



# NEWS LETTER

Department of Mechanical Engineering  
Malnad College of Engineering

July to December 2022

Editors : Sharath H K & Yashas Gowda T G

## Patent Granted to Faculty

**P**atent was granted to Dr. P. Madhu (Assistant Professor at MCE Hassan), Dr. Sanjay M R (Senior Research Scientist & Associate Professor at KMTUNB, Thailand), Dr. Pradeep S (Principal, MCE Hassan), Dr. Mohit H

(Assistant Professor at Alliance University), Dr. Yogesha B (Professor at MCE, Hassan) and Dr. -Ing. habil. Suchart Siengchin (President of KMUTNB, Thailand) under section 12 and 13 of the Patents Act, 1970.



This patent was granted on the research titled 'Development of Hybrid Polymer Composites Reinforced with Phoenix Pusilia Leaf Fibres, Glass Fabrics and Carbon Fabrics.'

## First prize in Ideathon

**T**he students of Department of Mechanical Engineering, Lakshmisha H R, Lakshmidarshan D C, Manjunath D N and Naveen Kumar H S presented a project titled 'Design and Fabrication of Twin Screw Extruder for Recycling the PET Bottles' in the Ideathon event and secured first prize.

Ideathon is a project proposal pitching event. This was held on 21-10-2022 in the college campus and organized by ME-RIISE.

Dr. Ashrith H S, Assistant Professor, Department of Mechanical Engineering, guided the students.



## Featured in Top 2% Scientists List

**Dr.P.Madhu**, Assistant Professor, Department of Mechanical Engineering has been featured in the list of Top 2% Scientists (Single Year Citation Impact - 2022) across the world in the study conducted by Stanford University, USA. The findings of the study were published by Elsevier on

October 10, 2022.

He was felicitated from Department of Mechanical Engineering. Head of the Department Dr.L.Laxmana Naik, Dr.S.Pradeep, Dr.Ezhil Vannan, S.L.Dinesh, faculty and staff were present during this occasion.

## Students presented paper in International Conference

**A**bhishek, Charan I.S, Karthik S Shivapura and Kiran K.V, the students of Department of Mechanical Engineering, presented a research article titled 'Additive manufacturing techniques of polymer matrix composites' in the International Conference on Science for Sustainable Development. This conference was held during December 9-10 2022 and organized by Department of Science & Centre of Excel-

lence- Water Research, Alliance University, Bengaluru.

A.J Keerthana, Avinash H. N, Chaithra G and G.Y Pramod presented a research article titled 'Renewable materials for additive manufacturing' in the same Conference. Dr. Jeevan T.P, Associate Professor, Department of Mechanical Engineering, had guided these students in carrying out their research based project work.



## Selected for Student Project Programme

**K**ushal HS, Bharath Kumar N, Mallikarjun & Naveen Kumar M, students of Department of Mechanical Engineering, had participated in the 45th Series of Student Project Programme (SPP) held during 12-13th August, 2022 at Visvesvaraya Technological University (VTU), Belagavi. Their project titled 'INVESTIGATION ON BALLIS-

TIC MECHANICAL CHARACTERISTICS OF RAMIE-HEMP-KEVLAR BASED VINYL ESTER HYBRID COMPOSITES' under the guidance of Dr. Madhu P & Dr. Yashas Gowda TG, was selected for the Seminar. The SPP is supported by Department of Science and Technology, Government of Karnataka.



Dr. Gopi K R  
Assistant Professor

## Post Doctoral Fellowship

**Dr.** Gopi K R, Assistant Professor, Department of Mechanical Engineering, got selected as Post Doctoral Fellow in School of Materials Science and Engineering, Northwestern Polytechnical University, Shaanxi Province, China.



RESEARCH ARTICLE

## Influence of stacking sequence on flax/kevlar hybrid epoxy composites: Mechanical and morphological studies

Sathvik Kangokar Mukesh, Nuthan Bettagowda, Jagadeesh Praveenkumara, Yashas Gowda Thyavihalli Girijappa, Madhu Puttegowda ... See all authors

First published: 20 April 2022 | <https://doi.org/10.1002/pc.26655> | Citations: 6

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### Abstract

In this research work, the natural fiber reinforced hybrid epoxy composites were fabricated using the hand lay-up method. The flax and kevlar are used as a reinforcement and epoxy as a binding material. This study aims to analyze the influence of stacking sequence and hybridization on the mechanical, water absorption, and morphological properties of polymer composites. The results reveal that the neat kevlar reinforced composite achieved a maximum tensile strength, modulus, and impact strength of 189.94 MPa, 2345.35 MPa and 37.16 kJ/m<sup>2</sup> respectively with less water

Related Information

### Recommended

[Mechanical, absorption, and swelling properties of jute/kenaf/banana reinforced epoxy hybrid composites: influence of various stacking sequences](#)

Senthil Muthu Kumar Thiagemani, Harikrishnan Pulikkalparambil, Suchart Siengchin, Rushdan Ahmad Ilyas, Senthilkumar Krishnasamy, Chandrasekar Muthukumar, A. M. Radzi, Sanjay Mavinkere Rangappa

Polymer Composites

## Publication in SCIE Indexed Journal

Sathvik Kangokar Mukesh and Nuthan Bettagowda students of Mechanical Engineering have published their research work on 'Influence of stacking sequence on flax/kevlar hybrid epoxy composites:

Mechanical and morphological studies' carried out under the guidance of Dr. Madhu P and Dr.Yashas Gowda T G in Polymer Composites (Wiley) 2022, 43( 6), 3782. (SCIE Indexed with impact factor 3.531)

## Internship on 'Industrial Automation'

Four weeks Internship on 'Industrial Automation' was offered for sixth semester students of Department of Mechanical Engineering from MCE-Bosch Rexroth Regional Centre of Competency in Automation Technologies (MBRRCCAT). This was held from 22-08-2022 to 21-09-2022.

