Abstract:

Extreme-scale computer systems of the future target orders of magnitude improvement in performance over current large-scale server or supercomputing systems. These targets must be achieved for the same power consumption and reliability at the system level. Accomplishing the goal requires investment in new generation integrated pre-silicon modeling environments that allow rapid exploration of power, performance and reliability tradeoffs. In this talk, I present an overview of the alluded modeling challenges and methods of hierarchical abstractions to ease the pre-silicon simulation bottleneck.

Speaker Bio:

Pradip Bose is a Research Staff Member and Manager of the Reliability- and Power-Aware Microarchitectures Department at IBM T. J. Watson Research Center. He has been with IBM for over twenty-five years, and has been involved in the definition and pre-silicon modeling of virtually all IBM POWER-series microprocessors. Dr. Bose is a member of the IBM Academy of Technology and is an IBM Master Inventor. He is a Fellow of IEEE.