

Preface

This special edition collected research articles on two specialised topics - heat and mass transfer in engineering systems and 3D printing applications in biomedical practice.

Investigating heat and mass transfer processes in various technical systems is not simple. In our calculations, we must consider many external and internal factors, the influence of which, as a rule, cannot be viewed in a simple analytical form. In this case, numerical modelling and computational analysis are the main and most effective means of investigation. The first chapter contains a series of articles on a computational study of heat and mass transfer processes that can be applied for engineering calculations, for example, heat exchangers, solar energy collectors, engine cooling systems, the spread of pollutants in a fluid flow, etc.

The second chapter is a devoted analysis of examples of applications of 3D printing in biomedical practice - the creation of polymeric scaffolds for drug delivery in spinal tuberculosis treatment and the production of the 3D heart model for medical education.

The presented book will be helpful not only to engineers and researchers but also to students and academic staff.