



PhD in INGEGNERIA DELL'INFORMAZIONE / INFORMATION TECHNOLOGY - 38th cycle

Research Area n. 2 - Electronics

THEMATIC Research Field: ORGANIC-BASED OPTICAL MICROELECTROMECHANICAL SYSTEMS

Monthly net income of PhDscholarship (max 36 months)

€ 1400.0

In case of a change of the welfare rates during the three-year period, the amount could be modified.

Context of the research activity

Motivation and objectives of the research in this field	Optical micro-electro-mechanical systems interact with light through actuation or sensing at a micron or millimeter scale. In this framework, the integration of organic semiconductor based optoelectronic devices within silicon-based MEMS can profit from the possibility of depositing organic semiconductors by means of additive, printing techniques (such as inkjet printing) with low thermal budget, thus allowing the realization of innovative and unprecedented optoelectronic systems.
Methods and techniques that will be developed and used to carry out the research	Advanced 3D printing techniques such as inkjet and aerosol jet printing will be employed. Experimental activities will be performed in PoliFab (https://www.polifab.polimi.it).
Educational objectives	A solid knowledge of the design, development, realization and characterization of printed organic optoelectronics, and their integration in MEMS will be attained.
Job opportunities	Careers in academia, in printed electronics and microelectronics industry, industrial R&D and consulting are possible
Composition of the research group	1 Full Professors 2 Associated Professors 0 Assistant Professors



	0 Assistant Professors 2 PhD Students
Name of the research directors	Dario Natali, Giacomo Langfelder, Sarah Zerbini

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Additional support - Financial aid per PhD student per year (gross amount)	
Housing - Foreign Students	--
Housing - Out-of-town residents (more than 80Km out of Milano)	--

Scholarship Increase for a period abroad	
Amount monthly	700.0 €
By number of months	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information
<p>LIST OF UNIVERSITIES, COMPANIES, AGENCIES AND/OR NATIONAL OR INTERNATIONAL INSTITUTIONS THAT ARE COOPERATING IN THE RESEARCH: ST Microelectronics</p> <p>EDUCATIONAL ACTIVITIES (purchase of study books and material, including computers, funding for participation in courses, summer schools, workshops and conferences): financial aid per PhD student 5.707,13 Euro</p> <p>TEACHING ASSISTANTSHIP: (availability of funding in recognition of supporting teaching activities by the PhD student) There are various forms of financial aid for activities of support to the teaching practice. The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.</p> <p>COMPUTER AVAILABILITY: individual use</p> <p>DESK AVAILABILITY: individual use</p>