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Applied Computing

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Preface

The focus of the Asian Applied Computing Conference (AACC) is primarily to bring the research in computer science closer to practical applications. The conference is aimed primarily at topics that have immediate practical benefits. By hosting the conference in the developing nations in Asia we aim to provide a forum for engaging both the academic and the commercial sectors in that region. The first conference "Information Technology Prospects and Challenges" was held in May 2003 in Kathmandu, Nepal. This year the conference name was changed to "Asian Applied Computing Conference" to reflect both the regional- and the application-oriented nature of the conference.

AACC is planned to be a themed conference with a primary focus on a small set of topics although other relevant applied topics will be considered. The theme in AACC 2004 was on the following topics: *systems and architectures, mobile and ubiquitous computing, soft computing, man machine interfaces,* and *innovative applications for the developing world.*

AACC 2004 attracted 184 paper submissions from around the world, making the reviewing and the selection process tough and time consuming. The selected papers covered a wide range of topics: genetic algorithms and soft computing; scheduling, op-timization and constraint solving; neural networks and support vector machines; natural language processing and information retrieval; speech and signal processing; networks and mobile computing; parallel, grid and high-performance computing; innovative applications for the developing world; cryptography and security; and machine learning. Papers were primarily judged on originality, presentation, relevance and quality of work. Papers that had clearly demonstrated results were given preference.

AACC 2004 not only consisted of the technical program covered in this proceedings but also included a workshop program, a tutorial program, and demo sessions. Special thanks are due to the general chair, Lalit Patnaik for the overall organization of the conference both in 2003 and 2004. Thanks are due to the tutorial chair Rajeev Kumar for looking after the tutorial program. The conference would not have been possible without the local organization efforts of Deepak Bhattarai and Sudan Jha. Thanks are due to Thimal Jayasooriya for help with the proofreading.

We would like to thank the program committee members for their efforts, and our reviewers for completing a big reviewing task in a short amount of time. Finally, we would like to thank all the authors who submitted papers to AACC 2004 and made possible a high-quality technical programme.

August, 2004

Suresh Manandhar Jim Austin Uday Desai Asoke Talukder Yoshio Oyanagi

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