

TIME TABLE

Organizing & Presenting Blibliographic Databases Numerical Techniques in Numerical Techniques Experimental Techniques III experimental recuniques Fracture Mechanics I Pedro Camanho Rosina Malagrida Federico París Basics of Scientific Working and Writing I Composite Materials II Composite Materials Zohar Yosibash Albertino Arteiro Ceramics

REGISTRATION & PARTICIPATION

CORE School is focused on doctoral students in Computational Fracture Mechanics. It is open to highly motivated students outside the NewFrac project as well. There is no registration fee. Participation in the CORE School is for free but, to facilitate the organization of this event, registration is required.

Maximum number of admitted students is 30. In case the number of applications is higher, the local organization committee will select 30 candidates in view of their suitability. Doctoral students hired by the institutions involved in NewFrac will have preference.

To obtain a certificate of having passed the CORE school requires:

- Assistance to at least 85% of the lectures
- Achieve at least 50% in the multiple-choice test that will take place on 05/02/2021 at 10:00 (CET) .

Application deadline 14/01/2021 at 18:00h (CET).

Local Organizing Commitee: Prof. Vladislav Mantic, Dr. Israel Garcia, Dr. José Reinoso and Eng. Ninfa Vital. Application form:

https://forms.gle/DweHe4u4cYPCDktH8

A message of confirmation along with detailed instructions will be sent to admitted participants.

For further information please contact:

Prof. Vladislav Mantič, Universidad de Sevilla info@newfrac.eu







CORE School

Coordinated by:

Prof. Vladislav Mantič Universidad de Sevilla, Spain

18 – 22 January 2021

Funded by the European Commission
Marie Skłodowska-Curie Actions (MSCA)
Innovative Training Networks (ITN)
European Training Networks (ETN)
H2020-MSCA-ITN-2019



New strategies for multifield fracture problems across scales in heterogeneous systems for energy, health and transport

CORE School

INTRODUCTION

The **CORE School training** lays the foundation for the research and training of the doctoral students in the NewFrac project.

The following three aspects are covered in interactive courses:

Expert knowledge – to establish a common understanding of the state of the art.

Academic training – to acquire fundamental skills for academic work and raising awareness of research ethics.

Professional skills – first step towards future leadership through basic communication skills and feedback management.

CORE School will include a Course Work in FEniCS on Numerical Techniques in Fracture.

To attend the school will require the use of Microsoft Teams.

CONTENT

EXPERT KNOWLEDGE 2 ECTs

- Mechanics of heterogeneous materials
- Fibre-reinforced plastics/ceramics, biomaterials
- Introduction to fracture models
- · Numerical modeling techniques
- Experimental techniques

ACADEMIC TRAINING 1.5 ECTs

- Basics of scientific working and writing, idea management
- Literature studies
- Organizing and presenting information
- Research ethics

PROFESSIONAL SKILLS 1.5 ECTs

- Sustainability of innovations, aim of fair society
- Dimension of gender in Research and Innovation
- Feedback management
- Effective communication

INVITED LECTURERS

Prof. Dr. Raul Bermejo. University of Leoben, Austria.

1 Lecture on: Ceramics

Rosina Malagrida, MSc. Head of the Living Lab for Health at Irsi Caixa, Spain.

2 Lectures on: Responsible Research & Innovation.

Sonia Saborit, MBA. Section Head, Pre-Award Grants and Gender Equality & Diversity specialist, IRB Barcelona, Spain.

1 Lecture on: Gender Issues in Research & Innovation.

LECTURERS

Dr. Albertino Arteiro. Universidade do Porto, Portugal. *1 Lecture on:* Composite Materials.

Prof. Pedro P. Camanho. Universidade do Porto, Portugal.

1 Lecture on: Experimental Techniques

Dr. Dominique Leguillon. Sorbonne Université, France 1 *Lecture on:* Fractures Mechanics.

Prof. Laura de Lorenzis. ETH Zurich, Switzerland *1 Lecture on*: Numerical Techniques in Fracture.

Prof. Corrado Maurini. Sorbonne Université, France 1 *Lecture on*: Numerical Techniques in Fracture.

Prof. Marco Paggi. IMT School for Advanced Studies Lucca, Italy

2 Lectures on: Idea Management and Organizing & Presenting Information.

Prof. Federico París. Universidad de Sevilla, Spain 3 *Lectures on*: Composite Materials, Fractures Mechanics and Experimental Techniques.

David Pérez, CEO, CUBICOFF, Spain.

1 Lecture on: Effective Communication & Feedback Management.

Dr. José Reinoso. Universidad de Sevilla, Spain.

3 Lectures on: Basics of Scientific Working and Writing, Bibliographic Studies & Databases and Research Ethics.

Prof. Zohar Yosibash. Tel Aviv University, Israel

2 *Lectures on:* Bones & Arteries and Experimental Techniques.

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MARIE CURIE