Biography

Malcolm Kenneth Crowe was born in Ireland. He graduated in Mathematics from Trinity College, Dublin in 1969. In 1970 he gained the Diploma in Advanced Mathematics, and in 1979, the degree of D.Phil, from the University of Oxford. The title of his thesis was "A Problem in Topology", with subtitle "The connective k-theory of the infinite symmetric group".

His entire teaching career 1972-2019 was at the University of the West of Scotland (previously called Paisley College of Technology and the University of Paisley), starting as a Lecturer Grade II in the Department of Mathematics and Computing, becoming first Associate Head and then Professor of the Department of Computing. He is currently an Emeritus Professor in the School of Computing, Engineering and Physical Sciences at the University.

As a Head of Department he pursued the addition of soft skills to Computing, with the development of undergraduate and Masters courses in Business Information Technology, Software Engineering, and Information Systems. As an academic leader he promoted interdisciplinary research.

His research in Computing began with dynamic compilation, but branched out into cooperative computing in European international projects, notably in System Measurement and Architecture Techniques, Multimedia Toolbox for Cooperative Applications, and Network-Traning Collaboration in Europe and China. He has supervised research in artifical intelligence, but his publications on collaborative work mostly tend to the softer kinds of business intelligence systems.

Since 2005 has focussed on database technology and concurrency control, seeking to demonstrate that optimistic algorithms provide better performance than the usual locking-based protocols, by constructing a fully-featured DBMS (Pyrrho) based on these principles. His interest in collaborative computing has continued in considering the sharing of "Big Live Data". Since 2019 he has been-advocating the use of immutable, "shareable" data structures for relational DBMS implementation, prioritising consistency over speed, and has demonstrated better throughput for optimistic algorithms in cases of high concurrency. He hopes to complete an implementation of PyrrhoDBMS on these principles in 2020, and the ongoing evolution of its source code is publicly available on Github. He has been a contributor in the DBTech group.

Since 2018 Malcolm Crowe's publications have almost entirelybeen via IARIA and its journals, as author, co-author, keynote speaker and panellist and chair at DBKDA conferences. He strongly supports IARIA's international and supportive role towards open collaboration and knowledge sharing, and looks forward to playing a full part as IARIA Fellow..