

Preface

This special edition presents recent research and technological solutions in areas of modern materials science and construction engineering.

Chapter 1: Functional Nanomaterials presents studies on the design, synthesis, characterisation, and application of nanostructured materials with unique physical and chemical properties. The contributions highlight their roles in electronics, catalysis, energy conversion, sensors, and other cutting-edge technologies.

Chapter 2: Environmentally Friendly Technologies, Biomass Processing and Applications focuses on sustainable approaches that utilise renewable resources and reduce environmental impact. Topics include biomass treatment, green processing methods with bio-based materials, and other environmentally friendly technologies designed to support the principles of a circular economy.

Chapter 3: Materials and Technologies in Construction examines advancements in construction materials and engineering technologies designed to enhance structural performance, durability, and sustainability. Emphasis is placed on innovative building materials, eco-efficient solutions, and modern methods shaping the future of the built environment.

Collectively, these articles offer a comprehensive and cohesive perspective on the scientific and engineering advancements that drive sustainability, innovation implementation, and enhanced effectiveness of production. This edition is designed to serve as a valuable resource for researchers, engineers, and students involved in the development and application of modern materials and technologies.