

Politecnico di Milano

PhD Programme in Mechanical Engineering

Research Area n. 1: Advanced Materials and Smart Structures

Research Field: Synthesis and validation of innovative layouts for MEMS gyroscopes

Scholarship and Financial support	
Monthly net income of PhD scholarship (max 36 months)	€ 1200 (In case of a change of the welfare rates during the three-year period, the amount could be slightly modified)
Number of scholarships	1
Beginning of PhD	01/05/2017
Deadline for application	10/03/2017
Context of the research activity	
Motivations and objectives of the research in this field	Synthesis and validation of innovative layouts for MEMS gyroscopes
Methods and techniques that will be developed and used to carry out the research	The research focuses on the development of mechanical configurations that are less affected by quadrature error. This requires the integration of a lumped parameter code and a finite element code to be exploited within an optimization code. Once optimized configurations are found, they will be produced and tested with the double purpose of validating the code and assessing the real quadrature error due to technological spread.
Educational objectives	Design and testing of MEMS inertial sensors
Job opportunities	Both research and production in the field of MEMS producers.
Composition of the research group	4 Full Professors 3 Associate Professors

	9 Assistant Professors 6 PhD Students
Names of the research directors	Prof. Francesco Braghin, Prof. Ferruccio Resta
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List of Universities, Companies, Agencies and/or National or International Institutions that are cooperating in the research	ST Microelectronics
Additional support	
<u>Funding for educational activities</u> (purchase of study books and material, funding for participation in courses, summer schools, workshops and conferences): funding per PhD student per year	2 nd year: 1370 euro per student 3 rd year: 1370 euro per student
<u>Teaching assistantship:</u> availability of funding in recognition of support to 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.
<u>Computer availability:</u>	1 st year: individual use 2 nd year: individual use 3 rd year: individual use
<u>Desk availability:</u>	1 st year: individual use 2 nd year: individual use 3 rd year: individual use