

## Dr. A. JAWAHAR BABU

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### RESIDENTIAL ADDRESS:

Flot No- 204, Saineni Residency, Gudiwada- 521301

### ACADEMIC QUALIFICATIONS

- ❖ Ph.D - Industrial Engineering
- ❖ B. Tech - Mechanical Engineering
- ❖ M.Tech - Production engineering

### ACADEMIC REWARDS / ACHIEVEMENTS: Nil

### PROFESSIONAL EXPERIENCE

Designation	University/College	Period
Professor & Head	Gudlavalleru Engineering College, Gudlavalleru.	30.11.2020 to 30.11.2023
Professor & Mentor (AS & A)	Gudlavalleru Engineering College, Gudlavalleru.	01.07.2017 to 29.11.2020
Professor & Head	Gudlavalleru Engineering College, Gudlavalleru.	10.09.2008 to 31.07.2017.
Professor	Gudlavalleru Engineering College, Gudlavalleru	1.11.2006 to 09.09.2008
Associate Prof.	K.S.R.M.C.E. Kadapa	01.01.2004 to 31.10.2006
Sr. Lecturer	K.S.R.M.C.E. Kadapa	08.08.1999 to 31.12.2003
Lecturer	K.S.R.M.C.E. Kadapa	08.08.1997 to 07.08.1999
Lecturer	N.B.K.R.I.S.T. Vidya Nagar	01.07.1991 to 07.08.1997
Associate Lecturer	N.B.K.R.I.S.T. Vidya Nagar	20.07.1988 to 29.04.1989

### PROJECTS GUIDED

PhD	Post Graduation	Under Graduation
01	03	35

### SPECIALIZATION:

- ❖ Production Engineering

### ❖ PAPERS PUBLISHED IN JOURNALS:

Journals: National : 04

	<b>International :</b>	11
<b>Conferences:</b>	<b>National :</b>	11
	<b>International :</b>	03

### **Journals:**

#### **a) National**

1. Published a paper on, “Analytical Hierarchy Process (AHP) as a Decision Making Tool for Spouse Selection”, Indian Journal, Volume 17, Issue 2, June 2017, pp: 107-113.
2. Published a paper on, “Effect of Internal Roller Burnishing on Surface Roughness and Surface Hardness of Mild Steel”, Journal of Scientific and Industrial Research, vol. 68, pages 29-31.
3. Published a paper on, “Selection of Bio – Implant Materials using Entropy and Analytical Hierarchy Process”, Research & Reviews: A Journal of Bioinformatics, Vol. 4, Issue 3.
4. Published a paper on “Optimization of Helical Spring Weight using Meta-heuristic Algorithms”, Trends in Machine Design, Vol. 5, Issue 2

#### **b) International**

1. Published a paper on “Friction stir processing of ZE41 Mg alloy: Optimizing the process parameters”, IOP Conference Series: Materials Science and Engineering, Volume 1185, International Conference on Materials, Mechanical and Energy Engineering (ICMME 2021) 7th-8th May 2021, Bapatla Engineering College , Bapatla, Andhra Pradesh, India
2. Published a paper on, “Mechanical behavior and wear characteristics fine grained ZE41 magnesium alloy”, Material science and Engineering Technology, Vol. 52, Issue 4, April 2021, pp – 392-399
3. Published a paper on, “Tailoring ZE41 Mg Alloy by Friction Stir Processing for Biomedical Applications: Role of Microstructure on the Degradation and Mechanical Behavior in Simulated Body Fluids”, Transactions of Indian Institute of Metals, Vol. 73, Issue 11, September 2020, pp – 2889-2999
4. Published a paper on, “Metallurgical and Tribological Behaviour of Al6061 with Reinforcement of E-Glass Fiber, SiC and Fly Ash by using Stir Casting”, International Journal for Research in Applied Science & Engineering Technology (IJRASET),, Vol. 7, Issue 7, Dec 2019, pp – 68-78.
5. Published a paper on, “Analysis of dry sliding wear behaviour of al 6061-coconut shell ash

metal matrix composites using stir casting”, International Journal of Latest Engineering Science (IJLES),, Vol. 2, Issue 3, June 2019, pp – 41-45.

6. Published a paper on, “A Gravitational Search Based Optimization of Job Shop Scheduling Problem”, International Journal of Mechanical and Production Engineering Research and Development,, Vol. 8, Issue 6, Dec 2018, pp – 465-478.
7. Published a paper on, "Implementation of analytical hierarchy process (AHP)as decision support tool for selection of Robot for spot welding operation", International Journal of Research in Engineering & technology, Vol. 5, Special Issue 16, eISSN : 2319-1163
8. Published a paper on, “Qualification of Subjectivity for better Decision making-Role of Mathematics" published in GEC's International Journal of Innovation Technology and Management - ISSN No.2394-594 X - Vol No.2 P.No.66 to 69.
9. Published a paper on, “Decision Support System (DSS) for Capacity Planning" published in GEC's International Journal of Innovation Technology and Management - ISSN No.2394- 594 X - Vol No.1 P.No.38 to 46.
10. Published a paper on, “Decision support system for capacity planning-A case study” International Journal of Advance Research in Computer Science and Management Studies Volume 1, Issue 4, pg. 24-30.
11. Published a paper on “A Decision Making Tools for Dynamic Scheduling of Jobshop Problem”, International Journal of Advanced Computing, Vol.2, Issue 1, January 2010, pp.45 to 49.

## **RECENT PUBLICATIONS IN CONFERENCES:**

### **a) National**

1. Presented a paper on “Evaluation of performance measures of AGV system in an automated manufacturing systems” was presented in National conference on Computer Applications in Engineering organized by Institution of Engineers, Kadapa local centre on 15.03.2000
2. Presented a paper on “Computerized structural formula for the speed box in a Machine Tool” was presented in National conference on Computer Applications in Engineering organized by Institution of Engineers, Kadapa local centre on 15.03.2000
3. Presented a paper on “Decision support system for aggregate production planning – A case study” was presented in MINAC – 2001 held at JNTU College of Engineering, Anantapur on 18.10.2001.
4. Presented a paper on “Process selection through expert system was presented in MINAC –

2001 held at JNTU College of Engineering, Anantapur on 18.10.2001.

5. Presented a paper on "Modeling and Analysis of FMS using Petrinets" was presented in MINAC – 2002 held at JNTU College of Engineering, Anantapur on 21.12.2002.
6. Presented a paper on "A study of Mechanical Behaviour in selection and Manufacturing of Titanium as Implant Material", was presented at National Conference on Recent Trends in Manufacturing and Thermal Engineering on 3<sup>rd</sup> May, 2007.
7. Presented a paper on "Optimization of lot size in MRP Environment using Genetic Algorithm", was presented in AICTE sponsored 3 Day National Seminar on 'Applications of Optimization Techniques in Mechanical Engineering' during 18<sup>th</sup> – 20<sup>th</sup> January, 2008.
8. Presented a paper on "Pre-requisites for a competent Teacher in Engineering Education Role of University" presented in ISTE AP-Section Fourth Annual Convention & Awards Function at Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru during 21<sup>st</sup> – 22<sup>nd</sup> November, 2009.
9. Presented a paper on "Analysis of Cracked Cantilever Beam Using ANSYS" in Innovations and Emerging Trends in Mechanical Engineering' at Dept. of Mechanical Engineering & Technology, Bangalore on 11<sup>th</sup> May, 2012.
10. Presented a paper on "Capacity Planning In a Manufacturing System- Case Study" in national conference on Innovations in Engineering & Technology (NCIET 2013) at Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru on 27<sup>th</sup>-28<sup>th</sup> December, 2013.
11. Presented a paper on "Experimental Study and Prediction of Surface Finish and Cutting Forces over Machined Surfaces by End Milling Process Using Factorial Technique" in national conference on Innovations in Engineering & Technology (NCIET 2013) at Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru on 27<sup>th</sup>-28<sup>th</sup> December, 2013.

#### **b) International**

1. Presented a paper on "Decision support system for job shop scheduling" presented in ICAT - 08 at Goka raju Ranga Raju Institute of Engineering & Technology, Hyderabad on 26<sup>th</sup> – 27<sup>th</sup> December, 2008.
2. Presented a paper on " Role of Mathematics in Quantification of Subjectivity for better decision making" at 1<sup>st</sup> International Conference on Energy, Environment and Engineering (ICEEE - 2016) organised by Department of Chemistry and Department of Mechanical Engineering, Coimbatore Institute of Technology, Coimbatore held during 29<sup>th</sup> February - 2<sup>nd</sup> March 2016.

3. Presented a paper on "Implementation of Analytic Hierarchy Process (AHP) as a Decision support Tool for selection of Robot for Spot Welding Operation" at Second International Conference on Recent Advances in Engineering Sciences organized under TEQIP-II at Ramaiah Institute of Technology Belgaum held from 08.09.2016 to 09.09.2016.

### **LIST OF WORKSHOPS ORGANIZED: 03**

- ❖ Workshop on Robotics and Automation at GEC, Gudlavalleru from 9-2-07 to 10.02.07.
- ❖ Student training program on Pro-E from 26.03.07 to 31.03.07 at GEC, Gudlavalleru
- ❖ One Week Technical Awareness Programme for rural youth from 08.10.2007 to 12.10.2007 on Automatic Drafting – CAD.

### **LIST OF WORKSHOPS / SEMINARS ATTENDED: 27**

1. Two Day Faculty Development Program on "Advances in Manufacturing" conducted by Department of Mechanical Engineering, Gudlavalleru Engineering College, Gudlavalleru, during 16<sup>th</sup> - 17<sup>th</sup> November 2018.
2. IE (I) Sponsored One Day Workshop on "Characterisation of Metal Matrix Composites" conducted by Department of Mechanical Engineering, Gudlavalleru Engineering College, Gudlavalleru, on 11<sup>th</sup> August 2018.
3. AICTE - ISTE Sponsored One Week Refresher Course on "Computational Fluid Dynamics" conducted by Department of Mechanical Engineering, Gudlavalleru Engineering College, Gudlavalleru, during 18<sup>th</sup> - 23<sup>rd</sup> June 2018.
4. Two day Training Program on "MATLAB, Simulink & Related Tool Boxes" conducted by Capricot Technologies Pvt. Ltd. and Department of Mechanical Engineering, Gudlavalleru Engineering College, Gudlavalleru, during 8<sup>th</sup> - 9<sup>th</sup> February 2018.
5. One week Faculty Development Program on "MATLAB Applications in Mechanical Engineering" conducted by Department of Mechanical Engineering, Gudlavalleru Engineering College, Gudlavalleru, during 7<sup>th</sup> - 11<sup>th</sup> September 2015.
6. DST Sponsored Two Day National Seminar on "Smart Materails and Structures" conducted by Department of Mechanical Engineering, V.R. Siddhartha Engineering College, Vijayawada, during 28<sup>th</sup> - 29<sup>th</sup> August 2015.
7. Workshop on "Control Systems" conducted by IIT Kharkapur through IIT Bombay remote Centre. This programme was organized by Department of Electrical and Electronics Engineering, Gudlavalleru Engineering College, Seshadri Rao Knowledge Villagfe, Gudlavalleru from 2<sup>nd</sup> to 12<sup>th</sup> December, 2014.
8. Two week workshop on "Fluid Mechanics" organized by hosted Dept. of Mechanical Engineering in association with IIT Kharagpur at Gudlavalleru Engineering College,

Seshadri Rao Knowledge Village, Gudlavalleru from May 20, 2014 to May 30, 2014.

9. Two week workshop on “Engineering Mechanics” organized by hosted Dept. of Mechanical Engineering in association with IIT Bombay at Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru from 26<sup>th</sup> November to 7<sup>th</sup> December, 2013.
10. NBA workshop on “Training for Resource Persons and Evaluators on Outcome Based Accreditation” organized by V.R. Siddhartha Engineering College, Vijayawada from 26<sup>th</sup> – 28<sup>th</sup> September, 2013.
11. NBA workshop on “Training for Resource Persons and Evaluators on Outcome Based Accreditation” organized by V.R. Siddhartha Engineering College, Vijayawada on 13<sup>th</sup> September, 2013.
12. One day Workshop on "Thermodynamics Solution and Practice using MATLAB" organized by Dept. of Mechanical Engineering at Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru on 18<sup>th</sup> February, 2013.
13. One day Workshop on " DFX - Product Design Excellence" organized by Dept. of Mechanical Engineering at Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru on 17<sup>th</sup> September, 2012.
14. Two day Workshop on " Best Practices in Production" organized by Dept. of Mechanical Engineering at Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru on 20<sup>th</sup> & 21<sup>st</sup> July, 2012.
15. Two day Workshop on " The Best International Practices in Production" organized by The Institution of Engineers (India) Vijayawada Local Center on 5<sup>th</sup> & 6<sup>th</sup> November, 2011.
16. One day Workshop on "Current Trends in Biofuels" organized by Dept. of Mechanical Engineering at Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru on 23<sup>rd</sup> October, 2010
17. AICTE sponsored short term course on “Finite Element Application to Mechanical Engineering Problems” organized by PVP Siddhartha Institute of Technology, Vijayawada from 16<sup>th</sup> to 20<sup>th</sup> June, 2008.
18. AICTE Sponsored 3 Day National Seminar on Applications of Optimization Techniques in Mechanical Engineering during 18<sup>th</sup> - 20<sup>th</sup> January 2008 at Gudlavalleru Engineering College, Gudlavalleru
19. National conference on “Factory Automation, Robotics & Soft Computing” on 18<sup>th</sup> & 19<sup>th</sup> January, 2007.
20. National conference on Advanced Trends in Mechanical Engineering Research and development (MINAC-2002) on 21<sup>st</sup> December, 2002.
21. Course on product Life management using CAD 22<sup>nd</sup> – 26<sup>th</sup> June, 2009 conducted by ISTE and IUCEE

22. SERC School on Precision Engineering held at PSG College of Technology, Coimbatore during 14<sup>th</sup> to 23<sup>rd</sup> May, 2001.
23. Short term training programme on Senors in Condition Based Maintenance held at PES College of Engineering, Mandya during 3<sup>rd</sup> to 15<sup>th</sup> July, 2000.
24. National conference on Computer applications in Engineering conducted by Institution of Engineers, Kadapa local centre on 15.03.2000.
25. Winter School on systems approach to Computer integrated manufacturing held at REC Warangal, during 28<sup>th</sup> December, 1998 to 8<sup>th</sup> January, 1999.
26. SERC School on advanced Manufacturing Technology held at PSG College of Technology, Coimbatore during 18<sup>th</sup> to 30<sup>th</sup> May, 1998.
27. Winter School on recent trends in diagnostic maintenance held at Pondicherry Engineering College, Pondicherry during 15<sup>th</sup> to 27<sup>th</sup> December, 1997.

#### **GUEST LECTURES DELIVERED: 06**

- ❖ Delivered a guest Lecture on “Lean Manufacturing” at Andhra Loyola Institute of Engineering and Technology, Vijayawada on 5<sup>th</sup> March, 2013.
- ❖ Delivered a guest Lecture on “Lean Manufacturing” at QIS College of Engineering & Technology, Ongole on 15.12.2012.
- ❖ Delivered a Guest Lecture on “Applications of Mathematics in Mechanical Engineering” in three day Staff development programme on “Scope of Mathematics & Science in Engineering” at Gudlavalleru Engineering College, Gudlavalleru during 11<sup>th</sup> – 13<sup>th</sup> August, 2011.
- ❖ Acted as Judge for student Technical Paper Contest and gave a key note address at Sri Vasavi Institute of Engineering & Technology Nandamuru, Pedana, on 16.12.2010.
- ❖ Delivered a Guest Lecture, “Robo Applications” at QIS College of Engineering, Ongole, on 30<sup>th</sup> June, 2008.
- ❖ Delivered a Guest Lecture, “Over view of Robotics” at Sri Saradhi Institute of Technology, Nuzivid, on 22<sup>nd</sup> April, 2008.

#### **MEMBERSHIP IN PROFESSIONAL BODIES:**

- ❖ Life Member of ISTE – LM 12227
- ❖ Life Member of IE – M128719-7

#### **GRANTS FETCHED:**

- ❖ MODROBS Scheme on Modernization of Metallurgy Laboratory worth Rs. 5.00 lakhs
- ❖ MODROBS Scheme on Modernization of Thermal Engineering Laboratory worth Rs. 13.75 lakhs
- ❖ MODROBS Scheme on Modernization of CAD/CAM Laboratory worth Rs. 15.00 lakhs