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Preface

This volume is the Proceedings of the First International Conference on Advanced Multimedia Content Processing (AMCP '98). With the remarkable advances made in computer and communication hardware/software system technologies, we can now easily obtain large volumes of multimedia data through advanced computer networks and store and handle them in our own personal hardware. Sophisticated and integrated multimedia content processing technologies, which are essential to building a highly advanced information-based society, are attracting ever-increasing attention in various service areas, including broadcasting, publishing, medical treatment, entertainment, and communications. The prime concerns of these technologies are how to acquire multimedia content data from the real world, how to automatically organize and store these obtained data in databases for sharing and reuse, and how to generate and create new, attractive multimedia content using the stored data.

This conference brings together researchers and practitioners from academia, industry, and public agencies to present and discuss recent advances in the acquisition, management, retrieval, creation, and utilization of large amounts of multimedia content. Artistic and innovative applications through the active use of multimedia content are also subjects of interest. The conference aims at covering the following particular areas: (1) Dynamic multimedia data modeling and intelligent structuring of content based on active, bottom-up, and self-organized strategies. (2) Access architecture, querying facilities, and distribution mechanisms for multimedia content. (3) Synthesis of virtual and augmented real environments using large amounts of multimedia data for the creation of multimedia content and the applications of such technology to mobile computing environments.

The Program Committee (PC) received 45 submissions from 12 different countries in Asia, Europe, North America, and South America. Each submission was reviewed by at least three PC members and in some cases by external reviewers. This volume contains 24 contributed papers and 6 invited papers presented at the conference. The contributed papers were selected by a highly competitive process, based on referee reports and painstaking deliberations by the PC members. We are very grateful to these members and the external reviewers, who are listed in the following pages, for their time-consuming and meticulous work in judging the papers. We also thank the invited speakers for sharing with us their vision of the future.

In addition to the conference, we also organized the Dynamic Media Contest, consisting of two tracks: the Network Media Content Track and the Exhibition Content Track. This volume contains the extended abstracts of two invited talks for the Dynamic Media Contest session, which was included in the conference as a special session.

Last, but not least, we thank all the attendees for contributing to the success of the conference. To you and to all those who did not have the opportunity to attend the conference, we are pleased to offer this volume as a snapshot of the state of advanced multimedia content processing research and practice today. We hope you will find it to be an invaluable reference and a source of inspiration for new ideas.

November 1998

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