

Faculty Profile



Dr. A. Venkat Ramanan, M.E., Ph.D.

Assistant Professor, Department of Mechanical Engineering

HIGHLIGHTS:

- Number of Journal Publications: **07**
- H-Index: **04**
- Patents Published: **01**
- Design Patents Published: **02**
- Design Patents: **2 Applied**

PROFESSIONAL LINKS:

- Scopus ID: **59318820700**
- Scopus Link: <https://www.scopus.com/authid/detail.uri?authorId=59318820700>
- Google Scholar ID: <https://scholar.google.com/citations?User=BAMy61kAAAAJ&hl=en>
- Anna University Faculty ID: 1-3295669635
- AICTE Faculty ID: 2719241989

PROFESSIONAL BACKGROUND:

- Teaching Experience till date: 10 years

AREA OF SPECIALIZATION:

- Synthetic fiber composite materials
- Natural fiber polymer composite materials
- Engineering Design
- Materials engineering

INTERNATIONAL / RESEARCH EXPOSURE

- Active research collaboration and publications involving international co-authors and institutions.
- Research profile includes Natural and synthetic fiber composite materials and materials engineering

PH.D. DETAILS

- Ph.D. in Mechanical Engineering (Composite Materials) (2023–2026), Vellore Institute of Technology, Vellore.
- Thesis: Experimental evaluation of novel woven carbon/glass fiber composites reinforced with wire mesh in a synthetic matrix

PATENTS PUBLISHED / GRANTED

- Published – Unidirectional Weaving of Synthetic Fiber Yarn on Wire Mesh for Synthetic Fiber Composite (2024).
- Published – Design Patent - Boomerang-Shaped Grill for Vehicle (2024).

- Published – Design Patent - Metacentric Chromosome-Shaped Core Structure For Automotive Chassis. (2025).
- Patent Filed – Design Patent- Shark fin-shaped core structure for automotive applications.
- Patent Filed – Design Patent- Horseshoe-shaped sandwich core structure for carbon fiber composites.

COURSES / TECHNICAL SKILLS

- Creo, Pro/E, and Ansys Fluent.
- Characterization: XRD, FESEM, TGA, HVI ballistic, LVI drop, Dino Lite, Keyence- 3D microscope

ACHIEVEMENTS

- Received the Raman Research Award three times and the Dr. A.P.J. Abdul Kalam Research Award once from VIT University.

JOURNAL PUBLICATIONS

1. 1. G Rajamurugan, **A Venkat Ramanan** and P. Molish (2026). Thermo-Viscoelastic Behaviour of Hybrid CFRP Laminates Reinforced with Interlaced Carbon/Glass Fibers and Stainless-Steel Wire Mesh. *Journal of Elastomers and Plastics* (2026). DOI: <https://doi.org/10.1177/00952443261490928> (IF: 2.4)
2. **A Venkat Ramanan** and G Rajamurugan (2026). Thermo-Viscoelastic Behaviour of Hybrid CFRP Laminates Reinforced with Interlaced Carbon/Glass Fibers and Stainless-Steel Wire Mesh. *Fibers and Polymers*. (2026). (Under Review) (IF: 3.1)
3. **A Venkat Ramanan** and G Rajamurugan (2026). Enhancing Interlaminar Integrity in Synthetic Fiber Composites using SS304 Wire Mesh Amalgamation. *Scientific Reports* (Under Review) (IF: 4.9)
4. **A Venkat Ramanan** and G Rajamurugan (2026). Projectile impact and drop weight damage on hybrid composites reinforced with woven carbon/glass fibers on SS304 wire mesh. *International Journal of Damage Mechanics*. (2026). DOI: 10.1177/10567895261420428. (IF: 3.9).

5. **A Venkat Ramanan** and G Rajamurugan (2025). Tribological behavior of woven carbon/glass fibers on stainless steel wire mesh reinforced hybrid composite. *Journal of Reinforced plastics and composites*. 1-19. DOI: 10.1177/07316844251384150. (IF: 2.3).
6. **A Venkat Ramanan** and G Rajamurugan (2025). Mechanical Properties of Hybrid Composites with Alternately Woven Carbon/Glass Fibers on Stainless Steel Wire Mesh. *Results in Engineering*, 27, 106066. DOI: 10.1016/j.rineng.2025.106066. (IF: 9.4).
7. **A Venkat Ramanan** and G Rajamurugan, (2025). Analysis of mechanical, vibration, and acoustic properties of woven carbon/glass fiber on steel mesh embedded hybrid composites. *Journal of Elastomers & Plastics*, 1-27. DOI: 10.1177/00952443251354939. (IF: 2.4).
8. **A Venkat Ramanan** and G Rajamurugan, (2024). Integration of plain-woven carbon fiber yarn with 304 wire mesh reinforcement on a synthetic hybrid composite. *Materials Letters*, 382, DOI: 10.1016/j.matlet.2024.137841. (IF: 2.6).
9. **A Venkat Ramanan** and Rajamurugan G, (2024). Significance of Wire Mesh Reinforcement on Carbon and Glass Fiber Composite – A Review. *Physica Scripta*, 99, 102003. DOI: 10.1088/1402-4896/ad72a6. (IF: 2.6).