

# PhD NEWSLETTER

### **CALLS AND EVENTS**



#### GMA PRIZE FOR THE BEST PHD THESIS IN MECHANICS OF MATERIALS

The Mechanics of Materials Group (GMA) of the AIMETA (Italian Association of Theoretical and Applied Mechanics) issues a prize for the best PhD thesis in Mechanics of

Materials. All candidates having defended their PhD theses in 2020 at an Italian University or Research Centre may apply. The prize consists in a diploma and a participation grant to the next GMA (TBA) congress. During the congress the winner will deliver an invited lecture to present his/her results.

The following documentation must be submitted (email) to all members of the GMA Steering Committee (<u>lorenzo.bardella@unibs.it</u>, <u>marco.paggi@imtlucca.it</u>, giovanni.noselli@sissa.it):

- A pdf version of the thesis (plus a 2-3 pages English summary if not in English)
- Candidate's CV (in English)
- Recommendation letter written by the Supervisor (in English or in Italian)

Deadline for applications: 16th February 2021



# PHD DAY OF EUROPEAN STUDENTS IN AEROSPACE ENGINEERING: A NETWORK OF YOUNG RESEARCHERS IN EUROPE

AIDAA organizes a virtual PhD Day for students working on topics related to aerospace engineering, to celebrate Galileo Galilei's anniversary.

Deadline for applications:  $15^{th}$  February 2021



## STARTING COURSES - PHD SCHOOL

# APPROACHES TO RESILIENCE: SOCIAL, ECONOMIC, ENVIRONMENTAL AND TECHNOLOGICAL **CHALLENGES OF CONTEMPORARY HUMAN SETTLEMENTS**

#### Prof. Balducci Alessandro

The critical-methodological approaches and operational tools that the course proposes are aimed at increasing the awareness and skills necessary to face the social, economic, environmental and technological challenges posed by contemporary urban and territorial contexts and to make them more resilient.

From 1st to 16th February 2021



# MILANO-POLITECNICA: CITTÀ, CULTURA, DESIGN DAL DOPOGUERRA AD OGGI Prof. Bosoni Giampiero

Dall'epoca della ricostruzione post-bellica ad oggi, la città di Milano ha superato acuti momenti di crisi, ricavando dalla tradizione politecnica la linfa, che ha permesso di coinvolgere ampie reti di attori in un lungo e partecipato processo di sviluppo culturale, economico e sociale, animato da intense relazioni tra artisti, architetti, designers, i loro committenti e la società civile.

From 1st February to 19th March 2021





# PROJECT MANAGEMENT (IN ACTION)

#### Prof. Mancini Mauro

The course aims at introducing the students in the characteristics of project-based operations and offering them the opportunity to take confidence on the tools and techniques for the planning and control of projects starting from their application in the academic and professional experience of the students. Multiple sectors will be specifically addressed as Oil and Gas, civil and Services - in order to share practical techniques to manage small, large and mega projects.

From 1st to 5th February 2021





#### PROJECT MANAGEMENT BASICS

### Prof. Fuggetta Alfonso, Prof. Beffani Armando, Prof. Grilli Colombo Sara

Develop Project Management competencies and provide basic tools and techniques for Project Management activities

From 3<sup>rd</sup> to 18<sup>th</sup> February 2021



### TEACHING METHODOLOGIES, STRATEGIES AND STYLES

#### Prof. Sancassani Susanna

The main objective is to enable students to create effective course design, consistent assessment strategies and to apply valid classroom management strategies.

From 15th February to 10th March 2021





### STARTING COURSES – DOCTORAL PROGRAMMES

#### PHD IN INFORMATION TECHNOLOGY

# HOW TO OBSERVE A DISTANCE OF ONE THOUSANDTH OF THE PROTON DIAMETER? THE DETECTION OF GRAVITATIONAL WAVES

#### **Prof. Alberto Gatto**

Students will learn the basic science and technology behind GW detection, understanding how one of the most extreme and challenging research can involve simultaneously different scientific fields, from fundamental Physics to the application of signal analysis and control systems techniques.

Feb 8-18, 2021



# LEARNING SPARSE REPRESENTATIONS FOR IMAGE AND SIGNAL MODELING Prof. Giacomo Boracchi

The main goal of this course is to provide the student with an understanding of the most important aspects of the theory underlying sparse representation and, more in general, of sparsity as a form of regularization in learning problems. These methods have wide applicability in computer science, and represent a useful background for their research. Moreover, the course aims at giving a broad overview of the applications involving sparse representations.

Feb 1-19, 2021



### PHD IN MECHANICAL ENGINEERING

# COMPUTER VISION AND MACHINE LEARNING FOR THE ENVIRONMENT, HEALTH MONITORING AND ENGINEERING APPLICATIONS

#### **Professors Karimi Hamid Reza and Cetin Ahmed Enis**

Machine learning and computer vision. We will focus on: optical and infrared (IR) sensing and related applications, wildfire smoke and fire detection, VOC detection, food safety, and non-contact patient monitoring using IR sensors as well as data-driven soft sensor modeling in engineering applications.

From February 15<sup>th</sup> 2021



# STRUCTURAL DESIGN UNDER EXTREME LOADING CONDITIONS Professors Manes Andrea, Anghileri Marco, and Di Prisco Marco

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 February 8th 2021

