

Preface

This special edition examines the outcomes of investigations in materials science, with a focus on two core areas.

The first chapter, "Advanced Composite Materials", examines the synthesis, fabrication, and properties of composites for specialised applications, enabling superior effectiveness and functionality in end products.

The second chapter, "Mechanics of Structural Materials", presented the analysis of the mechanical properties and constructional behaviours of materials under various application conditions, providing insights essential for predicting and enhancing the structural performance of objects in machinery and construction.

The special edition offers an overview of contemporary challenges and innovative solutions in the development of functional composites and structural materials, serving as a valuable resource for researchers and engineers working with high-performance materials in mechanical engineering and construction.