

Preface

The special edition offers a comprehensive examination of key domains in modern materials science and engineering.

Chapter 1, "Materials Processing", examines the latest engineering solutions and technological innovations that modernise existing and develop new methods of processing structural materials.

Chapter 2, "Composite Materials", discusses the design, properties, and applications of composites that combine multiple constituents to achieve superior performance. Chapter 3, "Nanomaterials and Nanotechnologies", highlights the unique characteristics and promising applications of materials engineered at the nanoscale, driving advancements in fields such as electronics, medicine, and energy.

Chapter 4, "Functional Materials", focuses on materials tailored to perform specific functions, including responsive, innovative, and advanced materials contributing to emerging technologies.

Chapter 5, "Building Materials", reviews innovations in concrete development that aim to enhance sustainability, durability, and performance.

This special edition is a valuable resource for researchers and engineers seeking to apply the latest developments in materials science and engineering toward sustainable and high-performance solutions.