

## **The state of the arts: Simulation of nanostructures using COMSOL multiphysics**

### **Abstract**

Currently, Computer simulation has become an essential part of nanotechnology and engineering and science. Digital analysis of components, in particular, is important when developing new products or optimizing designs. Today a broad spectrum of options for simulation is available; researchers use everything from basic programming languages to various high-level packages implementing advanced methods. Though each of these techniques has its own unique attributes, they all share a common concern. Hence, the paper present a COMSOL simulation on nanostructures, the past and recent development nanostructures design and simulation for nanogap, nonporous, nanowires and carbon Nanotube. Keywords; Nanostructures. COMSOL Multiphysics, Nanowire, Nanogap, Nanotechnology.

**Keywords;** COMSOL Multiphysics, Nanogap, Nanostructure, Nanotechnology, Nanowire