

Preface

The “Progress in Digital and Physical Manufacturing” book contains keynotes and papers presented at the first International Conference on Progress in Digital and Physical Manufacturing (ProDPM’19), organized by the School of Technology and Management (ESTG) of the Polytechnic Institute of Leiria (IPLeiria), from October 2 to 4, 2019.

This international conference aims to provide a major international forum for the scientific exchange of multi-disciplinary and inter-organizational aspects performed by academics, researchers, and industrial partners in order to exchange ideas in the field of digital and physical manufacturing and related areas. It represents a significant contribution to the current advances in industrial digital and physical manufacturing issues as it contains topical research in this field.

The ProDPM’19 conference expects to foster networking and collaboration among participants to advance the knowledge and identify major trends in the field. The conference addresses to industrial challenges focused on current market demands and actual technological trends, such as mass customization, new business, and industrial models or predictive engineering. Its contribution in science and technology developments leads to more suitable, effective, and efficient products, materials, and processes, generating added value for the industry and promoting the awareness of the role and importance of the digital and physical manufacturing development in the society.

This book is, therefore, an essential reading for all of those working on digital and physical manufacturing, promoting better links between the academia and the industry. The conference papers will cover a wide range of important topics like additive manufacturing, biomanufacturing, advanced and smart manufacturing technologies, rapid tooling, micro-fabrication, virtual environments, simulation and 3D CAD and data acquisition, materials, and collaborative design.

We are deeply grateful to the keynote speakers, authors, participants, reviewers, the International Scientific Committee, session chairs, student helpers and administrative assistants, for contributing to the success of this conference.

Henrique Almeida
Joel Vasco
Conference Co-chairs