



UPM IMPACT in SDG7

Quality Education

EELISA ACITIVITIES AROUND SDG7

Tech Diplomacy Conference in Switzerland – 2 Day Event

Description

The student will participate in the research group ACOM to collaborate on the present project, always supervised by the PDI involved. The student will apply scientific methods, e.g. literature reviews and surveys, to set conclusions and recommendations to continue this research line on on activated carbon from waste biomass for electrocatalytic applications.

Assessment: TFG Defense and Report

Community	Advanced Materials for a Sustainable Future		
Coordinator	jose.dlopez@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 7 - Affordable & Clean Energy	Others SDG	
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master bachelor	Teaching mode	In person
Link	https://community.eelisa.eu/activities/final-degrees-project-tfg-research-on-activated-carbon-from-waste-biomass-for-electrocatalytic-applications/		



EELISA Unfolds

Description

The student will be introduced in the research world focusing on the development of more radiation-resistant materials to be part of future nuclear fusion reactors.

The project contains three part:

Experimental tasks

- Fabrication of diverse 3D tungsten nanostructured coatings by sputtering
- Study of the influence of sputtering parameters on the coatings morphology
- Characterization of the morphology of the fabricated coatings by scanning electron microscopy (SEM).
- Measurements of the sputter yield

Data analysis

- Use of different software for data analysis

Computer simulations

- Monte Carlo simulations to study the sputter yield of the fabricated coatings. Comparison with experimental results.

The Master Thesis will be evaluated after being presented in front of a court formed by three teachers from the ETSII. The courts are random, hence, the members will not be known until the day of the defence.

To guide the procedure, evaluation rubrics will be used which are slightly different for each degree. The rubrics must be filled by both, the student and the tutor.

There are three different evaluation documents.

Report document: Evaluated by the tutor, student and court.

Process: Evaluated by the tutor and the students.

Oral presentation: Court



OBJETIVOS DE DESARROLLO SOSTENIBLE



Community	Advanced Materials for a Sustainable Future		
Coordinator	raquel.gonzalez.arrabal@upm.es	ECTS	
Kind of activity	Thesis		
Principal SDG	SDG 7 - Affordable & Clean Energy	Others SDG	
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master	Teaching mode	Blended
Link	https://community.eelisa.eu/activities/master-thesis-fabrication-and-characterization-of-the-sputter-yield-for-3d-tungsten-nanostructures/		



EELISA Roundtable Parenting and STEM in the 21st Century: Raising children, giving up science?

Description

The trainee will be aiding the technical director of the project in the engineering of the fuel cell-based powertrain testing facility for marine applications, and in the monitoring of the supplies by checking that they are being delivered according to the agreed deadlines, while meeting all the technical specifications. The trainee will receive tutoring and mentorship from the members of the Fuel Cells, Hydrogen Technology and Reciprocating Engines (PiCoHiMa https://www.upm.es/recursosidi/en/map/en_fuel-cellshydrogen-technology-and-alternative-engines/) to help them achieve the needed knowledge required to reach the traineeship objectives successfully. The tutoring and mentorship activities offered by the PiCoHiMa members are enclosed in the framework of EELISA the STRIDE Community (<https://eelisa.eu/project/stride-societytransition-towards-digitalization-and-energy-decarbonization/>).

Community	Society Transition towards Digitalization and Energy Decarbonization EELISA Community for Energy Transition and International Exchange (EELISA's 1st Student Community)		
Coordinator	r.damore@upm.es	ECTS	20
Kind of activity	Internship		
Principal SDG	SDG 7 - Affordable & Clean Energy	Others SDG	
Starting date	2023-06-20	Ending date	2023-10-20
Target group	master bachelor	Teaching mode	In person
Link	https://community.eelisa.eu/activities/trainee-engineer-for-fuel-cell-test-facility-design/		



MEDSKILL- Development of MEDical SKILLs by Simulation

Description

Participate in the competition Solar Decathlon Europe.

Deliverables: Building a sustainable "Living Demonstration Unit" and taking part in SD23.

Community	Sustainable Buildings, Cities and Communities		
Coordinator	beatriz.arranz@upm.es	ECTS	
Kind of activity	Challenge		
Principal SDG	SDG 7 - Affordable & Clean Energy	Others SDG	SDG 9 - Industry, Innovation & Infrastructure SDG11 - Sustainable Cities & Communities
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master bachelor	Teaching mode	In person
Link	https://community.eelisa.eu/activities/solar-decathlon-europe/		



High-tech Entrepreneurship: Lecture #5 – Let’s do it seriously: going beyond the first steps and scaling up. How to deal with industrial and financial partners.

Description

EELISA Community SusBCC is organising a Proptech Entrepreneurship Hackathon, with 24 available onsite spots for students who want to travel to Madrid and participate!

This event has been designed in collaboration with companies such as FMHouse, the European Space Agency, Sacyr, IFMA Spain (International Facility Management Association), Veltis Rating and Ove Arup.

The activity provides an excellent opportunity for participating students to gain a global and comprehensive vision in order to generate new entrepreneurial and business ideas that support the improvement of efficiency and sustainability in our buildings, cities, and communities. It addresses the demands of today’s European society from a dual perspective:

DIGITAL & EFFICIENT Buildings and cities: This involves the development of PROPTech (Industry 4.0) to leverage the synergies and potential offered by digital trends.

SUSTAINABILITY: through the perspective of responsible and sustainable investments (RSI) as a criterion of a new business philosophy for the selection of investments integrating ESG (Environmental, Social and Governance) criteria

This activity promotes awareness and commitment among tomorrow’s European professionals. It will take place in a creative and collaborative international environment with the participation of students, professors, researchers, and professionals.

What is this activity about?

The SUSBCC – PEHK (Proptech Entrepreneurship Hackathon) will be held in a face-to-face format from the 5th to 8th of June 2023 at the UPM’s School of Architecture in Madrid. It is open to all EELISA students, as well as professors, researchers, and professionals from our partners. The participation of professionals enriches the students’ experience.

The activity is structured as a large Role Play – Hackathon, in which students, organized into teams (future “start-ups”), participate in a condensed Proptech entrepreneurship program. The program includes the following:



Identification of digital trends and technologies with innovative applications to foster efficient and sustainable buildings and cities. Students will explore five main digital trends to inspire business ideas through visits, activities, and workshops (WD1+WT2).

Workshops to refine a business idea, providing information and knowledge on key instrumental issues for business model development (workshops WT3, WT4, and WT5).

Training in transversal skills to develop marketing and communication strategies (workshops WT6 and WT7).

The Hackathon involves formulating a business proposal that will compete in a Mock Investors' Forum. This forum simulates the process of seeking funding and rewards the most promising start-ups with the greatest potential for impact on the market from the PROPTECH and ESG perspectives. The aim is to promote more efficient and sustainable buildings, cities, and communities.

How to participate?

[Click here to download a document with all the necessary information](#)

WHEN

From the 5th to the 8th of June, 2023

WHERE

UPM's School of Architecture (ETSAM)

Av. de Juan de Herrera, 4, 28040 Madrid



Community	Sustainable Buildings, Cities and Communities		
Coordinator	mcarolina.hernandez@upm.es	ECTS	
Kind of activity	Contest		
Principal SDG	SDG 7 - Affordable & Clean Energy	Others SDG	SDG 9 - Industry, Innovation & Infrastructure SDG11 - Sustainable Cities & Communities
Starting date	2023-06-05	Ending date	2023-06-08
Target group	master bachelor phd	Teaching mode	In person
Link	https://community.eelisa.eu/activities/proptech-entepreneurship-hackathon/		



Collaborative Ecosystem Research

Description

General information about UPM International Summer Schools

The UPM International Summer Schools are multilingual study abroad programmes. They address some of the latest trends in engineering and architecture, combined with a taste of Spanish language and culture in one of Europe's most cosmopolitan cities.

The UPM International Summer Schools reach out to a worldwide audience by combining courses taught in English (Anglotech) and Spanish (Hispanotech).

Students of the UPM International Summer School will:

Get acquainted with the latest technological trends, visit laboratories and benefit from the insight of industry experts

Gain access to advanced knowledge on architecture and engineering, and visit notable buildings and sites

Experience learning in a multicultural classroom with peers from different parts of the world

Get a feeling for Spanish language, an appreciation of Spanish culture and enjoy the Spanish way of life

The UPM International Summer Schools offer face to face courses on one of the UPM's campuses. They also offers an interesting cultural and social programme, including day trips to world heritage sites like Toledo, Segovia, and guided walks around Madrid and visits to the Prado and Reina Sofia Museums.

Registration deadline:

Until 30 April 2023.

Topic:

Nanotechnology is the use of matter on an atomic, molecular and supramolecular scale for industrial purposes, covering fields of science ranging from surface engineering, organic chemistry, molecular biology, semiconductor physics, energy storage, microfabrication and molecular engineering. This course offers an introduction to the foundations of nanotechnology, the properties of nanostructures, and the most usual tools for their fabrication and characterization, and also the development of different nanodevices and nanosystems, especially in the areas of nanoelectronics, nanophotonics and nanobiotechnology.



School specific information:

Contact Hours 20 Dates 19/06 – 23/06 Director Fernando Calle Price 400€

Reduced participation fees, travel and subsistence support

With regard to the registration fee, UPM offers students from EELISA universities (BME, ENPC, ITU, PSL, SNS, SSSA, FAU, UPB, UPM) a discount which consists in the payment of 50% of the registration fee. UPM decides on the final assignment of spots and fees. Travel and accommodation might be supported by your EELISA institution, please contact your local EELISA project coordinator.

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OBJETIVOS DE DESARROLLO SOSTENIBLE



Community	Advanced Materials for a Sustainable Future Materials and Objects for a Sustainable World		
Coordinator	info.summer.school@upm.es	ECTS	
Kind of activity	Summer / Winter / Seasonal schools		
Principal SDG	SDG 7 - Affordable & Clean Energy	Others SDG	SDG 9 - Industry, Innovation & Infrastructure SDG12 - Responsible Consumption & Production S
Starting date	2023-06-19	Ending date	2023-06-23
Target group	master bachelor	Teaching mode	In person
Link	https://community.eelisa.eu/activities/international-summer-school-nanotechnology-at-upm/		



Job opening doctoral researchers / PhD students in the area of atomic-precision synthesis and exploration of new planar carbon lattices

Description

Free course aimed at undergraduate students in their 3rd or 4th year, Master's students and/or PhD students. Enrollment priority will be: ETSIME Bachelor, Master and Doctorate students, ETSII-UPM Energy Master students and EELISA students. The course will be taught entirely in English by Jean Papée Total Energies Professor Associates (TPA) and Vice-President Middle East and East Asia, Total Marketing & Services based in Singapore.

Theme and objectives:

Introduce students to the challenge of climate change and greenhouse gas emissions.

Knowledge of the scenarios and action plans recommended by international institutions to limit CO₂

Operation and challenges of renewable energies.

Analysis of the energy mix and tools to compare energies from an economic, technical and environmental angle.

Establish actions to reduce CO₂ emissions and develop appropriate renewable energies.

First effects of Covid 19 on energy demand and the impact on CO₂

Have a global vision of life cycle analysis.

Evaluate the challenges of the Paris agreements and their decline in each country.



OBJETIVOS DE DESARROLLO SOSTENIBLE



Community	EELISA Community for Energy Transition and International Exchange (EELISA's 1st Student Community) Society Transition towards Digitalization and Energy Decarbonization		
Coordinator	david.nsimavilla@upm.es	ECTS	1
Kind of activity	Course / Seminar		
Principal SDG	SDG 7 - Affordable & Clean Energy	Others SDG	SDG 9 - Industry, Innovation & Infrastructure SDG13 - Climate Action
Starting date	2023-06-16	Ending date	2023-06-21
Target group	master bachelor phd	Teaching mode	In person
Link	https://community.eelisa.eu/activities/climate-change-and-energy-transition-course/		



High-tech Entrepreneurship: Lecture #7 – Pitch it well: review your business plan to apply to competitions such as Start Cup Toscana 2023

Description

This activity will be based on the principles of Challenge-Based Learning (CBL). Students will learn to use energy simulation tools (HULC or CYPEtherm HE) for optimizing energy efficiency and resolving energy certification, allowing them to acquire in-depth knowledge about influencing factors.

This activity will be carried out using active student-centered methodologies to facilitate learning through solving challenges consisting of real-life energy efficiency cases. The company SINCEO2 ENERGY ENGINEERING S.L. will provide the necessary data for resolution.

Course Coordinator: Natalia E. Fonseca Gonzalez (natalia.fonseca@upm.es)

Collaborating professor: David Nieto Simavilla (david.nsimavilla@upm.es)

Community	Society Transition towards Digitalization and Energy Decarbonization		
Coordinator	david.nsimavilla@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 7 - Affordable & Clean Energy	Others SDG	SDG11 - Sustainable Cities & Communities SDG12 - Responsible Consumption & Production
Starting date	2023-09-07	Ending date	2024-01-19
Target group	master	Teaching mode	In person
Link	https://community.eelisa.eu/?post_type=eelisa_activity&p=6774		



Spyglass 2022-2023

Description

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Registration deadline:

Until 30 April 2023.

Subtopic 1:

Clean Energy

The shift to Clean Energy technologies is urgent in order to limit climate change. Renewable energy sources (solar, wind, biomass,...) will be the core of our energy system, and a number of technological challenges should be addressed to ease the transition.

Contact Hours 10 Dates 3-7 July Director David Fuertes

Subtopic 2:



Optimization of Clean Energy Production Systems in Microsoft Excel

Introduction to mathematical formulation and optimization techniques to find the best solution for decision-making problems using Microsoft Excel. The proposed problems are based on the operation of clean energy production systems. This hands-on course with a lot of student participation focuses on real-world clean energy production system case studies.

Contact Hours 10 Dates 5-7 July Director Manuel J. Chazarra Jover

Reduced participation fees, travel and subsistence support

With regard to the registration fee, UPM offers students from EELISA universities (BME, ENPC, ITU, PSL, SNS, SSSA, FAU, UPB, UPM) a discount which consists in the payment of 50% of the registration fee. A discount and support for travel and accommodation cannot be granted twice to the same EELISA applicant for UPM international summer schools 2023. UPM decides on the final assignment of spots and fees. Travel and accommodation might be supported by your EELISA institution, please contact your local EELISA project coordinator.

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OBJETIVOS DE DESARROLLO SOSTENIBLE



Community	EELISA Community for Energy Transition and International Exchange (EELISA's 1st Student Community) Society Transition towards Digitalization and Energy Decarbonization		
Coordinator	info.summer.school@upm.es	ECTS	
Kind of activity	Summer / Winter / Seasonal schools		
Principal SDG	SDG 7 - Affordable & Clean Energy	Others SDG	SDG12 - Responsible Consumption & Production
Starting date	2023-07-03	Ending date	2023-07-07
Target group	master bachelor	Teaching mode	In person
Link	https://community.eelisa.eu/activities/international-summer-school-sustainable-energy-technologies-and-optimization-at-upm/		