

Organisation: *National Institute for Research and Development in Micro and Nanotechnologies (IMT Bucharest)*

Web Page: *www.imt.ro*

Country: *Romania*

Main Activity: *Research*

Department/Laboratory/Group: *Simulation, Modelling and Computer Aided Design Laboratory- L5*

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Other Contact Data:

Profile:

- Research activities in the fields of modeling, simulation and computer aided design for MEMS, NEMS, microfluidic devices, nonlinear materials, nonlinear contact problems, surface reconstruction algorithms, simulations for different type of biological tissues (tooth, bone).

Participation to European Projects:

- 1. PATENT-DfMM (Design and Micro&Nano Manufacture) – network of excellence for manufacture and reliability of microsystems; implication in subprojects as:

- Simulation of the stiction effect in the metal-to-metal resistive contact occurring in MEMS switches;

- Round Robin Modeling Study - "Modeling Effects of Packaging on MEMS";

2. "Reliability" Flagship Project, Cluster:

- "Modelling, Package reliability - Integrated Characterisation of Packaging Hermeticity Combining Test, Modelling, Reliability Characterisation and Packaging Integration of a Humidity Microsensor

ICT-2007.3.6: Micro/nanosystems

competence / resources

Competence

- etching simulations

- electroactuated switch simulations

- nonlinear materials simulations (hyper-elastic, visco-elastic, visco-plastic)

- fluid flow simulations

- CAD surface reconstruction from scanning probe microscopy (like AFM)

- material properties determination from simulation

- foam formation

Resources

1. Ansys Multiphysics 11.0

2. Comsol Multiphysics 3.3

3. TransMagic Data (CAD format translator)

proposal / interest