IMM-Roma

CNR-IMM Roma
Over-View

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http://www.artov.imm.cnr.it

CNR-IMM Roma Identity Card - 1

- Who: CNR-IMM Roma
- Where: CNR Research Establishment of Roma 2 “Tor Vergata”

Institutes at Roma 2 “Tor Vergata”

- Institute for Complex Systems - *Site "Tor Vergata"*
- Institute for Space and Cosmic Astrophysics - INAF
- Institute for Interplanetary Space Physics - INAF
- Institute for Atmospheric Pollution - *Site "L.A.R.A."*
- CNR Earth and Evironment Dept. - *“Polarnet"*
- Institute for Atmosphere and Climate Science – *Site Roma*
- Institute for the Structure of Matter - *Site "Tor Vergata"*
- Institute for Microelectronics and Microsystems – *Site Roma*
- Institute for Acoustics "O.M. Corbino"
- Institute for Translational Pharmacology
- Institute for Industrial Technologies and Automation – *Site Roma*

- When:

1998-2002: Project Sensors and Microsystems (PSM),

2002-present: IMM, which currently includes seven units (Catania Head-Quarters, Catania University, Lecce, Napoli, Roma, Bologna, Agrate Brianza (MI))

CNR-IMM Roma Identity Card - 2

- Why: Research activity of IMM organized on four different main research lines:

a) materials, processes and devices for microelectronics;

b) sensors and microsystems;

c) optoelectronics and photovoltaics;

d) development of advanced characterization techniques for material and process analyses.

More details on: http://www.imm.cnr.it

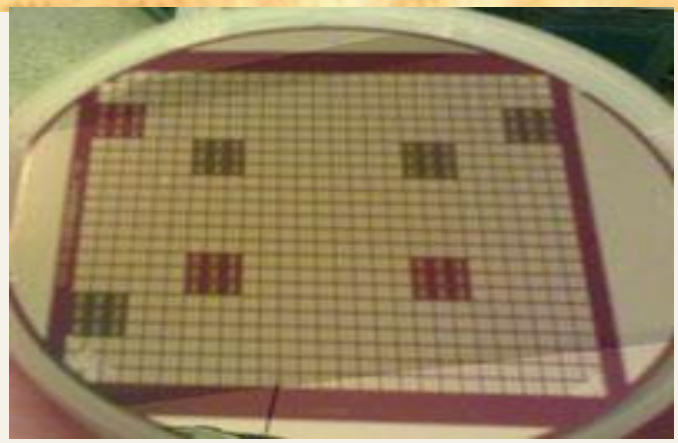
- What: a) – b) – c) – d); more on http://www.artov.imm.cnr.it

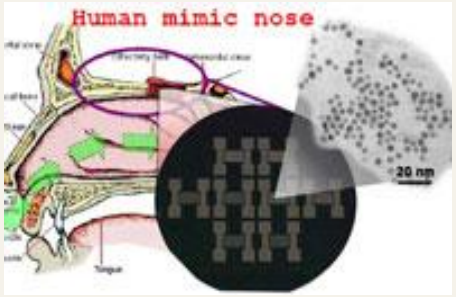
IMM Geographical Distribution

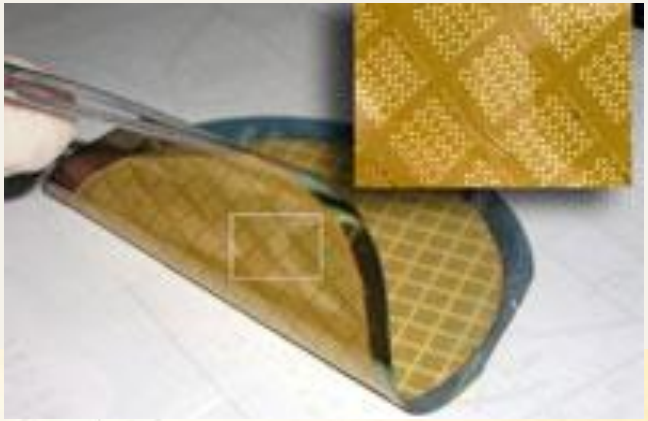
http://www.imm.cnr.it

IMM-Roma

What @ IMM-Roma ?







High Frequency Microsystems: Tecnologies and Reliability for Ground and Space Applications

The development of **Micro and Nano Systems** for high frequency components and sub-systems determined a growing requirement on the feasibility of the involved technologies, especially when functionalities quite different between them (electrical or electromagnetic, electro-mechanical, and chemical-physical) have to be integrated in the same configuration. The feasibility of **Micro and Nano Systems** for high frequency applications is the aim of this **Research Activity**.

Group Leader: Romolo Marcelli

Bio-inspired Sensor Systems and Technologies for Space and Human Health Safety

The research line is devoted to **study several features of biological sensing strategy** in order to design and develop **novel artificial sensor** systems.

Group Leader: Antonella Macagnano

Devices for Large Area Electronics

This activity is mainly focused on **devices for large area electronic applications**, such as flat panel displays, sensors and smart user interfaces. A strong effort is concentrated on the development of low temperature processes to fabricate devices on polymeric substrates for flexible display and electronic applications. In particular, the group has developed know-hows on polycrystalline silicon thin film transistors (**TFTs**), made by excimer laser crystallization technique, organic TFTs, using an innovative technology of buffer layers for devices based on pentacene. More recently, the group has started new activities in the field of nanostructured materials (**Si nanowires**), for both sensor and photovoltaic applications, and oxide semiconductors, for TFT applications.

Group Leader: Guglielmo Fortunato

CNR Staff (short term and permanent)

14 Research + 10 Technical/Administrative

- Dr. BEARZOTTI Andrea
- Dr. BECCHERELLI Romeo
- Sig. BIAGIOLINI Claudio
- Dr.ssa CONVERTINO Annalisa
- Dr. CUSCUNA' Massimo
- Sig.ra DE ROSA Rita
- Sig. FABIANI Paolo
- Sig. FONTANA Francesco
- Dr. FORTUNATO Guglielmo
- Sig. FRENGUELLI Luciano
- Sig. LAMPASONA Antonio
- Dr.ssa MACAGNANO Antonella
- Sig. MAIANI Marco
- Rag. MAITA Luigi
- Dr. MARCELLI Romolo
- Dr. MARIUCCI Luigi
- Dr. MARTELLI Faustino
- Dr. MINOTTI Antonio
- Dr. PANTALEI Simone
- Dr. PECORA Alessandro
- Dr.ssa PROIETTI Emanuela
- Sig. RISI Claudio
- Dr. VALLETTA Antonio
- Dr. ZAMPETTI Emiliano

High Frequency Microsystems

Bio-inspired Sensor Systems

Large Area Electronics

Tech/Admin STAFF

Associated, Visitors, Students,

Prof. BARTOLUCCI Giancarlo	Associato
Prof. D'ALESSANDRO Antonio	Associato
Dr. COLA Adriano	IMM-Lecce
Dr. DE CESARE Fabrizio	Associato
Dr. DE ANGELIS Giorgio	Ass. Ricerca + Dottorando
Dr. GILARDI Giovanni	Dottorando
Dr.ssa DI GASPARE Alessandra	Borsista
Dr. LUCIBELLO Andrea	Ass. Ricerca + Dottorando
Dr. MAIOLO Luca	Ass. Ricerca
Dr. MAITA Francesco	Post Laurea
Dr. RAPISARDA Matteo	Dottorando
Dr. SIMEONE Daniela	Ass. Ricerca
Dr. TROTTA Marco	Dottorando

High Frequency Microsystems

Bio-inspired Sensor Systems

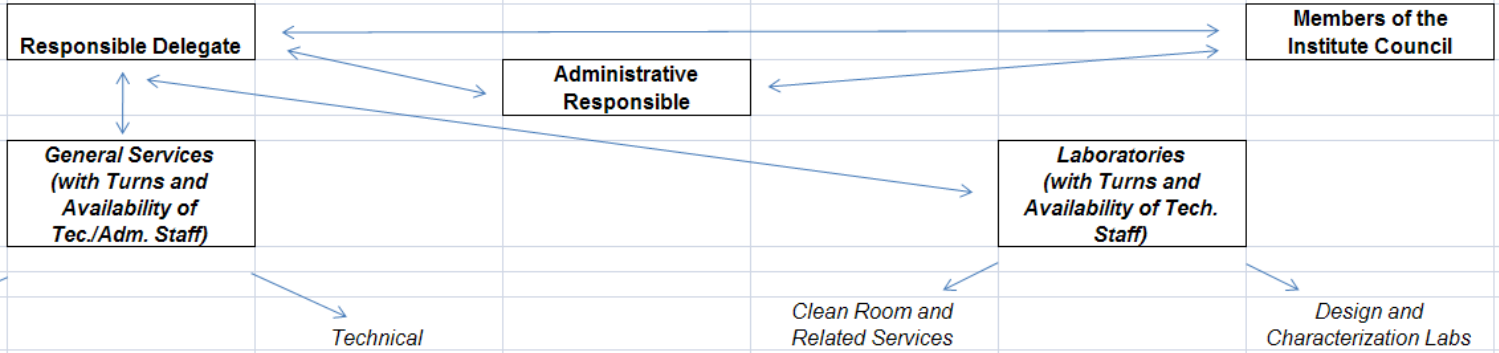
Large Area Electronics

Tech/Admin STAFF

Institute for Microelectronics and Microsystems

IMM-Roma

IMM - Roma STAFF and Labs



Staff	Technical	Clean Room and Related Services	Design and Characterization Labs
Secretary	Building	Thin Film Technologies (Deposition Setups, Chemical-Physical Etching, Thermal Treatments,…)	Electrical Characterization Lab
Safety and Medical Checks	Electrical System	LASER Litography and Mask Realization	Optoelectronic Lab
	Idraulic System	Fotolitografia (Mask Aligner, Spinner, Cappe Chimiche, …)	Sensor Lab
	Air Conditioning	Morphological Analysis (SEM, AFM, Ellipsometry, Profilemeter, …)	Millimetre and Microwave Design and Test Lab
	LAN / Telephone	Electrical DC and RF Characterizations	Millimetre and Microwave Materials and Process Lab
	Special Waste Disposal		Material Electrical Characterization Lab
	Fluids Check and Supplying		Workstations for the Electrical Design and General Purpose Simulations
	Vacuum Line		

Details on Reference STAFF and Facilities

http://www.artov.imm.cnr.it