



PhD in SCIENZE E TECNOLOGIE ENERGETICHE E NUCLEARI / ENERGY AND NUCLEAR SCIENCE AND TECHNOLOGY - 38th cycle

PARTENARIATO PNRR Research Field: ECOSYSTEM FOR THE SUSTAINABLE TRANSITION IN THE EMILIA-ROMAGNA REGION.

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	<p>The effective transition from fossil fuel to Renewable Energy Sources (RES) requests a radical change in all energy supply chains. Components, plants, energy networks, innovative systems need to be conceived, designed, tested and deployed. All these activities are going to be carried out within the framework of the PNRR founded Project “Ecosistema per la transizione sostenibile in Emilia Romagna”. The research group promoting this PhD theme will be in charge of contributing to such a Project both directly from the Polimi side, and by coordinating researchers of the LEAP Lab (www.leap.polimi.it), a consortium company participated by Polimi and active in the fields of renewable energy valorisation with dedicated research programs.</p>
Methods and techniques that will be developed and used to carry out the research	<p>The research will cover several tasks of the Project entailing the development of numerical models based either on simulation programs (Thermoflex, Aspen Plus, proprietary tools) or Computational Fluid Dynamics software (OpenFoam, Comsol, etc.). Most of the research will be carried out in collaboration with researchers operating at LEAP Lab.</p>
Educational objectives	<p>To provide a cutting-edge know-how on RES valorisation and meet the ever-increasing needs of environmentally</p>



	friendly technologies exploiting such resources.
Job opportunities	Applied research in RES valorisation field: design and optimization within industry or university of environmentally friendly exploitation technologies. There is a wide number of international and national industrial collaborations with a strong request of high profile specialists in this field.
Composition of the research group	1 Full Professors 1 Associated Professors 1 Assistant Professors 3 PhD Students
Name of the research directors	Stefano Consonni - Federico Viganò

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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>Educational activities: Financial aid per PhD student is available for purchase of study books and material, funding for participation in courses, summer schools, workshops and conferences, instrumentations and computer, etc. This amount is equal to 10% of the annual gross amount, for 3 years.</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><i>Computer availability:</i> individual use. <i>Desk availability:</i> individual use.</p>

