BIO-DATA

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Dr. K. R. VIJAYA KUMAR B.E, M. E., Ph. D.

Professor

Dept. Mechanical Engineering,
Dr.M.G.R Educational and Research Institute,
Maduravoyal, Chennai-600 095.

Educational Qualifications:

S. No	Degree	Branch of Study	Year of Passing	University	Field Of Specialization
1	Ph. D	Mechanical Engineering	August 2011	Anna University	Composite Materials
2	M.E	Engg. Design (Mech)	December 2001	Anna University	Engg. Design
3	B.E	Mechanical Engineering	April 1993	Bharathiar University	Mechanical Engineering

Experience:

S. No	Name Of Organization	Duration and Designation
1	Dr.M.G.R Educational and Research Institute, Chennai- 95.	June 2004 to till date
2	Madha Engineering College, Chennai- 69.	November 2003 to June 2004
3	Thangavelu Engineering College, Chennai- 96.	December 1997 to January 2003, Senior Lecturer
4	MAK Industrial Equipments Pvt. Ltd., Ambattur, Chennai- 58	August 1995 to December 1997, Production Engineer
5	Thiruvallur Transport Corporation Ltd., Chennai- 02.	August 1994 to July 1995, Apprenticeship Training

6	Mechaniser's Industries, Ambattur, Chennai- 58.	July 1993 to July 1994, Quality Control Engineer

Research Guidance

Number of Ph.D Scholars Guided : 6
Number of Ph.D Scholars Guiding : 7
Number of M.E./ M.Tech. Projects Guided : 32

List of Publications:

PATENT FILED

[1] A System and Method of Gravitational Transportation between Hills / Buildings through Telescopic Hydraulic System. [File No: 202041035348].
[2] Wearable Child Monitoring Device with Inbuilt Heart Rate Measurement to Protect Falling into Abandoned Deep Bore Well. [File No: 202041033007].
[3] IOT Based Predictive Model for Attention Deficit Hyperactivity Disorder. [File No: 202041044939].

International Journal

1. K. R. Vijayakumar, "Analysis of Particle Damping Characteristics on Steel Vertical Machining Centre Column with Epoxy Reinforced Granite" Journal of Engineering Research in Africa, (2020) Vol. 50, pp.94-102.
2. K.R Vijayakumar, "Optimization of Active Vibration Control Using Artificial Neural Network" International Journal of Advanced Science and Technology, Vol. 29, No. 05, (2020), pp. 10365-10371.
3. K.R. Vijayakumar, "Fabrication of Coconut Raw Leaf Epoxy Composite for Sustainable Hut Roofs" International Journal of Mechanical and Production Engineering Research and Development, (2020) Vol. 10, No. 03, (2020), pp. 259–268.
4. K.R. Vijayakumar, "Investigation on aluminium/mild steel plates bonded polyurethane sheets to control vibration" Materials Today, (2020) https://doi.org/10.1016/j.matpr.2020.08.285
5. **K.R Vijayakumar**," A study on sliding wear behavior of carbon fiber reinforced IPN composites", Materials Today. (2020) https://doi.org/10.1016/j.matpr.2020.05.124.
6. K.R Vijayakumar," Experimental analysis on mechanical properties of banana fibre/epoxy (particulate) reinforced composite" Materials Today. (2020), https://doi.org/10.1016/j.matpr.2020.05.103.

7. G. Boopathy, **K.R Vijayakumar** and M. Chinnapandian,“ Experimental Characterization Of Fibre Metal Laminates For Tensile And Impact Properties With Finite Element Modelling Approach” Caribbean Journal of Science, Vol. 53, No. 2, pp 534-542, 2019.

8. Senthilkumar Ramakrishnan, **K.R Vijayakumar** and Naveen Chandran,“ Design For Customer Satisfaction – A Proactive Approach To Input Customer Expectations In Design Phase” International Journal of Mechanical Engineering and Technology, Vol. 10, No. 1, pp 534-542, 2019.

9. K.R Vijayakumar “ Investigations on the performance characteristics of carbon nanotubes, alumina and titanium dioxide-based plasma sprayed coatings on AISI 1020 steel” RASAYAN Journal of Chem, Vol. 10 | No. 2 |652 - 664 | April - June | 2017
10. G. Boopathy, **K.R Vijayakumar** and M. Chinnapandian,“Fabrication and fatigue analysis of laminated composite plates” International Journal of Mechanical Engineering and Technology, Vol. 8, No. 7, pp 388-396, 2017.

11. W Andrew Nallayan, **K.R Vijayakumar** and Usama Tariq Rasheed, “ Comparison of the Effect of Curing on the Properties of E-Glass/Cyanate modified Epoxy Cross Plied Laminates” IOP Conference Series: Materials Science and Engineering, Vol. 197, No. 1, pp 1-13, 2017.

12. S.A. Abdul Sukkur, P. Palanisamy, **K.R. Vijayakumar**. “Experimental investigations and finite element analysis of composite sandwich structures with honeycomb core – Evaluation for strength and quality” Carbon – Science and Technology, , Vol. 8, No. 1, pp 63-73, 2016.

13. Augustin.T, **K.R Vijayakumar.** “Displacement Ventilation System for an Auditorium”, International Journal for Research in Applied Science & EngineeringTechnology, Vol. 4, No. V, pp 96- 101, 2016.

14. Ayaskant Harichandan, **K.R Vijayakumar**. “Study On Tensile Behaviour Of Carbon Jute Aluminiumfibre Metal Laminates”, International Journal of Mechanical And Production Engineering, Vol. 4, No. 7, pp 96- 101, 2016.

15. A.Radha,.**K.R Vijayakumar**, et al.," An investigation of mechanical and wear properties of AA6061 reinforced with silicon carbide and graphene nano particles- Particulate composites, Materials Today, Vol. 3 pp 2247-2253, 2016.

16. F. Fredrick Gnanaraj and **K. R. Vijaya kumar**. “Analysis of Active Vibration Controlin Smart Structures”, International Journal of Applied Engineering Research, ISSN 0973-4562 I J C T A, Vol. 9, No. 2, pp. 257-269, 2016.

17. J. Jayaseelan, P. Palanisamy and **K. R. Vijaya kumar**. “Effect of Graphene filler content on mechanical strength and hardness for goat hair fibre reinforced epoxy composites”, International Journal of Vehicle Structures and Systems, Vol. 7, No. 4, pp. 165-168, 2015.

18. J. Jayaseelan, P. Palanisamy and **K. R. Vijaya kumar**. “Study on mechanical properties of hair based Fibre Composite”, International Journal of Applied Engineering Research, ISSN 0973-4562 Vol. 10, No. 68, pp. 689-692, 2015.

19. W.Andrew Nallayanand **K. R. Vijayakumar**. “Comparing the mechanical properties of cyanate modified epoxy/ e glass (unidirectional/ bidirectional/ random oriented) laminates”, International Journal of Applied Engineering Research, ISSN 0973-4562 Vol. 10, No. 57, pp. 232-238, 2015.

20. A.Radha,.**K.R Vijayakumar,** et al.," An investigation of Mechanical Properties on Aluminium 6061 Reinforced with Silicon Carbide-Metal Matrix Composites, Applied Mechanics and Materials Vol. 787 pp 568-572, 2015.

21. A.Radha,.**K.R Vijayakumar**, et al.," An investigation of mechanical properties on Aluminum 6063 reinforced with Silicon carbide and graphene nano particle by stir casting Technique -Metal Matrix Hybrid Composites, IJAER, ISSN 0973-4562 Vol. 10 No. 57, 2015.

22. **J. Jayaseelan, P. Palanisamy** and K. R. Vijaya kumar. “Design, Fabrication and Characterization of NanoTubes Reinforced Epoxy - Carbon Fiber Composites”, Indian Journal of Applied Research, Vol. 3, No. 2, pp. 125-127, 2013.

23. **Vijaya Kumar, K.R.** and Sundareswaran, V. “Dynamic Mechanical Properties of Epoxy Cyanate Matrix Composite under Varied Temperatures by Free Vibration Method”, Journal of Vibration and Control, Vol. 17, No. 12, pp. 1905-1911, 2011.

24. **Vijaya Kumar, K.R.** and Sundareswaran, V. “Performance, Combustion and Emission Characteristics of PZT loaded Cyanate Modified Epoxy

Coated Combustion Chamber in Diesel Engine", International Journal of Engineering Science and Technology, Vol. 2, No. 7, pp. 2876-2885, 2010.

25. **Vijaya Kumar, K.R.** and Sundareswaran, V. "Study on piezo-damping cyanate modified epoxy matrix glass fibre composite with Lead Zirconate Titanate", ARPN Journal of Engineering and Applied Sci., Vol. 5, No. 5, pp. 82-87, 2010.

26. **Vijaya Kumar, K.R.** and Sundareswaran, V. "Fabrication and Analysis of Smart Composite Plates", IJERIA, Vol. 2, No. 6, pp 185-201, 2009.

27. **Vijaya Kumar, K.R.** and Sundareswaran, V. "Design, Fabrication and Analysis of Polymer Matrix Composites", SAE International, No.M2009198, 2009.

International Conference

1. **Vijaya Kumar, K.R.** and Sundareswaran, V. "Design and Analysis of Polymer Matrix Composite with Piezoelectric layer", International Conference on Active/Smart Materials, held in Thiagarajar College of Engineering Madurai, 2009.

2. **Vijaya Kumar, K.R**. and Sundareswaran, V. "Study on Piezo-Damping Cyanate Modified Epoxy Matrix Glass Fibre Composite with Lead Zirconate Titanate", International Conference on Latest Trends in Simulation Modelling and Analysis COSMA2009, held in National Institute of Technology, Calicut, Kerala, 2009.

3. **Vijaya Kumar, K.R**. and Sundareswaran, V. "Fabrication and analysis of smart composite plates", International conference and exhibition on Emerging challenges in Design and Manufacturing Technologies – 2007, held in Sathyabama University, Chennai, 2007.

4. **Vijaya Kumar, K.R**. and Sundareswaran, V. "Dynamic Analysis of Piezo thermoelastic (cyanate/epoxy) composite cylindrical shells", International conference on Recent Development in Structural Engineering- 2007, held in Manipal University, Manipal, 2007.

5. **Vijaya Kumar, K.R.** and Sundareswaran, V. "Damping studies of polymer matrix composite with a piezo electric layer", International conference on Advanced Materials and Composites – 2007, held in National Institute for Interdisciplinary Science and Technology, Thiruvananthapuram, 2007.

6. **Vijaya Kumar, K.R.** and Sundareswaran, V. "Buckling Analysis of Piezo thermoelastic composite shells", International conference on Resource Utilisation and Intelligent Systems, held in Kongu Engineering College, Erode , 2006.

National Conference

1. **Vijaya Kumar, K.R**. and Sundareswaran, V. "Fabrication and analysis of smart composite plates", National Conference on Recent Advanced Trends in Mechanical, Automobile and Production Engineering – RATMAPE 2008, held in Dr.M.G.R.University, Chennai, 2008.

2. **Vijaya Kumar, K.R**. and Sundareswaran, V. "Analysis of Piezo thermoelastic matrix composites", National conference on Recent Trend in Science and Technology, held in Dr.M.G.R.University, Chennai, 2005.

Short Term Courses Attended:

AICTE Staff Development Programmed at PES College of Engineering, Mandya-571401 on FEM and its Application to Non- Linear Problems from 11th to 22nd July, 2005.

Technical Workshop on Vibration, Noise and Condition Monitoring conducted from 21st to 25th November, 2005 at B.S.A Crescent Engineering College, Chennai 48.

Membership with Academic Bodies:

* I.S.T.E (Life Member)
* S.A.E

Subject Handled:

1. Machine Design and Drawing
2. Design of Transmission System
3. Automobile Engineering

4. Instrumentation and Control Engineering
5. Finite Element Analysis

Practical Classes Handled:

1. CAD/ CAM Lab
2. Strength of Materials
3. Fluid Mechanics and Machinery
4. Dynamics Lab

Academic Project Details:

- Studies on Piezothermoelastic Epoxy-Cyanate Ester Matrix Glass Fibre Composites

- Experimental investigation of Heat Transfer in Fluidizer Combustor by a Heat Transfer Probe.

- Finite Element Analysis of Windmill.

Personal Detail:

Name	:	K. R. Vijaya kumar
Date Of Birth	:	15-05-1972
Mother Tongue	:	Tamil
Nationality	:	Indian

Date:
Place: Chennai

(K. R. Vijaya kumar)