energy and Power Quality (ICREPQ'09) 15-17 April 2009, Valencia, Spain.
8. G.Srinivas Sharma, **Narsimhulu Sanke**, D.N.Reddy, "*Experimental Investigations of wood gasification in downdraft gasifier and prediction of gas composition using thermodynamic equilibrium model*" International J.of Multidiscipl.Research&Advcs. in Engg. (IJMRAE),ISSN 0975-7074, Vol. 3, No. IV (October 2011), pp. 297-312.
9. Ameer Razzaq Noor, **Narsimhulu Sanke**, "*Design of solar absorption generator for Ice maker*", National Conference on Recent Advances in Mechanical Engineering (RAME-2012) 16-17 March 2012. Dept of Mechanical Engineering, Osmania University, Hyderabad.
10. Balasem Abdulameer Jabbar, **Narsimhulu Sanke**, "*Design and Modeling of horizontal axis wind turbine blade*" National Conference on Recent Advances in Mechanical Engineering (RAME-2012) 16-17 March 2012. Dept of Mech.Engg, Osmania University, Hyderabad.
11. Bassam A Mohammed Hussein, **Narsimhulu Sanke**, "*Design and Modelling of dish collector for solar energy*" National Conference on Recent Advances in Mechanical Engineering (RAME-2012) 16-17 March 2012. Dept of Mech.Engg, Osmania University, Hyderabad.
12. Ratnakar Ch, **Narsimhulu Sanke**, "*Modelling and CFD analysis of an advanced biomass downdraft gasifier*" National Conference on Advances in Mechanical Engineering (AIM-2012) 11-12 October 2012 Vasavi College of Engineering, Hyderabad.
13. **Narsimhulu Sanke**, Ratnakar Ch, "*CFD simulation of an advanced biomass gasifier*" National Conference on Advances in Mechanical Engineering (AIM-2012) 11-12 October 2012 Vasavi College of Engineering, Hyderabad.
14. **Narsimhulu Sanke**, Ratnakar Ch, D.N.Reddy, "*Computational analysis of advanced biomass downdraft gasifier*" at the second IASTED **International Conference** on Power and Energy Systems and Applications (PESA 2012) 12 - 14 November 2012, **Las Vegas, USA. (Secured best paper award)**, (funded by UGC)
15. Ratnakar Ch, **Narsimhulu Sanke** "*Flow analysis of an advanced biomass gasifier*" Second International Conference on Emerging Trends in Engineering (ICETE-2013), 22-23 February 2013, Jaysingpur (Maharashtra), India.
16. Salih Meri Abdulridha, **Narsimhulu Sanke**, "*Performance analysis of parabolic trough collector for steam generation*", Journal Global Journal of Engineering Research and Technology (GJERT), ISSN 2249-3107, Volume 3, Number 2 (2013), pp 43-51.
17. Kumail Abdulkareem Hadi, **Narsimhulu Sanke**, "*Temperature analysis of riser tubes in a solar flat plate collector*", Journal Global Journal of Engineering Research and Technology (GJERT), ISSN 2249-3107, Volume 3, Number 2 (2013), pp 53-58
18. Ahmed Dheyaa Jawad, **Narsimhulu Sanke**, "*Design and Modeling of a Two Stage Savonius Wind Turbine*", Journal Advances in Materials Science and Mechanical Engineering Research, Volume 1, Number 1(2014), pp.11-15.
19. **Narsimhulu Sanke**, D.N.Reddy, "*Investigation on Biomass as Alternate Source for Power Generation*" the International Conference on Energy, Biomass and Waste Engineering (ICEBWE 2014) May 12-13, 2014, **Montreal, Canada**(funded by TEQIP,UCE,OU)
20. Mohammed Saad Abbas, **Narsimhulu Sanke**, "*Performance analysis of flat plate collector with modified risers*", Global Journal of Engineering Research and Technology (GJERT), ISSN 2249-3107, Volume 4, Number 2 (July 2014), pp 93-98.



21. Raad A Jawad, **Narsimhulu Sanke**, "*Effect of pitch angle on horizontal axis wind turbine*", Global Journal of Engineering Research and Technology (GJERT), ISSN 2249-3107, Volume 4, Number 2 (July 2014), pp 107-114.
22. **Narsimhulu Sanke**, D.N.Reddy, "*The temperature influenced in the advanced biomass downdraft gasifier reactor of biomass fuels gasification for power generation*" at the **International Conference** on Environment and Energy (ICEE-2014), 15-17 December 2014, Hyderabad, India, ISBN 978-93-81212-96-7
23. **Narsimhulu Sanke**, Md. Khader Shariff, "*Design and analysis of an axial flow compressor*", at the National Conference on Emerging Trends in Mechanical Engineering (ETIME-2014) 29-30 December 2014, Dept. of Mechanical Engineering, Osmania University, Hyderabad, ISBN 978-9383635-55-9
24. Mohammed Mohsin Shkair, **Narsimhulu Sanke**, "*Solar flat plate collector heat transfer analysis in the raiser with helical fins*", International Journal of Engineering & Science Research (IJESR), ISSN 2277-2685, Vol-5, Issue-5 (May 2015), pp 352-356.
25. Ali Salh Sawadi, **Narsimhulu Sanke**, "*Performance analysis of winglet angles for horizontal axis wind turbine*", International Journal of Engineering & Science Research (IJESR), ISSN 2277-2685, Vol-5, Issue-5 (May 2015), pp 347-351.
26. **Narsimhulu Sanke**, Mohammed Mohsin Shkair, "*Heat Transfer Analysis of a Riser Tubr in a Flat Plate Collector with Fins*" International Journal & Magazine of Engineering, Technology, Management and Research (IJMETMR), ISSN 2348-4845, Volume No:2, Issue No:7 (July 2015), pp 163-167.
27. **Narsimhulu Sanke**, Ali Salh Sawadi, "*CFD Analysis of Winglets for Horizontal Axis Wind Turbine*", International Journal & Magazine of Engineering, Technology, Management and Research (IJMETMR), ISSN 2348-4845, Volume No:2, Issue No:7 (July 2015), pp 174-179.
28. Vigneshwar N, **Narsimhulu Sanke**, "*Efficiency Estimation of the Turbocharger Compressor Wheel*", International Journal of Scientific & Engineering Research (IJSER), ISSN 2229-5518, Volume 6, Issue 8 (August-2015), pp 195-198.
29. D Mukherjee, **Narsimhulu Sanke** "*Effect of length of a flat disk aero spike on the drag and thermal characteristic of flow over a blunt body*", International Journal of Emerging Technology and Advanced Engineering (IJETA) ISSN 2250-2459, Volume 7 (September 2017).
30. EGK Venkateswar Rao, **Narsimhulu Sanke** "*Modeling and Analysis of Air driven Turbine for Aerospace Applications*", International Journal of Emerging Technology and Advanced Engineering (IJETA) ISSN 2250-2459, Volume 7 (October 2017).
31. Hadeel Raheem Jasim, **Dr.Narsimhulu Sanke**, "*Heat Transfer simulation of gas turbine blade with film cooling*" at National Conference in Mechanical Engineering and Nanotechnology (NCAMENT2018) 29-30 June, 2018, Dept of Mec.h Engg, Osmania University, Hyderabad.
32. E. Sammaiah, Md. Mohinoddin, **Narsimhulu Sanke**, Aditya Bharadwaj "*Experimental Analysis Of Forced Convective Heat Transfer In A Pin-Fin*" at the first International Conference on "Advances in Mechanical Engineering" (ICAME 2018) at the Department of Mechanical Engineering, CMR College of Engineering & Technology, Hyderabad, 21-22 December 2018.
33. Ravi Gugulothu, Narsimhulu Sanke, AVSSKS Gupta, Ratna Kumari Jilugu, "*A Review on Helical Baffles for Shell and Tube Heat Exchangers*", International Journal of Modern Engineering and

- Research Technology (IJMERT-2018), Volume 5, Special Issue, June 2018. ISSN: 2348-8565 (Online)
34. Ravi Gugulothu, Narsimhulu Sanke, Ratna Kumari Jilugu, Sri Rama Devi Rangisetty, *Numerical Investigation on Heat Transfer of Helical Baffles Shell and Tube Heat Exchanger*, International Journal of Modern Engineering and Research Technology (IJMERT-2018), Volume 5, Special Issue, June 2018. ISSN: 2348-8565 (Online).
  35. R. Shukla and **N.Sanke**, “Scrutinization of Discrepancy in Nozzle Throat Diameter for Supersonic Aerospace Vehicles” ICMMS-2018, Indian Institute of Technology, Indore, 19-21 July, 2018.
  36. Ravi Gugulothu, Narsimhulu Sanke and A. V. S. S. K. S. Gupta, *Numerical Study of Heat Transfer Characteristics in Shell-and-Tube Heat Exchanger*, Lecture Notes in Mechanical Engineering: Numerical Heat Transfer and Fluid Flow, (2019) <https://doi.org/10.1007/978-981-13-1903-7>.
  37. G.Venkat Ramana, **Narsimhulu Sanke**, “Effect of tool rotational speed and feed rate on similar and dissimilar Friction Stir welded joints of Al 5082 and Al 6061”, ScienceDirect, Materials Today, ELSEVIER, 2019, [http://doi.org/10.1016/j.matpr\\_2019.08.228](http://doi.org/10.1016/j.matpr_2019.08.228).
  38. Review on restorative measures to overcome effects of high engine temperature on performance characteristics of IC engines at 2nd International Conference on Technological Convergence in Engineering Energy and Sustainability, VJEC, Kannur during July 18-19, 2020.
  39. Ravi Gugulothu, **Narsimhulu Sanke**, Farid Ahmed, Ratna Kumari Jilugu, **Book Chapter 25** “Numerical Study on Shell and Tube Heat Exchanger with Segmental Baffle”, Algorithms for Intelligent Systems, Proceedings of International Joint Conference on Advances in Computational Intelligence, IJCACI 2020, Springer, ISSN 2524-7573 (electronic), ISBN 978-981-16-0586-4 (eBook), <https://doi.org/10.1007/978-981-16-0586-4>
  40. Venkat Ramana G, **Narsimhulu Sanke**, *Evaluation of Tensile and Microstructure properties of AA2014 and AA7075 FSW weldments developed by HSS-10%Co and WC tools*, ICMMS-2020, ScienceDirect, Materials Today, ELSEVIER, 2021, DOI: 10.1016/j.matpr\_2021.01.060.
  41. Ravi Gugulothu, **Narsimhulu Sanke**, Farid Ahmed, Naga Sarada, M.T. Naik, “Numerical study of Shell and Tube Heat Exchanger Parameters”, 1st International Conference on Applied Analysis Computation And Mathematical Modelling In Engineering (AACMME-2021), National Institute of Technology, Rourkela, February 24-26, 2021.
  42. Ravi Gugulothu, **Narsimhulu Sanke**, Sahith Nagadesi, Ratna Kumari Jilugu “Thermal hydraulic performance of helical baffle shell and tube heat exchanger using RSM Method”, 1st International Conference on Applied Analysis Computation And Mathematical Modelling In Engineering (AACMME-2021), National Institute of Technology, Rourkela, February 24-26, 2021.
  43. Balu Naik, Narsimhulu Sanke, “The performance of Combustion Ignition engine by using bio-diesel from animal fat with proportions” International conference on Robotics and Intelligent Manufacturing (ICRIM-2021), St.Martin’s Engineering College, Hyderabad, July 16-17, 2021.
  44. Ravi Gugulothu, Narsimhulu Sanke, EUse of segmental baffle in shell and tube heat exchanger for nano emulsions, Heat Transfer Journal, Wiley Periodicals LLC, 2021, DOI: 10.1002/htj.22418.
  45. P Srinivas Reddy, M.V.S. Murali Krishna, Narsimhulu Sanke, *Experimental Investigations on Exhaust emissions of Diesel Engine Fuelled with CNG and Carbureted Ethanol*, International Journal of Mechanical Engineering and Technology (IJMET), Volume 12, Issue 11, November 2021, pp. 1-13, <http://doi.org/10.17605/OSF.IO/JKF6W>.



46. M.Sai Krishna Kanth, MVS Murali Krishna, Narsimhulu Sanke, *Control of Aldehydes of Diesel Engine Fuelled with CNG and Carbureted Ethanol*, International Journal of Engineering Research & Technology (IJERT), Vol. 11 Issue 01, January-2022, ISSN : 2278-0181.
47. Ravi Gugulothu, Narsimhulu Sanke, Effect of helical baffles and water- based  $Al_2O_3$ ,  $CuO$ , and  $SiO_2$  nanoparticles in the enhancement of thermal performance for shell and tube heat exchanger, Heat Transfer Journal, Wiley Periodicals LLC, 2022.DOI: 10.1002/htj.22474.
48. Ravi Gugulothu, Narsimhulu Sanke, Farid Ahmed, Naga Sarada Somanchi, M. T. Naik, *Numerical Investigation of Baffle Spacing in a Shell and Tube Heat Exchanger with Segmental Baffle*, Lecture Note on Applied Analysis, Computation and Mathematical Modelling in Engineering, Springer Nature Singapore Pte Ltd. 2022. DOI:10.1007/978-981-19-1824-7
49. P Srinivas Reddy, M.V.S. Murali Krishna, Narsimhulu Sanke, *Investigations on exhaust emissions of insulated diesel engine fuelled with algae oil blended with nano particles*, Ecology, Environment and Conservation Journal, EM International, 2022. <https://doi.org/10.53550/EEC.2022.v28i08s.003>
50. P Srinivas Reddy, M.V.S. Murali Krishna, Narsimhulu Sanke, *Effect of injection pressure on exhaust emissions of diesel engine fuelled with algae oil blended with nano particles*, Gradiva Review Journal, 2022, Volume 8, Issue 7, ISSN NO: 0363-8057.
51. Ravi Gugulothu, Narsimhulu Sanke, Sahith Nagadesi, Ratna Kumari Jilugu, Thermal Hydraulic Performance of Helical Baffle Shell and Tube Heat Exchanger Using RSM Method, Applied Analysis, Computation and Mathematical Modelling in Engineering, Springer Nature Singapore Pte Ltd. 2022. <https://doi.org/10.1007/978-981-19-1824-7>.
52. Balram Yelamasetti, G. Venkat Ramana, Narsimhulu Sanke, Nakul Gupta, Numerical and experimental residual stress analysis of dissimilar metals of Inconel 718 and AISI 316 developed in GTAW process, International Journal on Interactive Design and Manufacturing (IJIDeM), Springer, June 2022. <https://doi.org/10.1007/s12008-022-00932-y>
53. Ravi Kumar Rachamala, Narsimhulu Sanke, A.Seshu Kumar, *Experimental Investigation of Segregated Dry Municipal Solid Waste (SDMSW) and Biomass blend in the gasification process*, DE GRUYTER Energy Harvesting and Systems 2023, <https://doi.org/10.1515/ehs-2022-0052>.
54. Ravi Gugulothu, Narsimhulu Sanke, *Experimental investigation of heat transfer characteristics for a shell and tube heat exchanger*, DE GRUYTER Energy Harvesting and Systems 2023, <https://doi.org/10.1515/ehs-2022-0147>.
55. Ravi Gugulothu, Narsimhulu Sanke, Naga Sarada Somanchi, Vikas Normalla, Farhana Akter, Banoth Dhola Ykuntam Sunil, *A numerical study of water based nanofluids in shell and tube heat exchanger*, DE GRUYTER Energy Harvesting and Systems 2023, <https://doi.org/10.1515/ehs-2022-0155>.
56. Veerabathini Sumanraju, Tinnavelli Ramamohan Rao, Narsimhulu Sanke, *Constant Steam Inlet Conditions and their Impact on the Thermal Efficiency of a Cogeneration Power Plant*, International Journal of Heat and Technology (IJHT), Vol. 41, No. 4, August, 2023, pp. 847-853. <https://doi.org/10.18280/ijht.410407>.
57. Pagidipalli Saidulu, Narsimhulu Sanke, *Assessing Engine Performance and Emissions in a CI Engine using 20% Karanja Biodiesel blend with EGR System*, Gradiva Review Journal, 2023, Volume 9, Issue 10, ISSN NO: 0363-8057.
58. V. Sumanraju, T.Ramamohan Rao, Narsimhulu Sanke, *Optimization of process parameters for enhancing overall efficiency: experimental analysis and regression modelling*, International Journal on Interactive Design and Manufacturing (IJIDeM), Springer Nature 2023. <https://doi.org/10.1007/s12008-023-01626-9>.
59. Pagidipalli Saidulu, Narsimhulu Sanke, *Performance and Emissions Analysis of Compression Ignition Engine with Exhaust Gas Recirculation System*, IOSR Journal of Mechanical and Civil

- Engineering (IOSR – JMCE), Volume 20, Issue 4, Ser 1 August 2023, DOI: 10.9790/1684-2004012736.
60. G.Venkat Ramana, Narsimhulu Sanke, *Mechanical and Metallurgical Characterization of Dissimilar FSW Joints of Monel 400 and SS316L*, Journal of Computational Analysis and Applications, Vol.31, No.1, 2023
  61. R. Ravi Kumar, Narsimhulu Sanke, A.Seshu Kumar, *Design and Performance Analysis of a Producer Gas Cleaning System for Downdraft Gasifier Processing Segregated Dry Municipal Solid Waste and Biomass*, ICETE 2023, DOI: 10.2991/978-94-6463-252-1\_98.
  62. Balu Bhukya, G.Venkata Subbaiah, Narsimhulu Sanke, *Impact Analysis of the CI Engine Emission and Performance Characteristics for Biodiesel from Calotropis Root Oil*, ICETE 2023, SER 223, DOI: 10.2991/978-94-6463-252-1\_101.
  63. R. Ravi Kumar, Narsimhulu Sanke, A.Seshu Kumar, *Experimental Investigations on Integrated Downdraft Gasifier for Heating & Power Applications Using Segregated Dry Municipal Solid Waste (SDMSW) and Biomass blends*, IOSR Journal of Mechanical and Civil Engineering (IOSR – JMCE), Volume 20, Issue 1, Ser III February 2023, DOI: 10.9790/1684-2001034046.
  64. B.Nagu Naik, Shaik Khader Vali, Narsimhulu Sanke, *Enhancing Heat Transfer Efficiency in Heat Exchangers using Conical Tape Inserts*, (IOSR – JMCE), Volume 20, Issue 5, Ser III October 2023, DOI: 10.9790/1684-2005030107.
  65. B.Nagu Naik, Shaik Khader Vali, Narsimhulu Sanke, *Heat Transfer Enhancement of Heat Exchanger using Nanofluids and Conical Inserts*, (IOSR – JMCE), Volume 20, Issue 5, Ser III October 2023, DOI: 10.9790/1684-2005030818.
  66. P Srinivas Reddy, M.Chandra Sekhar Reddy, Narsimhulu Sanke, D.Teja Santosh, *Prediction of Low Heat Rejection engine performance parameters using Regression:A machine learning approach*, Ecology, Environment and Conservation Journal, EM International, 2024, ISSN 0971-765X.
  67. Bolle Nagamma, G.Venkata Subbaiah, Narsimhulu Sanke, *Experimental Investigation on Performance Parameters of IC Engine Tested with Sal Seed biodiesel blends*, Journal of Computational Analysis and Applications (JoCAAA), Vol. 33, No. 8, 2024, DOI: 10.48047/jocaaa.2024.33.08.155.
  68. Bolle Nagamma, G.Venkata Subbaiah, Narsimhulu Sanke, *Optimization of Engine Parameters for Performance and Emissions of Sal Bio-Diesel*, International Journal of Intelligent Systems and Applications in Engineering (IJISAE), 2024, ISSN: 2147-6799.
  69. Balu Bhukya, G.Venkata Subbaiah, Narsimhulu Sanke, *Experimental Study the Tamarind Seed Biodiesel Blend Characteristics Combustion Emissions in a Compression Ignition Engine*, IOSR Journal of Mechanical and Civil Engineering (IOSR – JMCE), Volume 21, Issue 4, Ser I August 2024, DOI: 10.9790/1684-2104015661.
  70. Narsimhulu Sanke, R. Ravi Kumar, Md.Aleem Pasha, Syam Prasad Ammineni, Pagidipalli Saidulu, *Influence of operational parameters on downdraft gasifier performance using municipal solid waste (MSW) – biomass blends*, Journal of Energy Sources, Part A: Recovery, Utilization, and Environmental Effects, Taylor & Francis, 2025, Vol.47, No. 2 2515247, <https://doi.org/10.1080/15567036.2025.2515247>.
  71. Bolle Nagamma, G.Venkata Subbaiah, Narsimhulu Sanke, *Optimization of Diesel Engine Parameters to Improve Performance for Sal Seed bio-diesel blend*, International Journal of Engineering Research and Science & Technology (IJERST), Vol. 21, No. 2(1), 2025, ISSN:2319-5991.

#### **Guest Lectures /Keynote Address delivered**

1. Lecture delivered on “**Biomass Energy**” at University of Cantabria, Santander, Spain on 18th March 2008.

2. Lecture delivered on “**Biomass is an alternate source of fuel for power and energy generation**” at Liaoning Institute of Energy Resources (LIER), Yingkou , P.R.China on 15th Nov 2008.
3. Keynote lecture delivered on “**Biomass Potential for Power Generation in India**”, International Level Symposium on Renewable Energy for Rural Development (ISORE-2010), February 25th - 27th , 2010. Sangamner, India.
4. Keynote lecture delivered on “**Biomass for Gasification**” in One-day Regional Seminar on Trends in Renewable Energy Applications and Technologies, Organized by Department of Mechanical Engineering, MVSR Engineering College, Hyderabad and Sponsored by Ministry of New and Renewable Energy Govt. of India. On 4<sup>th</sup> February 2012.
5. Lecture delivered on “**Non-Conventional Energy Sources (Solar, Wind and Biomass)**” for Capsule course on Water & Energy Conversation & Economy in Tariff held at Chief Engineers (FY) Hyderabad (Military Engineering Services) on 25 June 2012.
6. Lecture delivered on “**Internet for Society**” for the participants of the Refresher Course in Information Technology, organized by the UGC-Academic Staff College, Osmania University, on 05 July 2012.
7. Lecture delivered on “**Internet for Society**”, in the Refresher Course in Information Technology, organized by the UGC-Academic Staff College, Osmania University, Hyderabad, on 24<sup>th</sup> –July-2013.
8. Two lectures delivered in the Refresher Course on "Emerging Trends in Renewable Energy Sources & Energy Management" (June 9-28, 2014) at UGC-Academic Staff College, JNTUH Kukatpally, Hyderabad, on June 17, 2014.
  - **Solar-Wind Hybrid Power Systems**
  - **Biomass and Its Technologies for Power Generation.**
9. Extension lecture delivered on “**Sustainable Energy for Sustainable Development**” on November 29, 2014 at Keshav Memorial Institute of Commerce & Sciences, Hyderabad.
10. Expert lecture on “**Solar, Wind, Biomass energies applications**” in one week faculty development program”, during September 27 – October 2, 2016. Organized by Aditya Institute of Technology and Management, Tekkali, Andhra Pradesh.
11. Guest lecture on “**Non-Conventional Energy Sources**” at CMR College of Engineering & Technology, Hyderabad, on August 11, 2017.
12. Invited lecture on “**Research Potential in Biomass for Rural India Power Generation**” in one-week faculty development program on Recent Trends in Mechanical and Industrial Engineering (RTMIE – 2017) during December 11-15, 2017. Organized by Dept. of Mechanical Engineering, MVSR Engineering College, Hyderabad.
13. Invited talk on “**Air Conditioning System in Automobile Sector (Design & Protocol)**” in one week faculty development program on Automobile Refrigeration and Air Conditioning” during July 24-28, 2018. Organized by Dept. of Automobile Engineering, MVSR Engineering College, Hyderabad.
14. Expert lecture on “**Utilization of Biomass for Power Generation – Especially In Rural India**” at UGC-HRD Center, Osmania University, Hyderabad on June 19, 2020 (Online)

15. Expert lecture on “**Biomass Gasification and Utilization for Rural India**” at JNTU College of Engineering, Hyderabad on August 17, 2020.
16. Alumni Invited talk on “**Internet of Things the future skill technologies**” at M.V.S.R Engineering College (Online), on September 15, 2020.
17. Invited talk delivered on December 18, 2020, on “**Utilization of Biomass for Power Generation – Especially in Rural India**” at Online Two-Week Faculty Development Programme (FDP) On Renewable Energy Intervention In Industry, Commercial And Domestic Applications, Organized by RGM College of Engineering and Technology, Nandyal (December 14-26, 2020).
18. Invited talk delivered on February 19, 2021, on “**Biomass Energy for Power Generation**” at Online Two-Week Faculty Development Programme (FDP) On Renewable Energy Intervention In Industry, Commercial And Domestic Applications, Organized by RGM College of Engineering and Technology, Nandyal (February 15-27, 2021)
19. Keynote lecture on “**Biomass Energy to Power for Small Villages**” (September 25, 2021), The Third International Conference on Manufacturing, Material Science & Engineering (ICMMSE-2021), CMRIT, Hyderabad (September 24-25, 2021).
20. Invited lecture on, **Conversion of Solar Energy to Electricity with Maximum Efficiency**, International Conference on Advances in Renewable Energy (ICARE-2023), Organized by the School of Physical Sciences, Swami Ramanand Teerth Marathwada University, Nanded, M.S, India, January 11-13, 2023.
21. Invited talk on “**Climate Change and Its Mitigation**” during Two-Days Seminar on Sustainable Energy Resources - Way Forward for Achieving India's Target of Net Zero Emissions, Jointly Organized by Indian Institute of Plant Engineers (IIPE-TS&AP Chapters) and Centre for Energy Technology (CET), OU, Hyderabad, July 18-19, 2024.
22. Guest Lecture on “**Role of Science & Technology in mitigating Natural calamities : Civil and Defence preparedness**” at A three day training program on “Basic Course on Army and Civil Coordination – Aid to Civil Authority” (GOI) from 28.04.2025 to 30.04.2025. Organized by Government of Telangana, Dr.MCR HRD Institute of Telangana, Hyderabad.

#### **Organizing Member/Secretary**

1. **Committee Member** of *National Conference on Computational Methods in Mechanical Engineering* (COMPUTIME) September 16-17, 2005.
2. **Committee Member** for *One-day workshop on Advances in Computational Structural Mechanics and Fluid Flows* (COSMECFLOWS) December 5<sup>th</sup>, 2005.
3. **Committee member** International Conference on “*International Congress on Renewable Energy*” (ICORE 2006) February 8-11, 2006 at Hyderabad International Convention Centre, Hyderabad.
4. **Organizing Secretary** "ENVISAGE – 2006" Three day National Level Technical Festival has conducted, during April 3-5, 2006.
5. **Organizing Secretary** "ENVISAGE – 2007" Three day National Level Technical Festival has conducted, during January 19-21, 2007.
6. **Organizing Secretary** "ENVISAGE - 2008" Two day National Level Technical Festival has conducted, during January 11-12, 2008.

7. **Committee Member** of the 53rd Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM-2008) December 27th–30th, 2008.
8. **Organizing Secretary “Samskruthi -2009”** One day cultural festival has conducted at Univ. College of Engineering, Osmania University, Hyderabad, during 28 March 2009.
9. **International Scientific Committee Member**, International Conference on Renewable Energy and Power Quality, **Spain**, since 2009.
10. **Co-Convenor**, International Conference on “Reforms in Technical Education-Global Trends” (ICORTE 2010) August 27-28, 2010. Organized by the Dept. of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad, India.
11. **Convenor**, National Conference on “Recent Advances in Mechanical Engineering” (RAME-2012) 16-17 March 2012. Dept of Mechanical Engineering, Osmania University, Hyderabad.
12. **Organizing Secretary “Qizzateck-2013”** quiz finals has conducted at Univ. College of Engineering, Osmania University, Hyderabad, on 23 March 2013.
13. **Organizing Secretary “Qizzateck-2014”** quiz finals has conducted at Univ. College of Engineering, Osmania University, Hyderabad, on 22 March 2014.
14. **Organizing Secretary “Samskruthi -2014”** One day cultural festival has conducted at Univ. College of Engineering, Osmania University, Hyderabad, during 23 March 2014.
15. **Convenor**, National Conference on Emerging Trends in Mechanical Engineering (ETIME-2014) 29-30 December 2014, Dept. of Mechanical Engineering, Osmania University, Hyderabad.
16. **Organizing Secretary “Qizzateck-2015”** quiz finals has conducted at Univ. College of Engineering, Osmania University, Hyderabad, on 23 March 2015.
17. **Organizing Secretary “FreeStyle 2015”** (for B.E I/IV) one day programme has been conducted at Univ. College of Engineering, Osmania University, Hyderabad, on 11 May 2015.
18. **Organizing Secretary “Quizzotic-2016”** conducted quiz finals comprises a spectrum of areas encompassing the latest developments both technical and non-technical arena, at University College of Engineering, Osmania University, Hyderabad on March 21, 2016.
19. **Organizing Secretary “FreeStyle-2016”** (for BE First years) one day Programme conducted at University College of Engineering, Osmania University, Hyderabad on April 19, 2016.
20. **Organizing Committee member**, International Conference on Advances in Materials and Manufacturing (ICAMM-2016), December 8-10, 2016, jointly organized by Department of Mechanical Engineering, Osmania University and DRDL, DRDO, Hyderabad.
21. **Organizing Secretary “Quizzotic-2017”** conducted quiz finals comprises a spectrum of areas encompassing the latest developments both technical and non-technical arena, at University College of Engineering, Osmania University, Hyderabad on March 25, 2017.
22. **Organizing Secretary “FreeStyle-2017”** (for BE First years) one day Programme conducted at University College of Engineering, Osmania University, Hyderabad on April 15, 2017.
23. **Organizing Committee member**, International Conference on Advances in Materials and Manufacturing (ICAMM-2016), December 8-10, 2016, jointly organized by Department of Mechanical Engineering, Osmania University and DRDLDRDO, Hyderabad.



24. **Organizing Committee member**, 62<sup>nd</sup> Congress of Indian Society of Theoretical and Applied Mechanics (ISTAM-2008) December 15-18, 2017.
25. **Organizing Secretary “Quizzotic-2018”** conducted quiz finals comprises a spectrum of areas encompassing the latest developments both technical and non-technical arena, at University College of Engineering, Osmania University, Hyderabad on March 24, 2018.
26. **Organizing Secretary “FreeStyle-2018”** (for BE First years) one day Programme conducted at University College of Engineering, Osmania University, Hyderabad on April 07, 2018.

### Social Programs

- Participated in National Renewable Energy Day 2005
- One of the organizing members of National Renewable Energy Day 2006.
- Participated in Telangana Harithaharam on July 11, 2016 and July 07, 2017
- Participated and bestowed on "General Awareness Quiz on World Environment Day" Organized by ITM University, Raipur, during June 05, 2020.
- Participated in the event "International Day of Yoga" Organized by Heartfulness Institute during June 21, 2020.

### Awards/ Honors

- Recognized as Top 100 Scientists 2009, International Biographical Centre, CAMBRIDGE, ENGLAND.
- 2000 Outstanding Scientists 2008/2009, International Biographical Centre, CAMBRIDGE, ENGLAND.
- Received **BEST PAPER AWARD**, “*Computational analysis of advanced biomass downdraft gasifier*” at the second IASTED International Conference on Power and Energy Systems and Applications (PESA 2012) 12 - 14 November 2012, **Las Vegas, USA**.

### Administrative Profile

1. **In-Charge of time-tables**, (UG & PG)(Regular & Part-time Courses) Department of Mechanical Engineering, University College of Engineering (Autonomous), Osmania University, Hyderabad. June 2002 to June 2007.
2. **Officer In-Charge**, Automobile Engineering Section, Osmania University, Hyderabad, June 2003 – July 2004
3. **In-Charge** for Conducting M.E (Mech) Main Examinations during 2003-2004, Dept. of Mechanical Engineering, University College of Engineering (Autonomous), Osmania University, Hyderabad.
4. **Department Convener** for M.E/M.Tech Admissions 2004-2005, Department of Mechanical Engineering, Osmania University, Hyderabad.
5. **Officer In-Charge**, Computer Laboratory, Dept. of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad, since July 2004.
6. **Member, TEQIP** – Purchases Committee, Dept. of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad, January 2005 to June 2008.
7. **Department Convener** for M.E/M.Tech Admissions 2005-2006, Department of Mechanical Engineering, Osmania University, Hyderabad.
8. **Director**, Centre for Creative Technologies, University College of Engineering (Autonomous), Osmania University, Hyderabad, October 2005 to till date.



9. **Coordinator & Asst. Chief Superintendent**, B.E & M.E Main Examinations, University College of Engineering, Osmania University, Hyderabad, March 2006 to August 2016.
10. **Director**, Centre for Energy Technology, University College of Engineering (Autonomous), Osmania University, Hyderabad since August 2008.
11. **Faculty Advisor**, “SAEINDIA Collegiate Club” Univ. College of Engineering, Osmania University, Hyderabad, from 2010 to 2016.
12. **Student Advisor**, University College of Engineering (Autonomous), Osmania University, Hyderabad since October 2009.
13. **Website In-Charge**, University College of Engineering (Autonomous), Osmania University, Hyderabad from July 2009 to June 2012.
14. **Faculty Advisor**, ME Turbomachinery Course, Dept. of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad, since August 2011.
15. **Departmental Committee Member**, Dept. of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad, 2011 to 2016
16. **Board of Studies Member**, Dept. of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad since 2011.
17. **In-charge**, College Automation, UCE, OU since September 2012 – September 2013.
18. **Member**, Board of Studies in Mechanical Engineering, Malla Reddy Engineering College (Autonomous), Hyderabad. Since April-2015.
19. **Assistant Controller of Examinations (EDP)**, Osmania University, Hyderabad, July 27, 2016 to November 23, 2016.
20. **Assistant Controller of Examinations (Professional-I)**, Osmania University, Hyderabad November 24, 2016 to June 05, 2017.
21. **Departmental Research Committee Member**, Dept. of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad, since December 2016.
22. **Additional Controller of Examinations (Professional-I)**, Osmania University, Hyderabad, June 06, 2017- July 31, 2019.
23. **Departmental Committee Member**, Dept. of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad, May 2019 to May-2021.
24. **TEQIP-III Project Coordinator**, University College of Engineering, Osmania University, Hyderabad, since August 19, 2019.
25. **Regional Coordinator**, Telangana State Post Graduate Engineering Common Entrance Test (TSPGECT-2021) and (TSPGECT-2022) for the years 2021 and 2022.
26. **Director of Evaluation**, Examination Cell, University College of Engineering (Autonomous), Osmania University, May-2022 – June 9, 2025
27. **Co-Convener**, Telangana State Engineering Common Entrance Test (TS ECET-2023) for the year 2023.
28. **Chairperson, Board of Studies**, Department of Mechanical Engineering, University College of Engineering (Autonomous), Osmania University, June-2023 – August 4, 2025.
29. **Co-Convener**, Telangana State Engineering Common Entrance Test (TS ECET-2024) for the year 2024.

## **COURSES TAUGHT**

- **Theories**

### **Undergraduate Courses (BE)**

1. ME 301 UE Applied Thermodynamics (UG)
2. CS 101 UE Computer Programming & Problem Solving (UG)
3. CS 151 UE Object Oriented Programming (UG)
4. ME 8302 UE Applied Thermodynamics (UG-PTDC)
5. ME 8352 UE Heat Transfer (UG-PTDC)
6. PC506ME Heat Transfer (UG)
7. PE605ME Renewable Energy Sources (UG)
8. PE801ME Waste Heat Recovery and Co-Generation (UG)
9. PC402ME Thermal Engineering (UG)

### **Postgraduate Courses (ME)**

1. ME 413 Programming Methodology & Data Structures (PG)
2. ME 543 Design of Gas Turbines (PG)
3. ME 548 Fuels and Combustion (PG)
4. ME 564 Aero Thermodynamics of Turbo Machines (PG)
5. ME 566 Design of Steam Turbines (PG)
6. ME 573 Advanced Energy Systems (PG)
7. ME 574 Experimental Techniques in Turbo Machines (PG)
8. EC 504 Data Structures using 'C' (M.E-ECE-Digital Systems)
9. ME 2204 Heat Transfer and Heat Exchangers in Power Plants (PG)
10. ME219 Design of Thermal Systems (PG)

#### **• Laboratories**

1. CS 131 UE 'C' Programming Lab (UG)
2. CS 182 UE C++ Programming Lab (UG)
3. ME 131 UE Workshop Practice – I (UG)
4. ME 132 UE Workshop Practice – II (UG)
5. ME 331 UE Thermodynamics Lab (UG)
6. ME 382 UE Hydraulic Machinery Lab (UG)
7. PC451ME Thermal Engineering Lab- I (UG)
8. PC751ME Thermal Engineering Lab- II (UG)
9. ME 567 Turbo machinery Lab (PG)
10. ME 2231 Turbo Machinery Lab (Lab – I) (PG)
11. ME 253 Computational Lab for TM (PG)

### **ONLINE COURSES TAUGHT**

- **Internet of Things (IoT)**, Future Skill Technologies, July 27, 2020 to August 31, 2020 for the students of University College of Engineering, Osmania University, Hyderabad.

### **ME-THESIS GUIDED**

1. Model Analysis of Turbine blade with varying twist angle using Finite Element Analysis  
**N.Chandra Sekhar**, 01-03-1653, 2004
2. Design and Analysis of Supercritical airfoil using CFD  
**Narsimha Chary K**, 01-03-1657, 2004
3. Thermal Analysis of Shell and Tube condenser  
**Reddyvari Rajasekar Reddy**, 01-04-1653, 2005
4. Numerical Computation of Turbulent flow and Heat Transfer in a stationary Square Ribbed channel, **Aravindu Chaduvula**, 01-04-1658, 2005

5. Numerical Analysis of Flame Spread through a free stratified air/fuel mixture  
**Ch.Shravan Kumar**, 01-04-1654, 2006
6. Structural Analysis and Material study of axial compressor blade for Turbo-Jet engine  
**Kolipelly Praveen Kumar**, 01-04-1659, 2006
7. Dynamic Analysis of Critical Rotating mounting devices for Aerospace application  
**R.Subhash**, 01-04-1660, 2006
8. Thermodynamic Analysis of Combined Gas and Steam cycle  
**Krishna Vatte**, 01-05-1665, 2006
9. Optimization of Heat pipe design  
**V.Lokeswara Rao**, 01-05-1666, 2006
10. CFD simulation of Gas Turbine blade cooling  
**Neelakanta Reddy D**, 01-05-1673, 2006
11. Flexural vibrations of heated turbine blades including the effects of root flexibility  
**SK.MD.Rafiq Ahmed**, 01-06-1671, 2007
12. Compressible flow analysis and performance of the bell and conical nozzle  
**D.Venkata Siva Kumar**, 01-06-1678, 2007
13. Static and Dynamic analysis of Truck mounted blower frame  
**G.Priyatham**, 01-06-1710, 2007
14. Cooling of Biomass Gas in Cooler of advanced downdraft Gasifier plant  
**K.Dasharadham**, 01-07-1663, 2008
15. Flow analysis of advanced biomass Gasifier  
**G.Ganesh**, 01-07-1664, 2008
16. Thermodynamic Equilibrium modeling & Simulation of Advanced Biomass Gasifier  
**B.Harikrishna**, 01-07-1665, 2008
17. Design and analysis of burner for tar removal in the biomass downdraft Gasifier  
**B.Parsharamulu**, 01-07-1670, 2008
18. Combustion and Heat Transfer Studies of Agro fuel in Bubbling Fluidized by Reactor.  
**P.Ramchandram**, 01-08-1656, 2009
19. Performance Assessment of Co-generation.  
**V.Suman Raju**, 01-08-1660, 2009
20. Development of Design Method for High Temperature and High Pressure Cyclone for Bio-Mass Gasification Plant, **R.Sunil Kumar**, 01-08-1667, 2009
21. Performance Assessment of Various Coals for a pressurized fluidized bed gasifier.  
**M.Rakesh Kumar**, 01-08-1669, 2009.
22. Accurate Methodology for Design of orifice meter for mixture of gases.  
**Mohd. Abdul Raheem**, 01-09-1646, 2010.
23. Design and Analysis of Fixed Bed downdraft Biomass Gasifier Using Computational Fluid Dynamics, **R.Ravi Kumar**, 01-09-1649, 2010.
24. Two stage Centrifugal Compressor design and analysis  
**K.Roopu Devi**, 01-09-1650, 2010.

25. Design analysis evacuated tube solar water heater using CFX  
**Ahmeed Jameel Gtheab**, 1005-09-745301, 2011
26. Structural and Thermal analysis of an aero gas turbine rotor blade using ANSYS  
**Usama J Abdulkadhm Jaber**, 1005-09-745328, 2011
27. Computational Analysis of an Advanced Biomass Downdraft Gasifier  
**Ratnakar Chopadaneedi**, 1005-10-745302, 2012.
28. Design and Modeling of generator and evaporator for solar Icemaker  
**Ameer Razzaq Noor**, 1005-10-745323, 2012
29. Design and Modeling of Horizontal axis wind turbine rotor  
**Balasem Abdulameer Jabbar**, 1005-10-745325, 2012
30. Design and Modeling of dish collector for solar energy  
**Bassam A Mohammed Hussein**, 1005-10-745326, 2012
31. Design and Analysis of Ducted fan for subsonic wind Tunnel  
**P.Shanthi Bhushan**, 1005-11-745312, 2013
32. Performance Analysis of Parabolic Trough Collector for Steam Generation  
**Salih Meri Abdulridha**, 1005-11-745317, 2013
33. Improving Heat Transfer Rate of a Flat Plate Solar Collector  
**Kumail Abdulkareem Hadi**, 1005-11-745319, 2013
34. CFD analysis of flow and heat transfer in a pre-swirl system  
**Shravankumar Nagapuri**, 1005-10-745319, 2013
35. Modeling and Analysis of Propeller blade for its strength  
**V.Ganesh**, 1005-09-745305, 2013
36. Aerodynamic Design of a Multistage Axial Flow Compressor  
**Md. Khader Shariff**, 1005-10-750304, 2013
37. Numerical Simulations of Cross-Flow Fan  
**N.S.Kumar Ramanujala**, 1005-10-750305, 2013
38. Flow path Analysis of High Pressure Steam Turbine by using CFD  
**B.Manasa**, 1005-11-745302, 2014
39. Design and Modeling a two stages Savonius wind Turbine  
**Ahmed Dheyaa Jawad**, 1005-11-745323, 2014
40. Design and Thermal Analysis of Parabolic Solar Energy Collector for Water Heating and Cooking, **B.Kavitha**, 1005-12-745303, 2014
41. CFD Analysis of a 3-Blade H-Rotor of a Vertical Axis Wind Turbine  
**G.Narendra**, 1005-12-745307, 2014
42. Heat Transfer Enhancement in Flat Plate Solar Collector  
**A.Jhansi**, 1005-12-745315, 2014
43. Performance Analysis of Flat Plate Solar Energy Collector for Water Heating with Modified Risers, **Mohammed Saad Abbas**, 1005-12-745323, 2014

44. Low Speed Horizontal Axis Wind Turbine for Power Generation  
**Raadali Jawad**, 1005-12-745324, 2014
45. Enhancing the flow distribution of water in solar flat plate collector using CFD  
**Girishnag Kantamneni**, 1005-13-745320, 2015
46. Design and CFD analysis of a compressor wheel and turbine wheel of a turbocharger  
**Vigneshwar N**, 1005-13-745321, 2015
47. Design and Optimization of Winglet angles for Horizontal Axis Wind Turbine  
**Ali Salh Sawadi**, 1005-13-745323, 2015
48. Heat Transfer Analysis of Flat Plate Solar Collector with Helical Fins.  
**Mohammed Mohsin Shkair**, 1005-13-745324, 2015
49. Conjugate heat transfer study of a typical HP turbine casing  
**M.Neeharika**, 1005-12-750306, 2015
50. Modeling and Simulation of low wind speed vertical axis wind turbine  
**Pasula Rukmini**. 1005-14-745320, 2016
- 51 Enhancing the efficiency of evacuated solar collector tube by using parabolic concentrators  
**Ayesha Imroze** 1005-14- 745315, 2016
- 52 Design and analysis of an aero spike for a 2m diameter aerospace vehicle for drag and thermal load reduction, **Debashish Mukherjee** 1005-14-750304, 2017
53. Analysis of air driven turbine optimization for aerospace applications  
**E.G.K. Venkateswar Rao** 1005-14-750305, 2017
54. Performance analysis of turbine and compressor wheels of a turbocharger using CFD  
**Inapanuri Prasanthi** 1005-15-745320, 2017
55. Enhancement of heat transfer with wavy fins automobile radiator using nano fluids through CFD analysis **Sampath Kumar Nagam** 1005-15-745315, 2017
- 56 Design and Heat Transfer analysis of gas turbine blade with film cooling  
**Hadeel Raheem Jasim** 1005-16-745321, 2018
57. Temperature analysis in different zones of the downdraft gasifier  
**Gowthami Koduri**. 1005-15-750305, 2018
58. Analysis of variation in nozzle throat diameter for supersonic aerospace vehicles  
**Rahul Shukla** 1005-15- 750308, 2018
- 59 Performance analysis of centrifugal blower with backward inclined blades  
**Swapna Elasani** 1005-16-745318, 2019
- 60 Design and Analysis of shell and tube heat exchanger with no baffles and with baffles  
**U. Harini** 1005-16-745320, 2019
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