

## Preface

This special edition represents the results of recent advancements in material science, showcasing its vital role across diverse fields such as manufacturing technology and biomedicine.

Chapter 1, Functional Materials, explores a range of materials engineered for specific applications, from semiconductors to piezoelectric materials, that are critical to innovations in electronics, energy, and sensor technologies. By examining their unique properties, this chapter sheds light on how functional materials are driving forward modern technology.

Chapter 2, Materials for Biomedical Application, focuses on materials that can be used in implantology and orthopaedics.

The third chapter examines the welding techniques and materials' behaviour under these processes. It highlights advances in welding technology that ensure stronger structural materials' joints.

This special edition will serve as a valuable source of technical information for many specialists in materials and engineering.