

Preface

This special edition presents a focused selection of research addressing durability, surface engineering, and advanced material functionality in modern engineering applications. The contributions reflect current efforts to enhance material performance and reliability under demanding service conditions.

The chapters cover corrosion prevention, plasma-sprayed coatings, foams and porous materials, and functional materials, highlighting innovative approaches to surface protection, lightweight porous structures for special structural applications, and materials with tailored physical and chemical properties.

This edition is intended to provide researchers, engineers, and practitioners with concise insights into emerging trends and practical solutions in advanced materials and surface technologies.

We gratefully acknowledge the authors for their contributions and the readers for their interest in this publication.