## Mathematical Analysis of Matrix and Filler Formulation in Composite Materials

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**Abstract :** Composite material is an important area that has gained global visibility in many research fields in recent years. Composite material is the combination of separate materials with different properties to form a single material having different properties from the parent materials. Material composition and combination is an important aspect of composite material. The focus of this study is to provide insight into an easy way of calculating the compositions and formulations of constituent materials that make up any composite material. The compositions of the matrix and filler used for fabricating composite materials are taken into consideration. From the composite fabricated, data can be collected and analyzed based on the test and characterizations such as tensile, flexural, compression, impact, hardness, etc. Also, the densities of the matrix and the filler with regard to their constituent materials are discussed.

Keywords : composite material, density, filler, matrix, percentage weight, volume fraction

**Conference Title :** ICPCM 2024 : International Conference on Polymer and Composite Materials

**Conference Location :** London, United Kingdom

Conference Dates : April 11-12, 2024

1