

PREFACE

The Editor-in-Chief and the Editors of this special issue have the pleasure of presenting this volume to a wide audience of readers working in the area of digital image processing and related fields. The invited papers were written by leading specialists, namely, by

- E.R. Davies,
- S. Schauland, J. Velten and A. Kummert
- T. Wejrzanowski, W.L. Spsychalski, K. Roźniatowski and K.J. Kurzydłowski

in the area of industrial image processing, and by

- A. Kummert, F. Boschen and H. Herzog

in the field of medical image processing.

The regular papers present a wide range of techniques and applications in both subfields.

The focal point of this issue is broadly understood applied image processing. Our initial steps were to put emphasis mainly on industrial image processing, but after reading the collected papers it became apparent that it is rather difficult to construct boundaries between the subfields of image processing applications and techniques. Furthermore, similarities between problems and possible cross-fertilisation of techniques suggested that constructing artificial boundaries is not appropriate.

As a result, we have a volume which indicates similitudes between processing low contrast images in industry and laboratories utilising microscopes in medical imaging. The reader can find similarities and differences between problems arising from on-line quality monitoring and in guiding a car driver. The role of specialised hardware is also discussed.

The examples of applications which are contained in the presented papers cover a wide range of areas, from the food industry to materials science and ferrous as well as non-ferrous metallurgy, car production plants and medical applications.

The Editor-in-Chief and the Editors of this special issue would like to express their sincere thanks to the authors of all invited and regular papers for their contributions, as well as to anonymous referees for their silent work.

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March 2008