

# Preface

This special edition is dedicated to actual issues of modern engineering practice starting from materials science and production processes, energy storage devices, sensor engineering and production equipment and ending with materials and technologies in prosthetics.

Recent production technologies and manufactural processes such as direct-chill casting, metal injection moulding, silica sand processing, glass fabrication, etc. are investigated in the first chapter.

The next two chapters are dedicated to the analysis of research and engineering solutions related to battery management systems and sensor devices.

Materials and technologies used in prosthetics, mechanical properties of implants, and their design and optimisation are considered in the fourth part.

The last part of this issue contains articles related to the modelling and performance analysis of various technological equipment and machines.

The presented special edition will be useful to a wide range of specialists in mechanical engineering and biomedicine.