



PhD in INGEGNERIA DELL'INFORMAZIONE / INFORMATION TECHNOLOGY - 39th cycle

Research Area n. 2 - Electronics

PNRR 118 PNRR Research Field: DESIGN OF LOW-POWER INTEGRATED ANALOG-TO-DIGITAL CONVERTERS FOR APPLICATIONS TO TRANSPORTATION AND COMMUNICATIONS

Monthly net income of PhDscholarship (max 36 months)
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€ 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	
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Motivation and objectives of the research in this field	Design of state-of-the art analog to digital converters in advanced silicon technologies, in particular in term of power dissipations, with the target of implementing high efficiency systems for smart and sustainable mobility and personal communications and assistance.
Methods and techniques that will be developed and used to carry out the research	Classical IC analysis and design techniques will be applied.
Educational objectives	PhD education for mixed-signal circuit design: theoretical and practical skills.
Job opportunities	Analog and digital circuit designers, in particular at PhD levels, are among the most required job profiles in engineering area, both in Italy and Europe (not to mention US companies).
Composition of the research group	3 Full Professors 1 Associated Professors 1 Assistant Professors 5 PhD Students
Name of the research directors	Carlo Samori

Contacts



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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

National Operational Program for Research and Innovation	
Company where the candidate will attend the stage (name and brief description)	Infineon Technologies
By number of months at the company	6
Institution or company where the candidate will spend the period abroad (name and brief description)	Infineon Technologies
By number of months abroad	6

Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information

Phase one: system specifications, in particular focused on power dissipation. Phase two: IC design up to layout stage. Phase three : measurements. Then either the design of a more advanced prototype will follow or the redesign of the first one. The six months at Infineon Technologies will be probably spent during the phase one.

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
 5.707,20 Euro per student

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.