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Message from the General Chair

On behalf of the programme committee, I would like to welcome you to Oxford and to Keble College, for the International Conference on Software Maintenance 1999.

The ICSM conference is the premier international event in the maintenance field, and this year we have introduced a new category of “experience papers.” All papers appearing in the Proceedings have been fully reviewed by four referees.

The importance of software maintenance is being increasingly recognised, both in terms of professional activities, and also through public perception, the Y2K problem being the most obvious example. Hence it is vital for the community of researchers and practitioners to publish, present, and debate the latest results in the field. These proceedings present work of outstanding international excellence, where reports on the latest advances in the field may be found.

While in Oxford, I hope you will spend some time exploring the city and its environs. Oxford is one of the most magnificent venues in the world to explore, and whatever your interests, there is much to see.

Finally, I would like to thank all those who have contributed to making ICSM 1999 a success. The programme committee members have played a vital part in assessing and reviewing submitted reports. Friends at Keble College and at IEEE have made the administration very simple. I would also like to thank all our sponsors, both industrial organisations and professional bodies for their support. The co-chairs have taken the great majority of the work in organising ICSM 1999, and my particular thanks are extended to them.

Keith Bennett
Durham University, UK
Message from the Programme Co-Chairs

The theme of this year’s International Conference on Software Maintenance (ICSM’99) is “Software Maintenance for Business Change.” International business competitiveness is dependent on huge quantities of already installed, legacy software. The imminent Y2K event has convinced companies of the value of this legacy software to the operation of their business, and of the critical importance of the proper maintenance of both this legacy software and newly developed software. ICSM is the major international conference in the field of software and systems evolution, maintenance, and management. The focus of ICSM’99 is to explore the opportunities of software change, to overcome the disabling effects of the buildup of legacy systems, and to release the full potential of software as an enabler of business change.

The ICSM’99 International Programme Committee refereed 100 full papers and selected 49 excellent papers for inclusion in these proceedings and for presentation at the conference. We have received exceptionally high quality full experience papers, and have accepted 13 of 19 papers in this category. These 19 papers were reviewed using a process separate from that of the research papers.

We have encouraged the use of new formats of contribution this year to encourage greater participation. For example, we have accepted nine short papers; there are two separate sessions of these accepted short paper presentations at the conference. We have also encouraged poster presentations, with a poster session in the programme. Neither of these types of papers will appear in these proceedings, but were made available as copies at the conference.

We are very pleased to have attracted three top researchers as our keynote speakers for the programme:

- Frederick P. Brooks, Jr.: “The Design of Design”
- M. M. Lehman: “Software System Maintenance and Evolution in an Era of Reuse, COTS, and Component-Based Systems”

The programme also features three panels:

- “Resolved: Software Maintenance Is Nothing More Than Another Form of Development,” Chair: Norman Schneidewind
- “Doing Software Maintenance for Business Change,” Chair: Ned Chapin
- “On the Threshold of Y2K,” Chair: Shawn Bohner

The programme of the fifteenth International Conference on Software Maintenance is the result of a great deal of work by many people. We would like to thank the authors who submitted exceptional papers on their work to ICSM’99. We are indebted to the 65 Programme Committee members who reviewed the papers, and came from all over the world to attend the PC meeting in May 1999 in Pittsburgh to determine which papers would be presented at the conference. There were additional reviewers who were asked for help, and their names are acknowledged.