



CALLS AND EVENTS



THE SEAFUTURE AWARDS 2021 DEGREE AWARD

From 17 to 14 June 2021, the Naval Base of La Spezia will be hosting SEAFUTURE 2021, an event showcasing the state-of-the-art expertise in the maritime industry through highly technological conferences and seminars, exhibitions of avant-garde products and projects, and B2B meetings involving maritime companies, the Italian Navy and many foreign ports.

The event also includes the SEAFUTURE AWARDS 2021, which aim to reward experimental BSc, MSc or PhD theses, written within industrial organisations, University Department laboratories or Research Centres, and concerning products or processes in the field of sea technologies. These should have applications in different sectors (Dual Use), and/or use innovative materials, and/or involve refitting, and/or use IoT technologies, and/or be related to robotics and/or have a low environmental impact.

The award is open to BSc, MSc and PhD students and to PhD holders from the Italian world of academia, both civil and military.

To apply for the award, visit: www.seafuture.it/sf_awards



CEI AWARD FOR THE BEST MASTER THESIS CONCERNING TECHNICAL REGULATIONS

CEI, the Italian Electrotecnic Committee, issues a call to award the best Master Thesis concerning issues related to national or international technical regulations, and/or its technical, economic or legal implications. The Theses must have been discussed between March 2020 and February 2021), and the prize amount is 2.000,00 EUR.

[Brochure](#)

[Call](#)

Deadline for applications: 15 March 2021





SEMINARS AND WORKSHOPS



WEBINAR CYCLE ON EXPERIENCES, MODELS AND TOOLS FOR SUSTAINABLE DEVELOPMENT

Sustainable development has always been one of the objectives of **Poliedra Consortium**, a consortium of **Polytechnic of Milan** working on sustainability in the environment, in the territory and in mobility.

For the above reason we have decided to present a webinar cycle on Experiences, Models and Tools for Sustainable Development (see <https://sdgs.un.org/goals>), starting from our projects and competences in the Polytechnic-system.

The webinar format is fast and based on short participations, with a multi-voices debate across 5 on-line webinars.

Attached you will find the flyer of the entire cycle and the one related to the second webinar that is scheduled for next January 14th from 2,00 to 2,30 PM:

[User centred design for mobility services](#)

Sharing mobility can contribute to the realization of goal 11 (**Sustainable Cities and Communities**), 7 (**Affordable and clean energy**), 13 (**Climate Action**) of **2030 Agenda**, provided it becomes a truly alternative option to using and owning a private car.

It's therefore important that public administrations and mobility operators project more attractive services, accessible and integrated with the transportation system. Such projecting can be helped by a **user centred design**, putting users' needs at the centre of the development project. This second webinar presents **two innovative services of shared mobility**. The first, created within project **I-SharE LIFE**, sees users active in co-projecting new models for a service of electric car sharing in small-medium sized urban areas in Lombardy. The second, within project **CITY RESTARTS**, tests a taxi-sharing system in the city of Milan for people requiring a more available service, compared to traditional transportation system.

Francesca Costa (Poliedra – Politecnico di Milano), **Alessandro Giovannini** (AMAT – Agenzia Mobilità Ambiente Territorio) e **Stefano Maffei** (Dipartimento di Design – Politecnico di Milano) through the above examples discuss the value of **user centred design** as a methodology to project innovative services. Participation is welcome and open to all.

To apply to the webinar and find further information please click on below link, then click again on your top left on the webinar link.

<http://www.poliedra.polimi.it/webinar/>

January 14th from 2,00 to 2,30 PM





STARTING COURSES – PHD SCHOOL

COMPLEMENTARY DOCTORAL SKILLS

Prof. Biscari Paolo, Prof. De Angelis Enrico, Prof. Costa Fiammetta Carla Enrica, Prof. Tanelli Mara, Prof. Ferretti Valentina

The "Complementary Doctoral Skills" course consists in four independent modules.

Part 1. Assessing cognitive biases and affective states through data analytics I

Part 2. Discriminations and new technologies: risks and opportunities

Part 3. Digital (Scientific) Literature, Bibliographies and Bibliometrics

Part 4. Behavioral insights for an uncertain world

From 15th January to 31st March 2021



ETHICAL ASPECTS OF RESEARCH ON DUAL-USE TECHNOLOGIES

Prof. Masarati Pierangelo

Introduce ethical issues, with specific reference to research on dual-use products in aerospace engineering, and challenge the capability of students to identify potential ethical issues in their activity and address them.

From 7th to 29th January 2021



ETHICS IN RESEARCH

Prof. Aliverti Andrea, Prof. Hughes Jonathan

The aim of the course is to make participants a) fully aware on how scientific and technological research have ethical implications; b) to identify ethical issues in specific research cases and procedures; c) to understand how the adherence to ethics standards is essential not only for respecting ethical values and fundamental rights, but also increase quality and likely impact of research.

From 25th to 29th January 2021



EUROPEAN CULTURE

Prof. Chiodo Simona, Prof. Cardilli Lorenzo

Providing PoliMi PhD students (especially if they are not European, but the course is open to any student) with the essential cornerstones of the European Culture through the tools of the Humanities (especially Literature and Philosophy, from both a historical and a theoretical perspective).

From 11th to 25th January 2021



INTRODUCTION TO ACADEMIC RESEARCH

Prof. Volonte' Paolo Gaetano

This course aims at offering to Ph.D. students awareness of the social and institutional framework of doing research, with particular focus on research for planning, design and techno-scientific disciplines. It provides a comprehensive and reflexive introduction to academic research and academic life.

From 12th January to 3rd February 2021



PROFESSIONAL COMMUNICATION

Prof. Di Blas Nicoletta

The goal is to enhance students' communication skills in public speaking and written communication (special emphasis on project proposals and scientific papers writing). A quote by MIT communication instructors summarizes the goal: "engineers who don't write [=communicate] well end up working for engineers who do write well".

From 1st January to 15th February 2021



RESEARCH SKILLS

Prof. Sciuto Donatella

The Goal of this programme is to offer a wide range of courses that may help PhD Students to build up their knowledge in research fields with regards to the following aspects: - communication - management - cross cutting knowledge - soft skills.

From 19th January to 30th June 2021





RESOURCE PLANNING AND MANAGEMENT WITHIN SUSTAINABLE DEVELOPMENT: A FOCUS ON THE WATER, ENERGY, FOOD AND CLIMATE NEXUS

Prof. Casagrandi Renato, Prof. Castelletti Andrea Francesco, Prof. Colombo Emanuela, Prof. Morello Eugenio, Prof. Rulli Maria Cristina

The course mission is to provide a general overview of the various aspects of Sustainable Development and aims at equipping PhD candidates with enhanced understanding of the global challenges of development as far as the Water, Energy and Food management (the so called WEF Nexus) is concerned. Main goals include (1) to explore the rationale underpinning global resource management and the ensuing implications when managing the WEF Nexus in order to provide a broad context to enable PhD Candidates framing their research approach in compliance with the Sustainable Development paradigm; (2) to equipped the Ph.D candidates with an ensemble of (open and transparent) modelling tools that can be used to test the effectiveness of integrated solutions and the economic and environmental implication of the associated policies within a WEF Nexus approach.

From 25th to 30th January 2021



SULLA RESPONSABILITÀ DELLA TECNICA

Prof. Ossi Paolo Maria

Like for previous AYs besides the frontal lectures three Thematic Seminars will be organized. The first will be an overview on the relation between technique and philosophy. It is expected to be delivered by Dr E. Montrosset (L'Eubage, AO, I). A case study is planned at the end of the course, involving two experts in the chosen theme. For AY 2020-21 aspects of human activity involvement in weather changes will be addressed. Each expert will conduct a specialized 3-hours Seminar.

From 7th January to 17th February 2021



SUSTAINABILITY METRICS, LIFE CYCLE ASSESSMENT AND ENVIRONMENTAL FOOTPRINT

Prof. Dotelli Giovanni, Lavagna Monica, Melia' Paco Vasco Aldo, Rigamonti Lucia

The objective of the course is to introduce to the use of environmental sustainability metrics as tools that measure the benefits achieved through a sustainability strategy, leading to informed environmental decisions. The course will explain in detail the LCA methodology, with examples and exercises.

From 25th January to 4th February 2021



STARTING COURSES – DOCTORAL PROGRAMMES

PHD IN INFORMATION TECHNOLOGY

ADVANCED TOPICS ON HETEROGENEOUS SYSTEM ARCHITECTURES

Prof. Antonio Miele

The course introduces students to the concept of Heterogeneous System Architectures, an increasingly adopted architectural paradigm in the entire computing spectrum (from embedded and mobile systems to high performance computing) by discussing their overall architecture and main opportunities and challenges in resources' programmability and management.

Jan 11-29, 2021



HUMAN-COMPUTER INTERACTION FOR AI (HCI4AI)

Prof. Maristella Matera

The course will focus on understanding the nuances of interactive AI-based systems and the potential problems they can pose to the users if naively designed. The emphasis will be on understanding how HCI methods and principles can help design AI systems, which implies considering who AI systems are built for and evaluating how well those systems are working.

Jan 25-Feb 4, 2021





HYBRID SYSTEMS

Prof. Maria Prandini

The aim of this course is to introduce the student to the area of hybrid systems, that is dynamical systems characterized by the interaction of different types of dynamics, both continuous and discrete. Students attending the course should be able to appreciate the diversity of phenomena that arise in hybrid systems, and understand how concepts that are classical in the theory of discrete systems, modelled by automata, can coexist with concepts that are classical in the theory of continuous systems, modelled by differential equations, in a unifying framework.

Jan 25-29, 2021



THE DIGITAL IMAGING PIPELINE: FROM PHOTONS TO MODERN CAMERAS

Prof. Giacomo Langfelder

The goal of the course is to introduce basic and advanced concepts of the so-called Digital Imaging Pipeline, including optics, electronics, and color science for digital imaging applications.

Digital imaging systems are currently employed in professional cameras (DSCs), consumer goods (smartphones, tablets...), automotive applications (front and rear cameras), biomedical applications (various imaging-based analysis) and further widespread applications are envisioned in the same fields or in other fields if performance are improved.

Jan 7-Feb 5, 2021



PHD IN MECHANICAL ENGINEERING

STATISTICS IN THE BIG DATA ERA

Prof. Tsiamyrtzis Panagiotis

In this course we will view how big data affect the existing statistical methods, recognize the issues and propose tools that are capable to overcome the problems caused by the growth in the data size & dimension

From January 11th 2021



STRUCTURAL DESIGN UNDER EXTREME LOADING CONDITIONS

Prof. Manes Andrea

This course aims at providing its participants with detailed references about the state-of-the-art and a methodological approach to the mechanical behavior of material and structures in case of exceptional loads and critical outcomes

From January 15th 2021



MULTIBODY SYSTEM DYNAMICS

Prof. Cheli Federico

Present the foundations and the state of the art in research on multibody system dynamics in the frame of computational mechanics. Present applications of multibody system dynamics to various fields of engineering. Provide understanding of the complexity of the problem and capability to choose the right tools for a broad variety of multidisciplinary problems.

From January 18th 2021





OTHER NEWS



MATLAB ASSOCIATE CERTIFICATION IS NOW AVAILABLE ONLINE

MATLAB Associate certification is now available [Online!](#)

After attending the MATLAB Fundamentals Course included in Politecnico's license, you can register for the certification exam at [this link](#).

You can choose the date and time that are most convenient for you, paying by credit card. The cost is 122 USD.

For more details, you can refer to [this page](#).

