



# PhD in BIOINGEGNERIA / BIOENGINEERING - 38th cycle

## INTERDISCIPLINARY Research Field: A SOCIO-TECHNICAL APPROACH TO M-HEALTH: THE CASE OF WEARABLE DEVICES

Monthly net income of PhDscholarship (max 36 months)	
<b>€ 1250.0</b>	
In case of a change of the welfare rates or of changes of the scholarship minimum amount from the Ministry of University and Research, during the three-year period, the amount could be modified.	
Context of the research activity	
<b>Motivation and objectives of the research in this field</b>	<p>Interdisciplinary PhD Grant</p> <p>The PhD research will be carried out in collaboration with research groups of the PhD programme in <b>"INFORMATION TECHNOLOGY"</b>.</p> <p>See <a href="https://www.dottorato.polimi.it/?id=422&amp;L=1">https://www.dottorato.polimi.it/?id=422&amp;L=1</a> for further information.</p>
<b>Methods and techniques that will be developed and used to carry out the research</b>	<p>The research is located at the intersection of biomedical technologies and artificial intelligence techniques for the design of wearable devices for health monitoring, with particular attention to respiratory diseases. The engineering aspects will be integrated with an epistemological analysis, able to highlight the ethical, social and regulatory aspects of data collection, such as quality standards, the role of empirical evidence to use these data for predictive purposes, benefits related to personalization and health accuracy. These aspects are in turn integrated into the design of wearable devices in a sort of virtuous methodological circle whereby each of the two dimensions (engineering and ethical-social) rests on and uses the results of the other.</p>
<b>Educational objectives</b>	<p>The supervisors and their research groups support the research development. Laboratory activity is central in the research path. Seminars and courses encourage a strong interdisciplinary approach. The PhD candidate is encouraged to spend a period of study abroad (with</p>



	availability of an additional financial support).
<b>Job opportunities</b>	Job opportunities include research both in academic and private institutions in Italy and abroad, and in industry. Spin-off and startups from research results are encouraged. Employment in this field offers various interesting opportunities.
<b>Composition of the research group</b>	1 Full Professors 1 Associated Professors 1 Assistant Professors 6 PhD Students
<b>Name of the research directors</b>	PROF. ALIVERTI ANDREA

<b>Contacts</b>	
<p>Prof. Andrea Aliverti email: andrea.aliverti@polimi.it Ph: +39 02 2399 9006</p> <p>Prof. Viola Schiaffonati email: viola.schiaffonati@polimi.it Ph: +39 02 2399 3622</p>	

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

<b>Scholarship Increase for a period abroad</b>	
<b>Amount monthly</b>	625.0 €
<b>By number of months</b>	6

<b>Additional information: educational activity, teaching assistantship, computer availability, desk availability, any other information</b>
<p>Educational activities (purchase of study books and material, funding for participation in courses, summer schools, workshops and conferences): Financial aid per PhD student 5.095,96 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 (max 40 hrs per year).</p>



Computer availability: 1st, 2nd, 3rd year: individual use Desk availability: 1st, 2nd, 3rd year:  
individual use