nanoHUB: Use of External Resources by External Researchers

Research Article

Analysis of CNT Bundle and Its Comparison with Copper Interconnect for CMOS and CNFET Drivers

Abdul Kadir Kureshi and Mohd. Hasan

Department of Electronics Engineering, Aligarh Muslim University, Aligarh 202002, India

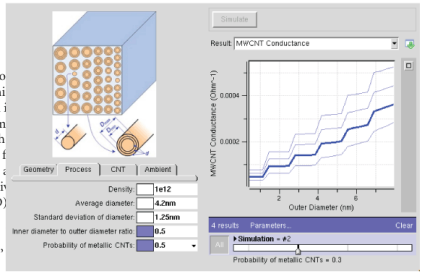
Correspondence should be addressed to Abdul Kadir Kureshi, akkureshi@rediffmail.com

Received 18 April 2009; Accepted 26 August 2009

Recommended by Donald Bansleben

In nanoscale regime as the CMOS process technolo
major hurdle for onchip communication due to hi
evaluation of mixed CNT bundle interconnects and i
nanoscale-integrated circuits. The performance of m
transistor (CNFET) as a driver and compared with
HSPICE simulations are carried out at operating f
with CNFET as the driver can potentially provide
32 nm process technology. Similarly, the CNFET driv
traditional interconnect at all supply voltages (VDD)

Copyright © 2009 A. K. Kureshi and Mohd. Hasan.
Attribution License, which permits unrestricted use,
properly cited.



The analysis of our external literature citations revealed some examples where external theory-driven researchers utilized a nanoHUB tool that has been contributed to nanoHUB from outside of the NCN. For example the authors Kureshi and Hasan working at a university in India published their study CNT bundles as possible copper replacement interconnects in the “Journal of Nanomaterials” in April 2009. In their work they utilized the tool “Carbon Nanotubes Interconnect Analyzer (CNIA)” for over 1,600 simulations in the year 2009 alone. CNIA was contributed by Tanachutiwat and Wang of the University of Albany. We cannot see any relationship between the two research groups and NCN other than the contributed, efficiently served, and utilized tool CNIA. The same CNIA tool has previously also been cited in a Master’s thesis at the University of Cincinnati in 27 the year 2005. The concept of community contributions coming from outside the NCN and being useful for an unrelated research group is becoming reality.