PREFACE

The state of the art in sensor based intelligent robot systems is advancing very rapidly. New insights into the theoretical foundations of the field have been gained and exciting practical developments have taken place, both driven by novel application that are constantly emerging. The field of robotics is of interdisciplinary nature characterized by a blend of methodologies drawn from Electrical Engineering, Computer Science, Computational Geometry, Artificial Intelligence, Behavioral Sciences and other disciplines.

This book is based on a workshop that was held in Schloss Dagstuhl, Germany, from October 24 to 28, 1994. The aim of the workshop was to bring together leading researchers in order to get an overview of the latest developments in path, motion, sensor and action planning, sensory data interpretation and fusion, environment modelling, autonomous systems, and other areas. There was plenty of time not only for the oral presentations but also for deep and fruitful discussions in a relaxed though stimulating atmosphere. In addition to the regular sessions, one video session was held. At the workshop, authors were invited to prepare papers describing the work they presented. All contributions in this book were subject to a refereeing and revision procedure that involved at least two independent experts for each paper.

We want to thank the authors very much for the timely submission of their manuscripts. Special thanks are due to the reviewers who invested generous amounts of their time to suggest possible improvements of the papers. The help provided by X.-Y. Jiang in the preparation of this book is greatly appreciated. Last but not least, we want to thank the governing board of Schloss Dagstuhl for giving us the opportunity to organize this workshop. The excellent technical facilities and the trained and friendly staff at the Schloss greatly contributed to the success of the meeting.

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June, 1995