

Professor Krithivasan Ramamritham

The degree of Doctor of Science (honoris causa) was conferred upon Professor Krithivasan Ramamritham at the Faculty of Science graduation ceremony held at 4.00pm on 25 May 2007.



The Chancellor the Hon Justice Kim Santow conferring the Honorary Doctorate upon Professor Ramamritham, *photo, copyright Memento Photography.*

Citation

Chancellor, I have the honour to present Professor Krithivasan Ramamritham for the conferring of the degree of Doctor of Science (honoris causa).

Krithi Ramamritham completed his Bachelor's degree in Electrical Engineering, and a Masters in Computer Science from the Indian Institute of Technology in Madras, who have since named him a Distinguished Alumnus. He then moved to the USA. He earned a PhD at the University of Utah, graduating in 1981, and he led a productive academic career in the Computer Science Department at the University of Massachusetts.

In 1998, he returned to India, and he was named to the Vijay and Sita Vashee Chair at the Indian Institute of Technology Bombay which is the leading computer science academic department in India. Since 2003 he has been Head of the Kanwal Rekhi School of IT at that institute. He is the most cited computing researcher in India. Professor Ramamritham has been honoured by both leading professional societies in computing: he was made Fellow of the Institute of Electrical Electronics Engineers in 1998, and Fellow of the Association for Computing Machinery in 2001.

His work is seminal in understanding real-time transaction processing systems. These systems must somehow balance competing goals: they must protect the integrity of data that they manage, and yet respond rapidly. In particular Professor Ramamritham's work established the interaction between resource management (including concurrency control) and task scheduling. With colleagues and students, he developed, tested, and implemented concurrency control, conflict resolution, priority assignment, and commit protocols for this type of system.

Professor Ramamritham also had a major influence on work on extended transaction models for domains such as cooperative design and long-running business processes. He has recently been developing protocols for disseminating fast changing data to clients spread through a distributed system. These protocols have been specially designed for adoption in Web and internet applications.

Krithi Ramamritham's eminence in India extends beyond the academic computing community. He serves as Dean for Research and Development at the Indian Institute of Technology Bombay. His expertise is valued in industry. He is a member of the technical advisory board for Microsoft Research India, and Tata Research and Development Center India. He is a Fellow of the Indian National Academy of Engineering.

Professor Ramamritham is also noteworthy for his efforts to bridge the digital divide that exists at different

levels in India. Motivated by this goal, he took the lead in establishing Media Lab Asia's IITB laboratory and in forming the Research & Training Center sponsored by World Bank and Ministry of Communication and Information Technology. He led a team which developed the aAqua project that gives farmers access to agricultural experts and to information on commodity prices and markets. He received the Manthan Award for contribution to Socio-Economic Development, for this work.

Chancellor, I have great pleasure in presenting to you, for admission to the degree of Doctor of Science (honoris causa), computer scientist and academic leader, Professor Krithivasan Ramamritham.