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## Preface

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**Biographical notes:** Lik-Kwan Shark is a fellow of IET and the Chair Professor of Signal and Image Processing at the University of Central Lancashire, UK. He founded and heads two centres, which are the Applied Digital Signal and Image Processing (ADSIP) Research Centre and the Advanced Digital Manufacturing Technology (ADMT) Research Centre.

Hongjun Li is a professor of Mathematics at Beijing Forestry University (BJFU). His research interests include geometry modelling, computer graphics, virtual reality and image processing. He is (co-)author of over 40 papers published in journals and conference proceedings.

Xianye Ben (Senior Member, IEEE) received her PhD in pattern recognition and intelligent systems from the College of Automation, Harbin Engineering University, Harbin, China, in 2010. She is currently working as a Full Professor with the School of Information Science and Engineering, Shandong University, Qingdao, China. She has authored or co-authored more than 100 papers in major journals and conferences. Her current research interests include pattern recognition and image processing. She received the Excellent Doctoral Dissertation awarded by Harbin Engineering University. She was also enrolled by the Qilu Young Scholars Program of Shandong University.

Xiaochun Wang is a professor of Mathematics at Beijing Forestry University (BJFU). Her research interests include image processing and computer graphics. She is (co-)author of over 40 papers published in journals and conference proceedings.

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This special issue is dedicated to the best papers presented at the 5th International Conference on Image and Graphics Processing (ICIGP 2022). The conference was co-sponsored by East China Normal University in China, Shanghai Key Laboratory of Multidimensional Information Processing in China, and the University of Central Lancashire in the UK, assisted by Beijing Forestry University in China, Shandong University in China, Shaanxi University of Science & Technology in China, and Tokyo City University in Japan; and scholarly supported by the University of Liverpool in UK. The conference was originally planned to take place at Beijing in China, but was subsequently held online during 7–9 January 2022 owing to the COVID-19 pandemic.

Aiming to share the latest advances on the many fronts of image and graphics processing, the conference scope is broad as reflected by the topics of the parallel sessions, which include (1) computer vision and visualisation; (2) digital image processing and application; (3) image application and electronic engineering; (4) image transformation and calculation; (5) intelligent image recognition technology and application; (6) medical image

analysis and processing; and (7) target detection. After double-blind review with an overall rejection rate of 46%, 53 papers were accepted to present in these parallel sessions and ranked by two independent chairs of each session based on the criteria of originality, technical quality, paper writing and presentation. By inviting the winners and runners-up of the Best Paper Awards to resubmit their work in greater length with depth and detail for wider dissemination, all the papers in this special issue have been substantially revised and expanded to the satisfaction of further reviewers.

In making this special issue possible, the guest editors would like to thank all the conference session chairs for recommending the best papers, all the authors for submitting their best work, all the reviewers for their insightful critiques, and last but not the least, Professor Quanmin Zhu for supporting it throughout.

To the readers, we hope this special issue provides not only a useful lens to get a good glimpse along the selected research and development directions on image and graphics processing, but also an impetus to join us to explore new grounds in this vast technology landscape!