



CALLS AND EVENTS

COMPDYN 2023

12-14 June 2023, Athens, Greece

CALL FOR ABSTRACTS: MS25 "TOWARDS SEISMIC RESILIENCE: STRATEGIES AND TECHNOLOGICAL INNOVATION FOR SEISMIC RISK REDUCTION OF EXISTING STRUCTURES" – COMPDYN 2023

Authors willing to present a paper in the field of seismic mitigation and rehabilitation techniques for buildings and infrastructures, are kindly invited to submit an abstract to MS25.

From 12 to 14 June 2023



STARTING COURSES – PHD SCHOOL

CREATIVE DESIGN THINKING

Prof. Maria Rita Canina, Prof. Carmen Bruno

The objective of the course is to equip multidisciplinary PhD students with fundamental knowledge on creativity and a toolbox that will augment their creative and design abilities and mindset to face challenges in their own professional fields. The toolbox is constituted by a design thinking process and a series of tools and techniques that will boost their Creative Thinking to reach innovation. Students will learn different creativity tools and established skills in their utilization over different problems and areas, adopting different approaches to problems and developing innovative solutions out of them. The course foresees a learning by doing approach where they will apply the toolbox step by step to face a challenge, stimulating a creative working environment. Indeed, the objective of the Creative Design Thinking is the establishment of a creative environment in the working group in order to trigger the individual creative potential when implementing innovation. The key concepts on which the course is based are: creativity as the ability to "lateral thinking", a human-centred approach that puts people at the center of the design process and a method which involves co-participation.

From 26th September to 5th October 2022



ENGLISH FOR ACADEMIC COMMUNICATION

Prof. Paolo Biscari, Prof. Cristina Mariotti

The course aims at making PhD students aware of the mechanics of writing in English to clearly communicate their ideas in academic settings; moreover, the course will provide an overview of English phonetics to maximize the effect of the students' oral presentations

From 12th to 16th September 2022





STARTING COURSES – DOCTORAL PROGRAMMES

PHD IN MECHANICAL ENGINEERING

HUMAN RESPONSE TO VIBRATION

Prof. Marco Tarabini

The course focuses on three different aspects: mechanical response of the body to mechanical vibration, modelling of the response of the body to vibration, measurements and mitigating actions.

From September 5th, 2022 – Department of Mechanical Engineering – Polo di Lecco



PIEZOELECTRIC AND FERROELECTRIC MATERIALS FOR SMART APPLICATIONS

Prof. Nora Francesca Maria Lecis

The course aims to deliver an overview of the fundamentals and frontier research of ferroelectric and piezoelectric materials and devices.

From September 9th, 2022 – Department of Mechanical Engineering



AI APPLICATIONS TO INDUSTRIAL ROBOTICS

Prof. Francesco Braghin

The course aims to address the field of artificial intelligence, highlighting interesting contributions in the development of intelligent manipulators in the industrial robotics context.

From September 12th, 2022 – Department of Mechanical Engineering



MULTIBODY SYSTEM DYNAMICS

Prof. Prof. Federico Cheli, Prof. Pierangelo Masarati

The course will address several topics, from foundational to applicative, including Multibody system dynamics, Kinematics and dynamics of points and rigid bodies, Analytical dynamics, and more.

From September 12th, 2022 – Department of Mechanical Engineering and Department of Aerospace Science and Technology



PHD IN INFORMATION TECHNOLOGY

MODEL PREDICTIVE CONTROL

Prof. Marcello Farina

The course provides the main ideas, algorithms, and properties of Model Predictive Control (MPC) and Moving Horizon Estimation (MHE). MPC, in particular, is the most widely used advanced control method in the process industry and is nowadays applied in, e.g., distribution networks, coordination of autonomous systems. Lectures and computer sessions will allow students to: Understand the challenges, opportunities, and issues related to MPC algorithms. Understand the main common technical tools used in the analysis and design of basic and advanced MPC algorithms. Learn how to design and practically implement standard and advanced MPC-based algorithms.

From 5th to 9th September 2022





PHD IN MATHEMATICAL MODELS AND METHODS IN ENGINEERING

DIFFERENTIAL GEOMETRY OF ELASTIC SURFACES, WITH APPLICATIONS TO SHELL THEORY

Prof. Philippe CIARLET

(aula consiglio, building 14, floor 7)

19-20-22-23 September 2022: 10 -12, 14-15;

3-4-6-7 October 2022: 10 -12, 14-15

From 19th September 2022

