

## **Dr. B. KARUNA KUMAR**

Department : Mechanical Engineering  
College : Gudlavalleru engineering college  
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### **RESIDENTIAL ADDRESS:**

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### **ACADEMIC QUALIFICATIONS:**

- ❖ PhD : Industrial Engineering.
- ❖ M.Tech : Advanced Manufacturing Systems
- ❖ AMIE : Mechanical Engineering

### **ACADEMIC REWARDS / ACHIEVEMENTS:**

- ❖ First Rank in M.Tech Mechanical Engineering (Advanced Manufacturing Systems) from JNTU, Hyderabad during the period 2001-03.
- ❖ Pursued 12 NPTEL online certification Courses and secured position in toppers list with Elite+Gold.

### **PROFESSIONAL EXPERIENCE:**

<b>Designation</b>	<b>Institution</b>	<b>Period</b>
Professor & Director - Academics Strengthening and Advancement	Gudlavalleru Engineering College, Gudlavalleru.	30.11.2020 to Till date
Prof. & Vice – Principal (Admn.)	Gudlavalleru Engineering College, Gudlavalleru	29.11.2017 to 29.11.2020
Prof. & Dean P&M	Gudlavalleru Engineering College, Gudlavalleru	08.05.2009 to 28.11.2017
Professor	Gudlavalleru Engineering College, Gudlavalleru	01.08.2008 to 07.05.2009
Associate Professor	Gudlavalleru Engineering College,	01.07.2004 to 31.07.2008

	Gudlavalleru	
Head of the Department	AANM & VVRSR Polytechnic, Gudlavalleru	01.02.2001 to 30.06.2004
Workshop Superintendent	AANM & VVRSR Polytechnic, Gudlavalleru	01.01.1993 to 31.01.2001
Demonstrator	AANM & VVRSR Polytechnic, Gudlavalleru	27.09.1982 to 31.12.1992

**PROJECTS GUIDED:**

<b>PhD</b>	<b>Post Graduation</b>	<b>Under Graduation</b>
Nil	Nil	25

**SPECIALIZATION:** Manufacturing Technology

**RESEARCH PAPERS / BOOKS:**

**BOOKS PUBLISHED IN PUBLICATIONS:** Nil

**PAPERS PUBLISHED IN JOURNALS:**

<b>Journals:</b>	<b>National</b>	<b>:</b>	01
	<b>International</b>	<b>:</b>	09
<b>Conferences:</b>	<b>National</b>	<b>:</b>	02
	<b>International:</b>		09

**Journals:**

**a) National**

- ❖ B. Karuna Kumar, D. Nagaraju, et al., published a paper on “Supply Chain Coordination Models: A Literature Review”, in Indian Journal of Science and Technology, Vol. 9 (38), Oct – 2016.

**b) International**

- ❖ B. Karuna Kumar, D. Nagaraju, et al., published a paper on “Optimality of cycle time and inventory decisions in a coordinated and non-coordinated three-echelon supply chain under exponential price dependent demand” in International Journal on Logistics Systems and Management, Vol. 25, No. 2, 2016.

- ❖ B. Karuna Kumar, D Nagaraju, et. al., published a paper on “Three-echelon supply chain with centralized and decentralized inventory decisions under linear price dependent demand” in International Journal on Logistics Systems and Management, Vol. 23, No. 2, 2016.
- ❖ B. Karuna Kumar, D. Nagaraju, et.al., published a paper on “Joint two – Echelon Inventory Model for Optimal Inventory Decisions and Shipment Policies under Non – Linear Price Dependent Demand”, in Journal Applied Mathematical Sciences, Vol. 8, 2014, No. 169, pp. 8417 – 8434.
- ❖ B. Karuna Kumar, D. Nagaraju, et.al., published a paper on “ Modeling of Two 0 Echelon Inventory System under Exponential Price Dependent Demand” in ARPN Journal of Engineering and Applied Sciences, Vol. 9 No. 4, April 2014.
- ❖ T. Nagarju, B. Karuna Kumar, K.Ch. Kishor Kumar published a paper on “An investigation of Effect of Mould Vibrations on Mechanical and Metallurgical properties of Aluminium 356 Casting” in Invention Journal of Research and Technology in Engineering and Management (IJRTEM) Vol. 1, Issue 7, ISSN: 2455-3689.
- ❖ "Supply Chain Coordination Models: A Literature Review" Indian Journal of Science and Technology, Vol. 9(38), ISSN : 0974-6486, Page Nos. 1-16.
- ❖ “Three-echelon supply chain with centralised and decentralised inventory decisions under linear price dependent demand” International Journal Logistics Systems and Management, Vol. 23, No. 2, page Nos. 231-254.
- ❖ “Three-echelon supply chain with centralised and decentralised inventory decisions under linear price dependent demand” International Journal Logistics Systems and Management, Vol. 23, No. 2, page Nos. 231-254
- ❖ Prof. B. Karuna Kumar, Dr. K. Syam Sundar (April 2014) “Modeling of Two-Echelon Inventory System under Exponential Price Dependent Demand”, ARPN Journal of Engineering and Applied Sciences Vol. 9, No. 4, ISSN 1819-6608, PP.405-414.

## **PAPERS PUBLISHED IN CONFERENCES:**

### **a) National**

- ❖ "Optimality of Inventory Decisions and Total Relevant Costs in a Coordinated Two-Level Supply Chain under Exponential Price Dependent Demand" at International conference on E-Business and Supply Chain Competitiveness (EBSCC 2016), held at the Indian Institute of Technology Kharagpur, February 12-14, 2016.

- ❖ Presented a Paper on “Multi- Echelon Inventory Systems for Supply Chain Coordination with Inflation under Price Dependent Demand” in the National conference on Innovations in Engineering & Technology (NCIET 2013) organized Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru during 27.12.2013 to 28.12.2013.

**b) International**

- ❖ B. Karuna Kumar, D. Nagaraju, et al., presented a paper on “Coordinated Two –Echelon Inventory Model for Optimal Inventory and Shipment Decisions under Exponential Price Dependent Demand”, in the International Conference on Materials Manufacturing and Modeling (ICMMM – 2017).
- ❖ B. Karuna Kumar, D. Nagaraju, et.al., presented a paper on “Optimality of Inventory Decisions and Shipping Policies in a Two – Echelon Inventory System under Quadratic Price Dependent Demand” in 12<sup>th</sup> Global Congress on Manufacturing and Management, GCMM 2014.
- ❖ Prof. B. Karuna Kumar and Dr. K. Syam Sundar have presented a paper on “Modeling of Two-Echelon Inventory System under Exponential Price Dependent Demand” in the International Conference on Trends in Product Life Cycle, Modeling, Simulation and Synthesis held during January 6th – 8 th , 2014 at VIT University, Vellore.
- ❖ Presented a Paper on “Two Level Supply Chain Coordination Model Under Stock Dependent Demand” in the Conference “AIMS International Conference on Management” conducted by “Indian Institute of Management, Bangalore” during 6.1.2013 to 9.1.2013.
- ❖ Presented a Paper on “A Tool for Effective Teaching and Learning Experience” in National Conference ,organized by ISTE AP-Section Fourth Annual Convention & Awards organized by Function Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru, during 21-11-2009 to 22-11-2009
- ❖ Presented a Paper on “Co-ordination frame work for supply chain inventory alignment” at three day AICTE sponsored national seminar on Applications of Optimization Techniques in Mechanical Engineering held at Gudlavalleru Engineering College, Gudlavalleru during 18th - 20th January, 2008
- ❖ Presented a Paper on “Shaping Student as a Professional” at National Conference on Best Practices in Engineering Education, organized by Engineering Education Foundation

Society, Pune in Association with Singhad Technical Education Society's Engineering Institute, Pune, Maharashtra, conducted during 2<sup>nd</sup> to 3<sup>rd</sup> February, 2007.

- ❖ Presented a Paper on “Practice for Lively Teaching-Learning Experience” at National Conference on Best Practices in Engineering Education, organized by Engineering Education Foundation Society, Pune in Association with Singhad Technical Education Society's Engineering Institute, Pune, Maharashtra, conducted during 2<sup>nd</sup> to 3<sup>rd</sup> February, 2007
- ❖ Presented a Paper on “Innovation – Unique Practice for continuous Improvement” at National Conference on Best Practices in Engineering Education, organized by Engineering Education Foundation Society, Pune in Association with Singhad Technical Education Society's Engineering Institute, Pune, Maharashtra, conducted during 2<sup>nd</sup> to 3<sup>rd</sup> February, 2007.

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

- ❖ A Coordination Framework for Supply Chain Inventory Alignment in the work shop for Applications of Optimization Techniques in Mechanical Engineering conducted by Gudlavalleru Engineering College, Gudlavalleru, during 18th – 20th Jan. 2008
- ❖ Work shop on “A Tool for Effective Teaching and Learning Experience” in ISTE AP-Section Fourth Annual Convention & Awards Function organized by Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru During 21st – 22nd November, 2009

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

- ❖ Attended Two Day Faculty Development Program on “Advances in Manufacturing”, organized by the Department of Mechanical, Gudlavalleru Engineering College, Gudlavalleru during 16<sup>th</sup> – 17<sup>th</sup> November 2018.
- ❖ Attended One Refresher Course on “Computational Fluid Dynamics”, organized by AICTE – ISTE, and Department of Mechanical, Gudlavalleru Engineering College, Gudlavalleru during 18<sup>th</sup> – 23<sup>rd</sup> June 2018.
- ❖ Attended Two Day Training Program on “MATLAB, Simulink and Related Tool Boxes”, organized by Capricot Technologies Pvt. Ltd. in Gudlavalleru Engineering College, Gudlavalleru during 8<sup>th</sup> – 9<sup>th</sup> February 2018.

- ❖ Attended one week faculty training program on “MATLAB Applications in Mechanical Engineering”, organized by the Department of Mechanical Engineering, Gudlavalleru Engineering College, Gudlavalleru during 7<sup>th</sup> to 11<sup>th</sup> September, 2015.
- ❖ Attended One week workshop on “Training Program on ANSYS”, organized by the Departments of Mechanical and Civil Engineering, Gudlavalleru Engineering College, Gudlavalleru during 22<sup>nd</sup> to 27<sup>th</sup> June, 2015.
- ❖ Participated in a 2 day workshop on “Recent Trends in Manufacturing Processes”, organized by Department of Mechanical Engineering, Gudlavalleru Engineering College, Gudlavalleru during 27<sup>th</sup> – 28<sup>th</sup> June, 2014
- ❖ Attended two week workshop on “Fluid Mechanics” organized in association with ISTE & IIT Kharagpur during 20.05.2014 to 30.05.2014
- ❖ Attended two week workshop on “Engineering Mechanics” organized in association with ISTE & IIT Bombay during 26.11.2013 to 07.12.2013.
- ❖ Participated in one Day (18-2-2013) Workshop on “Thermodynamics Solution and Practice using MATLAB”, organised by Gudlavalleru Engineering College, Seshadri Rao Knowledge Village, Gudlavalleru.
- ❖ Participated in one Day (30.9.2011) Workshop on” Recent Trends in Nanotechnology”, organised PVPSIT, Vijayawada
- ❖ Participated in two Day (8.7.2011 to 9.7.2011) National Seminar of “Applications of Finite Element Methods in Engineering” organised by GEC, Gudlavalleru
- ❖ Participated in two day (5.11.2011 to 6.11.2011) work shop on “The Best International Practices in Production” organized by The Institution of Engineers (India) Vijayawada Local Center.
- ❖ Participated in one Day (23.10.2010) workshop One day Workshop on "Current Trends in Biofuels" organised by GEC, Gudlavalleru.
- ❖ Participated in four Day (26-6-2008 to 30-06-2008) Workshop on (i) Effective Teaching; Cooperative Learning; Outcomes Based Education; quality and Accreditation and (ii) Preparation for Indian’s Membership of the Washington Accord as part of the Indo US Engineering Faculty Leadership Institute organised by Global Education Centre of Infosys Technologies, Mysore.

- ❖ Participated in two Day (15-11-2007 to 17-11- 2007) National Workshop on “soft skills” organised by CRR College of Engineering, Eluru in association with TCS.
- ❖ Attended Two Day Workshop on “Robotics & Automation” organized by Gudlavalleru Engineering College, Gudlavallerru during 09-02-2007 to 10-02-2007.
- ❖ Participated in International Conference “**Logistics and Supply Chain Management**” held at PSG College of Technology, Coimbatore during 2-4 August, 2006.
- ❖ Attended to workshop on “Emerging Trends in campus selections” organized by CIT, Tumkur during 28th Oct, 2005 to 29th Oct, 2005.
- ❖ Attended to International Conference on Logistics and Supply Chain Management organized by PSG College of Technology, Coimbatore during 3-08-2004 to 5-08-2004.
- ❖ Participated in “SLS and SLA” – Different Technologies for different applications, National Conference in State of Art of Mechanical Technologies, 2004, JNTUCE, Kukatpally Hyderabad on 29<sup>th</sup> & 30<sup>th</sup> June 2004
- ❖ Participated in “Rapid Prototyping –What, Why and How?”, National Conference in recent developments in Mechanical Engineering (NCME-2003), Thapar Institute of Engineering and Technology (Deemed University), PATIALA, 30<sup>th</sup> October – 1<sup>st</sup> November, 2003.
- ❖ Participated in “Dry Machining”, National Seminar at MMEC, MULLANA, March 14<sup>th</sup> - 16<sup>th</sup>, 2003.
- ❖ Participated in “Fuzzy Front End – An Extraordinary Opportunity”, National Seminar at MMEC, MULLANA, March 14<sup>th</sup> -16<sup>th</sup> 2003.
- ❖ Attended for several workshops conducted by Technical Teachers Training Institute Extension Centre, Hyderabad.
- ❖ Participated in a workshop conducted on “Inter personnel skills, Communication and Counselling” at SRKR Engineering College, Bhimavaram.

#### **Refresher Course:**

- ❖ Attended Refresher course on “Communication Skills in English” organized by UGC & ASC, GEC, Gudlavalleru during 15.09.2005 to 20.09.2005.

#### **CERTIFICATIONS:**

- ❖ Certified in the Course “Learning How to Learn: Powerful mental tools to help you master tough subjects” conducted by McMaster University & University of California San Diego in association with CourseEra.

- ❖ Certified in the Course “Work System Design” conducted by Indian Institute of Technology, Roorkee, in association with NPTEL and stood in top 5%.
- ❖ Certified in the Course “Educational Leadership” conducted by Indian Institute of Technology, Kharagpur, in association with NPTEL.
- ❖ Certified in the Course “Developing Soft Skills and Personality” conducted by Indian Institute of Technology, Kanpur, in association with NPTEL and stood in top 2%.
- ❖ Certified in the Course “Outcome Based Pedagogic Principles for Effective Teaching” conducted by Indian Institute of Technology, Kharagpur, in association with NPTEL.
- ❖ Certified in the Course “Effective Engineering Teaching in Practice” conducted by Indian Institute of Technology, Madras, in association with NPTEL and stood in top 1%.
- ❖ Certified in the Course “Product Design and Development” conducted by Indian Institute of Technology, Roorkee, in association with NPTEL.
- ❖ Certified in the Course “Fundamentals of Manufacturing Processes” conducted by Indian Institute of Technology, Roorkee, in association with NPTEL and stood in top 1%.

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

- ❖ Prof. B. Karuna Kumar, Professor of Mechanical Engineering and Dean P&M affairs delivered a guest lecture on “Engineers’ Contribution for Efficacy” in the Department of ECE, Gudlavalleru Engineering College, Seshadri Rao Knowledge Village on 15.9.2012.

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

- ❖ MISTE
- ❖ FIE(I)
- ❖ SAEIndia

#### **GRANTS FETCHED:**

- ❖ A grant of Rs. 0.73 Lakhs has been received from Internal R & D, Department of Mechanical Engineering on the title “ Effect of temperature gradient on segregation of impurities during directional solidification of Al – Cu, Al – Mn, Al – Mg and Al – Zn Alloy systems” during the Ac.Yr. 2017 – 18.