

## Venkat Rao

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**Designation** : Assistant Professor Dept. of Mech.Engg.  
**Qualification** : M.Tech (Ph.D)  
**Experience** : 6 Years  
**Specialization** : Mechanical Engineering  
(Thermal Power Engg.)  
**Date of Joining** : 01-07-2016  
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### Educational Qualifications

- Pursuing Ph.D in Mechanical Engineering with title “Design and Optimization of Hypersonic Vehicle” from Visvesvaraya Technological University, Belgaum, Karnataka Since June 2016.
- Master of Technology in Thermal Power Engineering from Visvesvaraya Technological University, Belgaum, Karnataka in 2013.
- B.E. in Mechanical Engineering from Visvesvaraya Technological University, Belgaum, Karnataka in 2011.

### Work Experience

- Presently Working as Assistant Professor in Department of Mechanical Engineering in C M R College of Engineering & Technology, Hyderabad from 1<sup>st</sup> July 2016.
- Worked as Research Assistant in Department of Aerospace Engineering Indian Institute of Science (IISc) Bangalore (June2013-Dec 2016).

### Journal Publications

1. Venkat Rao, Dr,Umashankar, Dr.S.N.Omkar Design of optimized two dimensional nozzle contour for generic supersonic vehicle using evolutionary algorithms”. The 30th international Symposium on shock waves (ISSW30), 21<sup>st</sup> July 2015, Israel. [Link](#)
2. Venkat Rao, Dr,Umashankar, Dr.S.N.Omkar, “Multiobjective Design Optimization of Generic Rectangular Combustor”, 20th AIAA International Space Planes and Hypersonic Systems and Technologies Conference, 08<sup>th</sup> July 2015, Glasgow, Scotland. [Link](#)
3. Venkat Rao, Dr,Umashankar, Dr.S.N.Omkar, “Wing Optimization for High Endurance Applications Using Teaching Learning Based Optimization”, International Journal of Applied Engineering Research ISSN 0973-4562 Volume 12, Number 18 (2017) pp. 7592-7598.[Link](#)

## **Conference Presentations**

1. Venkat Rao, Dr,Umashankar, Dr.S.N.Omkar “Geometry Optimization of Deployable Tubular Metallic Booms using Multiobjective Teaching Learning Based Optimization” International Conference of Advanced materials, Manufacturing, Management and Thermal Sciences (AMMMT) held on 3<sup>rd</sup> & 4<sup>th</sup> May 2013 ISBN-13978-81.
2. Venkat Rao, Dr,Umashankar, Dr.S.N.Omkar “Optimization of Scramjet Engine using Nature Inspired Techniques” International Conference of Advanced materials, Manufacturing, Management and Thermal Sciences (AMMMT) from 23<sup>rd</sup> to 24<sup>th</sup> September 2016 at Siddaganga Institute of technology, Tumkur, Karnataka
3. Venkat Rao, Dr,Umashankar, Dr.S.N.Omkar “Scram Jet Inlet design using Genetic Algorithm”, in International Conference on Advances in Mechanical Engineering on 21<sup>st</sup> and 22<sup>nd</sup> December 2018 organized by Department of Mechanical Engineering at CMR College of Engineering & Technology, Hyderabad published in Global Journal of Engineering Science and Researches, **ISSN: 234808034**.
4. Venkat Rao, Dr,Umashankar, Dr.S.N.Omkar “Scram Jet Inlet design using teaching learning based Optimization”, in National Conference on Emerging trends in Mechanical and Chemical Engineering on 24<sup>th</sup> and 25<sup>th</sup> January 2019 organized by Department of Mechanical Engineering at **Anurag Group of Institutions, Hyderabad**.

## **Faculty Development Programs /Workshops attended**

1. A Three Day Workshop On MATLAB for Mechanical Engineers From 11<sup>th</sup> -13<sup>th</sup> 2019 at CVR College of Engineering Hyderabad.
2. Ten days workshop on “Train The Teachers For The Mandatory AICTE Students Induction Programme” From 25/05/19 to 03/06/2019 at CMR College of Engineering & Technology, Hyderabad.
3. Two week DST sponsored Faculty Development Program on Metaheuristic Optimization Algorithms in Engineering organized by E & ICT Academy, National Institute of Technology Warangal, Telangana State from 6<sup>th</sup> to 15<sup>th</sup> May 2019 at CMR College of Engineering & Technology, Hyderabad.
4. Two day workshop on “A Hands on Workshop on MOOC Development” held on 06<sup>th</sup> -7<sup>th</sup> Oct 2018 at CMR College of Engineering & Technology, Hyderabad.
5. Attended Two Week Faculty Development Program On “Computer Aided Design and Analysis” held during June 4<sup>th</sup> – 18<sup>th</sup> , 2018, Conducted by Department of Mechanical Engineering, CMR College of Engineering & Technology in association with MECHENGG, Hyderabad.
6. Two-week Faculty Development Program on Current trends in Materials and Manufacturing from 15<sup>th</sup> May 2017 to 27<sup>th</sup> May 2017 at CMR College of Engineering & Technology, Hyderabad.
7. Three- day tutorial workshop on “Nature Inspired Computing Engineering Applications” Centre for Continuing Education IISc Bangalore-April 6-8-2015. [Link](#)

- 8 One day workshop on “Recent Trends in Thermal Power Plant Technology (RTPT) held on 1<sup>9th</sup> March 2014 at MSRIT, Bangalore.
- 9 Workshop on advanced flow diagnostics for high speed flows by Department of Aerospace Engineering, IISc Bangalore on 19-02-2014.

## **Achievements**

- Worked on Unmanned Aerial vehicle(UAV) wing design and optimization for high endurance application using nature inspired algorithms.( A consultancy project by aircraft Research and Design centre (ARDC) HAL).

## **Memberships in Universities/Professional Societies:**

1. Member of International Association of Engineers ( **Member No. 223916**)