COMPUTER VISION and SHAPE RECOGNITION

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COMPUTER VISION and SHAPE RECOGNITION

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FOREWORD

This book is composed of selected and expanded papers presented at the Vision Interface '88 Conference in Edmonton, Alberta, Canada, June 6-10, 1988. Focussed on computer vision and shape recognition, this book contains six parts:

1. Robot vision
2. Biomedical imaging
3. Remote sensing and parallel processing
4. Shape recognition and features
5. Computational methods in vision
6. Three dimensional vision and applications

Traditionally Canadian researchers in pattern recognition, image processing and related topics present their papers in IAPR or US sponsored conferences. Only once has the IAPR Conference been held in Canada (Montreal 1984) giving the Canadians a chance to present their research efforts on home turf.

Two years ago an attempt was made to organize regularly scheduled computer vision conferences with contributions from Canadian and American scientists. The first was held in Vancouver in June 1986 and the second in Edmonton 1988. This book contains our latest results presented at the second conference. By necessity the content is somewhat broad, the topics range from biomedical image processing to hardware designs. However, the major emphasis is on robot vision based on 3D range scanners and shape recognition in its many forms.

This book was typeset in the Department of Computer Science at Concordia University with the help of our secretary Ms. Halina Monkiewicz. We wish to express our sincere gratitude to her for her efficiency, patience and care throughout the preparation of this book. Thanks are due to all contributors and staff of World Scientific Publishing Co. for their collaboration to bring this book out at the earliest opportunity.

A. Krzyzak, T. Kasvand and C. Y. Suen
Montreal, September 1988

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