

123. STUDY AND PROPOSAL OF A MINIMAL VOLTAGE MINIMAL POWER DOUBLE-TAIL COMPARATOR

I.Ezhil Arasan, PG Scholar, Maher University FET, Dr.A.Sanjeevi Kumar, Assistant Professor, Maher University FET, Dr.G. Gunasekaran, Principal, Meenakshi College of Engineering ,Chennai, India, king_3598@yahoo.co.in.

An important issue approaching the use of dynamic regenerative comparators is the maximization of speed and efficient power utilization. This is due to the requirements for the design of analog to digital converter that is ultra low-power and area efficient. In this paper, a brief investigation on the delay of the dynamic comparators will be presented, to identify the major sources for the comparator delay and fully discover the tradeoffs in the design of dynamic comparator. Design provides rapid operation even with small supply voltage by accumulating few transistors thereby strengthening the positive feedback during the regeneration, which results in remarkably reduced delay time

Journal of Science and Innovative Engineering & Technology