John Billingsley • Robin Bradbeer (Eds.)

Mechatronics and Machine Vision in Practice



With 245 Figures



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Foreword

Research papers on the subject of mechatronics cover a great variety of topics. Among them are those that explore new techniques and applications, but all too often there are those others that seek to paint old, tired techniques with a patina of new jargon. You will find none of the latter here. There is a heavy emphasis of the 'in Practice' that completes the title of the conference series from which these papers have been drawn.

The papers were originally reviewed as full manuscripts and now a selection of authors have been invited to rewrite their work for inclusion in this volume.

In the first section, papers with an educational theme have been gathered. Most of them focus on practical experiments that will reinforce a mechatronics course. A variety of techniques for vision analysis form the next section, again stressing a practical emphasis.

The third section focuses on practical applications of machine vision, several of which have been implemented in industry, while the fourth is concerned with techniques within robotics other than vision.

Some of the medical applications of the fifth section might not be for the squeamish. The book is completed with a number of applications that have an agricultural theme.

University of Southern Queensland, Australia City University, Hong Kong John Billingsley Robin Bradbeer November 2007

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