

# Mr. K. Santosh Kumar Assistant Professor

Education Qualifications: Specialization:

M.Tech Thermal Engineering



ADDRESS:

• B – Block -B 001

#### JNTUH ID:

0346-170105-105010

EMAIL:

ksantoshkumar\_mct@mgit.ac.in

DATE OF JOINING:

02-01-2017

#### **EXPERIENCE - 08 Years**

- Teaching 08
- Industry Nil

### SUMMARY:

- Publications 12
- Conferences 3

EVENTS:

- Organized 02
- Attended 38

#### **Membership of Professional Bodies:**

- 1. Life Member in IAENG Society of Industrial Engineering.
- 2. Life Member in IAENG Society of Mechanical Engineering.
- 3. Life Member in IAENG Society of Operations Research.
- 4. Member in National Institute for Technical Training & Skill Development (NITTSD)

#### Responsibilities Held at Institution Level: -----

#### **Responsibilities Held at Department Level:**

**1.** 2<sup>nd</sup> B. Tech -Mechanical Class I/c.

#### **Research Guidance: ----**

Honors/Awards Received: ----

#### **Courses Handled at Under Graduate / Post Graduate Level:**

**1. UG:** Thermal Engineering-I & II, Heat Transfer, Thermodynamics, Thermal Engineering Lab , Heat transfer Lab, Machine Drawing, Engineering Workshop.

#### **Publications:**

- K. Santosh Kumar, P. SHASHIDAR, K. Sarupya Santosh, G. Sreenivasulu Reddy "Fabrication of Firefighting UAV and Rescue Operations" Journal of Emerging Technologies and Innovative Research, Vol-08, Issue-10, October-2021, ISSN: 2349-5162
- 2. P.Shashidar, K. Santosh Kumar, G.Sreenivasulu Reddy, K.Sarupya Santosh, NVD Hemanth "Design And Development of Gravitational Vortex Hydraulic Power Plant" Journal of Emerging Technologies and Innovative Research Vol-08, Issue-07, July 2021, ISSN: 2349-5162.
- 3. K Prudhuvi Raj, K Santosh Kumar "Design And Analysis Of Human-Electric Hybrid Powered Three Wheel Drive" The International journal of analytical and experimental modal analysis (IJAEMA) has been published in Vol-13, Issue-06, June 2021, ISSN: 0886-9367.
- P.Shashidar, K.Sarupya Santhosh, G.Sreenivasulu Reddy, K.Santosh Kumar "Effect of Rotational Moulding Process Parameters in Blending of Virgin With Recycled PVC Tanks" Bulletin Monumental Journal Web of Science Journal VOLUME 22, ISSUE 4, APRIL-2021, and E-ISSN 0007-473 X
- 5. P.Shashidar K.Sarupya santhosh , K.Santosh Kumar, G. Sreenivasulu Reddy, S. Ajay Kumar "Parameters Optimization In Extrusion Process of Blending Virgin With Recycled PVC Pipe Using Taguchi Method"



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International Journal of Application or Innovation in Engineering & Management , Volume 10, Issue 2, February 2021, ISSN 2319 – 4847.

- K.Santosh Kumar, Samboju Ajay kumar, B.Govinda Reddy and Peddireddy Shashidar "Design And Manufacturing of 6v 120Ah Battery Container Mould for Train Lighting Application" International Journal of Application or Innovation in Engineering & Management (IJAIEM), Volume10, Issue 1, January 2021, ISSN 2319 – 4847
- P. Shashidhar, K. Santosh Kumar, and S. Ajay Kumar "Investigation and Optimization of Process Parameters of PVC Fittings By Using Recycled PVC" International Journal of Application or Innovation in Engineering & Management, Vol-8, Issue-12, December 2019, ISSN: 2319-4847.
- 8. S. Ajay Kumar, K.Santosh Kumar, K. Prudhvi Raj "Optimization Of Process Parameters In Electrical Discharge Machining Process By Using Taguchi Method" International Journal of Engineering Sciences & Research Technology (IJESRT) has been published in vol-7, issue 5 May 05, 2018, ISSN: 2277-9655.
- 9. K Prudhvi Raj, K Santosh Kumar, S. Ajay Kumar "CFD Analysis Of Naca 0015 Aerofoil" International Journal of Application or Innovation in Engineering and Management (IJAIEM) has been published in vol-7 issue-3, March 2018, ISSN: 2319-4847.
- 10. K. Santosh Kumar K Prudhvi Raj, S. Ajay Kumar "Numerical Analysis on the Performance of the Heat sink with Different Fin Angles" International Journal of Application or Innovation in Engineering and Management (IJAIEM) has been published in vol-7 issue-3, March 2018, ISSN: 2319-4847.
- 11. K. Santosh Kumar, M Harish, K. Sudhakar Reddy "Enhancement in Design and Thermal Analysis of Disc brake Rotor" International Journal of Engineering Sciences & Research Technology (IJESRT) has been published in vol-6 issue 2 Feb 20, 2017, ISSN: 2277-9655.
- 12. Harish Musti, K Santosh Kumar, B. Tejavardhan3 "Intelligent Optimization technique for Design of Ball Bearings" International Journal of Research in Engineering Technology (IJRET) has been published in volume2 issue 2-2017, ISSN: 2455-1341.

## **Conferences:**

- 1. Participated 4th National Conference on Applied Physics and Material Science organized by Vasavi college of Engineering, Hyd, has give oral presentation on the paper entitled "Improvement in efficiency & heat dissipation characteristics of disc brake rotor by using Al-Composites" on March 10th & 11th 2017.
- 2. Participated and presented Three papers in All India seminar on "Digital and Automation entry in to the future factories" held on 14th and 15th July 2017, at Institute of Engineers, Hyderabad in association with Department of Mechanical Engineering (MCT),MGIT.

The papers Entitled:

- (i) A Comparative Study of the Effect of Adaptive Slicing with uniform Slicing in SLS process.
- (ii) Additive Manufacturing of Disc Brake Rotor by Selective Laser Sintering.



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## Patents: -----

Research & Consultancy: -----

## No. of Books/Chapter Published with details: -----

## **Events Attended**

## FDPs/STTPs:

- Attended AICTE Training And Learning (ATAL) Academy Online Elementary FDP on "Recent Trends in Upstream Petroleum Technology" Organized by Dibrugarh University, Gudlavalleru, during 07<sup>th</sup> - 11<sup>th</sup> March, 2022.
- Attended 3 Day National Level Seminar on "Future Technologies for Green environment – NSFVTGE'22" Sponsered by Defence Institute of Bioenergy Research, DRDO in colloberation with Vallurupalli Nageswara Rao Vignana Jyothi Institute of Engineering &Technology, during 16<sup>th</sup> - 18<sup>th</sup> February, 2022.
- Attended One Week FDP on "Recent Additive Manufacturing in Medical and Emerging Applications" Organized by Department of Mechanical Engineering, Vasavi College of Engineering, Hyderabad, during 27<sup>th</sup> Jan - 02<sup>nd</sup> February, 2022.
- Attended One Week FDP on "Recent Advances in Materials Science and Engineering" Organized by Department of Mechanical Engineering, SVERI's College of Engineering, Pandharpur, during 18<sup>th</sup> - 24<sup>th</sup> January, 2022.
- Attended 3 day FDP on "Advances In Thermal Engineering" Organized by Department of Mechanical Engineering, JNTUH, Hyderabad, during 20<sup>th</sup> - 24<sup>nd</sup> December, 2021
- 6. Attended 5 day FDP on "Recent Trends in Robotics" Organized by Department of Mechanical Engineering, Vasavi College of Engineering, Hyderabad, during 06<sup>th</sup> 10<sup>th</sup> December, 2021.
- Attended Online 7 days workshop on "Advancements in Automotive Industries" Organized by Department of Mechanical Engineering, Sathyabama Institute of Science and Technology, Chennai, during 18<sup>th</sup> -25<sup>th</sup> October, 2021.
- 8. Attended One Week FDP on "Recent Trends in Thermal Engineering" Organized by Department of Mechanical Engineering, Sheshadri Rao Gudlavalleru Engineering College, Gudlavalleru, during 06<sup>th</sup> - 10<sup>th</sup> September, 2021.
- 9. Attended One Week FDP on "Vibration and Condition Monitoring" Oraganized by Dept. of Mechanical Engineering Engineering, Vasavi College of Engineering, Hyd, during 20<sup>th</sup> - 24<sup>th</sup> September, 2021.
- Attended One Week FDP on "Additive Manufacturing Processes & its Applications" Organized by Department of Mechanical Engineering, Sri Manakula Vinayagar Engineering College, Puducherry, during 23<sup>rd</sup> -28<sup>th</sup> August, 2021.
- Attended One Week FDP on "Emerging Technologies in Automotive Industry" Organized by Department of Mechanical Engineering, Vallurupalli Nageswara Rao Vignana Jyothi Institute of Engineering & Technology, Hyderabad, during 16<sup>th</sup> – 20<sup>th</sup> August 2021.
- Attended One Week FDP on "Advances in Mechanical Engineering for Research" Organized by Department of Mechanical Engineering, Annamacharya Institute of Technology & Sciences, Rajampet, during 10<sup>th</sup> - 14<sup>th</sup> August 2021.
- 13. Attended Two Week FDP on "Manufacturing Technology Research and Management" Organized by Department of Mechanical Engineering, Aliah University, Kolkata, during 02<sup>nd</sup> 14<sup>th</sup> August, 2021.



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- 14. Attended One Week FDP on "Research Avenues in Thermal Engineering" Organized by Dept. of Mechanical Engineering Engineering, Vasavi College of Engineering, during 26th July to 30th July 2021.
- 15. Attended One Week FDP on "Recent Trends in the Industrial Engineering and Management" Organized by Department of Mechanical Engineering, GMR Institute of Technology, A.P, during 26th to 30<sup>th</sup> July, 2021.
- 16. Attended One Week FDP on "Fuel powered, Hybrid Electric and Modern Vehicles" Organized by Department of Mechanical Engineering, Vallurupalli Nageswara Rao Vignana Jyothi Institute of Engineering & Technology, Hyderabad, during 19th July 2021 to 24th July 2021.
- 17. Attended ISTE Sponsored One Week FDP on "Emerging Trends in Advanced Materials & Manufacturing Processes" Organized by Department of Mechanical Engineering, Kakatiya Institute of Technology & Science, Warangal, during 12<sup>th</sup> - 16<sup>th</sup> July 2021.
- Attended AICTE Sponsored One Week FDP on "Technology Enablers for Smart Manufacturing Using INDUSTRY 4.0" Organized by Department of Mechanical Engineering, Nitte Meenakshi Institute of Technology, Bangalore, during 12<sup>th</sup> to 16<sup>th</sup> of July 2021.
- 19. Attended AICTE Sponsored One Week FDP on "Recent Trends in Renewable Energy Sources and Applications" Organized by Department of Mechanical Engineering, Rajiv Gandhi Institute of Technology, Mumbai, during 5<sup>th</sup> - 10<sup>th</sup> July 2021.
- 20. Attended AICTE Sponsored One Week FDP on "Green Technology in Manufacturing: Forecasting the future of Mankind and Industry" Organized by Department of Mechanical Engineering, Punjab Engineering College, during 05<sup>th</sup> – 09<sup>th</sup> July 2021.
- 21. Attended AICTE Sponsored One Week FDP on "New & Emerging Technologies using Simulation tools" Organized by Ansys Software Pvt. Ltd, during 29<sup>th</sup> June 2<sup>nd</sup> July 2021.
- 22. Attended AICTE Sponsored One Week FDP on "Vibration analysis and Measurement" Organized by Department of Mechanical Engineering, Misrimal Navajee Munoth Jain Engineering College, Tamilnadu, during 3<sup>rd</sup> – 8<sup>th</sup> May 2021.
- 23. Attended AICTE –ISTE REFRESHER One week PROGRAM ON "Strength of Materials – AN Effective Teaching Methodology" Organized by Nalla Narasimha Reddy Engineering College, HYD, during 24<sup>th</sup> – 29<sup>th</sup> April 2021.
- 24. Attended One Day FDP on "NAAC Guidelines for File and Format for Affiliated Colleges" Organized by Sri Ranganathar Institute of Engineering And Technology, held on 25<sup>th</sup> March 2021.
- 25. Attended AICTE Sponsored One Week FDP on "Exergy and Exergoeconomic Evaluation of Thermal Power Plants" Organized by Department of Mechanical Engineering, Pragati Engineering College, during 18th 23<sup>rd</sup> Jan 2021.
- 26. Attended AICTE Sponsored One Week FDP on "Advanced Manufacturing Techniques for Medical and Precision Engineering" Organized by Department of Mechanical Engineering, MVJ College of Engineering, Bangalore, during 04th 09<sup>th</sup> Jan 2021.
- 27. Attended AICTE Sponsored One Week FDP on "Recent Advances in Micro Electro Mechanical Systems (MEMS), Mechatronics and Their Applications for Future Challenges" Organized by Department of Mechanical Engineering, MGIT HYD, during 07<sup>th</sup> - 12<sup>th</sup> December, 2020
- 28. Attended AICTE Sponsored ATAL One Week FDP on "Robotics (Emerging Trends)" Organized by Department of Mechanical Engineering, DY University, Ramrao Adik Institute of Technology, during 14<sup>th</sup> - 18<sup>th</sup> December, 2020
- 29. Attended AICTE Sponsored ATAL One Week FDP on "Computational and Experimental Analysis of Advanced Materials and its Processing"



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Organized by Department of Mechanical Engineering, Vishwakarma Institute of Information and Technology, during 21<sup>st</sup> - 25<sup>th</sup> December, 2020.

- 30. Attended AICTE Sponsored One Week FDP on "Automotive Technology for a Sustainable Future" Organized by Department of Mechanical Engineering, GRIET Hyderabad, during 14<sup>th</sup> 19<sup>th</sup> December, 2020.
- 31. Attended AICTE sponsored Two Week FDP on "Research Methodologies and Statistical Data Analysis" Organized by Department of Mechanical Engineering, Chaitanya Bharathi Institute of Technology, Hyderabad, during 16<sup>th</sup>- 28<sup>th</sup> Nov 2020.
- 32. Attended AICTE Sponsored One Week FDP on "Enhancing Research and Development through Project Based Learning to Achieve Outcome Based Education in Engineering" Organized by Department of Mechanical Engineering, Sri Krishna College of Technology, Coimbatore, during 02<sup>nd</sup> - 07<sup>th</sup> Nov 2020.
- 33. Attended AICTE Sponsored ATAL One Week FDP on "CFD for Beginners" Organized by Department of Mechanical Engineering, Government College of Engineering & Research, Avasari-Khurd, Taluka-Ambegaon, Dist-Pune, during 28<sup>th</sup> – 02<sup>nd</sup> Oct 2020.
- 34. Attended AICTE Sponsored One Week FDP on "Tribology for Reliability -2020" Organized by Department of Mechanical Engineering, GITAM University, Bengaluru, during 05<sup>th</sup> 09<sup>th</sup> Oct 2020.
- 35. Attended TEQIP-III Sponsored online One Week FDP on "Vibration Analysis & Condition Monitoring for Rotating Machines" Organized by Department of Mechanical Engineering, Indira Gandhi Institute of Technology, Sarang, Odisha, during 05<sup>th</sup> 09<sup>th</sup> Oct 2020.
- 36. Attended AICTE Sponsored STTP One Week FDP on "Advanced Techniques in Modelling and Analysis for Mechanical Engineering" Organized by Department of Mechanical Engineering, Vallurupalli Nageswara Rao Vignana Jyothi Institute of Engineering & Technology, Hyderabad, during 31<sup>st</sup> Aug – 05<sup>th</sup> Sept. 2021.
- 37. Attended One Week FDP on "Emerging Trends in Thermal Engineering" Organized by Department of Mechanical Engineering, Sreyas Institute of Engineering And Technology, Hyderabad, during June 25<sup>th</sup> to 30<sup>th</sup> 2018.
- 38. Attended One week Faculty Development Program on "Emerging Trends in Composite Materials and industrial Applications" Organized by Department of Mechanical Engineering, CBIT, HYD, during March 20<sup>th</sup> to 25<sup>th</sup> 2017.

## **Refresher Courses/ Workshops/ Webinars/ Seminars/Guest Lecture:**

- 1. Attended One Day Online webinar on "Introduction to Hybrid Engine", APS College of Engineering, Bangalore, on 3<sup>rd</sup> September 2021.
- 2. Attended One Day webinar on "National Education Policy", Women Cell in Association with ISTE Chapter NNRESGI, at Nalla Narasimha Reddy Education Society's Group of Institutions, on 13 August, 2021.
- 3. Attended One Day workshop on "Smart Manufacturing Connected Factories" Organized by Dept. of Mechanical Engineering, CBIT in association with Institute of Engineers, Hyderabad, held on 17<sup>th</sup> June 2021.
- 4. Attended Five Days National Level workshop on "Emerging Trends in Thermal Engineering" Organized by Department of Mechanical Engineering, Sree Chaitanya College Engineering, during 3<sup>rd</sup> 7th May 2021.
- 5. Attended One week ISTE Induction / Refresher Program on "Advance Technology In Effective Teaching" Organized by Mohandas College of Engg & Tech, during 24<sup>th</sup> 29<sup>th</sup> May 2021.
- 6. Attended ISTE Sponsored Three Days Workshop on "Research and Development Activities", Organized by Sri Sai Ram Engineering College, during 28<sup>th</sup> 30<sup>th</sup> Dec 2020.



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## **EVENTS:**

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- Attended One Week FDP on "Design of Experiments using Taguchi Approach" Organized by Department of Mechanical Engineering, TKR college of Engineering and Technology during November 12<sup>th</sup>to 17<sup>th</sup> 2018.
- Attended One Week FDP on "Composite Materials an Emerging Alternative to Engineering Applications" Organized by Department of Mechanical Engineering, Vignan Institute of Technology and Science, Nalgonda during July 1<sup>st</sup> to 6<sup>th</sup> 2019.
- 9. Attended One week Faculty Development Program on "Emerging Trends in Composite Materials and industrial Applications" Organized by Department of Mechanical Engineering, CBIT, HYD, during March 20th to 25th 2017.
- 10. Attended Two Days National Workshop on "Alternative Liquid Fuels in IC Engines" Organized by Department of Mechanical Engineering, CBIT, HYD, during February 17th & 18th 2017.
- 11. Attended Two Days National Workshop on "Alternative Liquid Fuels in IC Engines" Organized by Department of Mechanical Engineering, CBIT, HYD, during February 17th & 18th 2017.
- 12. Attended Five Days Short Term Course on "Engineering Research Methodology" Organized by Department of Mechanical Engineering, University College of Engineering, Osmania University, HYD, during June 18th to 22nd 2018.
- 13. Attended One Week FDP on "Emerging Trends in Thermal Engineering" Organized by Department of Mechanical Engineering, Sreyas Institute of Engineering And Technology, Hyderabad during June 25th to 30th 2018.

## **Events Oraganised:**

## FDPs/STTPs:

1. Organized as Co-Ordinator the Four-day online MGIT Sponsored workshop on " Recent Advances in Renewable Energy and Energy Efficiency Technologies" during 21-25 July,2020.

## **Refresher Courses/ Workshops/ Webinars/ Seminars/Guest Lecture:**

1. Organized One Day Online Webinar on "A Practical Approach on Industry 4.0 & it's Implementation in Smart Factories" by Department of Mechanical Engineering (Mechatronics) at MGIT, Hyderabad in association with MTAB Technology Centre, Chennai on 26th July 2020.

## **Online Certifications:**

1. NPTEL COURSE: Refrigeration and Air conditioning

# 2. COURSERA COURSES:

- 1. Introduction to Thermodynamics: Transferring Energy from Here to There
- 2. 3D Printing Applications
- 3. Advanced Manufacturing Process Analysis
- 4. Applications in Engineering Mechanics
- 5. CAM and Design Manufacturing for Mechanical Engineers with Autodesk Fusion 360
- 6. Digital Manufacturing & Design
- 7. Engineering Systems in Motion-Dynamics of Particles and Bodies in 2D Motion



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- 8. Ferrous Technology II
- 9. Intelligent Machining
- 10. Intro to Acoustics (Part 1)
- 11. Introduction to Acoustics (Part 2)
- 12. Introduction to Advanced Vibrations
- 13. Introduction to Mechanical Engineering Design and Manufacturing with Fusion 360
- 14. Machine Design Part I
- 15. Materials Science 10 Things Every Engineer should know
- 16. Mechanics of Materials I Fundamentals of Stress & strain and axial loading
- 17. Mechanics of Materials II Thin-Walled Pressure Vessels and Torsion
- 18. Mechanics of Materials III Beam Bending
- 19. Nanotechnology A Maker's Course
- 20. Renewable Energy and Green Building Entrepreneurship
- 21. Simulation Analysis for Mechanical Engineers with Autodesk Fusion 360

## **Any Other Contribution:**

- 1. Performing anti ragging duties
- 2. Performing Campus monitoring duties.