



**Name:** Dr. Gembali Srinivasa Gupta  
B.Tech., M.Tech., Ph.D, LIIM, LMISTE, PGDVES  
**Designation:** Professor & Head  
**Department:** Mechanical Engineering  
**Email ID:** srinivasagupta\_g@vnrvjiet.in

**Experience (in years): Teaching: 24                      Research: 15**  
**Others (If any, Specify): -- Reviewer of Journal publications:**

1. Frontiers of Mechanical Engineering : Springer
2. International Journal of Acoustics and Vibration
3. International Journal of Transactions on Reliability
4. International Journal of Computer Aided Engineering and Technology
5. International Journal of Automotive and Mechanical Engineering (IJAME)
6. International Journal: Materials today proceedings (Science Direct) in Elsevier Journal

#### 1. Educational / Technical qualifications:

S. No.	Level (UG / PG / Ph.D.)	Year of passing	Specialization
1	UG: B.Tech.	1993	Mechanical Engineering
2	PG: M.Tech.	1996	Machine Design
3	Ph.D.	2008	Metallurgical Engineering
4	PGDVES	2010	Value Education and Spirituality

#### 2. Teaching and Learning:

##### 2.1. Teaching Interests:

Engineering Mechanics, Solid Mechanics, Fracture Mechanics, Finite Element Method/Analysis, Dynamics of Machinery, Theory of Machines, Design of Machine Members, Machine Drawing, Engineering Graphics, Computer Programming, Physical Metallurgy, Phase diagrams, Thermodynamics of Materials.

##### 2.2. Novel Teaching & Learning Techniques adopted:

VNR Lab Protocol, POGIL, LBD, WIT & WIL

##### 2.3. Involvement in curriculum updating / Design:

- As a member of Board of Studies of ME & AE, reviewed the entire syllabus.
- Modified the curriculum of Mechanical Engineering, Engineering Graphics and Design of Machine Members, Finite Element Method subjects and Mechanics of Solids laboratory for UG course.

### **3. Co-curricular and Extra-Curricular Activities:**

#### 3.1. Interests and Hobbies:

1. Doing Meditation and yoga and conducting meditation training programs.
2. Promote team spirit among the people working together

#### 3.2. CCA/ECA Organized:

Coordinating Departmental Research Review Committee meetings

Coordinating Mentoring, Training programs.

Faculty in-charge for Mechanical Engineering Association.

#### 3.3. CCA/ECA participated:

- Acted as Judge/Reviewer for various events in Institute technical fest “Convergence” and cultural fest “Sintillashunz”.

#### 3.4. Counseling and Mentoring Activity:

- Mentor for B.Tech Mechanical Engineering students.

#### 3.5. Committees involved in:

Department level:

- Head of the Department
- Member, Department Research Committee.
- Member, Department Class Review Committee.
- Member, Department BOS Committee.
- Member, Department Project Review Committee for PG.
- Member, Department Syllabus Revision Committee for PG.
- Member, Department Syllabus Progression Committee for PG.
- Member, Department Accreditation/Autonomy Committee – NBA, NAAC, UGC, JNTUH.
- Department Coordinator, NBA 2020

Institute Level:

- Institute criterion Coordinator, NBA
- Member, Institute Accreditation Committee – NBA, NAAC, JNTUH  
Autonomy & UGC Autonomy.

### **4. Conference / Workshop / Seminar / Guest Lectures:**

1.1 Conducted: 12

1.2 Attended: 35

### **5. Academic Contribution and Research & Consultancy:**

5.1. Invited Lectures: 06

5.2. Articles/Chapters published in Books: Nil

5.3. Books published as single author or as editor: Nil

5.4. Projects Guided:

a) UG: 35

b) PG: Major – 21; Mini – 16

#### 5.5. Research Interests:

Mechanics of Composite Materials, Computational Thermodynamics of Alloys, Fracture Mechanics, Computer Aided Design/ Engineering, Finite Element Analysis.

**5.6. Ph.D. students:**

- a) Enrolled: 01
- b) Submitted:
- c) Awarded:

**5.7. Papers published in reviewed Journals:**

S.No	Title of the Paper	Journal Name Vol.No. PP	ISBN/ISSN No.	Impact Factor/ Citation Index	National/ International
1	<i>Plastic Deformation of Fiber Coating in Polymer Matrix Composites</i>	<b>International Journal of Reinforced Plastics and Composites-1999 Vol:18, PP: 985-1010.</b>	ISSN 0731-6844	1.188	International
2	<i>Estimation of CE-CVM Energy Parameters from Miscibility Gap Data</i>	<b>Bulletin of Materials Science 28 #2 (2005) 173-177</b>	ISSN 0250-4707	0.9548	National
3	Experimental Investigation on Techniques to improve properties in Ablative Liner	<b>IJSAR vol 3, PP 131-134</b>	ISSN 2319-7064	4.438	International
4	Free energy formulations and Estimation of Structural parameters for a Model Binary alloy system using Cluster Variation Method	<b>IJACEN Vol. 3, Issue 5</b>	ISSN 2320-2106	2.25	International
5	<i>Experimental Investigation on Enhancement of Properties in Ablative liner</i>	<b>Materials today proceedings Elsevier Journal 2 (2015) 1332-1339</b>	ISSN 2214-7853	<b>0.576</b>	<b>International</b>
6	<i>Design and Analysis of Rocket Motor Bolted Joint for Enhanced</i>	<b>IJIRSET 4 #7 (July 2015) 6396-6406</b>	ISSN 2319-8753	<b>5.442</b>	<b>International</b>

	<i>Strength</i>				
7	<i>Design and Stress Analysis of Carbon-Epoxy Composite Rocket Motor Casing</i>	<b>IJRSET 4 #8 (August 2015) 6396-6406</b>	ISSN 2319-8753	<b>5.442</b>	<b>International</b>
8	<i>Design And Analysis Of Bolted Joint For Rocket Motor Casing</i>	<b>Materials today proceedings Elsevier Journal 5 (2018) 5165–5174</b>	ISSN 2214-7853	<b>0.576</b>	<b>International</b>
9	<i>Fabrication And Experimental Analysis On Bolted Joints For Frp Composites And Metallic Plates</i>	<b>Materials today proceedings (Science Direct) in Elsevier Journal 5 (2018) 5737–5742</b>	ISSN 2214-7853	<b>0.576</b>	<b>International</b>
10	<i>Effect of Module and Pressure Angle on Symmetric and Asymmetric Spur Gears</i>	<b>International Journal of Emerging Technology and Advanced Engineering 7, Issue 9, 2017(629-640))</b>	ISSN 2250-2459	<b>4.34</b>	<b>International</b>
11	<i>Analytical and numerical investigation on inter laminar stress pattern in FRP Composites</i>	<b>Materials today proceedings (Science Direct) in Elsevier Journal 18 (2019) 4305–4314</b>	ISSN 2214-7853	<b>0.576</b>	<b>International</b>
12	<i>Effect of dual resin on mechanical properties of juteglass fibre reinforced hybrid composite</i>	<b>Materials Research Express</b>	ISSN 20531591	<b>1.410</b>	<b>International</b>

13	<i>Degradation of Mechanical Properties of Hybrid Reinforcement with Epoxy-Polyester Matrix Under Water Absorption</i>	<b>International Journal of Recent Technology and Engineering (IJRTE) 8 Issue-5, January 2020(3586-3590)</b>	<b>ISSN: 2277-3878</b>	<b>4.72</b>	<b>International</b>
14	<i>Estimation of microscopic variables for materials system optimization using Cluster Variation Method</i>	<b>Materials today proceedings (Science Direct) in Elsevier Journal 18 (2019) 4305–4314</b>	<b>ISSN 2214-7853</b>	<b>0.576</b>	<b>International</b>
15	<i>Degradation of Mechanical Properties of Hybrid Reinforcement with Epoxy-Polyester Matrix Under Water Absorption</i>	<b>International Journal of Recent Technology and Engineering (IJRTE) Volume-8 Issue-5, January 2020</b>	<b>ISSN: 2277-3878</b>		<b>International</b>
16	<i>Design and Experimental analysis of Electro Magnetic Braking system</i>	<b>Materials today proceedings (Science Direct) in Elsevier Journal 21 (2021)</b>	<b>ISSN 2214-7853</b>	<b>0.576</b>	<b>International</b>
17	<i>Stress analysis of symmetric and asymmetric spur gears made of ceramic reinforced stainless steel matrix composites</i>	<b>Materials today proceedings (Science Direct) in Elsevier Journal 50 (2022)</b>	<b>ISSN 2214-7853</b>	<b>0.576</b>	<b>International</b>

#### 5.8. Papers presented at National / International Conferences:

S.No	Title of the Paper	Names of the Conference/ Seminars	National/ International	Period
1	Estimation of CE-CVM Energy Parameters from Miscibility Gap Data	<i>MRSI Symposium on Materials for Light and Smart Structures</i>	International	February 8 – 11, 2004
2	Estimation of CE-CVM Energy Parameters from Miscibility Gap Data	<i>International Conference on Design and Characterization of Advanced Materials – 2004</i>	International	November 10-11, 2004
3	Estimation of correlation functions from Dilute Solution Results for optimization of Phase diagrams	<b>National Seminar on “Emerging Trends in Metallurgy</b>	National	March 21-22, 2005
4	<i>Computation of Phase Diagrams Using a Polynomial Representation of correlation functions in Cluster Variation Method</i>	<i>Indian Institute of Metals</i>	National	November 13 - 16, 2011
5	<i>Numerical Aerodynamic Simulation of a Missile</i>	<b>National conference on recent advancement in Mechanical Engineering</b>	National	November 08-09, 2013
6	<i>A Review on Quality Characteristics of Phenolic Laminate For the Application of Jet Deflector</i>	<b>National conference on recent innovation in Mechanical Engineering</b>	National	November 08-09, 2013
7	<i>Experimental Investigation on Techniques to Improve Properties in Ablative Liner</i>	<b>National conference on Advanced Technology Oriented Materials</b>	National	December 08-09, 2014
8	<i>Free Energy Formulations and Estimation of Structural Parameters for a Model Binary alloy system using the Cluster Variation Method</i>	<b>International conference on Computer Science And Mechanical Engineering</b>	International	1 <sup>st</sup> March, 2015
9	<i>Experimental Investigation on Enhancement of Properties in Ablative Liner</i>	<b>International Conference on Materials Processing and Characterization</b>	International	March 14 <sup>th</sup> -15 <sup>th</sup> , 2015.
10	<i>A Conceptual Design, Fabrication And Analysis Of Rocket Motor Casing</i>	<b>International Conference On Advances In Materials And Manufacturing</b>	International	December 8 <sup>th</sup> - 10 <sup>th</sup> 2016.
11	<i>An Approach On Analytical Modelling Of Composite Casing For</i>	<b>International Conference On</b>	International	December 10 <sup>th</sup> -

	<i>Space Applications</i>	<b>Recent Innovations In Civil &amp; Mechanical Engineering</b>		<b>11th 2016</b>
12	Experimental Investigation On Bolted Joints For Rocket Motor Casing	<b>International Conference On Recent Innovations In Civil &amp; Mechanical Engineering</b>	International	December <b>10th - 11th 2016</b>
13	<i>Theoretical And Experimental Nalysis Of Frp Composite Bolted Joint For Rocket Motors</i>	<b>International Conference On Recent Innovations In Civil &amp; Mechanical Engineering</b>	International	December <b>10th - 11th 2016</b>
14	<i>Design And Analysis Of Bolted Joint For Rocket Motor Casing</i>	<b>7<sup>th</sup> International Conference On Materials Processing And Characterization</b>	International	March 17 <sup>th</sup> – 19 <sup>th</sup> 2017
15	<i>Micro Stress Evaluation and Analysts In FRP Composites For Rocket Motor Casing</i>	<b>7<sup>th</sup> International Conference On Materials Processing And Characterization</b>	International	March 17 <sup>th</sup> – 19 <sup>th</sup> 2017
16	<i>Laminar stress analysis of frp composites under hygrothermal loading</i>	<b>International Conference on Composite Materials and Structures- ICCMS 2017</b>	International	December 27 <sup>th</sup> -29 <sup>th</sup> 2017
17	<i>Fabrication And Experimental Analysis On Bolted Joints For Frp Composites And Metallic Plates</i>	<b>International Conference on Composite Materials and Structures- ICCMS 2017</b>	International	December 27 <sup>th</sup> -29 <sup>th</sup> 2017
18	<i>Analytical and numerical investigation on inter laminar stress pattern in FRP Composites</i>	<b>9<sup>th</sup> International Conference On Materials Processing And Characterization</b>	International	March 8 <sup>th</sup> – 10 <sup>th</sup> 2019
19	<i>Estimation of microscopic variables for materials system optimization using Cluster Variation Method</i>	<b>International Conference on Advanced Functional Materials and Devices (ICAFMD – 2019)</b>	International	February 26th- 28th 2020

20	<i>Influence of coating on Microstress distribution in cylindrical FRP composites</i>	<b>4<sup>th</sup> International conference on Innovations in Mechanical Engineering(ICIME-2021)</b>	International	February 26th- 27th 2021
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#### 5.9. Sponsored research Projects:

S.No	Title	Agency	Period	Grant amount	Ongoing / Completed
1	Development of Procedures for Computation of Titanium-Vanadium Binary Alloy Phase Diagram Using Cluster Variation Method	AR&DB(DRDO)	2 years(2014-17)	932250/-	Completed

#### 5.10 Consultancy Projects:

S.No	Title	Agency	Period	Sanctioned Amount	Ongoing / Completed
1	Automated Commando Training System	Greyhounds, A.P. State Police, Govt. of A.P	June 2008 to May 2009	Rs. 9.27 Lakh	Completed

#### 6. Awards / Honors received:

- Junior Research Fellow during M.Tech program-Received UGC Fellowship
- Senior Research Fellow during Ph. D Program – Received UGC Fellowship
- Topper in NPTEL Course ‘Introduction to Materials Science and Engineering’
- External Research Review Committee member for VIT, Chennai

#### 7. Motto:

Life long learning and be an example for young minds. Encourage to imbibe moral and ethical values among student community for carrying out social impact projects and ultimately serve the society.