CALLS AND EVENTS

ERASMUS+ (OUTGOING MOBILITY FOR STUDY PURPOSES)

The call for the 2022/2023 International Mobility for study has been issued.

The Erasmus Programme offers support for mobility of students within European programme countries (KA103) as well as within a selection of Extra-UE partner countries (KA107). All Politecnico di Milano students apply in the "International mobility for study" section of their Online Services.
After selection for the programme, the host university has to accept the students for mobility, so for PhD candidates it is advisable to make contact with a research group in advance, to plan the visit.

For general information about the Erasmus Programme, for the Call and for the lists of destinations available to PhD students please visit the webpage https://www.polimi.it/en/services-and-opportunities/international-mobility/study-abroad/erasmus-and-other-programmes/1-how-to-apply/
For further administrative information please contact bando-mobilita@polimi.it (please specify that you are a PhD student).

Deadline for application: 11th January 2022 (12:00 midday)

IDEA LEAGUE STUDENT GRANTS

IDEA League is a strategic alliance among five leading European universities of technology: ETH Zurich, TU Delft, Chalmers, RWTH Aachen, and Politecnico di Milano. Politecnico di Milano supports short-term research exchanges among IDEA League PhD candidates. The grants are made available to Politecnico di Milano PhD Candidates who want to do a short-term research stay at an IDEA League partner university.

Within the IDEA League Student Grants programme, funds are available to support PhD candidates' short-term research exchanges among IDEA League partners.
- The grant amount equals to 600 EUR gross per month, inclusive of the taxes owed by the Politecnico di Milano.
- Research exchanges from 2 weeks to 6 months are covered.
- The research exchange must take place in 2022 (in case it goes beyond that period only the 2022 portion will be covered).
- The grant can be combined with any other funding available (e.g., with the 50% scholarship increase due for periods abroad).

Please check our website for inspecting the call and to apply.
Further information: http://idealeague.org/student-grant

The application for admission to the selection procedure must be sent only through the application: "Application form" > "Selection procedures",
available in the online services of Politecnico di Milano.
Please note that inside the application the section INCOME DATA doesn't have to be filled in.

Deadline for applications: December 17th, 2021 at noon (Italian time).

SEMINARS AND WORKSHOPS

HIDDEN COHERENT STRUCTURES IN COMPLEX UNSTEADY FLOWS

Prof. Serra will discuss the development of mathematical methods that unveil the intrinsic geometric organizers of the dynamical systems' phase space.

December 13th 2021

NATURE-INSPIRED INTERLOCKING STRUCTURES: RECENT DEVELOPMENTS AND FUTURE OUTCOMES

Prof. Berto will give insights into the study and design of a new generation of advanced and novel interlocked structures through data-driven methods.

December 17th 2021

STARTING COURSES – DOCTORAL PROGRAMMES

PHD IN *INFORMATION TECHNOLOGY*

DATA AND RESULTS VISUALIZATION

Prof. Daniele Loiacono

Data visualization is an extensive topic at the intersection of several areas, such as statistics, data mining, cognitive science, and communication design. Our mission is to provide a compact introduction to the field to anyone who needs to communicate something to someone using data. The goal of the course is to provide the students with the knowledge, skills and resources required to make sense of data, design effective visualizations, and tell stories from data. At the end of this course, students should be able to: (i) understand basic principles of data visualization and evaluate existing visualizations; (ii) select the visualization methods and design styles that best apply to different kinds of data; (iii) create effective visualizations from data by using some of the most popular tools available.

From 1st to 20th December 2021

MACHINE LEARNING METHODS FOR COMMUNICATION NETWORKS AND SYSTEMS

Prof. Francesco Musumeci

The amount of information which nowadays we can retrieve from communication networks and systems is extremely high (e.g., users behavior, traffic samples, network alarms, signal quality indicators, etc.). However, the variability and dynamicity of these indicators are such that exploiting this information in a proper manner is not always straightforward when adopting models traditionally utilized for network design, operation and reconfiguration. The course aims at providing fundamentals of Machine Learning (ML) techniques which can be suitable for communication networks and systems and gives an overview of the typical research problems tackled with such methods. Lectures will be structured into two main parts. In the first part, basic concepts of Machine Learning will be discussed, including the following: - Supervised Learning (Regression and Classification, Linear regression, Logistic regression, Artificial Neural Networks, Support Vector Machines) - Unsupervised Learning (Clustering algorithms, K-means, EM algorithm) In the second part of the course, applications of ML techniques to communication networks and systems problems will be discussed. Among the main problems which will be treated there are (list is non-exhaustive): - Traffic prediction - Traffic pattern extraction - BER prediction - Network anomaly detection - Quality of Transmission estimation - Failure detection, localization and cause identification - EDFA power excursion minimization.

From 13th to 21st December 2021

PHD IN *MECHANICAL ENGINEERING*

ATMOSPHERIC BOUNDARY LAYER: FUNDAMENTAL PHYSICS AND MODELLING

Prof. Alberto Zasso

The course will focus on modeling of a neutral atmospheric boundary layer using wind tunnel and computational methods.

From 19th December 2021

OTHER NEWS

FINALIST PROJECTS SWITCH2PRODUCT 2021: AIDA

The project AIDA, which stands for ***A**nti-seismic **I**nnovative **D**urable **A**ffordable System for seismic protection of constructions*, has been selected among the 25 finalist projects of Switch2Product 2021. The Team of AIDA is made of two PhD students from DABC, Eleonora Bruschi and Carlo Pettorruso, the Professors Virginio Quaglini from DABC and Gabriele Dubini from DCMIC, and a Bachelor student, Filippo Roggi, from DEIB. The mission of the project is to provide innovative technology to make constructions resilient to earthquakes. The grants from Politecnico and prizes from S2P Partners has been awarded during the event held on December 1st at MADE Competence Center Industria 4.0, at the presence of the rector Ferruccio Resta and the S2P Partners.