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|  |  | **Dr. A.Gopichand , M.Tech Ph.D**Professor & HODDepartment of Mechanical EngineeringVice Principal**Personal :** allakagopichand@gmail.com, drallakagopichand@gmail.com **Office:** mechhod@swarnandhra.ac.in **Mobile No**- 7989106066, 9849434450 |

**Academic Profile**

* Ph.D in Mechanical From S.V.University, Tirupathi in 2014.
* M.TECH in Machine Design from JNT University, Hyderabad ,First class with distinction(75%) in 2001.
* B.Tech (Mechanical Engineering) From Nagarjuna University, in 1995.

**Total Experience**: 27 years

**Industrial Experience:** (4 years 5 months)

* Sudha Agro oil and Chemical Industries Ltd. SAMALKOT.
* Solvent Extraction Plant: Maintenance of Conveyors, Gears, Pumps, Valves. Heat Exchangers.
* Oxygen Filling Plant : High pressure gas compressor Maintenance, Filling of Gas cylinders, Marketing of Cylinders,
* 5MW Power plant : Commissioning of Power plant, High pressure Boilers construction , ESP, Cooling Towers , Study of Drawings, Materials Procurement, Stores Maintenance

**Teaching Experience** *(*23 years)

* Swarnandhra college of Engineering and Technology,(Autonomous ) NARASAPUR

Duration: 2001 to till date

**Designations:**

* Vice Principal : 2019 to Till Date
* In charge Principal : 01-04-2018 to 01-01-2019
* Professor & HOD : 2015 to Till Date
* Associate Professor & HOD : 2010 to 2015
* Associate Professor: 2006 to 2013
* Assistant Professor & HOD: 2004 TO 2006
* Lecturer 2001 to 2004

**Areas of Expertise**

**UG (B.Tech):** Robotics, Finite Element Method, Tribology, Strength of Materials, Kinematics of Machinery, Dynamics of Machinery, Design of Machine Members, Engineering Mechanics, Fluid Mechanics, Engineering Drawing, Managerial Economics and Financial Analysis.

**PG (M.Tech):** Robotics, Finite Element Methods, Concurrent Engineering, Non Destructive Testing.

 **Awards:**

1. Distinguished professorfrom Auropath Global Awards, 2019 excellence in educational service.
2. Adarsh Vidya Sarswathi Rashtriya Puruskar from Global Management Council 2020

**Projects Guided:**

Number of B.Tech Projects guided: 40

Number of M.Tech Projects guided: 13

**Guiding Details:**

Ph.D Scholar :02

M.Tech Students:13

**Software Skills:**

 Auto Cad, Cadian, Creo, ANSYS, Robostudio

**Publications:**

* Papers Published in Journals : 49
* Papers Published in Conferences :07
* Book chapter : 04

**Google Scholar**

* Citations – 223
* h-index – 9
* i-10 index - 8

**Academic Activities:**

* Vice Principal
* In charge Principal
* Head of The Department
* Governing body member, Academic Council member and Board of studies chairman
* Experience in curriculum design and development in choice based credit system based on UGC and AICTE guidelines.
* Experience in Autonomous college administration.
* NAAC coordinator
* NIRF Coordinator
* Learning Management System, Student Centric Methods coordinator
* AICTE related works,
* Atul Incubation centre
* One DST Project up to presentation level.
* Course objectives and mapping to curriculum,
* Student feedback maintenance
* NBA Coordinator
* Experience in the field of lecture planning and teaching,
* Institute OBE Implement coordinator ,
* PMKVY
* CO-SUPERVISOR for two Ph.D scholars:
* Experience in organizing national/international level trainings to students in advanced technologies
* Delivered guest lecturers and acted as judge for technical events in various engineering colleges.
* Acted as Chief superintend for EAMCET,ECET and other competitive examinations of govt of AP.
* Experience in Paper setting for various autonomous and university colleges.
* Guided young faculty in the innovative teaching techniques.
* Developed online feedback system on curriculum.
* Guided faculty in Usage of smart class rooms.
* International internship coordinator.
* Handled subjects like Finite Element Method, Tribology, KOM, DOM, Engineering Mechanics, Robotics, Fluid Mechanics, Strength of materials, CAD Lab for B. Tech. Course.
* Handled Finite Element Method, Concurrent Engineering, CAD lab for M.Tech students.
* Convener for Technoscet2K15(National level technical symposium)
* Familiar with MATLAB and ANSYS software.
* Organized and participated in various workshops.

**Professional Memberships:**

* MEMBER OF INSTITUTE OF ENGINEERS (MIE)
* Life Member ISTE (INDIAN SOCIETY FOR TECHNICAL EDUCATION)
* ASME (AMERICAN SOCIETY OF MECHANICAL ENGINEERS)

**FDP/Workshops / seminar Organized:**

* Workshop on MATLAB
* Workshop on latest trends in CAD/CAM
* FDP on Dassult systems 3D experience
* FDP on Robostudio
* Workshop on ornithopter

**Workshops/ Seminar Participated:**

* Mission 10 x Work shop on “High impact teaching skills” organized by Wipro.
* “Outcome Based Engineering Education” organized by Vignan University .Guntur.
* “Work shop on Robotics and automation ” Guldlavalleru Engineering College in Feb 2007
* Modern engineering workshop practice at JNTU college of engineering Kakinada,7th January 2006
* Product re-engineering organized by APSSDC 6th-7th may 201**9**
* Conference on industry 4.0 17-18 December, organized by confederation of Indian industry at tirupati.
* Instructional design and delivery conducted by NITTR,Chennai.19th-24th june 2006
* Accreditation of technical institutions, NITTR ,chandighar 26th to 29th june 2005
* Faculty development program from axis global institute of industrial training 04-1-2019 to 10.01.2019
* Finite element method and its applications, Vishnu institute of technology 2,3 Jan 2015
* Transformation in engineering education imparting futuristic skills, international conference 15-17 July 2018 at SRM university.
* National conference on green energy solutions 8th November 2014

**CERTIFICATIONS**

* Modelling and Simulation using MATLAB® - Statement of Participation- iversity
* edX Honor Code Certificate for Leadership for Engineers-edx
* NPTEL online certification on outcome based pedagogic principles for effective teaching.
* ISO 9001-Internal quality Audit from Organization development consultants, Hyderabad.

**DETAILS OF PUBLICATIONS:**

**International Journals:**

1. Inexpensive production of hydrophobic and corrosion resistance titania-silica composite coating for deep water sandwich pipe applications, Australian Journal of Mechanical Engineering,2023. <https://doi.org/10.1080/14484846.2023.2231599>
2. Optimization of sandwich pipes for deepwater applications: An designing approach, Materials Today: Proceedings, https://doi.org/10.1016/j.matpr.2023.05.600
3. Inexpensive hydrophobic and infrared reflective coatings on the cotton and silk fabrics using sol-gel dip coating technique, Materials Today: Proceedings, https://doi.org/10.1016/j.matpr.2023.06.042
4. Synthesis of silver oxide nanoparticles using gomutra mediation and their investigations on anti-oxidant property, Materials Today: Proceedings, <https://doi.org/10.1016/j.matpr.2023.06.086>.
5. Strength and corrosion characteristics of sandwich pipes for deepwater applications, Jisuanji Jicheng Zhizao Xitong/Computer Integrated Manufacturing Systems, vol. 28 (11), 2022.
6. Design and printing of foldable helmet using 3D printer, Industrial Engineering Journal, Vol. 16(3),2023
7. Design of solar electrical scooter using fusion 360, Industrial Engineering Journal, Vol. 16(3),2023
8. Computational fluid dynamic analysis on rocket nozzle using Ansys, Industrial Engineering Journal, Vol. 16(3),2023
9. Experimental investigation of passive solar still with coated copper fins, Journal of fundamental & comparative research, Vol.10 (1), 2023.
10. Fabrication, microstructural and mechanical Behaviour of Al-ZrO2-TiC hybrid metal matrix

 Composite, Comptes rendus de l'Academie bulgare des Sciences, vol. 74 (11), 2021.

1. Design and simulation of sandwich pipes for Deepwater applications, Wulfenia Journal, Vol. 29 (4), 2022.
2. Effect of Moisture on Vibration Characteristics of SMA Particulate Reinforced Epoxy Matrix Composite, International Journal of Engineering Trends and Technology (IJETT), Volume 67 Issue 6- June 2019
3. Fabrication and Static Analysis of Human Ear, International Journal of Research, ISSN NO:2236-6124 Volume VIII, Issue VI, JUNE/2019.
4. Fabrication and Impact Analysis of Femur Bone, Journal of Engineering Development and Research, Vol-6, Issue 3, ISSN: 2321-9939, Sep-2018.
5. Optimization of friction stir welding parameters (tool material, tool geometry and tool speed) on aluminum alloys 6061 using taguchi method, Advanced research journals of science and technology (ARJST), Vol-5, Issue 2, July-2018
6. Pelton Turbine – A Review published in International Journal for Research in Applied Science & Engineering Technology (IJRASET), Vol-6, Issue 3, ISSN 2321-9653, March 2018.
7. Optimization Of Machining Parameters In Friction Drilling Process, International Journal of Mechanical Engineering and Technology (IJMET), Volume-8, Issue-4, 2017
8. Optimization of Surface Roughness of 6463 Aluminium Alloy and Brass Materials in CNC Milling Operation Using Taguchi’s Design, International Journal of Innovative Research in Science, Engineering and Technology (IJIRSET), Volume-6, Issue-2, 2017.
9. Fabrication of Low Cost Prosthetic Arm with Foamed Fingers, International Journal Of Engineering Research & Science ( IJERS) , Volume-2, Issue-10, 2016.
10. A Novel Prosthetic Hand Support for Physically Disabled, International Journal of Engineering Trends and Technology, Vol. 29 Issue 6, 2015.
11. Impact and Strength Analysis of All-Steel Sandwich Structures for Different Core Shapes, International Journal of Engineering Trends and Technology (IJETT), Vol. 32 Issue 02, Feb – 2016
12. Numerical simulation and analysis of friction drilling process for aluminum alloy using ANSYS”, International Journal of Engineering Research & Technology (IJERT) , Vol. 3 Issue 12, 2014.
13. Modelling and Analysis of Side Grip Conveyor  for Bottle Inspection Machine, International Journal of Mechanical Engineering IIJME ISSN: 2321-6441 IIJME Vol. 2 Issue 12, 2014.
14. Design and Analysis and Optimization of Heat Stacking Mechanism for packing Machinery, International journal of Innovative Science, Engineering and Technology, Volume-1, Issue-10, 2014.
15. Joint parameter Estimation of Serial Manipulators Using Rigid Body Dynamics, International Journal of Mechanical Engineering and Robotics Research, Volume-3, Issue-4, 2014.
16. Harmonic Response of a Rugged System Rack used in Transport Vehicle, International Journal of Engineering Research and Applications, Volume-4, Issue-12, 2014.
17. Stress and Thermal Analysis of Spot Weld on Dissimilar Materials, International Journal of Mechanical Engineering and Robotics Research, Volume-4, Issue-1, 2014.
18. Static Structural and Fatigue analysis of Two-Wheeler Shock Absorbers, International Journal of Engineering Trends in Science and Technology, Volume-1, Issue – 10, 2014.
19. Thermal Analysis of Jagur Core Unit, International journal of innovative research, Volume-3, Issue-13, Dec- 2014.
20. Application of Taguchi Technique for Friction Stir Welding of Aluminum Alloy AA6061, International Journal of Engineering Research & Technology, Vol. 2 Issue 6, 2013.
21. Analysis Of Radial Cam With Roller Follower, International Journal of Engineering Research & Technology, Vol. 2 Issue 6, June - 2013
22. Design and Fabrication of corrugated sandwich panel using Taguchi method, International Journal of Design and manufacturing Technology, Volume-4, Issue-2, 2013.
23. Modeling and Analysis of Puma Robot Using Mat Lab, International Journal of Engineering and Advanced Technology, Volume-2, Issue-4, 2013
24. Design of engine cylinder using MAT LAB, International journal of engineering research and applications, vol:3, Issue-2, 2013
25. Modeling & analysis of multi copter frame and propeller, IJRET ISSN-2319-1163 Accepted for publication in April 2013
26. Design And Development Of Adjustable Stair Climbing Robot, IJRET, April 2013
27. Modal analysis of a Stepped bar using Mat lab & ANSYS, International journal of engineering research & applications, Vol. 3, Issue 2, 2013.
28. Optimization of machining parameters for Aluminum alloy 6082 in CNC end milling, International journal of mechanical engineering & technology, Vol. 3, issue 1, 2013, pp-505-510.
29. Design of solid shafts using mat lab, International Journal of Mechanical Engineering & Technology Vol. 3, Issue 3, 2012.
30. Computation of stress intensity factor of cracked aluminum plate using virtual crack closure technique, International journal of engineering research & applications, Vol. 2, Issue 6, 2012.
31. Optimal machining conditions for turning of Al/Sic MMC using PSO and Regression analysis, International journal of engineering research & applications, Vol.2, Issue 6, 2012.
32. Abrasive wear behavior Bamboo-Glass fiber reinforced epoxy composites using Taguchi approach, International journal of advances in engineering & technology, Vol-5, 2012,
33. Optimization of cutting parameters on mild steel with HSS & CEMENTED carbide tipped tools using ANN, IJRET, Vol.1,issue 3, 2012.
34. Computation of stress intensity factor of Brass plate with edge crack using J-Integral technique, Vol.1, Issue 3, 2012.
35. Thermal analysis of shell & tube heat exchanger using MAT lab and Floefd software, IJRET Vol.1, Issue 3, 2012.
36. Tool wear and surface finish investigation of hard turning using tool imaging, IJRET, Vol.1, Issue 3, 2012.
37. Design & Analysis of corrugated steel sandwich structures using ansys work bench, IJERT International journal of engineering research & technology, Vol.1, Issue 8,2012
38. Design of Spur Gear and its Tooth Profile, International journal of engineering Research and Applications, Vol.2, 2012.
39. Analysis and Estimation of Attenuation Coefficient Aging En-19 STEEL, International journal of engineering Research and Applications, Vol.2, Issue.1, 2012.

**International Conferences:**

1. Design and analysis of prosthetic leg, international conference at Bangkok on dec14 th 2019
2. Industry 4.0 Conference on 17-18 December 2018 organized by confederation of Indian industry
3. Transformations in engineering education imparting futuristic skills conference on 15-17 July 2018 organized by APSSDC & IUCEE.
4. A Noval approach of solving a few mechanical engineering problems using MATLAB” is accepted for ICETM-13 (International Conference on Engineering Technology and Management-2013) to be conducted on july-2013 at Srilanka
5. Analysis in form Drilling AA 1100 Using HSS Tools (ICTMIE 2011) Bangkok Dec 2011.
6. Modeling and Simulation of Planning Decision in FMS Using Artificial Intelligence (IACQER) Code M09153427501000001 Jan 2010 , PP 365-379
7. Planning and Scheduling of Flexible Manufacturing System Using Artificial Intelligence (INCAMA 2009) Kalasalingam University Krishnamkoil, Tamilnadu, India.

**Book Chapter Publication:**

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| --- | --- | --- | --- | --- |
| **Book Title** |  **Chapter Title** | **ISSN /****Published year** | **Publisher** | **Academic Year** |
| Advanced Materials and Manufacturing Techniques for Biomedical Applications | Challenges and Perspective of Manufacturing Techniques in Biomedical Applications | doi.org/10.1002/9781394166985.ch14 | Wiley | 2023-24 |
| Advanced Materials and Manufacturing Techniques for Biomedical Applications | 3D Printing in Drug Delivery and Healthcare | doi.org/10.1002/9781394166985.ch10 | Wiley | 2023-24 |

**Patent Publication Details**

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| --- | --- | --- | --- | --- |
| **S.NO** | **APPLICATION NUMBER** | **TITLE OF INVENTION** | **Filed / Published Year** | **Status** |
| 1 | Design No: 380244-001 | Design to Water Pipe | 2023 | Grants |
| 2 | 202231034008 | Bending strength and corrosion analysis on the fabricated sandwich pipe for deepwater applications | 2022 | Paper Published |
| 3 | 202031023869 | Sandwich pipe for deep water applications | 2020 | Paper Published |