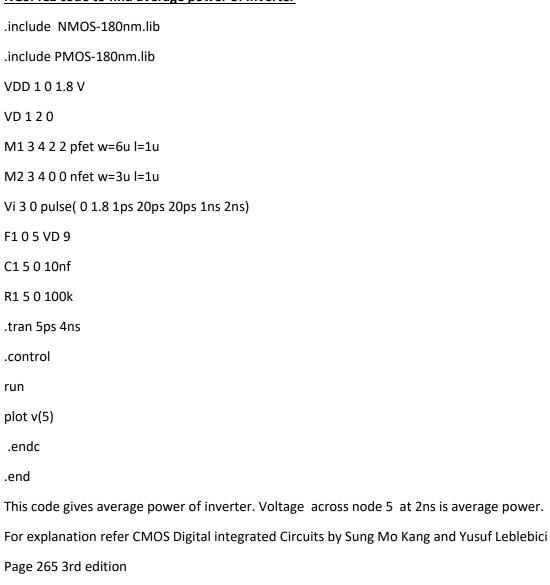
## <u>Develop an engine or tool in TCL/PERL/Python or any</u> <u>scripting/programming tool to measure power for any cmos</u> <u>circuit</u>

## **Basic Steps to calculate power**

## NGSPICE code to find average power of inverter



## NGSpice code to calculate leakage power

NGSPICE code to find leakage power of inverter

.include NMOS-180nm.lib

.include PMOS-180nm.lib

VDD 1 0 1.8 V

VD 1 2 0

M1 3 4 2 2 pfet w=6u l=1u

M2 3 4 0 0 nfet w=3u l=1u

Vi 3 4 0

.op

.control

run

Print I(VD)\*V(1)

.endc

.end