

## **CARBON NANOTUBE BASED NANO ELECTROMECHANICS**

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### **Abstract**

In this presentation I will discuss the recent theoretical and experimental work on a carbon-based nanoelectromechanics carried out within the CANEL project. I will focus on the work on carbon-nanotube-based nanoelectromechanics and present results by my colleagues and myself on singly and double clamped suspended nanotubes. I will discuss the basic properties of nanorelays comprising singly clamped CNTs in terms of a physical model, report on the experimental realizations of the nanorelay by my colleagues at Göteborg University, and consider possible applications of the device in digital and analog electronics. I will also report some recent results from Delft University of Technology on nanoelectromechanical single electron transistors comprising doubly clamped nanotubes.