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## Wilkes Award

The Society is pleased to announce that the Wilkes Award for 1988 has been won by William Roberts for his paper 'A formal specification of the QMC message system' which was published in the August 1988 issue (Vol. 31, No. 4) of *The Computer Journal*. Each year an Award Panel considers all those papers, published in the previous year, where one or more of the authors was under thirty years of age at the time of submission. The award is then made to the author(s), provided they satisfy the age criterion, of the best paper in that category.

The paper addresses two problems of communication, that of the human communicating with the computer and that of two (or more) humans using a computer as the medium through which to communicate with each other. The problem with the first kind of communication is that a computer will not perform any task unless the task has first been analysed thoroughly and described clearly and then the description is communicated

unambiguously to the computer. The problem with the second kind of communication is that, having created a physical link, the user must be provided with a facility whereby he can understand how to use the link without having to search a plethora of incomprehensible manuals. This is called generating a 'user friendly' interface.

The objective of the paper is to create an algebra for describing a computer system formally and then to use this algebra to describe the 'Message System' (a computer-based mail and notice board facility) developed at Queen Mary College, London. From the paper a reader can learn how to specify formally a computer system and, at the same time, how to design an easily used local 'Message' facility.

From an early start in computing at age eleven, William Roberts graduated in Mathematics from Exeter College, Oxford in 1982. At the same time as studying for his degree, he was also deeply involved with a consultancy who were developing commercial

microcomputer applications. In 1984 he moved to Queen Mary College, London where he first gained an MSc (with distinction) in Computer Science and then joined a small, Alvey-funded research group. This research led to the award-winning paper, and at the end of funding he stayed at QMC with responsibility for developing the Computer Science Network.

Mr Roberts was one of twenty seven authors who were considered for the award. His paper was chosen because of the way in which it shows so clearly how a new and developing technique from computer science can be used in a new and developing computer application. The Wilkes Award, which consists of a silver gilt medallion, was instituted by The British Computer Society to mark the retirement of Professor M. V. Wilkes as Professor of Computing Technology at the University of Cambridge, in recognition of his pioneering work in both computer hardware and software and his unstinting efforts on behalf of the Society.

## Announcement

23-25 JULY 1990

UNIVERSITY OF LEICESTER, UK

## International Workshop on Semantics for Concurrency

The International BCS-FACS Workshop on Semantics for Concurrency will take place on 23–25 July at the University of Leicester, Leicester, UK, in the week following ICALP 90 to be held at the University of Warwick, Coventry, UK. Leicester is conveniently positioned in central England, and is within easy reach of Coventry. Those wishing to stay on after ICALP may obtain accommodation for the days preceding the workshop at very reasonable prices. During this time, there will be an opportunity to join in a programme of entertainment. The preliminary announcement for the workshop has met with a very encouraging response.

Semantics of concurrent systems is one of the most vigorous areas of theoretical computer science, but suffers from disagreement due to different, and often incompatible, attitudes towards abstracting non-sequential behaviour. When confronted with process algebras, which give rise to very elegant, highly abstract and compositional models, traditionally based on the interleaving abstraction, some argue that the wealth of contribution they have made is partially offset by the difficulty in dealing with topics such as fairness. On the other hand, the non-interleaving approaches, based on causality, although easing problems such as fairness and confusion, still lack structure, compositionality, and the elegance of their interleaving counterparts. Since both these approaches have undoubtedly provided important contributions towards understanding concurrent systems, the workshop will concentrate on what they have in common, rather than the way they differ.

The workshop will incorporate a number of tutorials, devoted to invited talks concentrating on giving an overview of major approaches to concurrency. The invited speakers will include: Prof. Robin Milner (Edinburgh), Prof. Eike Best (Hildesheim), Prof. Antoni Mazurkiewicz (PAS).

Topics will include (the list is not exhaustive): mathematical models and notations for concurrency including categorical and topological methods; non-interleaving and partial-order semantics; distributed computation; process calculae; behavioural equivalences; behavioural properties of concurrent systems including fairness; logics for concurrency; real-time systems.

Organising Committee: Marta Kwiatkowska, Mike Shields, Rick Thomas.

Address for information:

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