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Introduction

This volume includes the papers accepted for presentation at the Twelfth International Conference on Digital Image Processing (ICDIP 2020), which was held virtually 19-22, May 2020 due to the worldwide eruption of COVID-19.

ICDIP 2020 was sponsored by the International Association of Computer Science & Information Technology (Singapore) and technically supported by University of Leeds (United Kingdom), Tufts University (United States), Gifu University (Japan), University of New Hampshire (United States), Université de Bordeaux (France), Poznan University of Technology (Poland), Poznan University of Life Sciences (Poland), and Polish Society for IT Applications in Agriculture, Forestry and Food (Poland). The key goal of the conference was to bring academic scientists, engineers, and industry researchers together to exchange and share their expertise, experience, and research results, and discuss the challenges and future direction of their specialized areas of research in the field of digital image processing. Professors from the United Kingdom, United States, Singapore, Hong Kong, Japan, and France delivered the keynote invited presentations about state-of-the-art research in their areas of expertise. In addition, nine parallel sessions were successfully conducted through the efforts of the session chairs and presenters.

This proceedings volume includes 70 selected papers which were submitted to the conference from universities, research institutes, and industries. All contributed papers have gone through a rigorous blind peer-review process. They were reviewed by at least two experts who are qualified in the field of digital image processing. The papers will provide the readers an overview of many recent advances in the fields related to digital image processing.

We would like to thank all the authors who contributed to this volume and to the members of the organizing committee, reviewers, speakers, chairpersons, partners, and conference participants for their support of ICDIP 2020.

We truly believe that the participants had fruitful discussions and enjoyed the opportunity for future collaborations.

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