

Organization: *IMT Bucharest - MICROMACHINED STRUCTURES, MICROWAVE CIRCUITS AND DEVICES LABORATORY (L4)*

Web Page: *www.imt.ro*

Country: *Romania*

Main Activity: *Research*

Department: *D1 - Multidisciplinary research*

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Profile:

- The laboratory was recognized at national level as RF-MEMS Center of Excellence, financed by the National Programme MATNANTECH (2002-2005). The laboratory is one of the promoters of the RF – MEMS domain in Europe, coordinator of a European successful project in this domain and participant in FP6 network of excellence

Mission:– scientific research and technological development of RF MEMS (microwave micromachined devices and circuits), contributions to the developing strategy of the domain.

Main area expertise:

- Development of a new generation of circuits devoted to the millimeter wave communications based on the semiconductor (Si, GaAs, GaN) micromachining and nanoprocessing materials

Participation to European Projects:

- FP4 Project Micromachined Circuits for Microwave and Millimeter Wave Application (MEMSWAVE, 1998-2001) Coordinator: IMT-Bucharest (contact person: Dr. Alexandru Müller – alexm@imt.ro)

FP6 Network of Excellence “Advanced MEMS for RF and Millimeter Wave Communications” (AMICOM; 2004-2007) – www.amicom.info, coordinator LAAS-CNRS, Toulouse, France/Univ. Perugia, Italy. IMT contact person for AMICOM: Dr. Alexandru Müller, member of the board of directors(alexm@imt.ro)

ICT-2007.3.1: Next-Generation Nanoelectronics Components and Electronics competence / resources

CNT based devices and circuits.

New materials (metamaterials).

proposal / interest

Harvesting energy using CNT for RFIC(maybe it fits better as a FET (priority 3.8)).

RF and millimeter wave devices and circuits on semiconductor metamaterials.

ICT-2007.3.6: Micro/nanosystems

competence / resources

Smart micro/nanosystems enabling wireless access for communications systems

proposal / interest

Millimeter wave identification systems.

THz micromachined receiver front-ends for gas detection.

Intelligent microsystems based on WBG materials