Foreword

Presented here are the proceedings of the 1997 IEEE International Workshop on Computer Architecture for Machine Perception. CAMP '97 is the fourth in a series of workshops which began with CAMP '91 in Paris, CAMP '93 in New Orleans, and CAMP '95 in Como, Italy. The CAMP workshops represent a continuation of the very successful IEEE CAPAMI (Computer Architecture for Pattern Analysis and Machine Intelligence) workshops held during the 1970's and 1980's. Besides the traditional topics of highly parallel architectures, distributed computing, real-time systems, VLSI architectures and perception algorithms, this edition of the workshop emphasizes programming languages and environments, adaptive or configurable hardware, intelligent sensors, and other nontraditional processing approaches. The conference has had the benefit of sponsorship by multiple organizations, reflecting its naturally interdisciplinary nature. These include the IEEE Computer Society's Technical Committees on Pattern Analysis and Machine Intelligence, Parallel Processing, and Computer Architecture, together with the cooperation of the Special Interest Group on Computer Architecture of the Association for Computing Machinery.

This year's workshop offers an excellent collection of papers, all given high marks by our panel of reviewers, who were notably thorough. The unusually high acceptance rate of 80% (39 of 51 submitted papers were accepted) may merely be a symptom of a noticeable decrease in research funding in the area, which has perhaps thinned the ranks of the community to the most dedicated investigators. In any event, the papers offer a wide range of valuable results and, taken together, provide a snapshot of the state of the art in perception architectures and their supporting software that will be of interest to researchers from many different fields. One obvious theme among the majority of papers is the implementation of working, practical systems that have been designed for real applications. It is clear from the papers presented here that perception architectures are moving out of the laboratory and into the field where they are starting to have an impact on everyday life.

True to its nature and history, the workshop continues to be an exceptionally international event. Ten countries are represented by the accepted authors: Canada, England, France, Germany, Italy, Japan, Korea, the Netherlands, Sweden, and the United States. Roughly half of the accepted contributions are full length papers, while the remainder are short papers.

It has been my pleasure to serve as General Chair for this workshop. I am greatly indebted to the organizers of the previous workshops for all the groundwork that they have done, which simplified my job tremendously. The Program Committee did a superb job of supplying very thorough and thoughtful reviews on a very tight schedule. I am also grateful to the members of the Steering Committee for their valuable input, and especially Magdy Bayoumi, Steve Tanimoto, and Bertrand Zavidovique for their frequent suggestions and advice. I would also like to thank my publicity chairs, N. Ranganathan, Marco Ferretti, and Myung Sunwoo for their efforts to get the word out about the Call for Papers and the Advance Program, my Finance Chair, Kathryn McKinley for handling the receipts, and my Local Arrangements Chair, Tom Knight, for providing students to help with the conference logistics.

Welcome to Boston and Cambridge, cities rich in both heritage and intellectual pursuits, and our hosts for this edition of CAMP I hope that you will have an opportunity to relax and explore their many attractions in addition to enjoying the stimulating workshop program that we have prepared for you.

Charles C. Weems Jr.