EUROMICRO '99

Volume II

Workshop on Music Technology and Audio Processing

Workshop on Dependable Computing Systems

Workshop on Software Process and Product Improvement

Workshop on Multimedia and Telecommunications

Special Session on Network Computing
PROCEEDINGS

25th EUROMICRO Conference

Informatics: Theory and Practice for the New Millennium

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IEEE COMPUTER SOCIETY

Los Alamitos, California
Washington • Brussels • Tokyo
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It is with great pleasure that I write these words. I was given the honor to be appointed as general program chairman for this the 25th Euromicro Conference by the executive eighteen months ago, and these proceedings represent the completion of this work.

As with the previous conferences, the aims are to concentrate attention on the field of informatics both new theories and new application areas. A field to which Europe can claim a number of technological breakthroughs over the years. The hope was to focus discussion on current and future developments in informatics. Informatics covers a huge range of subjects and one conference could not hope to do justice to every aspect of the subject. To help focus the technical presentations we have for the second year concentrated on organising a small number of workshops on specific areas, these being: digital system design: architectures, methods and tools; music technology and audio processing; dependable computing systems; software process and product improvement; multimedia and telecommunication; and network computing. Theses represent one or more full days of the conference.

The workshop received almost 200 paper submissions. These came from over 15 different countries, ranging from the host country Italy to as far afield as Korea. From these 52 percent were accepted for regular presentations and 24 percent for poster/short presentations. Many referees were called upon to help review these papers and it was pleasing to see the high standard of the papers submitted. In addition, there are five keynote addresses from distinguished researchers: Prof. B. Littlewood from City University in the UK, Prof. A.C.M. Claasen from Philips in Holland, Prof. J. Sundberg from KTH University in Sweden, Prof. M. Decina from Politechnic University of Milan in Italy and Prof. M. Mulej from Maribor University in Slovenia.

All of this has produced a full program of technical presentations which I am sure will be informative and thought provoking, and which I hope will lead all of us to better and greater things in the future.

I would like to thank everyone who made a contribution to this Conference — indeed there were many! I thank the authors, as with any conference/workshop without you they would not exist. I thank the reviewers for their time and expertise, the program committees for their assistance in reviewing, and particularly those who attended the PC meeting in York. I would like to give a special thanks to the Workshop chairs, who have all work ceaselessly to make this conference a success. I especially thank Mariagiovanna Sami and Nello Scarabottolo, my colleagues at the Politecnico di Milano, for their excellent organization at the local level. No Euromicro event is possible without the dedicated efforts of its administrative manager, Mrs. Chiquita Snippe-Marlisa. She has carefully and competently guided the organization of this Conference, with her vast experience, upon which Euromicro heavily depends for its success. Thanks are due to Bob Werner at the IEEE Computer Society for his great efforts in putting together the proceedings. Thanks are also due to the Universities of York and Milan. Finally, I would like to thank Steve Smith and Paul Garner, at the University of York, for all of their help over the last year.

I hope you all enjoy the Conference as much as I have enjoyed organizing it.

Andy M. Tyrrell
Department of Electronics, University of York
In the summer of 1974 EUROMICRO was created – during a very restricted meeting of a few enthusiasts, held in Versailles – and in June 1975 the first open EUROMICRO Conference was held in Nice, France. Since then, the association itself has moved with times. The “microprogramming” interest – prominent in the first years – has now waned. Microprocessors – then brand new (and of fairly moderate performances) have effectively modified society (we could not speak of an “Information Society” otherwise) and performances of the advanced CPUs available today far surpass those of the most sophisticated “supercomputers” of the ‘Eighties.

EUROMICRO events have mirrored the extending application areas, the increasing relevance of software components in microprocessor-based systems, the passage from “computer” to “system”. Focussed EUROMICRO Workshops have been created to accommodate specific subjects of great interest, catering to well-identifiable audiences. Since 1998, the main Conference itself has been re-organized as a set of parallel Workshops whose scopes interact without intersecting with each other and that well correspond to the extending and varying interests of the Information Society – as well as of EUROMICRO itself.

It is not my task to introduce here the Conference program – I only wish to thank the Program Chairman, professor Tyrrell, for the hard task of coordinating the different Workshops and obtaining an overall Program of very good quality. Thanks are also due to the Program Chairmen of the single Workshops, (in strict alphabetical order – Julian Bass, Gerhard Chroust, David Howard, Lech Jozwiak, Frederic Patricelli, David Tavangarian) and to Arndt Bode who obtained the presence of distinguished speakers from the most important microelectronics companies to present us “Back to the Future – Microprocessors in the 21st Century”. Last but not least, Nello Scarabottolo has been the real soul of this conference’s organization. Let me end by declaring my sympathy and my gratitude for all the people who, in these past 25 years, have made EUROMICRO a reality and continue making it a “live entity”.

Mariagiovanna Sami
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Workshop on Digital System Design: Architectures, Methods and Tools

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