Foreword

The goal of establishing an international conference on Intelligent Data Engineering and Automated Learning (IDEAL) is to provide a forum for researchers and engineers from academia and industry to meet and to exchange ideas on the latest developments in an emerging field, that brings theories and techniques from database, data mining and knowledge discovery, statistical and computational learning together for intelligent data processing. The efforts towards this goal have been supported greatly from colleagues both in the Asia Pacific region and all over the world, and further encouraged by the success of IDEAL98. A significant development was achieved in IDEAL 2000 this year, which is evidenced not only by an expansion of the major tracks from two to three, namely, Financial Engineering, Data Mining, and Intelligent Agents, but also by a considerable increase in the number of submissions and a high quality technical program. This achievement comes from the efforts of the program and organizing committee, with a large number of supporters all over the world. It was their hard work, often over sleepless nights, that brought about the successful conference. We would like to take this opportunity to thank them all. Their names and affiliations are shown in the symposium program.

We especially want to express our appreciation to the staff of The Chinese University of Hong Kong for their boundless contributions to this conference, particularly to Prof. Lai-wan Chan and Prof. Kwong Sak Leung as the Program Co-chairs and Prof. Jimmy Lee as the Organizing Chair. We thank the members of the International Program Committee, without whom we could not guarantee the high quality of the papers. Members of the Organizing Committee are instrumental behind the scene. Prof. Irwin King and Prof. Evangeline Young did a superb job in local arrangement, Prof. Wai Lam took care of the registration process, and, last but not least, Prof. Helen Meng ensured the smooth publication of the conference proceedings.

Moreover, we would like to thank Prof. Michael Dempster, Prof. Nick Jennings, Prof. Wei Li, and Heikki Mannila for their support as keynote speakers, bringing us the latest developments and future trends in the emerging fields, and also Prof. Zhenya He and Prof. Weixin Xie for organizing a special panel session, providing an insight into recent advances in the field in China,

Lastly, we hope you enjoyed your stay in Hong Kong and at The Chinese University.

October 2000   Pak-Chung Ching and Lei Xu
                                               General Co-chairs
                                               The Chinese University of Hong Kong

Preface

Data Mining, Financial Engineering, and Intelligent Agents are emerging fields in modern Intelligent Data Engineering. In IDEAL 2000, these fields were selected as the major tracks. IDEAL 2000 was the Second International Conference on Intelligent Data Engineering and Automated Learning, a series of biennial conferences. This year, we received over one hundred regular submissions and each paper was vigorously reviewed by experts in the field. We truly appreciate the work done by the reviewers. Some reviewers wrote lengthy and constructive comments to the authors for improving their papers. The overall program covered various topics in data mining, financial engineering, and agents. We also had a number of papers applying the above techniques to internet and multimedia processing.

We would like to thank our keynote speakers and the organizers of the special sessions and panel session. For Keynote talks,

- Professor M.A.H. Dempster, University of Cambridge, UK, gave a keynote talk on "Wavelet-Based Valuation of Derivative",

- Professor Nick Jennings, University of Southampton, UK, gave a keynote talk on "Automated Haggling: Building Artificial Negotiators",

- Professor Wei Li, Beijing University of Aeronautics and Astronautics, China, gave a keynote talk on "A Computational Framework for Convergent Agents", and

- Professor Heikki Mannila, Helsinki University of Technology, Finland, gave a keynote talk on "Data Mining: Past and Future".

Apart from the regular submissions, we also had two special sessions and a panel session at the conference.

- Professor Shu-Heng Chen of the National Chengchi University and Professor K.Y. Szeto of Hong Kong University of Science and Technology organized the special session on "Genetic Algorithms and Genetic Programming in Agent-Based Computational Finance".

- Dr. Yiu-Ming Cheung of The Chinese University of Hong Kong organized the special session on "Data Analysis and Financial Modeling".

- Professor Zhenya He of the Southeast University and Professor Weixin Xie of the Shenzhou University organized a panel session on "Intelligent Data Engineering Automated Learning : Recent Advances in China".

We would like to express our gratitude to our general chairs, Professors Pak-Chung Ching and Lei Xu for their leadership and support. We appreciate and thank the Organizing and Program Committee members, for their devotion in the organization of the conference, and the reviewing of the papers; in particular, Professor Jimmy Lee, the Organizing Chair of IDEAL 2000, for his great effort in the organization of the conference throughout, and Professors Irwin King, Helen

Meng, Wai Lam, and Evan F. Y. Young for their time, effort, and constructive suggestions. We would also like to thank the supporting staff of the Department of Computer Science and Engineering of the Chinese University of Hong Kong for various help. Last but not the least, we thank Chung Chi College for the sponsorship of the conference.

October 2000   Kwong-Sak Leung and Lai-Wan Chan
                                                Program Co-chairs
                                                The Chinese University of Hong Kong

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