



1st Winter School, 24-28 Jan. 2021

Trends on Additive Manufacturing for Engineering Applications

Organized by:



University Politehnica Timisoara, ROMANIA



University of Belgrade, SERBIA



Institute of Physics of Materials, Brno, CZECH REP`.

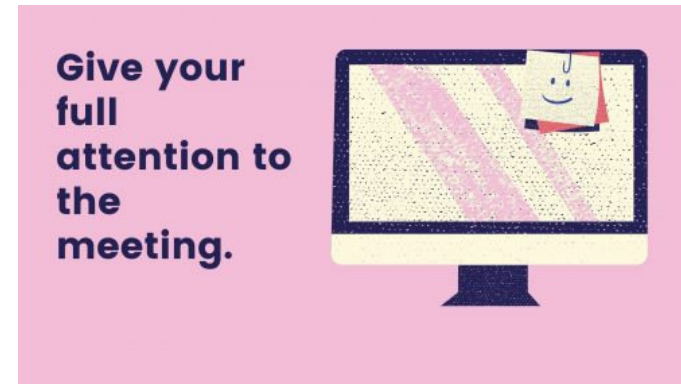
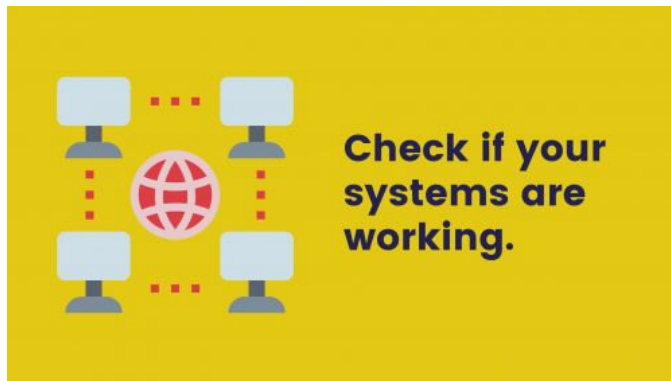


University of Parma, ITALY



Norwegian University of Science and Technology, NORWAY

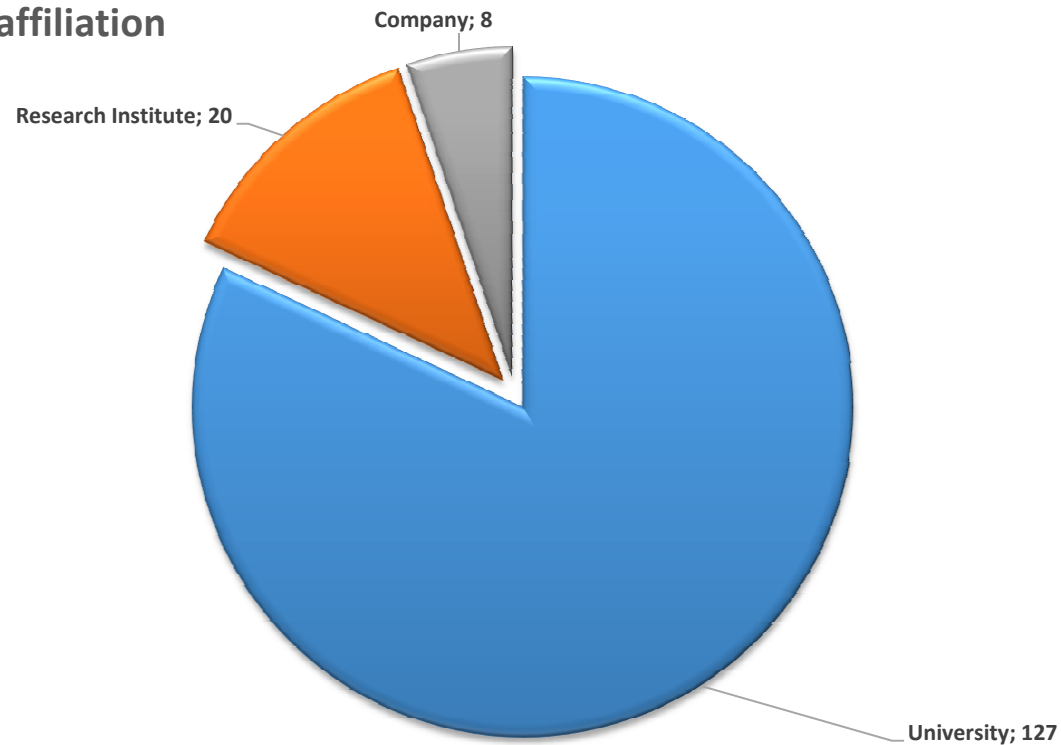
Rules for online meetings !



- Write your name in the Chat window for presence.
- Ask questions in the Chat, to be addressed to Lecturers.
- For any issue write an e-mail to: livi.marsavina@upt.ro, roberto.brighenti@unipr.it

155 participants from 21 countries

By affiliation



Time table

	Jan. 24 Sunday		Jan. 25 Monday	Jan. 26 Tuesday	Jan. 27 Wednesday	Jan. 28 Thursday
		9.00 – 9.30	1st lecture (UPT library) Prof. Liviu Marsavina <i>Presentation of the SIRAMM project</i>	5th lecture (UPT library) Prof. D. Constantinescu <i>"Experimental Fracture Mechanics"</i>	9th lecture (online) Prof. A. Sedmak <i>"Application of Fracture Mechanics parameters on structural integrity assessment"</i>	10th lecture (online) Prof. F. Berto <i>"Local approaches in fatigue"</i>
		9.30 – 11.00	2nd lecture (online) Prof. Jan Torgensen <i>"Opening the design space by removing constraints with Additive Manufacturing and Topology Optimization"</i>			
		11.00 – 11.30	Break (UPT library)	Break (UPT library)	Break (UPT library)	Break (UPT library)
		11.30 – 13.00	3rd lecture (online) Prof. R. Brighenti Prof. A. Spagnoli <i>"Review on AM of polymeric materials"</i>	6th lecture (online) Dr. S. Tavernini (*) <i>"How to apply for research funding: funding opportunities for Early Stage Researchers and grant writing tips"</i>	Practical session 1 (Faculty of Mech. Eng. Lab. Belgrade & online) <i>Designing and Manufacturing of Specimens</i>	11th lecture (UPT library) Prof. Roxana Ghita <i>"Gender (im)balance in science and engineering across cultures"</i>
		13.00 – 15.00	Lunch	Lunch	Lunch	Lunch
14.30 – 16.30	Welcome reception & registration (UPT library)	15.00 – 16.30	4th lecture (online) Prof. Ludvik Kunz <i>"Fatigue properties of metallic materials produced by AM"</i>	7th lecture (online) Dr. A. Grbovic <i>"Numerical simulation of fatigue crack growth"</i>	Practical session 2 (Faculty of Mech. Eng. Lab. UPT & online) <i>Testing of specimens (static, fracture toughness)</i>	15.00 – 16.00 Final exam (UPT library & online)
16.30 – 17.00	Opening of the winter School (UPT library & online):	16.30 – 17.15		8th lecture (online) Prof. F. Auricchio <i>"Simulation for additive manufacturing: opportunities and challenges"</i>	(*) 16.30-18.00 (online) Dr. S. Tavernini will be available to discuss and answer questions by the winter school attendee on research funding and related tips	16.00 – 17.00 Discussion session (UPT library & online) Research, future perspectives and international collaborations on AM in engineering
17.00 – 18.00	Presentation of some of the participants on their backgrounds and current activities (UPT library & online)		16.30 – 18.00 Discussion session (UPT library & online) Speakers will be available online for Q&A	17.15 – 18.00 PhD presentations (UPT library & online)		17.00 – 17.15 Closing of the winter School (UPT library & online)

Sunday, Jan. 24th, 2021 (CE time, Rome, Paris)

14:30 – 16:30 **Welcome reception & registration**
(UPT library)

16:30 – 17:00 **Opening of the Winter School**
(UPT library & Online)

Rector of University Politehnica Timisoara Florin Dragan (UPT, Romania)
Dean of the Mechanical Engineering Faculty Virgil Stoica (UPT, Romania)
Prof. Liviu Marsavina (UPT, Romania)
Presentation of the University Politehnica Timisoara
Week Program of the Winter School

17:00 – 18:00 **Presentation of some of the participants on their backgrounds
and current activities**
(UPT library & Online)

Monday, Jan. 25th, 2021 (CE time, Rome, Paris)

9:00 – 9:30 **1st lecture** (UPT library & Online)

Prof. Liviu Marsavina (UPT, Timisoara, ROMANIA)

Presentation of the SIRAMM project

9:30 – 11:00 **2nd lecture** (Online)

Prof. Jan Torgensen (NTNU, Trondheim, NORWAY)

Opening the design space by removing constraints with Additive Manufacturing and Topology Optimization

11:30 – 13:00 **3rd lecture** (Online)

Prof. R. Brighenti, Prof. A. Spagnoli (Univ. of Parma, ITALY)

Review on AM of polymeric materials

13:00 – 15:00 Lunch, suspension of the online transmission

Monday, Jan. 25th, 2021 (CE time, Rome, Paris)

15:00 – 16:30 **4th lecture** (Online)

Prof. Ludvík Kunz (IPM Brno, CZECH REP.)

Fatigue properties of metallic materials produced by AM

16:30 – 18:00 **Discussion session**

(UPT library & Online)

Svetozar Koloser (3D Republic, Serbia)

Dr. Monica Buzdugan (Vitesco, Romania)

Prof. Dorian Nedelcu (U. Babes – Boyai, Romania)

Tuesday, Jan. 26th, 2021 (CE time, Rome, Paris)

9:00 – 11:00 **5th lecture** (UPT library & Online)

Prof. D. Constantinescu (UP Bucharest, ROMANIA)

Experimental Fracture Mechanics

11:00 – 11:30 Break, suspension of the online transmission

11:30 – 13:00 **6th lecture** (Online)

Dr. S. Tavernini (Univ. of Parma, ITALY) (Q&A on Wed. 27th, 16.30-18.00, *)

How to apply for research funding:

funding opportunities for Early Stage Researchers and grant writing tips

13:00 – 15:00 Lunch, suspension of the online transmission

Tuesday, Jan. 26th, 2021 (CE time, Rome, Paris)

15:00 – 16:30 **7th lecture** (Online)

Dr. A. Grbovic (Univ. of Belgrade, SERBIA)

Numerical simulation of fatigue crack growth

16:30 – 17:15 **8th lecture** (Online)

Prof. F. Auricchio (Univ. of Pavia, ITALY)

Simulation for additive manufacturing: opportunities and challenges

17:15 – 18:00 **PhD presentations**

(UPT library & Online)

M. Maurizi (NTNU, NORWAY), **Vasile Alexandru** (UPB, ROMANIA),
L. Poczklan (IPM, CZECH Rep), **T. Krausz** (UPT, ROMANIA), **N. Yadzhak**
(Nat. Univ. Lvov, UKRAINE), **A. Celotto** (NTNU, NORWAY), **R. Alberini**
(Univ. of Parma, ITALY), **A. Isaincu** (UPT, ROMANIA), **M.-O. Popp** (ULB
Sibiu, ROMANIA), **M. Cosma** (Univ. of Parma, ITALY), **M. Doubrava** (Brno
Univ. CZECH. REP), **F. Uriati** (Univ. of Parma, ITALY)

Wednesday, Jan. 27th, 2021 (CE time, Rome, Paris)

9:00 – 11:00 **9th lecture** (Online)

Prof. A. Sedmak (Univ. of Belgrade, SERBIA)

Application of Fracture Mechanics parameters on structural integrity assessment

11:00 – 11:30 Break, suspension of the online transmission

11:30 – 13:00 **Practical session 1** (Faculty of Mech. Eng. Lab., Belgrade & Online)

Designing and Manufacturing of AM Specimens

13:00 – 15:00 Lunch, suspension of the online transmission

Wednesday, Jan. 27th, 2021 (CE time, Rome, Paris)

15:00 – 16:30 **Practical session 2** (Faculty of Mech. Eng. Lab., Timisoara & Online)

Testing of AM specimens (static, dynamic, fracture toughness)

16:30 – 18:00 **Dr. S. Tavernini** (Univ. of Parma, ITALY) (Online)

Online meeting to discuss and answer questions by the winter school attendee on research funding and related tips

Thursday, Jan. 28th, 2021 (CE time, Rome, Paris)

9:00 – 11:00 **10th lecture** (Online)

Prof. F. Berto (NTNU, Trondheim, NORWAY)

Local approaches in fatigue

11:00 – 11:30 Break, suspension of the online transmission

11:30 – 13:00 **11th lecture** (UPT library & Online)

Prof. Roxana Ghita (UPT, Timisoara, ROMANIA)

Gender (im)balance in science and engineering across cultures

13:00 – 15:00 Lunch, suspension of the online transmission

Thursday, Jan. 28th, 2021 (CE time, Rome, Paris)

15:00 – 16:00 **Final exam** (UPT library & Online)

Multiple choice test

16:00 – 17:00 **Discussion session** (UPT library & online)

*Research, future perspectives and international collaborations on
AM in engineering*

- **Florin Vladulescu** (University Politehnica Bucharest, ROMANIA):
Design and additive manufacturing process simulation of a bracket using finite element method
- **Farzad Tatar** (IRAN)
- **Michele Terzano** (Univ. of Parma, ITALY)
- **Pavol Dlhý** (IPM Brno, CZECH REP.)

17:00 – 17:15 **Closing of the winter School** (UPT library & Online)

Thursday, Jan. 28th, 2021 (CE time, Rome, Paris)


15:00 – 16:00 **Final exam** (UPT library & Online)

Google forms

ECTS credits

3 ECTS will be recognized for the participation (for at least 70% of the lectures attended) to the winter school.

2 more ECTS will be recognized upon the positive evaluation of the final assessment test.



Winter School on Trends on "Additive Manufacturing for Engineering Applications", Final test

Polytechnic Univ. of Timisoara (UPT), Romania, 24-28 January 2021

Please answer the questions below by choosing only one of the proposed answers

Test pass with at least 60% of correct responses (2 ECTS will be recognized)
3 ECTS are assigned for attending the winter school (min 70% of the lectures)

Correct answer: 1 point
Incorrect answer or answer not given: 0 points

***Required**

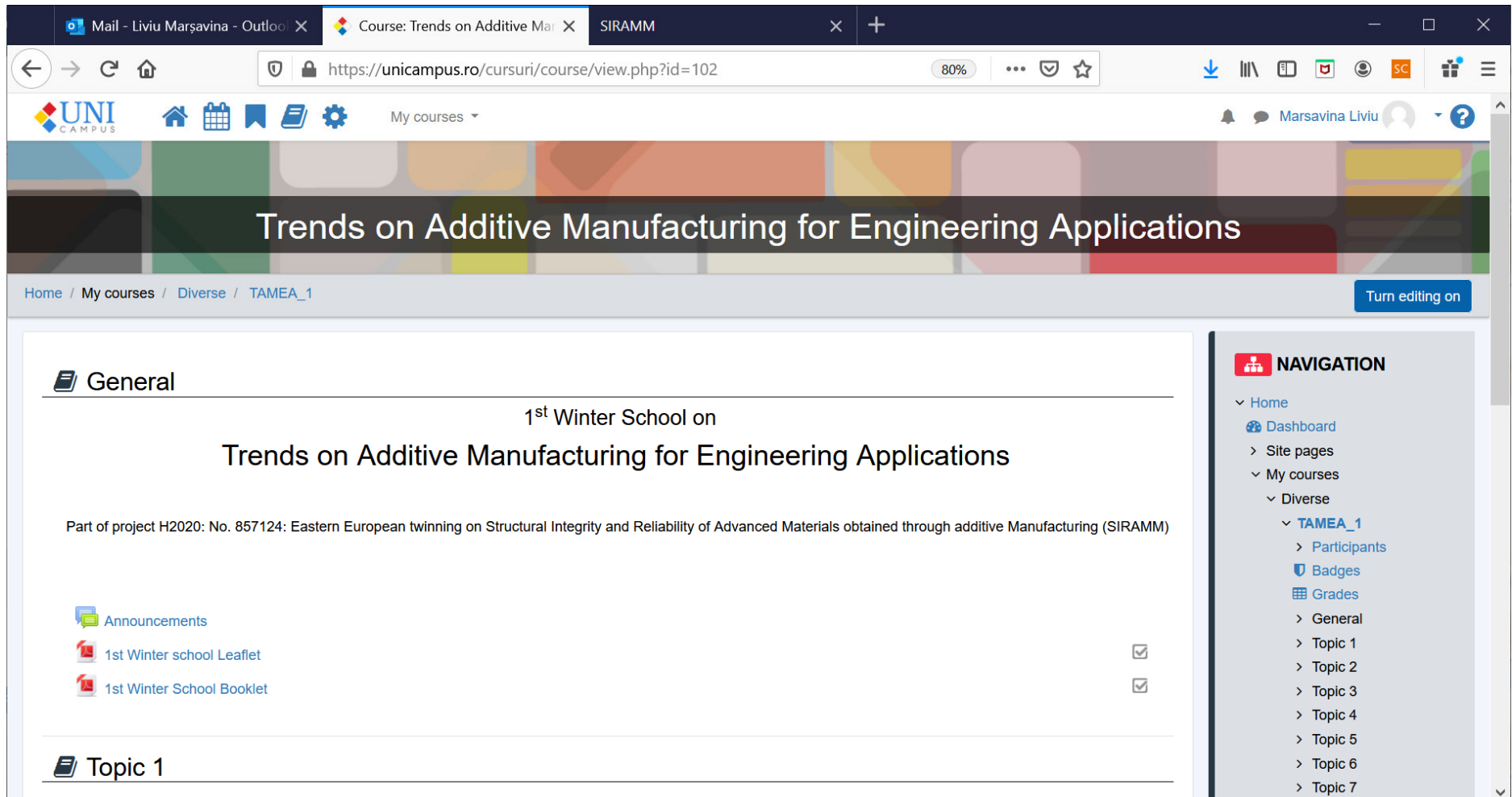
Email address *

Your email address

Next

Page 1 of 2

unicampus.ro



The screenshot shows a web browser window with the URL <https://unicampus.ro/cursuri/course/view.php?id=102>. The page is titled "Trends on Additive Manufacturing for Engineering Applications" and is part of the "1st Winter School on" project. The page is organized into sections: "General" and "Topic 1". Under "General", there is a description of the project (H2020: No. 857124: Eastern European twinning on Structural Integrity and Reliability of Advanced Materials obtained through additive Manufacturing (SIRAMM)) and a list of "Announcements" including "1st Winter school Leaflet" and "1st Winter School Booklet". A "NAVIGATION" sidebar on the right lists the course structure, including "Home", "Dashboard", "Site pages", "My courses", "Diverse", and "TAMEA_1" (which includes "Participants", "Badges", "Grades", "General", "Topic 1", "Topic 2", "Topic 3", "Topic 4", "Topic 5", "Topic 6", and "Topic 7").

General

1st Winter School on

Trends on Additive Manufacturing for Engineering Applications

Part of project H2020: No. 857124: Eastern European twinning on Structural Integrity and Reliability of Advanced Materials obtained through additive Manufacturing (SIRAMM)

Announcements

- 1st Winter school Leaflet
- 1st Winter School Booklet

Topic 1

NAVIGATION

- Home
- Dashboard
- Site pages
- My courses
- Diverse
- TAMEA_1
 - Participants
 - Badges
 - Grades
 - General
 - Topic 1
 - Topic 2
 - Topic 3
 - Topic 4
 - Topic 5
 - Topic 6
 - Topic 7

Video of lectures will be available at: www.esis.tv



Thank you to all the participants !