

# Simulation of Cantilever Based Sensors for Smart Textile Applications

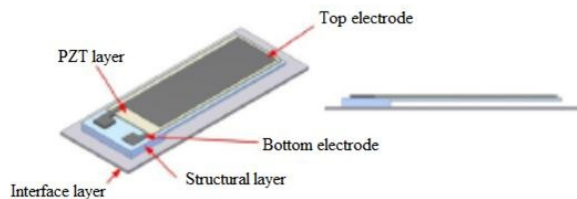
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## Abstract

Smart fabrics enable the integration of electronics into fabric. They can serve as a suitable sensor providing around-the-clock assistance for the real-time monitoring of health parameters. Here, we aim to develop a free-standing piezoelectric cantilever sensor integrated into conventional fabric to improve its functionality. These smart sensors have the ability to convert physiological parameters or movement into electrical signals that can be further processed and evaluated. The design and simulation of the proposed sensor is performed using COMSOL Multiphysics®.

## Figures used in the abstract



**Figure 1:** Schematic diagram of a piezoelectric cantilever