

## Abstract Details

**Title:** Structural Analysis of Micro Electro-Mechanical

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**Abstract:** The paper deals with the structural analysis of Micro-electro-mechanical Systems (MEMS) on different substrate materials. MEMS are often considered as a bridge between Very Large Scale Integration (VLSI) and macro mechanics. They offer an opportunity to apply VLSI structured design methods and VLSI fabrication process to mechanical systems. The diversity in different materials of microelectronics are exploited in order to study the recent developments in this genre. Although MEMS have the similar fabrication process with VLSI system but the technology faces many challenges.

Future MEMS will be developed with greater functionality, higher electronic-mechanical integration. In turn, future MEMS will be driven by new materials, system design methods, fabrication techniques and packaging tools. With these essentials, this process technology is swiftly asserting itself as a potential stretch with high performance, miniaturized size and cost effectiveness with its new trends.

**Keywords:** Micro Electromechanical Systems, ANSYS 18.1, MEMS, VLSI.