



PhD in INGEGNERIA DELL'INFORMAZIONE / INFORMATION TECHNOLOGY - 40th cycle

Research Area n. 2 - Electronics

**PARTENARIATO PNRR Research Field: DEVELOPMENT OF HIGH PERFORMANCE
INTEGRATED FRONT-END ELECTRONICS FOR SINGLE PHOTON AVALANCHE DIODES**

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**

The aim of the research is to develop integrated high-performance electronics for single-photon time-resolved applications.

BANDO DI FINANZIAMENTO ASI DECRETO N. 687/2022 - DELIBERAZIONE N. 71/2022 TEMATICA 15 ATTIVITÀ SPAZIALI, DI CUI ALLAVVISO MUR N. 341/2022 PER PARTENARIATI ESTESI PROGRAMMA SPACE IT UP! APPROVATO CON DECRETO ASI N. 53/2024 - CUP D43C24000350006.

Finanziamento dalla Presidenza del Consiglio dei Ministri ai sensi dell'Art. 1, comma 254, della legge 160/2019.
Anno di riferimento 2024

**Methods and techniques that will be
developed and used to carry out the
research**

The research will be developed through development of both integrated and discrete components electronics. The integrated electronics will be simulated on CAD software and then tested on a realistic application.

Educational objectives

The training objectives of this research are those related to the integrated electronics project methodologies and simulation.

Job opportunities

The research carried out perfectly aligns with the



	professional requests of large microelectronics companies.
Composition of the research group	1 Full Professors 2 Associated Professors 2 Assistant Professors 0 PhD Students
Name of the research directors	Prof. Ivan Rech

Contacts
ivan.rech@polimi.it

Additional support - Financial aid per PhD student per year (gross amount)			
	1st year	2nd year	3rd year
Housing - Foreign Students	2500.0 € per student	2500.0 € per student	2500.0 € per student
max number of financial aid available: 1, given in order of merit ..			
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><u>EDUCATIONAL ACTIVITIES</u> (purchase of study books and material, including computers, funding for participation in courses, summer schools, workshops and conferences): financial aid per PhD student.</p> <p><u>TEACHING ASSISTANTSHIP</u>: 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><u>COMPUTER AVAILABILITY</u>: 1st year: Yes 2nd year: Yes 3rd year: Yes</p>



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