

PhD in DATA ANALYTICS AND DECISION SCIENCES -41st cycle

THEMATIC Research Field: COMPUTATIONAL STATISTICS FOR PREDICTIVE DIGITAL TWINS

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.

POLITECNICO DI MILANO



Methods and techniques that will be developed and used to carry out the research	Computational strategies developed in the research project will leverage on numerical approximation techniques, data science, and recent learning paradigms. The synergistic use of Bayesian Statistics tools and deep/machine learning techniques will provide a flexible framework for the development of the envisaged techniques. Applications to problems of interest in Engineering (ranging form, e.g., structural health monitoring to fluid dynamics and microsystems) as well as in Life Sciences (e.g., personalized clinical decision- making) will be considered during the project.
Educational objectives	The candidate will have the opportunity to collaborate with a wide research group across several Departments of Politecnico di Milano (e.g., Civil and Environmental Engineering, Mechanical Engineering, among others) as well as with worldwide recognized research groups.
Job opportunities	Besides Universities, Research Institutes, and DeepTech companies in Europe and all-over the world, job opportunities are related to fields where experts in computational methods, data science, Engineering, as well as machine and deep learning, are requested.
Composition of the research group	0 Full Professors 1 Associated Professors 1 Assistant Professors 5 PhD Students
Name of the research directors	Prof Andrea Manzoni

Contacts

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Additional support - Financial aid per PhD student per year (gross amount)

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Housing - Foreign Students	
Housing - Out-of-town residents	

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

List of Universities, Companies, Agencies and/or National or International Institutions that are cooperating in the research:

- 1. Prof. Nathan Kutz and Prof. Steven Brunton, University of Washington, Seattle, US
- 2. Prof. Karen Willcox, ICES, University of Texas at Austin, USA,
- 3. Prof. Mihaela Van Der Schaar, University of Cambridge, UK
- 4. Dr. Giovanni Pezzulo, National Research Council of Italy, Institute of Cognitive Sciences and Technologies (ISTC-CNR), Rome

Educational activities (purchase of study books and material, funding for participation in courses, summer schools, workshops and conferences):

financial aid per PhD student per year:

1st year: max 1.902,38 euro per student

2nd year: max 1.902,38 euro per student

3rd year: max 1.902,38 euro per student

Teaching and lab assistantship: availability of funding in recognition of supporting teaching and lab activities by the PhD student.

Further support is available for students who engage in activities of teaching or additional lab duties coherent with their academic mission and doctoral training.

The PhD student is encouraged to take part in these activities, within the limits allowed by the regulations.

Computer availability:

- 1 st year:individual use
- 2 nd year: individual use
- 3 rd year: individual use

Desk availability:

- 1 st year:individual use
- 2 nd year: individual use
- 3 rd year: individual use