

Research project



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ST Microelectronics

MEMS Analysis and Design

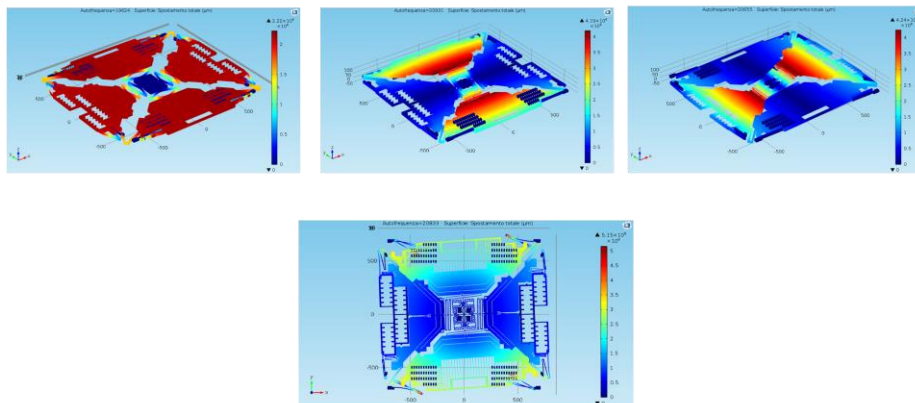


Università di Catania

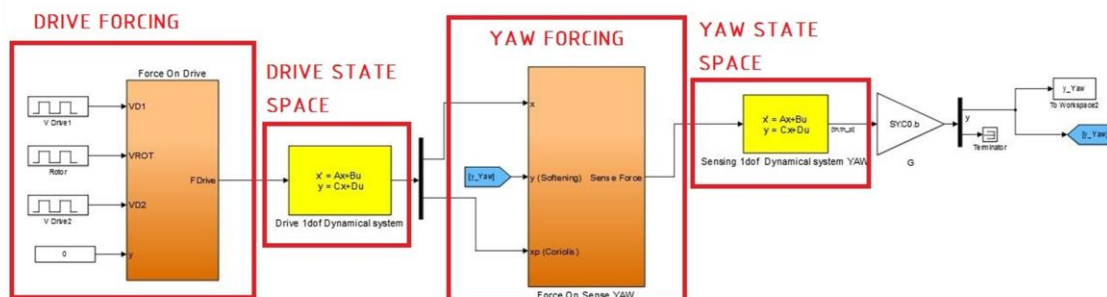
Within the framework agreement between the DII (ex DIIM) and ST Microelectronics, with headquarters in Stradale Primosole, Catania, has developed a fruitful scientific collaboration, through thesis in the FEM analysis, analytical modelling and redesign of MEMS inertial devices. In particular:

1. FEM Analysis of Single-Drive Triaxial MEMS Gyroscope

Structural Mechanics, Electromechanical analysis have been performed on a new triaxial gyroscope allowing the determination of vibration modes, and a deep study of the mechanical effects of the electrostatic quadrature compensation method.



2. Analytical models of the devices have been developed and results validated by comparison with experimental data.



3. New applications of compliant mechanisms to MEMS inertial devices are being investigated.

Scientific responsible of UNICT: *prof. ing. Rosario Sinatra*