

# RESUME

1. Name :Dr.G.Narendar
2. Father's Name :G.Lingamurthy
3. Designation : Professor
4. Department :Mechanical Engineering
5. Address for Correspondence :Department of Mechanical Engineering,  
University College of Engineering,  
Osmania University, Hyderabad

## 6. Academic Qualifications

- Ph.D. (Mechanical Engineering), 2017, Osmania University, Hyderabad.
- M.Tech. (Energy), 1997, Jawaharlal Nehru Technological University, Hyderabad.
- M.Tech. (CAD/CAM), 2004, Jawaharlal Nehru Technological University, Hyderabad (Evening Course).
- B.E. (Mechanical Engineering), 1993, Andhra University.
- Diploma in Mechanical Engineering, 1990, State Board of Technical Education, Hyderabad.

## 7. Teaching Experience

- Professor, Department of Mechanical Engineering, University College of Engineering, Osmania University from June 20218 to till date.
- Associate Professor, Department of Mechanical Engineering, University College of Engineering, Osmania University from June, 2015 to June 20218.
- Assistant Professor, Department of Mechanical Engineering, University College of Engineering, Osmania University from June, 2007 to June, 2015

## 8. Number of M.E. Projects Guided: 78

## 9. Number of B.E. Projects Guided: 14

10. **Ph.D Supervision:** The Dean Faculty of Engineering, Osmania University has recognised as Ph.D supervisor.

## 11. Research Interest

Nanofluids, Natural Circulation Loops, Nanocomposites

## 12. Research Projects Completed

### 1. OU-DST Project-1:

- G.Narendar(Principal Investigator), Prof.A.Krishnaiah (Co-Investigator), Professor of Mechanical Engineering, Osmania University.

**Project Title:** Investigation on Natural Circulation Loop with Compact Heat Exchanger and using Nanofluid as loop fluid, (2011-2015).

Amount sanctioned: 5 Lakhs.

### 2. OU-DST Project-2:

- Dr.G.Narendar(Co-Investigator) and Prof.Ch.Gopal Reddy (Principal Investigator), Professor, Department of Physics, Osmania University.  
**Project Title:** Investigation on mechanical and structural properties of some Composite materials, (2011-2015). Amount sanctioned: 4 Lakhs.

### 13. Industrial Tours

- Industrial visit to BHEL, Ramachandrapuram, Hyderabad, November 2017.
- Industrial visit to Prof. Jayashankar Telangana State Agricultural University, Hyderabad, March 2018.
- Industrial visit to Nuclear Fuel Complex, Hyderabad, April 2018.
- Industrial visit to Kaleshwaram project, 2019

### 14. Book Publications

- Dr.G.Narendar, Introduction to Nanofluids and their Applications in Natural Circulation Loops, 2021, Integrated Publications, New Delhi
- Dr.G.Narendar, Systems Design and Retrofitting of Integrated Gassification Combined Cycle Plant, 2018, Lambert Academic Publications, Mauritius.
- Co-Editor and Reviewer in Publishing Proceedings and Souvenir of “National Conference on Advances in Mechanical engineering and Nano Technology”, 2018, Department of Mechanical Engineering, Osmania University, Hyderabad.

### 15. Conferences Organised

- National Conference on Advances in Mechanical engineering and Nano-Technology during 29<sup>th</sup> -30<sup>th</sup> June 2018.
- Organised a Short-term course on Entrepreneur Development Programme from 14<sup>th</sup> to 15<sup>th</sup> May 2020

### 16. Administrative/Expert Responsibilities

- Director of Entrepreneurship Development Cell, University College of Engineering, Osmania University, 2020 to till date.
- Departmental Committee Member, Dept. of Mechanical Engineering, University College of Engineering, Osmania University
- Member, Board of Studies, Department of Mechanical Engineering, UCE, OU
- Faculty Advisor for ME (Turbomachinery ) Course (2019- till date)
- Faculty Advisor for ME(CAD/CAM) Course(2014-2019)
- Incharge of Hydraulic Machinery Laboratory(2007 to till date)
- Incharge of CAD center of University College of Engineering
- NBA Co-ordinator for ME (Turbomachinery ) Course
- Departmental Convenor for ME PTPG Admissions (2015-17)
- Incharge of Automobile Section (2013-2020)
- Convener for National Conference: Advances in Mechanical Engineering and Nano-Technology (AMENT-2018)
- Faculty Advisor for student technical symposium MECHARENA-2010

- Subject expert for the selection of Assistant Professors in Affiliated Colleges, (July,2018)
- Assessment Committee member for Assessment of Technical Staff at CSIR-National Geophysical Research Institute, Hyderabad (2017)
- Subject Expert for selection of Junior Research Fellow at ARCI, Hyderabad, (January, 2019)
- Assessment Committee member for Assessment of Technical Staff at CSIR-National Geophysical Research Institute, Hyderabad (January, 2020)

## 17. Laboratory setup

- Procured Probe sonicator for preparation of nanofluids used for ME students and Research Scholars
- Procured Ultrasonic flow meter used for ME students and Research Scholars for conducting non-contact flow measurements and recording the flows on computer.
- Procured Temperature data logger used for ME students and Research Scholars for measuring the temperatures of working fluids and recording on computer
- Procured Orifice meter, Venturi meter, Mouth piece, Reciprocating Pump for Fluid Mechanics and Hydraulic Machines Lab.

## 18. Publications

- G.Narendar, G.K.Pujari, Rammohan Rao, Development of variable Compression Ratio Diesel Engine and Performance Evaluation, International Journal on Mechanical and Automobile Engineering ( ISSN 0974-231X) 09 ( 2009) 31-36.
- G.K.Pujari, G.Narendar, Investigation on Three Tube Heat Exchanger for One of the Possible Arrangements, International Journal on Mechanical and Automobile Engineering ( ISSN 0974-231X) 10(2010) 24-28.
- G.Narendar, A.V.S.S Kumara Swami Gupta and A.Krishnaiah, CFD analysis of Natural Circulation Loop, International Journal on Mechanical and Automobile Engineering ( ISSN 0974-231X) 22(1) ( 2012) 46-52.
- G.Narendar, A.V.S.S Kumara Swami Gupta and A.Krishnaiah, Investigation on Natural Circulation Loop with Compact Heat Exchanger as Heat Source and using Nanofluid as Loop Fluid, International Journal of Systems, Algorithms and Applications (ISSN 2777-2677X), 3(2013)31-34.
- Mohand Mosa Mohammad, G.Narendar, Design and Heat Transfer Analysis of a Parabolic Shaped Solar Dish Collector, International Journal & Magazine of Engineering, Technology, Management and Research(ISSN No: 2348-4845), 2015. Volume No: 2 (2015), Issue No: 7, P. 168-173
- G.Narendar, A.V.S.S Kumara Swami Gupta and A.Krishnaiah, Experimental Investigation on Natural Circulation Loop with Different States of Loop Fluid at the Starting of Activation of the Circulation Loop, International Journal of Engineering Research & Technology(ISSN 2278-0181X) 3(11) (2014) 1456-1459.

- G.Narendar, A.V.S.S Kumara Swami Gupta and A.Krishnaiah, Experimental investigation on Transient State Performance of Natural Circulation Loop. *Int. Journal of Engineering Research & Technology*, 2016. 5(6): p.15-18.
- G.Narendar, A.V.S.S Kumara Swami Gupta and A.Krishnaiah, Investigation on Natural Circulation Loop with Nanofluid. *Int. Journal of Engineering Research and Application*, 2016. 6(3): p.53- 58.
- G.Narendar, A.V.S.S Kumara Swami Gupta and A.Krishnaiah, Experimental investigation on the preparation and applications of Nanofluids, *Materials Today: Proceedings* 4 (2017) 3926–3931.
- G.Narendar, V.Chandra Sekhar, Preparation and Testing of Composites with Slag and Egg Shell Powder Filler, *International Journal of Engineering Research and Application* (ISSN: 2248-9622X) 8(6) (2018) 57-60.
- G. Narendar, V. Chandra Sekhar, Tensile Properties of Fiber Reinforced Epoxy Composites for various Fiber loading and Fiber length, *International Journal of Latest Engineering Research and Applications* (ISSN: 2455-7137X) 02(10) (2017) 66-71.
- M. Ramarao, B. Nageshwar Rao, G. Narendar, Combustion Acoustics Analysis of Gas Turbine Using CFD Package, *International Journal of Engineering Technology Science and Research* (ISSN 2394 – 3386X) 5(5) ( 2018) 251-255
- G.Narendar, E.Arjun, Experimental Investigation on De-lamination of Nanocomposite Laminates, *Journal of Engineering Research and Application* (ISSN : 2248-9622X), 8(6) (2018) 46-49
- S.Charvani, S.Shravan Kumar Reddy, G.Narendar, Ch.Gopal Reddy, Preparation characterisation of alumina nanocomposites, *Materials Today: Proceedings* 5 (2018) 26817–26822.
- G.Narendar, T.Ravinder Goud, Influence of Geometrical Parameters on the Performance of Plate Fin-Tube Heat Exchanger, *International Journal of Scientific Research and Review* (ISSN : 2279-543X) 7(12) ( 2018) 704-714.
- G. Narendar, G. Venod , CFD Analysis on Impeller Passage of Centrifugal Pump, *International Journal of Modern Engineering and Research Technology* (ISSN: 2348-8565) 6(1) (2019) 16-27.
- Chandra Sekhar, G.Narendar, Mechanical Properties of Teak Fiber Reinforced Epoxy Composites, *Advances in Engineering Management and Sciences* 3 (2019) 114-124.
- S.Charvani, Ch.Gopal Reddy, G.Narendar, SEM, XRD and TGA Study of Alumina Nanocomposites, *AIP Conference Proceedings* 2297 (020025) (2020) 1-9.
- G.Narendar, Investigation on Natural Circulation Loop with Band Heater and Nanofluid as Loop Fluid, *Sambodhi (UGC Care Journal)* 43(03) (2020) 81-87
- S.Charvani, Ch.Gopal Reddy, G.Narendar, Investigation on Impact and Thermogravimetric Analysis of Aramid and Carbon based Nanocomposites, *IOP Conf. Series: Materials Science and Engineering*, 1126 (012042) (2021) 1-10.
- G.Narendar, Tejo Satya Charishma, CFD Study on the Effect of Nanofluids in Natural Circulation Loop With a Side Heater, *Elsevier's Materials Today: Proceedings* (in press)

## 19. Reviewer of Technical papers

- Reviewer for International Conference on Emerging Trends in Engineering (ICETE 2018) organised by Osmania University College of Engineering Alumni Association in association with Springer during 22-23 March, 2019.
- Reviewer for Materials Today: Proceedings, Global Conference on Recent Advancements in Sustainable Materials 2021.
- Reviewer for International Conference on Emerging Trends in Engineering, Sciences and Management organized by Rajeev Gandhi Memorial College of Engineering and Technology, Nadyal, AP, December 2018.
- Reviewer for National Conference on Advances in Mechanical Engineering and Nano-Technology, 2018 Organised by Dept of Mechanical Engineering, Osmania University, June 2018
- Reviewer and Judge for the student author Technical Paper presentations for the National level Technical Symposium, MECHARENA-(2007-19)

## 20. STTPs attended

- Refresher course on Advances in Thermal Engineering organised by UGC-Academic Staff College, Jawaharlal Technological University, Hyderabad from 10-11-2005 to 30-11-2005
- International workshop on Compact Heat Exchangers organized by IIT Madras, Chennai from 9-1-2006 to 10-1-2006
- Refresher Course on Solar Energy Applications organized by Centre for energy Technology, Osmania University on 28-3-2006
- Short-term course on Computational Fluid Dynamics organized by Dr. BabaSaheb Ambedkar Technological University, Maharashtra from 11-12-2006 to 16-12-2006
- Short-term course on Computational Fluid Dynamics organized by PDA College of Engineering, Gulbarga from 19-11-2007 to 24-11-2007
- ISTE workshop on Introduction to Research Methodology, organized by Jawaharlal Technological University, Hyderabad from 25-6-2012 to 4-7-2012
- Training on CNC Machining: Tools and Techniques, Mechanical Engineering Department, Osmania University held on 12<sup>th</sup> February, 2013.
- Faculty Development Programme in Entrepreneurship organized by Entrepreneur Development Cell, Osmania University from 30-12-2013 to 10-1-2014
- Fundamentals and Applications of Nanofibres organized by IITH, Hyderabad from 4-5 July, 2014
- FRP Composites organized by IITH, Hyderabad during 10-11 July, 2014
- Nanoscience and nanotechnology, organized by Visvesvarya NIT, Nagpur, 6-10, July 2016
- Faculty development programme in Entrepreneurship organized by Entrepreneurship Development Cell, Osmania University, 18-22, April, 2016

- GIAN programme on Composite and nanocomposite materials, 11-22, July 2016
- Two day workshop on Teaching Learning and Assessment Methodologies organized by University College of Engineering, Osmania University, 13-14, December 2016
- Two day workshop on Micro manometer for wind tunnel organized by Mechanical Engineering Department, UCE, Osmania University during 27-28 December, 2016
- National workshop on Nanocomposites organized by SA Engineering college, Chennai, August, 2018.
- Workshop on “Hands-on-experience on Fabrication of Nanocomposite Materials for Engineering Applications” from 6<sup>th</sup> May – 10<sup>th</sup> May, 2019 at NIT Warangal
- Stress Management and Response Effectiveness, Organizing Self, Attitudinal Shift, Decision Making (SM-ROAD), 07-11 September, 2020, ATAL programme organised by Osmania University
- Recent Trends in Turbo Machines, 14-17, September 2020, Vasavi College of Engineering, Hyderabad
- Fabrication of Nanocomposites, on 18-9-2020, organized by VNR Vignana Jyothi Institute of Engineering and Technology, Hyderabad
- Advances in Computational Fluid Dynamics, from 21- 25 September, 2020 ATAL programme organised by Symbiosis Institute of Engineering, Pune

## 21. Conference presentations

- “Design, Fabrication, Performance Evaluation and CFD study of a Natural Circulation Loop” has been presented in the International Meet held by Indian Society of Theoretical and Applied Mechanics held during 27<sup>th</sup> -30<sup>th</sup> December, 2008.
- “Retrofitting of Integrated Gasification Combined Cycle (IGCC) Plant to an Existing Plant- A Case Study”, National Conference organized by Jawaharlal Nehru Technological University Hyderabad held during 20<sup>th</sup> to 21<sup>st</sup> Aug 2009.
- “Investigation on Three Tube Heat Exchanger for One of the Possible Arrangements”, National Conference organized by Jawaharlal Nehru Technological University Hyderabad held during 20<sup>th</sup> to 21<sup>st</sup> Aug 2009.
- “CFD study of Natural Circulation Loop”, National Conference on Recent Advances in Mechanical Engineering, UCE, Osmania University, during 16-17 March, 2012.
- “Performance of Natural circulation loops with nanofluids”, International conference on Nanotechnology & Functional Materials, Srinidhi Inst.of Engineering and Technology, Hyderabad and University of South Africa, during 4-7 January, 2012.
- Investigation on Natural Circulation Loop with Compact Heat Exchanger as Heat Source and Using nanofluid as loop fluid at 2<sup>nd</sup> International Conference on Recent Advances in Engineering and Technology on 27<sup>th</sup> February, 2013.
- “Preparation and Characterisation of Nanofluids for use in Natural Circulation Loop”, National conference on Emerging Trends in Mechanical Engineering organized by Department of Mechanical Engineering, UCE, Osmania University, 29-30 December, 2014.
- “Preparation and Characterisation of Alumina Nanocomposites”, International Conference on Advances in Materials and Manufacture, Department of Mechanical Engineering, Osmania university and DRDO, Hyderabad, 8-10 December 2016,

- “SEM, XRD and TGA Study of Alumina Nanocomposites”, International Conference on Smart Sustainable Materials and Technologies (ICSSMT 2020), Organised by Vaigai College of Engineering, Madurai, Tamil Nadu, 12-13 August, 2020.
- “Investigation on Natural Circulation Loop with Band Heater and Nanofluid as Loop Fluid”, International Conference on Continuity, Consistency and Innovation in Applied Sciences and Humanities (ICCIASH-2020), Organised by St. Martin’s Engineering College, Hyderabad, 13-14 August, 2020
- “Investigation on Impact and Thermogravimetric Analysis of Aramid and Carbon based Nanocomposites”, 3<sup>rd</sup> International Conference on Trends in Material Science and Inventive Materials (ICTMIM 2021), JCT College of Engineering and Technology, Coimbatore, Tamilnadu, March 12-13, 2021.

## 22. Guest Lecture:

Delivered a Guest lecturer on “Nanofluids in natural circulation loops” in the workshop on “Emerging Trends of Nanocomposites & Nanotechnology and its Applications”, Holy Mary Inst. of Technology and Science, Hyderabad, 14<sup>th</sup> Nov 2018

## 23. Organising member of Conferences

- International Conference on Hydraulics, Water Resources and Coastal Engineering organized by Department of Civil Engineering, Osmania University, Decembe, 2019.
- International Meet held by Indian Society of Theoretical and Applied Mechanics, 15-18 December, 2017.
- International Conference on Advances in Materials and Manufacture (ICAMM), Department of Mechanical Engineering, Osmania university and DRDO, Hyderabad, December, 2016
- National Conference on “Emerging Trends in Mechanical Engineering (ETIME 2014)” organized by Dept. of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad in association with DRDO, Hyderabad
- National Conference on “Recent Advances in Mechanical Engineering (RAME 2012)” organized by Dept. of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad, held during 16- 17 March 2012.
- International Meet held by Indian Society of Theoretical and Applied Mechanics held during 27<sup>th</sup> -30<sup>th</sup> December, 2008.
- International Conference on Vibration Engineering and Technology of Machinery VETOMAC-2007 organized by Dept. of Mechanical Engineering, University College of Engineering, Osmania University, Hyderabad, December 2007

Dr.G.Narendar  
Professor