



DISTINGUISHED LECTURE

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**Groundbreaking Inventions in Information and
Communication Technology**
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Abstract

Advances in computers and communications have revolutionized the way we live. This has happened in a short span of sixty-five years. Today we wonder how we lived without access to mobile phones and to the Internet. This revolution took place due to several groundbreaking inventions in Information and Communication Technology. In this talk I will first define what is meant by a groundbreaking invention and briefly describe fifteen groundbreaking inventions I have selected. They are: Fortran, Integrated Circuits, Relational Database Management Systems, Local Area Networks, Personal Computers, Public Key Encryption, Computer Graphics, Internet, Global Positioning System (GPS), World Wide Web, Search Engines, Digitisation and Compression of Multimedia, Mobile Computing, Cloud Computing, and Deep Learning (AI)

About the Speaker

Prof. V. Rajaraman a fatherly figure in the area of Computer Science in India is known for his pioneering efforts in the field of Computer Science Education in India. He obtained his BSc (Hons) in Physics from Delhi University, Diploma and Associateship from IISc Bangalore, SM from MIT and PhD from University of Wisconsin in Electrical Engineering in 1961. After initial years of his career at University of Wisconsin, he joined IIT Kanpur in 1963 and was instrumental in starting the M.Tech. in Computer Science in 1965, the first in India and subsequently the first B.Tech. in Computer Science at an IIT in 1978. In 1982 he shifted to the Indian Institute of Science, Bangalore as Professor of Computer Science and Chairman of the Supercomputer Education and Research Centre that he established. He is currently an Emeritus Professor in the Supercomputer Education and Research Centre, Indian Institute of Science, Bangalore. He has received numerous prestigious awards including the Shanti Swarup Bhatnagar Prize in 1976, Homi Bhabha Prize by U.G.C., ISTE award for excellence in teaching Computer Engineering, Zaheer Medal by the Indian National Science Academy, Padma Bhushan by the President of India in 1998, and lifetime contribution award by the Indian National Academy of Engineering, Computer Society of India, Systems Society of India, Dataquest, and Board of IT Education Standards, and many others. He was elected Fellow of the Indian Academy of Sciences, Indian National Academy of Sciences, National Academy of Sciences, Indian National Academy of Engineering, and the Computer Society of India. He was awarded honorary D.Sc. degree by IIT Kanpur and by the Bengal Engineering and Science University, Sibpur and recently by Dayalbagh Educational Institute in January 2021. An author of 24 well established and highly successful computer books, Prof. Rajaraman has guided 30 Ph.D. students and published a large number of research papers in reputed national and international journals. For more information one must visit https://en.wikipedia.org/wiki/Vaidyeswaran_Rajaraman