

## MECHANICAL ENGINEERING RESEARCH CENTRE

Name of the College: K.V.G. College of Engineering



**VISVESVARAYA TECHNOLOGICAL UNIVERSITY,  
"Jnana Sangama"  
Belagavi – 590018, Karnataka State.**

Name of the Recognized Research centre	<b>Mechanical Engineering</b>
Year of Est. as Research Centre	<b>2003</b>
Number of Eligible Supervisors	<b>03</b>
Number of Candidates Registered for Ph.D.	<b>08</b>
Number of Candidates Registered for M.Sc. (Engg.) by Research	-
Number of faculty with Ph.D.	<b>02</b>
Number of Professors in the department	<b>02</b>
Number of Assoc. Prof. in the department	<b>02</b>
Number of Asst. Prof. in the department	<b>08</b>

## Details of Research Supervisors

Sl. No.	Name of the Research Supervisor	Name of the University from which Ph. D is awarded	Year of Award	Specialization	Department	No. of Candidates Registered for		Status of Completion		
						Ph.D.	M.Sc. (Engg.)	No. of Candidates completed Course Work	No. of Candidates completed Comprehensive Viva-Voce	No. of Candidates completed Submitted Final Thesis
1.	Dr. N.A. Jnanesh	Mangaluru University	2007	Total Quality Management, Lean Six Sigma, Industrial Management	Mechanical	02	01	03	03	03
2.	Dr. Umashankar K S	NITK, Surathkal	2011	Machine Dynamics, Composites, Machining, Maintenance Engineering	Mechanical	05	--	03	03	01

3.	Dr. Sunil Kumar M	VTU, Belagavi	2019	Investigation of Mechanical Behavior of Natural Fibre Reinforced Polymer Composites	Mechanical	--	--	--	--	--
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## Details of Research Scholars

Sl. No.	Name of the Research Scholar	Dept.	Registered for			Status of Completion of		
			Year of Registration	Ph.D.	M.Sc. (Engg.) by Research	Course work [Y/N]	Comprehensive Viva-Voce [Y/No]	Submitted Final Thesis [Y/N]
1.	Mr. Shreeranga Bhat	Mechanical	2009	Yes	-	Y	Y	Y
2.	Mr. Deepak.K.B		2009	Yes	-	Y	Y	Y
3.	Mr. Harish.S.R		2009	-	Yes	Y	Y	Y
4.	Mr. Shivaramu H T	Mechanical	2013	Yes	-	Y	Y	Y
5.	Mr. Mahesh B Patil		2013	Yes	-	Y	Y	N
6.	Mr. Sudheer Kumar K S		2013	Yes	-	N	N	N
7.	Mr. Prashanth D A		2014	Yes	-	N	N	N
8.	Mr. Vikram K V		2014	Yes	-	Y	Y	N

## Publication Details

1	Dr. Umashankar K S	"Wear Characteristics Comparison of Cast and Powder Metallurgy Based Al and Al – Si Alloy (LM6), Elsevier, Materials Today"	Proceedings 5 (2018) 8138-3146, April 2018. Author.	-	International
2		"Studies on Performance of Hongo Biodiesel Fuelled CI Engine By Varying Injection Pressure and Number of Injector Holes"	International Journal of Scientific and Engineering Research Vol. 9, Issue: 7 ISSN: 2229-5518, Pp. 43-46. Author, 2018	-	International
3		"Experimental Investigation of Multi Walled Carbon Nanotubes Dispersion on Mechanical Properties of Aluminium-Silicon Alloys by Stir Casting Method"	International Journal of Mechanical Engineering and Technology Vol. 8, Issue 8, dt: 24-08-2017, Page No.: 341-348, Article ID: IJMET-08-08-038, ISSN print: 0976-6340 and ISSN online: 0976-6359 Scopus Indexed	-	International
4	Dr. Umashankar K S	"Effect of Heat Treatment on Hardness and Toughness of Al6061, Al6082 and Al7075"	Journal of Engineering Trends and Technology, ISSN: 2231-5381 <a href="http://www.ijettjournal.org">http://www.ijettjournal.org</a> Page 275-278 (Co-Author) June 2016 Impact Factor: 1.656.	-	International
5		"Synthesis and Characterization of Alumina Filler Reinforced Polyurethane Foams for Light Weight Application"	American Journal of Material Science 2016, 6(4A): 67-71 DOI: 10.5923/c.materials.201601.13 (Co-Author) September 2016	-	International
6		"Synthesis and Experimental Investigation of Density on the Structural Properties of Rigid Polyurethane foams"	American Journal of Material Science 2016, 6(4A): 77-81 DOI:10.5923/c.materials.201601.15 (Co-Author) September 2016	-	International
7		"Damping Properties of E-Glass/Epoxy Composite With Ldpf Filler Material."	Journal of Engineering Trends and Technology, ISSN: 2231-5381 <a href="http://www.ijettjournal.org">http://www.ijettjournal.org</a> Page 298-302, June 2016 Impact Factor: 1.656	-	International

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8		“Vibration Absorption In LM 28/A1203 Reinforced E-Glass/ Epoxy Composite”	Journal of Engineering Trends and Technology, ISSN: 2231-5381 <a href="http://www.ijettjournal.org">http://www.ijettjournal.org</a> Page 308-311 June 2016, Impact Factor 1.656	-	International
9		“Comparison of Damping of Property in Sandcast Al-Si Alloy”	National Conference on Advances in Mechanical Engineering Sciences, NCAMES 2016 at Srinivas Institute of Technology, Volachil, Mangalore held on 6 <sup>th</sup> and 7 <sup>th</sup> May 2016.	National	-
10		“E-time -16”	National Conference at St. Joseph College of Engineering, Mangaluru held on 2 <sup>nd</sup> August 2016.	National	-
11		Composite with LDPF filler Material	PG Fest – Vision 2016 at KVG College of Engineering, Sullia on 22 <sup>nd</sup> April 2016.		

12	Dr. Umashankar K S	“Visual Identification of Heart Disease Through Recurrence Quantification Analysis”	International Journal of Engineering Trends and Technology, ISSN: 2231-5381 <a href="http://www.ijettjournal.org">http://www.ijettjournal.org</a> Page 308-311 June 2016, Impact Factor 1.656	-	International
13		“Detection of Bearing Damage Through Recurrence Quantification Analysis”	International Journal of Engineering Trends and Technology, ISSN-2231-5381 <a href="http://www.ijettjournal.org">http://www.ijettjournal.org</a> Page 322-326 June 2016, Impact Factor 1.656	-	International
14		“Comparision of Damping Property In Sand Cast Al-Si Alloy”	International Journal of Engineering Trends and Technology, ISSN-2231-5381 <a href="http://www.ijettjournal.org">http://www.ijettjournal.org</a> Page 365-368 June 2016, Impact Factor 1.656	-	International

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15		“Effect Analysis of Angle Orientation on the Shear Properties of Glass Epoxy Laminates”	International Journal of Engineering Trends and Technology, ISSN-2231-5381 http://www.ijettjournal.org Page 284-289 June 2016, Impact Factor 1.656	-	International
16		“Effect of Stacking Sequence on Mechanical/Vibration Characteristics of Kevlar/Glass Hybrid Reinforced Polymer Composites”	International Advanced Research Journal in Science, Engineering and Technology ISO 3297:2007 Certified Vol. 3, Issue 12, December 2016. December 2016, Impact Factor 4.821.	-	International
17		“Mechanical Characterisation of Kevlar/Glass Hybrid Reinforced Polymer composite laminates”	International Advanced Research Journal in Science, Engineering and Technology ISO 3297:2007 Certified Vol. 3, Issue 12, December 2016, Impact Factor 4.821.	-	International
18		“Determination of Stress Intensity Factor for a Plate Having Square Hole with Inclined Crack using Numerical Method”	International Advanced Research Journal in Science, Engineering and Technology ISO 3297:2007 Certified Vol. 3, Issue 12, December 2016. December 2016, Impact Factor 4.821. (Co-Author) EISSN: 2393-8021/pISSN-2394-1588.	-	International

19	Dr. Umashankar K S	“Mechanical Characterisation of Kelvar / Glass Hybrid Reinforced Polymer Composite Laminates”	IARJSET: International Advanced Research Journal in Science, Engineering and Technology eiSSN: 2393-8021 pISSN: 2394-1588. (Co-Author)	-	International
20		‘Study on Thermal Conductivity In CNT Reinforced Al-Si Alloy’	IJRET: International Journal of Research in Engineering and Technology eISSN: 2319-1163 pISSN: 2321-7308. (Co-Author) 2016	-	International
21		“Study on Compaction behavior in Hypoeutectic, Eutectic & Hypereutectic Al-Si Alloys for the Powder Metallurgy Process”	IJRET: International Journal of Research in Engineering and Technology eISSN: 2319-1163 pISSN: 2321-7308 (Co-Author) 2016	-	International



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22		“Damping property in Sand Cast Al-Si Lm28 Alloy”	IJRET: International journal of Research in Engineering and Technology eISSN: 2319-1163 pISSN: 2321-7308 (Co-Author) 2016	-	International
23		“Damping Properties of E-class / epoxy composite with LDPF filler material”	National Conference on Advances in Mechanical Engineering Sciences, NCAMES 2016 at Srinivas Institute of Technology, Volachil, Mangalore held on 6 <sup>th</sup> and 7 <sup>th</sup> May 2016.	National	-
24		“Visual Identification of Heart disease through recurrence qualification analysis”	National Conference on Advances in Mechanical Engineering Sciences, NCAMES 2016 at Srinivas Institute of Technology, Volachil, Mangalore held on 6 <sup>th</sup> and 7 <sup>th</sup> May 2016.	National	-
25		“Detection of bearing damage through recurrence Quantification Analysis”	National Conference on Advances in Mechanical Engineering Sciences, NCAMES 2016 at Srinivas Institute of Technology, Volachil, Mangalore held on 6 <sup>th</sup> and 7 <sup>th</sup> May 2016.	National	-

26	Dr. Umashankar K S	“Mechanical Characterisation of Kelvar / Glass Hybrid Reinforced Polymer Composite Laminates”	IARJSET: International Advanced Research Journal in Science, Engineering and Technology eISSN: 2393-8021 pISSN: 2394-1588. (Co-Author) 2016	-	International
1	Dr. Sunil Kumar M	"Preparation and characterization of areca bast fiber reinforced epoxy & Vinylester Composites"	International Journal of Mechanical Engineering & Technology, Volume 5, Issue 12, Dec. 2014, p.p. 55-65.	-	International

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2		'Water absorption and diffusion properties areca fiber reinforced epoxy and vinyl ester composites'	IJARSE, vol -4(01), March 2015	-	International
3		Preparation and characterization of short areca leaf fiber reinforced epoxy and vinyl ester composites'	IJARSE, Vol.-4(01), March 2015	-	International

## Details of Existing Research Facilities

Sl. No.	Facility available	Details of Funds Spent in lakhs
1	Energy conversion engineering lab 1) Planimeter 2) Open & Closed flash & fire poiny testing equipments 3) Redwood & Saybolt viscometer 4) Reciprocating compressor 5) Boys gas calorimeter 6) 4 Stroke petrol engine 7) 4 Stroke diesel engine 8) More test 9) Cut section view of Two-stroke petrol engine 10) Cut section view of Four-stroke petrol engine 11) Tachometer	20
2	Metrology and Measurements lab 1) Sine bar 2) Sine centre 3) Vernier Callipers 4) Micrometer 5) Dial bore indicators 6) Gear tooth Vernier 7) Micrometer 8) Bevel protractor 9) Slip gauges 10) Vernier deph gauge with surface plate 11) Bourdon tube Pressure Guage, 12) LVDT 13) Thermocouple 14) Autocollimeter 15) Strain gauge 16) Mechanical Camparator 17) Lathe tool dynamometer 18) Drill tool dynamometer 19) Tool marker's microscope 20) Floating carriage 21) Optical Flats	15
3	Metallography and Materials Testing lab 1) Universal testing machine 2) Imapact testing machine 3) Hardness testing machine (Rockwell, Brinell) 4) Vickers Hardness testing machine 5) Furnace 6) Single disc polishing machine 7) Linisher Machine 8) Linisher Machine 9) Mounting press with timer 10) Metallargical microscope	2

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4	Heat and mass Transfer lab	1) Counter flow Heat exchanger      2) Parallel flow Heat exchanger 3) Refrigeration System              4) Air conditioner system 5) Condensation test apparatus      6) Thermal conductivity available apparatus 7) Composite wall apparatus          8) Forced convection 9) Free Convection apparatus        10) Emissitivity test 11) Stefan Boltzmann test pin fin apparatus	3
5	CAED/CMD	1) Server: Intel Xeon CU E3-1220 V2@3.10GHZ 16 GB RAM, 64 Bit OS ITB HDD 2) 39 IBM make systems installed with windows XP 3) 18Acer make system H/W core 2 doer processor installed with Windows XP,160GB,HDD,1GB RAM 4) 25 Samsung make systems H/W core 2 Doer processor installed with windows XP.320 GB, HDD, 1GB RAM 5) 1LCD Projector                      6) S/W: Licensed version solid edge ST3-Velocity series 7) Solid Edge 2D, 3D                  8) Solid works 9) 10KVA UPS                          10) 5KVA UPS 11) HP 1320N Network laser printer 12) Flatbed Scanner Two Speakers with mike	50
6	Computer Aided Modelling & Analysis lab /CIM Lab	1) 24 Assembled systems, H/W Core 2 dual processor installed with Windows XP-250 GB,HDD,1GB RAM 2) Ansys V13, Licensed software for 25 users 3) 5 K V A UPS                          4) CADEM Licensed software for 20users 5) HP 1606N Network Laser printer	20
7	Machine Shop	1) Lathe machines 2) Drilling machines 3) Shaper machine 4) Milling machine 5) Tools and cutter grinder 6) Surface grinding machine	70

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8	Foundry & Forging Lab	1) Open earth Furnace 2) Blower 3) Sand testing equipments 4) Casting & molding box permeability tester	1
9	Design Lab	1) Single degree of freedom vibrating system 2) Balancing of rotating mass 3) Whirling of shaft 4) Poloriscope 5) Universal governor 6) Journal bearing 7) Strain gauge Gyroscope	4