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Nano Materials in IC: Design of Energy Efficient CNTFET Comparator

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Carbon Nanotube Field Effect Transistor (CNTFET) shows excellent electrical and mechanical performance in the semiconductor industry. CNTFET is a better replacement with traditional semi-conductive device in Integrated Circuit (IC) design. In this paper, a proficient, low power CNTFET based comparator circuit design is demonstrated. As the properties of Carbon Nanotube (CNT) the CNTFET gadgets show quicker execution when contrasted with that of corresponding metal oxide semiconductors (CMOS) gadgets. The CNTFET based comparator needs to indicate substantially more improved execution contrasted with comparator configuration utilizing CMOS. The exhibitions, for example, postponement, control and the transient after effects of the CNTFET comparator recreation are considerably more effective. The design and simulation of the proposed comparator was developed in CADANCE platform.

Biography:

Dr. Soheli Farhana has completed her PhD in engineering from International Islamic University Malaysia and postdoctoral fellowship from International Islamic University Malaysia, Malaysia. She was the visiting researcher at ONE Lab, MIT, MA, USA. She has published several articles in reputed journals and has been serving as an editorial board member of reputed journals. Dr. Farhana is also serving as the committee member in several conferences. She is the reviewer of IEEE Transaction on Power Electronics and some relevant journal in Springer publication. Currently, Dr. Farhana is working as a visiting research professor at MIIT, UniKL, Kuala Lumpur, Malaysia.