

Preface

This special edition focuses on some essential topics in materials engineering, presenting both practical and theoretical approaches.

Chapter 1, "Structural Metal Processing", explores the latest methods and advancements in metal processing, including laser shocking processing and oxidation metal plating, as well as the optimisation of their parameters for industrial applications.

Chapter 2, "Fatigue Analysis of Materials and Structures", examines the study of material endurance and failure under cyclic loading, providing crucial insights for ensuring safety and reliability in engineering design.

Chapter 3, "Building Materials and Technologies in Construction", presents innovations in the area of construction materials, highlighting technologies that enhance durability, efficiency, and environmental responsibility.

This special edition is a valuable resource for researchers, engineers, and professionals aiming to advance material performance and structural integrity in modern engineering.