

## **Short Biography of Pinaki Mazumder**



Professor Pinaki Mazumder received his PhD in Electrical and Computer Engineering from the University of Illinois at Urbana-Champaign in 1988. Prior to that, he received his MS degree in Computer Science from University of Alberta in Canada, BS degree in Electrical Engineering from Indian Institute of Science at Bangalore, and BSc Physics Honors degree from Guwahati University in India. Currently, he is a Professor of Electrical Engineering and Computer Science at the University of Michigan where he has been teaching for the past 25 years. He spent 3 years at National Science Foundation serving as the lead Program Director of Emerging Models and Technologies Program in the CISE Directorate as well as leading the Quantum, Molecular and High Performance Simulation Program in the Engineering Directorate. He had worked for 6 years in industrial R&D laboratories which included AT&T Bell Laboratories in USA and Bharat Electronics Ltd. in India. Professor Mazumder spent his sabbatical at

Stanford University, University of California at Berkeley, and NTT Center Research Laboratory in Japan. He has published over 260 technical papers and 4 books on various aspects of VLSI technology and systems. His research interest includes CMOS VLSI design, semiconductor memory systems, CAD tools and circuit designs for emerging technologies including quantum MOS, spintronics, plasmonics, and resonant tunneling devices.

Professor Mazumder's inventions in testable DRAM circuits, in-line accelerated testing procedures for high-density RAM chips, and testing of embedded ROM and SRAM through JEDEC boundary scan ports are widely used by memory and FPGA manufacturers. His research in biology-inspired VLSI layout synthesis, self-healing VLSI design and self-repairable memory compilers has made commercial impact. In revolutionary emerging technologies, Professor Mazumder has made sustained impact for the past 20 years by collaborating with multiple leading researchers in universities and companies. His research group has developed a Quantum SPICE simulator to design several innovative quantum tunneling based circuits that were fabricated by many US companies. Prof. Mazumder was a recipient of Digital's Incentives for Excellence Award, BF Goodrich National Collegiate Invention Award, and DARPA Research Excellence Award. Prof. Mazumder is an AAAS Fellow (2007) and an IEEE Fellow (1999) for his distinguished contributions to the field of VLSI.