

Dr. GANGADHAR M KANAGINAHAL || MECHANICAL || GREEN COMPOSITES

National Institute of Technology Karnataka Surathkal

+91-9916268048

gmkanaginahal@gmail.com



PROFILE SUMMARY

Around 6 years of research experience in modelling, manufacturing and analyzing of composite materials. Mainly focused on Characterization, Mechanical analysis, thermal analysis, water absorption and flammability analysis along with validation of experimental results by soft tools.

Around 2 years of experience as Systems engineer in Infosys, worked on Java, Java Script, RDBMS for a Retail client.

Basic knowledge about Python programming

Research Interests: Biodegradable Composites, Renewable Energy, Waste Management

SOFT SKILLS

Python, CAD/CAM, Solid Works, CATIA, ANSYS, MS Office, JAVA

WORK EXPERIENCE

Research Scholar, NITK [2017-2022]

Summary - Fabrication of 125gsm bamboo fabric reinforced epoxy/phenalkamine composite by wet layup, maintaining the volume fraction of reinforcement as 15% and varying the thickness of composite

- FTIR analysis of natural fiber to determine the constituents and matrix to determine the amine groups and side chains
- SEM analysis to identify the crystallinity index and amount of cellulose available for bonding
- Mechanical analysis to determine the strength, stiffness, modulus, toughness and fractography to infer the failure modes
- Thermal analysis to determine the degradation of composite, sustainability till higher temperatures, rate of mass loss and presence of char
- DMA analysis to identify the interface bonding, crosslinking density, homogenous or heterogenous interfaces and damping behavior at higher temperatures
- Water absorption studies to determine the composites resistance to absorption rate when immersed in different solutions
- Flammability studies to measure the reduction in burning rate

Research Scholar, BMSCE [2014-2017]

Summary - Fabrication of hybrid S-glass/E-glass/Kevlar reinforced epoxy polymer composites and subjecting them to mechanical testing conditions

- Mechanical analysis to determine the strength, modulus, hardness, inter-laminar shear strength and fractography to infer the failure modes

Intern, TAML [Jul-Nov 2015]

Summary – Quality assessment of fabrication process of Flight vehicle container, visual inspection for any leaks, stability of container and removal of unwanted parts in container

Systems Engineer, INFOSYS [2010-2012]

Summary – Worked on support and as testing to a retail client - JAVA/JAVAScript Database management (RDBMS)

PUBLICATIONS

1. K. Shapurkar, **Kanaginahal, Gangadhar M** 2022. "Flexural studies of crump rubber filled epoxy composites" **[Yet to submit]**
2. Venkatesh Chenrayan, K. Shapurkar, **Kanaginahal, Gangadhar M**, et.al 2022. " Dynamic Mechanical Analysis of crump rubber filled epoxy composites" Composites Science and Technology, **Status: Submitted**

3. **Kanaginahal, Gangadhar M.**, H. Suresh Hebbar 2021. "Influence of Weave Pattern and Composite Thickness on Thermal, Dynamic, Water Absorption and Flammability properties of Bamboo/Epoxy Composites." Iranian Polymer Journal, Status: Submitted. [Publisher :Springer]
4. **Kanaginahal, Gangadhar M.**, H. Suresh Hebbar, and S. M. Kulkarni. 2019. "Influence of Weave Pattern and Composite Thickness on Mechanical Properties of Bamboo/Epoxy Composites." *Mater. Res. Express* 6(12):1-13. [Publisher : IOP Publishing]
5. **Kanaginahal, Gangadhar M.** and Madhav Murthy. 2018. "Coatings for enhancement of properties of polymer matrix composites: a review". *Materials Today: Proceedings* 5(1):2462-2465 [Publisher: Elsevier]
6. **Kanaginahal, Gangadhar M.** and Madhav Murthy. 2017. "Microstructural Study and Evaluation of Few Mechanical Properties of Hybrid Composites." *Advanced Materials Manufacturing and Characterization* 7(1):7-14.
7. **Kanaginahal, Gangadhar M.** and Madhav Murthy. 2016. "A Review paper on Testing of Polymer matrix Hybrid Composites" presented in International Conference ICAMA 2016 held at BMS College of Engineering Bengaluru

ACADEMICS

Ph.D	8.67	Mechanical Engineering	National Institute of Technology Karnataka [2017-2022]
M.Tech.	80.7%	Manufacturing Science and Engineering	B.M.S. College of Engineering, Bengaluru [2014-2016]
B.E.	76.3%	Industrial and Production Engineering	National Institute of Engineering, Mysore [2006-2010]

AWARDS | SCHOLARSHIPS

- Late Smt. Nagarathamma and J.Bhimanna endowment award conferred by The NIE for achieving 1st Rank in Final year (2010) in Industrial & Production Engineering.
- Scholarship provided by MHRD for clearing GATE 2013 from [2014-2016]
- Scholarship provided by MHRD from [2017-2021]

REFERENCES

Name	Designation	Department	College	Email/Ph.
Dr. H. Suresh Hebbar	Professor	Mechanical Engineering	National Institute of Technology Karnataka	hssatwale@gmail.com +91-9243302078
Dr. S. Srinivas	Professor	Mechanical Engineering	B.M.S. College of Engineering, Bengaluru	drss.mech@bmsce.ac.in +91-8310205377
Dr. Madhav Murthy	Assistant Professor	Mechanical Engineering	B.M.S. College of Engineering, Bengaluru	madhavnie@gmail.com +91-9482852100

FAMILY DETAILS

Father: Mallappa B Kanaginahal, Retd. Government Officer	Mother: Renuka Mallappa Kanaginahal, Housewife
Marital Status: Married	Spouse: Rajeshwari, B.E.(E&E)
DOB: 14/08/1988	Languages: Kannada, Hindi, Telugu, Tamil, English
Address: SAI Residency, Shiv Basav, Barakotri Link Road, Jayanagar, Dharwad – 580001	

DECLARATION

I hereby declare that the above written particulars are true to best of my knowledge and belief

Place: Dharwad
Date: 16/05/2022

Thanking you,

Gangadhar M Kanaginahal