



University of Ljubljana



Universidad Rey Juan Carlos

## ***Additive Process Technology Integration with Management and Entrepreneurship***

APTIME winter school, 2022.

January the 24<sup>th</sup> - January the 28<sup>th</sup>.

Móstoles (Madrid), Spain

### **Invitation to participate**

APTIME project is inviting expressions of interest to participate in the first one-week WINTER SCHOOL program. Face-to-Face lecturers and seminars will be delivered during 1 week (5 working days) from January the 24<sup>th</sup> to January the 28<sup>th</sup>. If the international situation, due to the COVID 19 pandemic, will not permit travelling or Face-to-Face activities this Summer School will be delivered remotely.



RESEARCH GROUP **DIMME**  
ESCUELA SUPERIOR DE  
CIENCIAS EXPERIMENTALES Y  
TECNOLOGÍA

PhD students from 6 European Universities from United Kingdom, The Netherlands, Germany, Slovenia, France and Spain are welcome to join this program and share experiences related to Additive Manufacturing.

### **APTIME project.**

The APTIME Project is an EU Funded Erasmus+ Project with the aim of contributing to reduce the skills gap in Additive Layer Manufacturing (ALM). The aim of this project is to reinforcement the “Knowledge Triangle”, through the support of innovation, entrepreneurship and university-business cooperation. A flexible learning pathway about ALM, in line with the needs of learners and companies, is being developed within APTIME that could result in a Masters qualification. The curriculum developed is organized in self-contained modules which could be available for professional training in specific areas.



With the support of the Erasmus+ Programme of the European Union

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## The 2022 Winter School.

This 2022 Winter School will be the first of two teaching experiences run within APTIME. This first School will take place in Spain at the Rey Juan Carlos University in Móstoles, just 16 km from Madrid city centre.

The contents of the School will cover the first 3 modules developed in APTIME project.

- ✓ Module O1: Advanced Materials and Materials for ALM.
  - Feedstock materials for ALM.
  - Mechanical characterization of materials.
  - Fracture and fatigue resistance.
  - Mechanisms of fracture observed by Scanning Electron Microscopy.
- ✓ Module O2: Management and Entrepreneurship for ALM.
  - Introduction to organisational change.
  - Financial aspects of ALM.
  - Business plan (case study).
- ✓ Module O3: Quality control and Part Validation.
  - Importance and overview of quality control and part validation.
  - Inspection of part quality characteristics: non-destructive and destructive tests.
- ✓ Practical session: experimental characterization of powders and ALM samples with a known history.



## Methods and approaches

The modules presented in this School will include the characterization methods for powders and ALM materials. In addition, the importance of quality control and part validation will be revised considering the defects expected in ALM materials. Finally, the management and entrepreneurship aspects of ALM will be presented. A combination of lectures, seminars, case study and practical sessions will be used to develop the School contents.

## Participation

We invite PhD students with interest on ALM coming from the 6 partners involved in APTIME. There are limited places available (4 for each APTIME partner).

The Summer School will take place over 5 days at Rey Juan Carlos University, Spain, and will give participants the opportunity to interact with other students from partner universities in United Kingdom, The Netherlands, Germany, Slovenia, France and Spain.



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## Europass Certificate

A Certificate of Participation will be issued to students who complete the Summer School. A Europass Certificate is available on request.

## Dates

The Summer School takes place from Monday 24<sup>th</sup> January 2022 to Friday 28<sup>th</sup> January 2022. Participants will need to travel outside these dates so that they can participate fully. Therefore please ensure that you are available from Sunday 23<sup>th</sup> January to Saturday 29<sup>th</sup> January 2022.

## What is funded?

The Summer School is FREE to attend. In addition the following expenses are covered by the APTIME project:

- ✓ Travelling from the original country to Madrid (Spain), for students coming from the academic APTIME partners (United Kingdom, The Netherlands, Germany, Slovenia, France).
- ✓ Accommodation during the School, for students coming from the academic APTIME partners (United Kingdom, The Netherlands, Germany, Slovenia, France).
- ✓ Lunches during the Summer School.

## How to apply

To apply, please email **responsible of each partner** before **3<sup>rd</sup> December 2022**. Due to the limited places available, the selection will give priority to eligible applicants who make the earliest application. After approval of the application, please register within 10 working days to guarantee your place at the Summer School. Full attendance for all 5 days is the prerequisite for receiving a certificate of participation.

Successful applicants will be required to attend a half day preparatory workshop to ensure they get the most out of the Summer School.

## More Information

- ✓ To submit your application and registration: **responsible of each partner**
- ✓ For other practical questions, to discuss your eligibility to apply or regarding the content of the programme, please contact **responsible of each partner**



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