Development of automated standard cell library characterization (ASCLIC) for nanometer system-on-chip design

ABSTRACT

This paper presents about the development of Software-as-a-Service tool for standard cell library characterization ó ASCLIC. ASCLIC was created because many standard cell characterization software that exists are not easily accessible by public. Furthermore, it requires expensive paid license otherwise standard cell library characterization must be done manually. ASCLIC available as a web service that offers same function as another standard cell characterization. Simply upload netlist, model if available and configurations and the results will be emailed back to the user. Based on the results, the highest percentage changes for process technology of 130nm are 0.00172%, 1.92737% and 0.00198% of leakage power, internal power and timing respectively. In short, ASCLIC aims to give benefits to others especially educational institution for research purposes.

Keyword: ASIC; Standard cell; Characterization; NLDM; VLSI