



# UPM IMPACT in SDG9

## Industry, Innovation & Infrastructure

### EELISA ACITIVITIES AROUND SDG4

PSL visit and joint EELISA visit of 65. FAFA/VDFG congress in Saint-Brieuc

#### Description

Summer School in Cercedilla focusing on Semantic Technologies and interoperability for the building industry.

Open to abroad students (without any type of administrative or academic barriers).

Community	Sustainable Buildings, Cities and Communities		
Coordinator	mpoveda@fi.upm.es	ECTS	
Kind of activity	Summer / Winter / Seasonal schools		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master   bachelor	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/summer-school-on-semantic-linked-building-data/">https://community.eelisa.eu/activities/summer-school-on-semantic-linked-building-data/</a>		



## CircularizatE

### Description

The overall objective of this course is to provide a useful tool to facilitate the students' commitment towards the achievement of SDGs, through their involvement in the Service-Learning projects aimed at building egalitarian societies in which everybody has the same opportunities. Thus, students become active citizens who learn while placing their knowledge and skills at the service of real projects with social impact

Deliverables: A proposal of the Service-Learning project

Assessment: -70% the proposal of the Service-Learning project

-30% the proposal oral presentation.

Community	Egalitarian Societies: Opportunities for Everyone (ES: O4E)		
Coordinator	consuelo.fernandez@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG 1 - No poverty   SDG10 - Reduced Inequalities   SDG11 - Sustainable Cities & Communities   SDG12 -
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master   bachelor	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/service-learning-aps-as-a-tool-to-achieve-the-sustainable-development-goals-sdgs/">https://community.eelisa.eu/activities/service-learning-aps-as-a-tool-to-achieve-the-sustainable-development-goals-sdgs/</a>		



## The cool rail project

### Description

Vinculado al Programa de Ayudas para estudiantes para la realización de Trabajo Fin de Titulación en Cooperación Internacional para el Desarrollo Sostenible, del Vicerrectorado de Internacionalización

Este programa de ayudas lleva asociado también un programa previo de formación. Está destinado a alumnos de la UPM.

Community	Tech Diplomacy & International Cooperation		
Coordinator	e.lopez@upm.es	ECTS	
Kind of activity	Thesis		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG 1 - No poverty SDG10 - Reduced Inequalities SDG11 - Sustainable Cities & Communities SDG12 -
Starting date	2023-03-01	Ending date	2023-12-31
Target group	master   bachelor	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/trabajo-fin-de-titulacion-en-cooperacion-internacional-para-el-desarrollo-sostenible-tft-cids/">https://community.eelisa.eu/activities/trabajo-fin-de-titulacion-en-cooperacion-internacional-para-el-desarrollo-sostenible-tft-cids/</a>		



## Virtual Lab Tour @ FAU Campus Nuremberg Thu, 27.10.2022 | 5:00 – 7:30 pm (CEST)

### Description

Two training activities will take place around the game. The first one before the game, aimed at explaining the scientific bases of the geo-hydrological hazard that they will "suffer" in the simulation, how it is identified, its' types, and studies to understand it. The second, after the game, will collect reflections, impressions, doubts, and will reinforce the meaning of resilience as a fundamental part of risk mitigation through the reduction of social, economic, cultural, environmental, etc. vulnerability.

As the core of the activity, we will use in-person role-playing games to give participants a taste of what it takes to build community resilience in the face of disaster. Players work together to make decisions and solve problems during an engaging, fast-paced disaster simulation.

Community	WATER in an era of change		
Coordinator	carlos.paredes@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG 1 - No poverty   SDG11 - Sustainable Cities & Communities
Starting date	2021-01-01	Ending date	2021-12-31
Target group	all	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/extreme-events-gamified-preparedness/">https://community.eelisa.eu/activities/extreme-events-gamified-preparedness/</a>		



## Python Module of IngeMat Programming Workshops 2022

### Description

MSc or PhD project proposal to develop in 1 or 3 years, respectively.

Deliverables: MSc or PhD manuscript, publications and dissemination activities associated.

Assessment: Quality of the resulting research judged according to the impact and score of the resulting publications.

Community	WATER in an era of change		
Coordinator	carlos.paredes@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG 1 - No poverty SDG11 - Sustainable Cities & Communities SDG13 - Climate Action SDG15 - Life
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master   phd	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/understanding-active-geomorphological-erosion-processes-in-polar-areas-for-surveillance-and-forecasting-under-the-impact-of-a-changing-climate/">https://community.eelisa.eu/activities/understanding-active-geomorphological-erosion-processes-in-polar-areas-for-surveillance-and-forecasting-under-the-impact-of-a-changing-climate/</a>		



## Hospital internships

### Description

Development of a final thesis (bachelor or master) in a poor context in Latin America or Africa, working with social impact of the technology.

Around 300 (for 12 ECTS), depending on the number of ECTS per degree.

In collaboration with our partners in Africa and Latin-America: universities, NGO, public institutions

Community	Tech Diplomacy & International Cooperation		
Coordinator	virginia.diaz@upm.es	ECTS	
Kind of activity	Thesis		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG 1 - No poverty   SDG13 - Climate Action
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master   bachelor	Teaching mode	Hybrid
Link	<a href="https://community.eelisa.eu/activities/final-thesis-in-international-cooperation-for-development/">https://community.eelisa.eu/activities/final-thesis-in-international-cooperation-for-development/</a>		



## Meeting with entrepreneurs: HOW TO CREATE A STARTUP

### Description

This academic year we are once again promoting internships in hospitals, where students will be able to capture the real needs of medical professionals and design and implement technological solutions that add value to them.

Community	Health in the City		
Coordinator	p.sanchez@upm.es	ECTS	
Kind of activity	Internship		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG 3 - Good Health & Well-Being
Starting date	2022-09-05	Ending date	2023-07-14
Target group	master   bachelor   researcher	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/hospital-internships/">https://community.eelisa.eu/activities/hospital-internships/</a>		



## Winter School in Advanced Biomedical Engineering

### Description

The aim of the course is to present the possibilities that 5G technology brings to the digital transformation of healthcare. It will be based on knowledge of 5G technologies and their application to those healthcare scenarios in which they can be most useful.

The course is aimed at undergraduate, master's and doctoral students of any degree related to technologies at any university in the world, as well as professionals in the health sector, who wish to learn about the possibilities of 5G technology in medicine and in the digital transformation of healthcare.

Community	Health in the City		
Coordinator	programa5gfranciscoros.etsit@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG 3 - Good Health & Well-Being
Starting date	2022-11-15	Ending date	2022-11-22
Target group	master   bachelor   phd   researcher	Teaching mode	Blended
Link	<a href="https://community.eelisa.eu/activities/5g-technology-in-the-digital-transformation-of-healthcare/">https://community.eelisa.eu/activities/5g-technology-in-the-digital-transformation-of-healthcare/</a>		





## Science for Peace, Past and Present Description

The second activity carried out within the EELISA-on-the-MOVE protocommunity this year was a workshop coordinated by Maria Amor Ariza Álvarez Belén Martín Ramos, Julio A. Soria-Lara and Emilio Ortega Pérez from Universidad Politécnica de Madrid, with the participation of Ramón Molinero Parejo and Nikolai Shurupov from Universidad de Alcalá. This activity is recognised with a level 3 impact badge (commitment) for EELISA Credentials.

This flagship project was oriented to the acquire of skills related to managing, processing, and mapping spatial data by the use and application of QGIS Software (Geographical Information Systems) on urban mobility planning. Moreover, students learned the basics of “Cadastral Classifier” tool, which allows processing and classifying cadastral data and helps overcome existing barriers on the use of cadastral information.

Workshop dynamization and organization INNOVAPLAN & TRANSyT-UPM: Maria Amor Ariza Álvarez Belén Martín Ramos, Julio A. Soria-Lara, Emilio Ortega Pérez.

Ramón Molinero Parejo and Nikolai Shurupov, Universidad de Alcalá

6 April 2022, 9.00-13.30 AM

ETSI Montes, Forestal y del Medio Natural.

Community	EELISA-on-the-MOVE		
Coordinator	julio.soria-lara@upm.es	ECTS	
Kind of activity	Workshop		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG 4 - Quality Education
Starting date	2022-04-06	Ending date	2022-04-06
Target group	all	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/development-of-open-software-gis-for-addressing-challenges-in-land-use-and-transportation-planning/">https://community.eelisa.eu/activities/development-of-open-software-gis-for-addressing-challenges-in-land-use-and-transportation-planning/</a>		



## International Summer School "Fundamentals of fashion design & communication" at UPM

### Description

Societal and economic development depends on higher education institutions to play a pivotal role in preparing the future workforce for promoting and fostering innovation at the workplace. Given this new and impactful mission of universities, innovation and creativity are fundamental to all academic disciplines and nonformal educational activities being a key element of the curriculum design process.

The activity aims to develop the innovation skills for students in Engineering fields.

#### Context:

The training is part of a larger project developed under the umbrella of the Egalitarian Societies Community. The community is an initiative of University Politehnica of Madrid, University POLITEHNICA of Bucharest, and Istanbul Technical University for developing the innovation skills of students in Engineering. The participants will be divided in teams, and they will work on a different business/societal challenge during the workshop. The challenges will be set by the community partners together with the faculty members. Workshop Design

The main philosophy of Design Thinking starts from the customers/stakeholders. Being a Human Centered Approach, in the middle of the whole approach stays the interaction with the client/community member. The focus is on methods of stakeholder interaction during the product definition phase with a methodological focus on Design Thinking. The workshop delivers support for client/stakeholder innovation teams in all the phases of Design Thinking:

Understand: Framing a proper Challenge and Formation of the Innovation Team  
 Empathize: Deep Immersion in Customer/Community member Needs  
 Define: Breakdown and Reframe the Challenges  
 Ideation: Use of proper Ideation Tools in order to increase Productivity of the Ideation Process and get Radical Ideas  
 Prototype: Fast Prototyping and Evaluation methods  
 Test: Prototypes are Tested, and the solutions are Iterated further.

Goals at the End of the Workshop  
 For this effort to be successful we are looking to achieve the following goals:

Develop a team of students to practice Design Thinking when working on real-life challenges/themes proposed by the community partners  
 Have templates and toolbox to take DT into daily routine and support further learning



# OBJETIVOS DE DESARROLLO SOSTENIBLE



Community	Egalitarian Societies: Opportunities for Everyone (ES: O4E) Ethics, Social Commitment & Entrepreneurship Entrepreneurship without borders		
Coordinator	dulcinea.tomas@upm.es	ECTS	
Kind of activity	Workshop		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG 4 - Quality Education
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master   bachelor	Teaching mode	Synchronous remote
Link	<a href="https://community.eelisa.eu/?post_type=eelisa_activity&amp;p=1204">https://community.eelisa.eu/?post_type=eelisa_activity&amp;p=1204</a>		



## PhD Position in Organic Electrosynthesis – Heterogeneous Catalyst under Real-Time Monitoring

### Description

Solar Decathlon (SD) is a universities competition created by the U.S. Department of Energy in 2002, and nowadays extended to the whole world along different editions held in Europe, China, Middle East, Latin America and Africa. Its main objective is to educate the next generation of architects and engineers, making them and the public aware of the efficient use of energy, and promoting the development of integrated solar energy in houses.

The competition consists of designing, building and operating a prototype of energy self-sufficient housing, powered by the sun, and equipped with all of the technologies that allow maximum energy efficiency. The prototypes have to be assembled in a "Solar Village" for exhibition and they have to participate in 10 different contests that make up the Competition (a decathlon).

ITÜ Solar Team will be competing in SD Europe 2022. UPM has applied to enter the competition in SD Europe 2023. Both universities are members of EELISA Alliance and both have previous experiences in Solar Decathlon.

The activity plan to connect both students teams to exchange concerns, inquisitiveness, experiences and ideas. They will work together online on biweekly or monthly videoconference sessions. The meetings will constitute a debate and round table forum covering from the house design to the logistic and competition strategy.

Assessment: Meetings attendance. Self-assessment and pairs-assessment by colleagues. Report from Team managers and Faculty advisor in every institution's team.

Deliverables:

Proposal of activity plan and agreement with host team.

Active patrol supporting the Solar Decathlon team during assembly works and competition.

Report including recommendation for the next patrols and conclusions.



# OBJETIVOS DE DESARROLLO SOSTENIBLE



Community	Sustainable Buildings, Cities and Communities		
Coordinator	mcarolina.hernandez@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG 4 - Quality Education   SDG 7 - Affordable & Clean Energy
Starting date	2022-01-01	Ending date	2022-12-31
Target group	master   bachelor	Teaching mode	Synchronous remote
Link	<a href="https://community.eelisa.eu/activities/linked-solar-teams/">https://community.eelisa.eu/activities/linked-solar-teams/</a>		



## Ciclo de Conferencias Casa Asia sobre Innovación Tecnológica

### Description

Directors will present to students their background and experience in creating a Spin-Off. After this, a time will be opened for discussion and interaction between students and entrepreneurs.

Connect learning to the real world, participate in discussions

Community	Advanced Materials for a Sustainable Future		
Coordinator	raquel.gonzalez.arrabal@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG 8 - Decent Work & Economic Growth
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master   bachelor	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/meeting-with-spin-offs-directors-spin-off-venture-creation-in-a-university-context-an-entrepreneurial-process-view/">https://community.eelisa.eu/activities/meeting-with-spin-offs-directors-spin-off-venture-creation-in-a-university-context-an-entrepreneurial-process-view/</a>		



## Business Model World Café @FAU

### Description

Simulation and programming environments in engineering: reaching the SDG

Welcome once again to the second edition of the IngeMat Programming Workshops! This year we have changed the organization according to your suggestions from last year, hoping to make even better edition.

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This module will take place the days&nbsp;18, 21, 25 and 28 of November from&nbsp;&nbsp;11:00 to 14:00&nbsp;&nbsp;CEST time&nbsp;&nbsp;in the ETSICCP of the Technical University of Madrid. This form will be open until the 6th of November, the day in which you will receive in your mails all the materials to follow this workshop online if required and the details to participate in person. Remember that participation is completely free of charge and that those who complete all the activities will receive a certificate to prove their acquired experience.&nbsp;Hoping to see you soon!

Community	Advanced Materials for a Sustainable Future		
Coordinator	josem.ulloa@upm.es	ECTS	
Kind of activity	Workshop		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG10 - Reduced Inequalities   SDG11 - Sustainable Cities & Communities   SDG12 - Responsible Consum
Starting date	2022-11-18	Ending date	2022-11-25
Target group	all	Teaching mode	Hybrid
Link	<a href="https://community.eelisa.eu/activities/python-module-of-ingemat-programming-workshops-2022/">https://community.eelisa.eu/activities/python-module-of-ingemat-programming-workshops-2022/</a>		



## PhD positions in Experimental Quantum Computing with Superconducting Circuits at FAU

### Description

The event is designed to inform EELISA students about Open Science Community (OSC) in general, thus establishing a strong bond among EELISA students and inviting them to work/produce together.

Throughout the event, we will try to answer two main questions together:

What is the role of students in the OSC?

What are the benefits of involving students in the Community?

Participants will also have the chance to listen to two student members of the Community share about their motivation to join the community and what they are doing right now in the OSC.

The registration link and the programme can be seen here.

Community	Open Science Community		
Coordinator	bulutburcu@itu.edu.tr	ECTS	
Kind of activity	Talk		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG10 - Reduced Inequalities SDG16 - Peace, Justice & Strong Institutions SDG 4 - Quality Educat
Starting date	2022-10-14	Ending date	2022-10-14
Target group	master bachelor phd	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/knowledge-bites-benefits-and-opportunities-for-students-participating-in-the-eelisa-open-science-community-osc/">https://community.eelisa.eu/activities/knowledge-bites-benefits-and-opportunities-for-students-participating-in-the-eelisa-open-science-community-osc/</a>		





## Ciclo de Conferencias Fundación Consejo España - China sobre innovación tecnológica

### Description

Summer school with multidisciplinary groups regarding teaching technical subjects in English and how to communicate your ideas effectively.

Community	Advanced Materials for a Sustainable Future		
Coordinator	alejandra.vidales@upm.es	ECTS	
Kind of activity	Summer / Winter / Seasonal schools		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities
Starting date	2021-01-01	Ending date	2021-12-31
Target group	educator	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/participation-in-european-project-innovation-in-future-engineers-training-for-contemporary-citys-problems-global/">https://community.eelisa.eu/activities/participation-in-european-project-innovation-in-future-engineers-training-for-contemporary-citys-problems-global/</a>		



## Seminario sobre Diplomacia Tecnológica

### Description

In this call of the DANOSA Innovation Competition for Students, an Energy Refurbishment will be requested, preferably in one of the buildings that make up the Campus of the Universidad Politécnica de Madrid. The proposal consists of providing innovative and sustainable solutions for the building envelope based on the use of DANOTHERM SATE systems by DANOSA and/or other DANOSA systems for improving the building envelope.

Students may participate individually or in groups of up to 4 members. They may be students of the Universidad Politécnica de Madrid from any of its schools studying, at the time of registration, 3rd, 4th, TGF or Master, who at the date of registration in the competition and in accordance with these rules, have not approved their final Degree/Master's Degree project. The formation of multidisciplinary groups with members from different schools, all of them belonging to the UPM, will be positively valued.

Students may only form part of a single group and each team may submit only one project.

The presentation of the projects will take place in a face-to-face event at DANOSA's facilities in Fontanar (Guadalajara) where the winners will be decided, followed by a factory visit and a prize-giving ceremony by Danosa's team.

Assessment: Participation to the whole activity and presentation of a project that would solve the challenge proposed

Community	Designing a Sustainable and Decarbonized University (DISCOVERY)		
Coordinator	francesca.olivieri@upm.es	ECTS	1
Kind of activity	Contest		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/danosa-contest/">https://community.eelisa.eu/activities/danosa-contest/</a>		



## Mandatory Internship- Communication on digital transformation

### Description

The Collaboration agreement between the ETSIMFMN -Projects and Planning Department and the company Evaluación Ambiental SL allows the learners to have a professional first experience in the Environmental Assessment and adaptation of real Buildings Plans or Projects (Urbanism Plans, Building/Infrastructure Projects, Development of Industrial Areas).

The learner participates in the analysis and diagnosis of environmental impacts of the plan/project and proposes design solutions to minimize them and improve their environmental integration: Nature Based Solutions, sustainable landscaping, Sustainable Drainage Systems (SUDS), etc.

The learner visit and works in the land supporting the real plan/project. The learner has access to all the information required about the project and the Environmental Assessment Process, receives an economic compensation for the expenses and offers to the company an engineering project to be considered.

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Community	Sustainable Buildings, Cities and Communities		
Coordinator	alicia.lopez@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/collaboration-agreement-university-company-for-final-degree-master-project-completion-design-solutions-to-improve-the-environmental-integration-of-building-infrastructure-plans-and-projects/">https://community.eelisa.eu/activities/collaboration-agreement-university-company-for-final-degree-master-project-completion-design-solutions-to-improve-the-environmental-integration-of-building-infrastructure-plans-and-projects/</a>		



## EELISA Inclusiveness Forum

### Description

The Final Degree Work or Diploma Project (TFG) will consist of the elaboration, presentation and defense in a panel of academic judges an original academic work, carried out individually and related to any of the disciplines studied during the degree program. It must be based on the creative application of transversal knowledge that affects diverse areas and subjects in the field of architecture.

The initial driver for the work has been the personal interest of the student on energy integration and energy self-sufficiency as future key aspects in architecture, focusing in wind and solar photovoltaic integration in residential buildings.

Assessment: Lectures attendance (5%), Oral presentations assessed by all the professors assigned to the TFG classroom, approximately 15 different marks (20%+30%), Written report by the supervisor (10%). At least 3 written reports by experienced faculties connected with the topic (35%).

### Deliverables:

First oral presentation: title & topic proposal.

Intermediate oral presentation.

Deliverable written document.

Final oral presentation and defence.

Oral presentation and defence (only in case of obtaining the maximum mark in Deliverable #4).

Community	Sustainable Buildings, Cities and Communities		
Coordinator	mcarolina.hernandez@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master	Teaching mode	Hybrid
Link	<a href="https://community.eelisa.eu/activities/tfg-integracion-eolica-y-solar-fotovoltaica-en-edificios-residenciales/">https://community.eelisa.eu/activities/tfg-integracion-eolica-y-solar-fotovoltaica-en-edificios-residenciales/</a>		



## Roundtable: Challenges and advances in industrialized construction Description

Consolidated as a reference meeting of Nanoscience and Nanotechnology (N&N) in Spain. The conference NanoSpain 2022 seeks to deepen the common themes among the participants, serving as a link between industry and researchers.

40 Keynote & Invited speakers confirmed  
Nadatech Innovations, latest exhibitor to be confirmed  
The 19th NanoSpain Conference (NanoSpain2022) will take place in Madrid

Community	Advanced Materials for a Sustainable Future		
Coordinator	josem.ulloa@upm.es	ECTS	
Kind of activity	Conference		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities
Starting date	2022-05-17	Ending date	2022-05-20
Target group	master   bachelor   phd   researcher	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/collaboration-to-the-organization-of-nanospain-2022-conference-the-reference-meeting-for-nanoscience-and-nanotechnology-in-spain/">https://community.eelisa.eu/activities/collaboration-to-the-organization-of-nanospain-2022-conference-the-reference-meeting-for-nanoscience-and-nanotechnology-in-spain/</a>		



## Financial Modeling Workshop @FAU

### Description

Industrialized construction (IC) promotes the advancement of construction processes by employing mechanization and automation. There are several intents behind the industrialization of construction, such as increasing labor productivity, substituting labor-intensive processes with machines, fast-tracking the rate of construction, commissioning new projects more quickly, reducing costs, lean construction, incorporating augmented reality (AR) and virtual reality (VR), and improving overall quality.

Community	From Industrialized Construction to Near-Zero Consumption Buildings (INCO-0)		
Coordinator	m.fernandez@upm.es	ECTS	
Kind of activity	Conference		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities
Starting date	2022-11-17	Ending date	2022-11-17
Target group	all	Teaching mode	Blended
Link	<a href="https://community.eelisa.eu/activities/roundtable-challenges-and-advances-in-industrialized-construction/">https://community.eelisa.eu/activities/roundtable-challenges-and-advances-in-industrialized-construction/</a>		



## OPEN CALL FOR EXPRESSION OF INTEREST FOR A POSITION OF RECOGNIZED RESEARCHER AT THE INSTITUTE OF BIROBOTICS at SSSA

### Description

In this activity, participants will have the opportunity to visit an industrialized wood construction site in Azuqueca de Henares, about 45 km away from Madrid. Participants will engage in conversations with UPM professors and contractors in charge of the construction. They will gain knowledge on how industrialization is shaping the way new buildings are being constructed.

Community	From Industrialized Construction to Near-Zero Consumption Buildings (INCO-0)		
Coordinator	m.fernandez@upm.es	ECTS	
Kind of activity	Workshop		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities
Starting date	2023-06-12	Ending date	2023-06-12
Target group	master   bachelor   phd	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/on-site-visit-to-industrialized-wood-construction-company/">https://community.eelisa.eu/activities/on-site-visit-to-industrialized-wood-construction-company/</a>		



## Frontiers in Time Series Modelling 15.1- MLTS Invited Talk: Large-Area Touch Sensing and Artificial Intelligence for Bionics and Collaborative Robotics. By Prof. Calogero Maria Oddo

### Description

Bridges that unite. Connections between civil engineering students and society, learning and service links.

It is proposed that students of Civil Engineering of UPM become guides of the bridges of Madrid. Bridges exemplify the social and symbolic values of public works and unite technological and cultural aspects. They are protagonists in films, novels, songs, narratives and urban events. They are places of connection, relationships and civic life.

The proposal proposes a two-way link:

On the one hand, students engage society in the importance of civil engineering in civic life and sustainability goals. They value the built and cultural heritage of the city and create citizen and social bonds.

On the other hand, students learn through experience the historical, technological and cultural aspects of bridges, how they work and how they were built, what they are used for and what they mean. But they also learn to communicate the profession, to connect the engineering activity with society, to tell and value the construction of public works as infrastructures for everyone, useful and sustainable.

The bridges of Madrid are a little known technological and cultural heritage. They are unique in their character and technological interest, and allow us to narrate the evolution of bridge engineering over the last centuries. They have a great variety of shapes and types, and different materials and resistant mechanisms were used. This, together with their authenticity and their typological and technological purity, representative of a way of building bridges at the time, make them a rich heritage for civil engineering.

But bridges are much more than structures that overcome an obstacle. Bridges build a city, so that to their technological, historical, resistant and constructive values must be added symbolic, representative, affective, cultural and identity meanings.

And, precisely for this reason, this project considers that the true value of the works lies in their dual reality: technology and society, engineering and culture. They are ideal elements to place narratives, myths, films, books, symbols and events. They are structures of life that build a city.





# OBJETIVOS DE DESARROLLO SOSTENIBLE



Community	Sustainable Buildings, Cities and Communities		
Coordinator	jorge.bernabeu@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities SDG 4 - Quality Education
Starting date	2022-01-01	Ending date	2022-12-31
Target group	master bachelor	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/guided-tours-of-madrids-bridges-heritage-technology-culture-and-society-upm-aps-project-to-be-carried-out-in-2022/">https://community.eelisa.eu/activities/guided-tours-of-madrids-bridges-heritage-technology-culture-and-society-upm-aps-project-to-be-carried-out-in-2022/</a>		



## circular@[action] workshops | WS0.0: R-mechanisms

### Description

The fourth activity of the second call of EELISA on-the-move was the International Seminar with level 3 impact&nbsp;Key Drivers for Optimal Operation of Public Transport Systems. It consisted in a lecture given by Prof. Sergio Jara from Universidad de Chile, followed by a mentoring session with PhD Adriana Cortez from TransyT UPM.

Dr.&nbsp;Sergio Jara Díaz&nbsp;is a renown Professor in&nbsp;Transportation, Economics and Mobility, being his fields of research Microeconomics of Public Transportation, Evaluation of Transportation Projects and Strategies for transportation pricing. He currently teaches at the&nbsp;Civil Engineering Department&nbsp;of&nbsp;Universidad de Chile.

In the lecture, he analyzed transport systems from the&nbsp;economies of scale&nbsp;perspective. He argued that it is crucial to consider all resources involved when calculating the Optimal Price, including users time. He concluded with the exposition of the&nbsp;case study&nbsp;of&nbsp;Santiago de Chile.

Escuela de Ingenieros de Caminos, Canales y Puertos, c/Profesor Aranguren, Ciudad Universitaria,&nbsp;Madrid—Sala José Echagaray, First floor.

Community	EELISA-on-the-MOVE		
Coordinator	julio.soria-lara@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities   SDG 4 - Quality Education
Starting date	2022-05-20	Ending date	2022-05-22
Target group	all	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/international-seminar-key-drivers-for-optimal-operation-of-public-transport-systems/">https://community.eelisa.eu/activities/international-seminar-key-drivers-for-optimal-operation-of-public-transport-systems/</a>		



## Science Diplomacy as an Intercultural Encounter – Open Conference at FAU Erlangen-Nürnberg

### Description

On June 29th, 2021, the 23rd edition of the UPM Seminars: Technology and Innovation for the SDGs program took place within the framework of the cycle "Clean and healthy cities" promoted by the Vice-Rector's Office for Research, Innovation, and Doctorate of the Universidad Politécnica de Madrid. The session was co-organized by the UPM Research Communities "Colaboratorio" and "Transition towards an Emissions-Free University" (TULE UPM) and the UPM EELISA Community "DISCOVERY".

The seminar was organized around three micro-dialogues:

The contribution of electric mobility to the achievement of a sustainable and healthy city

Challenges and opportunities of the integration of photovoltaic solar energy in the city

The potential of local energy communities to drive the urban electrical transition

The topics discussed constitute three fundamental axes of energy use in cities and generated an interesting debate.

Community	Designing a Sustainable and Decarbonized University (DISCOVERY)		
Coordinator	francesca.olivieri@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities SDG 7 - Affordable & Clean Energy
Starting date	2021-06-29	Ending date	2021-06-29
Target group	all	Teaching mode	Synchronous remote
Link	<a href="https://community.eelisa.eu/activities/building-new-energy-models-in-cities-seminar-at-upm/">https://community.eelisa.eu/activities/building-new-energy-models-in-cities-seminar-at-upm/</a>		



## EELISA Science Fiction Short Stories Contest

### Description

Under the framework of The European Week for Waste Reduction (EWWR), it was proposed to the students of Master in Organisational Engineering and the Master In Circular Economy, specialty in Minerals and Construction Products, to investigate collaboratively on the problem of CDW and to look at the ecosystem of the construction value chain with a circular perspective, proposing proposals ranging from the design of buildings and infrastructures (architects and civil engineers, CRADLE) to the demolition and treatment of CDW (GRAVE), taking advantage of digital technologies. The result of this teamwork was presented on Nov 22 at ETSI Industriales UPM supported by a digital poster and a 5-min pitch per team. The action is conceived as a pilot for a challenge based EELISA activity on CDW circularity co-driven by two EELISA communities: “The Circular and Regenerative Campus (CRC community)” and “Circular EELISA”, and to be launched in the second quarter of 2022 among students from the nine European Universities that conform EELISA.

Deliverables: Presentations, Digital poster

Community	Circular EELISA Community The CIRCULAR and REGENERATIVE CAMPUS (EELISA CRC Community)		
Coordinator	justo.gnavarro@upm.es	ECTS	
Kind of activity	Challenge		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities SDG12 - Responsible Consumption & Production
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/transforming-the-construction-value-chain-through-technology-closing-the-loop-of-construction-and-demolition-waste-cdw/">https://community.eelisa.eu/activities/transforming-the-construction-value-chain-through-technology-closing-the-loop-of-construction-and-demolition-waste-cdw/</a>		



## Retos de la Accesibilidad en el día a día: Accesibilidad Accesible

### Description

The proposal for the Business Chair of Circular Economy of the Comunidad de Madrid formalizes the commitment of collaboration of Comunidad de Madrid with the Universidad Politécnica de Madrid, in order to promote teaching activities, generation of knowledge, dissemination and transfer of technology in the field of the circular economy and with a scope not only academic, but also social and citizen, so that our professionals can lead society towards a more sustainable future.

This proposal is based on two master's degrees of UPM (Master's Degree in Circular Economy – also part of the AMIR Erasmus Mundus JMD- and the Master's UPM qualification in Leadership and Innovation in Circular Economy), and two of the communities of the EELISA European Alliance of Universities: Circular EELISA Community (CEC), and the Circular and Regenerative Campus (CRC community).

Community	Circular EELISA Community The CIRCULAR and REGENERATIVE CAMPUS (EELISA CRC Community)		
Coordinator	justo.gnavarro@upm.es	ECTS	
Kind of activity	Academic job offer		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities SDG12 - Responsible Consumption & Production
Starting date	2021-01-01	Ending date	2021-02-01
Target group	all	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/proposal-for-the-business-chair-of-circular-economy-of-the-comunidad-de-madrid/">https://community.eelisa.eu/activities/proposal-for-the-business-chair-of-circular-economy-of-the-comunidad-de-madrid/</a>		



## Lunch Talks #1- Introduction to Campus Sustainability

### Description

With this action, we intend to raise awareness among our students and trigger their creativity around the challenges linked to Construction and Demolition Waste (CDW). Debris resulting from construction activities, civil engineering works and their dismantling include a mix of materials such as concrete, steel, wood, gypsum, bricks, clay, steel, asphalts, .. and sometimes small amounts of hazardous materials (asbestos, lighting waste, solvents).

In Europe, around 1/3 of all waste generated in the EU is construction and demolition waste. In Europe, CDW includes all the waste produced by the construction and demolition of buildings and infrastructure, as well as road planning and maintenance. There is an untapped recovery potential in this sector that, by avoiding landfills, could increase the availability of construction materials.

The Circular Economy Spanish Strategy (España Circular 2030) acknowledges the construction sector (pp.30, full report) as one of the six key value chains to be addressed in the 2030 horizon. The construction sector contributed to 6.5% of Spanish the GPD in 2018, but accounts for 40% of waste generated in Spain.

One of the main barriers hindering recycling and re-using of C&D materials is the lack of confidence in the quality of those recycled materials, and also the uncertainty about the potential health risk for workers using C&D recycles. According to the EU Construction and Demolition Waste Management Protocol (EU, 2016) this can be achieved by:

a) Improved waste identification, source separation and collection;b) Improved waste logistics;c) Improved waste processing;d) Quality management;e) Appropriate policy and framework conditions.

Digitalisation, technology, and process improvement can play a key role in those five areas.

We propose our students to collaboratively research on the problem of CDW and look at the construction value chain ecosystem with a circular perspective. We expect them to come up with potential ideas ranging from building and infrastructure design (architects & civil engineers, CRADLE) to demolition and CDW treatment (GRAVE), taking advantage of the digital technologies such as IoT, artificial intelligence, blockchain, track&trace technologies and protocols, sorting technologies, etc.

The result of this team work will be presented on Nov 22 at ETSI Industriales UPM supported by a digital poster. Each team will be assigned a 5-min pitch.



The action is conceived as a pilot for a challenge-based EELISA activity on CDW circularity co-driven by two EELISA communities: “The Circular and Regenerative Campus (CRC community)” and “Circular EELISA”, and to be launched in the second quarter of 2022 among students from the nine European Universities that conform EELISA.

Students participating in the 22 Nov EWWR action:

Circular Supply Chains course (Master in Organisational Engineering).

Training For The Professional Digital Competence course (Master In Circular Economy, Minerals and Construction Products specialization).

Action timeline

Wed Nov 3th from 15:00 to 16:30 - Challenge presentation, ETSI Industriales Room 40 (Zoom connection available). Overview of the CDW value chain , by Dr. Ana Jiménez-Rivero. The CDW in the Region of Madrid, by the Circular Economy Direction @CAM (subdirection of Local Coordination).

Mon Nov 22nd from 15:00 to 16:30 - Teams pitching:ETSI Industriales Room 40 (Zoom connection available)

Mon Dec 13th + Jan 24th week - CDW plant visit: Teams visit to the CDW plant in Navalcarnero in order to check the viability of the solutions proposed.

Assessment: Teamwork pitches and written document; individual report on CDW treatment plant visit; question in written exam on CDW.



# OBJETIVOS DE DESARROLLO SOSTENIBLE



Community	The CIRCULAR and REGENERATIVE CAMPUS (EELISA CRC Community)   Circular EELISA Community		
Coordinator	ruth.carrasco@upm.es	ECTS	
Kind of activity	Challenge		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities   SDG12 - Responsible Consumption & Production
Starting date	2021-11-03	Ending date	2022-01-24
Target group	master   bachelor	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/eelisa-challenge-transforming-the-construction-value-chain-through-technology-closing-the-loop-of-construction-and-demolition-waste-cdw-european-week-for-waste-reduction-2021/">https://community.eelisa.eu/activities/eelisa-challenge-transforming-the-construction-value-chain-through-technology-closing-the-loop-of-construction-and-demolition-waste-cdw-european-week-for-waste-reduction-2021/</a>		





## Workshop on Technology and science diplomacy in an age of digital sovereignty and nuclear threats

### Description

In collaboration with the UPM Advanced Materials research community

Community	Advanced Materials for a Sustainable Future		
Coordinator	josem.ulloa@upm.es	ECTS	
Kind of activity	Conference		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities   SDG12 - Responsible Consumption & Production
Starting date	2022-06-14	Ending date	2022-06-14
Target group	master   bachelor   phd   researcher   educator	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/organization-of-seminar-advanced-materials-for-the-energetic-crisis/">https://community.eelisa.eu/activities/organization-of-seminar-advanced-materials-for-the-energetic-crisis/</a>		



## Green AI- AI for Sustainability and Sustainability of AI Description

Renowned experts in the field of photovoltaics will present tutorials and talks introducing the fundamentals of the field, its challenges and the most recent advances in key areas covering Silicon, III-V and multi-junction solar cells and emerging technologies.

The school is organized and funded by the European H2020 Project **QUANTIMONY: Quantum Semiconductor Technologies Exploiting Antimony (MSCA-ITN-2020-956548)**, an innovative training network fostering industrial and academic research across Europe in quantum semiconductor materials for Telecomm, Datacomm and Photovoltaics. QUANTIMONY Summer School on photovoltaics aims to provide training and insight into the fundamentals of photovoltaics and the role of antimonides to all interested researchers from your institution.

Provided 20 grants for students to attend.

Community	Advanced Materials for a Sustainable Future		
Coordinator	josem.ulloa@upm.es	ECTS	
Kind of activity	Conference		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities SDG12 - Responsible Consumption & Production
Starting date	2022-07-11	Ending date	2022-07-15
Target group	master   bachelor   phd   researcher	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/organization-of-the-1-week-summer-school-on-photovoltaics-summer-school-on-iii-sb-applications-solar-cells/">https://community.eelisa.eu/activities/organization-of-the-1-week-summer-school-on-photovoltaics-summer-school-on-iii-sb-applications-solar-cells/</a>		



## Pitch workshop with Patrick Hümmer

### Description

We are excited to announce a call for participants focused on the development of projects related to the mail topic "Digital Fabrication for a Circular Economy". This initiative has a hackathon format and aims to harness the power of digital fabrication technologies and promote sustainable practices within the context of the circular economy. We invite all EELISA universities to develop innovative project proposals that explore innovative ideas, methodologies, and applications in this field.

### OBJECTIVE:

The primary objective of this call for participants is to advance the understanding and application of digital fabrication techniques in fostering a circular economy. We seek participants that are capable of generating projects in a collaborative way that address the challenges and opportunities related to the topics listed below:

**Sustainable Product Design:** Develop a sustainable product design that incorporates digital fabrication techniques and supports the principles of the circular economy. Consider factors such as material selection, resource efficiency, modularity, and end-of-life strategies.

**Waste Reduction and Upcycling:** Create innovative solutions that make use of digital fabrication technologies to reduce waste and upcycle materials. This could involve repurposing discarded materials or finding new ways to transform waste into valuable products.

**Repair and Remanufacturing:** Develop a solution that takes advantage of digital fabrication to enhance repair and remanufacturing processes. This could include designing tools, systems, or interfaces that simplify the repair process or enable the remanufacturing of products to extend their lifespan.

**Sustainable Material Innovation:** Investigate and prototype new sustainable materials suitable for digital fabrication. This challenge could involve developing bio-based materials, exploring alternative material sources, or creating composite materials with enhanced circularity.

### HACKATHON OVERVIEW:

The week-long hackathon will immerse students in a dynamic and challenging multicultural environment, where they will collaborate throughout the day to innovate, create, and solve the specific problems announced, while fostering a spirit of fun and camaraderie. It will take place at FabLab CIEC (Innovation Center of Circular Economy) in Madrid. The Center is a Madrid City Council project, and its main goal is to transform the Madrid economy from a linear model to a circular one.



Before the hackathon, the organizers will adeptly assign the selected students to diverse workgroups, tailored to the chosen topics. There will be at least one week to prepare for the hackathon during which the projects are going to be manufactured with digital tools. Therefore, in this week, working groups may propose a project and develop the design and the technical details.

On the last day of the hackathon, a jury will assess the projects and later there will be an awards ceremony, dinner, and party.

Community	The CIRCULAR and REGENERATIVE CAMPUS (EELISA CRC Community)		
Coordinator	david.sanz.arauz@upm.es	ECTS	
Kind of activity	Workshop		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities SDG12 - Responsible Consumption & Production SDG13
Starting date	2023-09-25	Ending date	2023-09-29
Target group	all	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/digital-fabrication-for-a-circular-economy-eelisa-joint-call-2/">https://community.eelisa.eu/activities/digital-fabrication-for-a-circular-economy-eelisa-joint-call-2/</a>		



## Vitruvius Workshop

### Description

El curso forma parte de las actividades organizadas por la Cátedra Universidad-Empresa PROIESCON y contará con la participación de profesores de reconocido prestigio en el ámbito internacional. El curso se impartirá de forma presencial en la Escuela Técnica Superior de Edificación de la Universidad Politécnica de Madrid y se podrá realizar de forma presencial o virtual. El acceso es gratuito previa inscripción y se otorgará certificado de asistencia.

Community	From Industrialized Construction to Near-Zero Consumption Buildings (INCO-0)		
Coordinator	m.fernandez@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG11 - Sustainable Cities & Communities   SDG17 - Partnerships for the Goals
Starting date	2023-03-23	Ending date	2023-03-23
Target group	master   phd	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/curso-la-tierra-como-material-de-construccion-en-el-siglo-xxi/">https://community.eelisa.eu/activities/curso-la-tierra-como-material-de-construccion-en-el-siglo-xxi/</a>		



## Be Circular Webinars

### Description

The steel industry is experiencing a rapid worldwide evolution in terms of management structures, technology and business. In this context, technological innovation and digitalization play a significant role. This seminar aims to explore the challenges digitalization is imposing to the steel industry from the perspective of the experience gained both, from an ongoing project touching very different sections of the value chain (scrap collection, steel transformation and applications to the automotive industry) but also through the observation of the long run of research projects being developed in the last twenty years. Both visions were found somehow complementary, i.e. experience from the field and semantic analysis of findings, and they allow us to predict new strategic challenges to be undertaken. The selected format was to keep the consistency in perspective, but allowing each partner to describe the impact of the research carried out and how they see the next steps from their perspective. At the end, some reflective analysis of trends will be summarized. To complete the perspective a session for questions to all the participants will be carried out, where it will be possible to collect different opinions as well.

This is an initiative supported by the aliance between EELISA&nbsp;(the STRIDE community around EELISA initiative),&nbsp;PLATEA, and the consortiums of the two EU-RFCS&nbsp;projects (WISEST, and ControlInSteel) to disseminate the benefits of digitalization processes in smart industries.

Community	Society Transition towards Digitalization and Energy Decarbonization		
Coordinator	j.ordieres@upm.es	ECTS	
Kind of activity	Conference		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG12 - Responsible Consumption & Production
Starting date	2022-06-28	Ending date	2022-06-28
Target group	master   phd   researcher   society   non-academic-staff	Teaching mode	Synchronous remote
Link	<a href="https://community.eelisa.eu/activities/international-seminar-digitalization-as-key-driver-in-the-steel-industry-cases-from-some-rfcs-funded-projects/">https://community.eelisa.eu/activities/international-seminar-digitalization-as-key-driver-in-the-steel-industry-cases-from-some-rfcs-funded-projects/</a>		



## #2 Metaverse & Sustainability with Peter Schopf from SIEMENS MindSphere

### Description

Four entrepreneurs will tell us about their experience in creating start-ups related to advanced materials technology. We will have the opportunity to dialogue with them on the subject.

#### Speakers:

Ambiorn Wennberg: CFO of Nano4energy

Alex Abou-Assali Rodríguez: CEO of AEON-T Composite Technologies

Benito Alén: Staff scientist at CSIC, promoter and founder of g2-Zero

Miguel Holgado: Full Professor at UPM

#### Where:

Attendance in person:

Room C

Escuela Técnica Superior de Ingenieros Industriales

José Gutiérrez Abascal 2, 28006 Madrid

Online attendance possible (See registration form)

#### When:

15th of November at 10:00

Community	Advanced Materials for a Sustainable Future		
Coordinator	josem.ulloa@upm.es	ECTS	
Kind of activity	Talk		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG12 - Responsible Consumption & Production
Starting date	2022-11-15	Ending date	2022-11-15
Target group	all	Teaching mode	Hybrid
Link	<a href="https://community.eelisa.eu/activities/meeting-with-entrepreneurs-how-to-create-a-startup/">https://community.eelisa.eu/activities/meeting-with-entrepreneurs-how-to-create-a-startup/</a>		

 **OBJETIVOS DE DESARROLLO SOSTENIBLE**







## Learning Activity

### Description

Inside the master course Tools for Big Data Analytics, learners are exposed to a practical application. With the active cooperation from a numeric control (NC) machining manufacturer, the first step is to understand potential ways to extend the value of the business by providing a higher level integrative analysis of the machine behavior from the log of the NC.

Then, two real datasets are provided as examples, where the infrastructure for handling the data is given as well.

The learners are requested, working in teams, to dive into the data to understand its structure and to build a semantic description.

They are requested to build a web service (heroku as an example) and to make a presentation showing the benefits provided.

Community	Society Transition towards Digitalization and Energy Decarbonization		
Coordinator	j.ordieres@upm.es	ECTS	3
Kind of activity	Challenge		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG12 - Responsible Consumption & Production
Starting date	2022-09-06	Ending date	2022-12-20
Target group	master	Teaching mode	Hybrid
Link	<a href="https://community.eelisa.eu/activities/practical-work-to-create-value-by-improving-the-understanding-of-the-activities-of-the-numerical-control-machines/">https://community.eelisa.eu/activities/practical-work-to-create-value-by-improving-the-understanding-of-the-activities-of-the-numerical-control-machines/</a>		



## FemTechTalk "urban realities. new tech. new chances"

### Description

Aquifers contain deep water resources, which makes it difficult to directly observe their dynamics, evolution and exploitation. Although much progress has been made in direct data collection and two-dimensional models, there are difficulties in estimating recharge and water abstraction processes due to the extensive and delocalised nature of their exploitation. But irrigation water alters the radiation of the crop, which in turn is related to photosynthetic activity. In turn, this is a function of the crop's evapotranspiration and its level of nutrition.

All of these qualities can be identified and assessed by means of sensors carried by manned aircraft, drones or satellites. Access to aerospace imagery and software that facilitates their management are widely available now. software that facilitates their management, there is a window of opportunity for the joint management of groundwater and irrigation.

On this day, we present a short video by WWF designed to promote the dissemination of remote sensing applications among groundwater managers. In addition, public and social entities will illustrate with experiences and case studies of digitisation and the methodology developed.

Organised by: WWF Spain, IAH-Spanish Group in collaboration with ETSI de Minas y Energía, UPM, Groundwater Club, EELISA water in an era of change, UPM water.

Get the seminar flyer here (in spanish): [Seminario digitalización aguas subterráneas Minas](#)



# OBJETIVOS DE DESARROLLO SOSTENIBLE



Community	WATER in an era of change		
Coordinator	aguascont@wwf.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG12 - Responsible Consumption & Production   SDG 6 - Clean Water & Sanitation
Starting date	2023-02-16	Ending date	2023-02-16
Target group	master   bachelor   phd   researcher   educators   businesses   alumni	Teaching mode	Hybrid
Link	<a href="https://community.eelisa.eu/activities/seminar-on-digitalisation-in-groundwater-management/">https://community.eelisa.eu/activities/seminar-on-digitalisation-in-groundwater-management/</a>		



## Mandatory Internship for Management and Operational Support at Innovation Think Tank

### Description

The teams are challenged with an industrial problem that could be improved by using Big Analytics. Indeed they can suggest use cases.

Assessment: Through the practical work assigned in small multicultural teams.

Deliverables: Prototype able to be deployed either for industrial or social benefit, that could be further extended for business.

We are cooperating with

- a) industrial partners such as Nicolas Correa Hermanos SA,
- b) University of Applied Sciences of Heilbronn (Team led by Prof Villalba)

Community	Society Transition towards Digitalization and Energy Decarbonization		
Coordinator	j.ordieres@upm.es	ECTS	
Kind of activity	Course / Seminar		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG12 - Responsible Consumption & Production   SDG 8 - Decent Work & Economic Growth
Starting date	2021-01-01	Ending date	2021-12-31
Target group	master   bachelor	Teaching mode	Hybrid
Link	<a href="https://community.eelisa.eu/activities/course-tools-for-big-data-analytics/">https://community.eelisa.eu/activities/course-tools-for-big-data-analytics/</a>		



## Prototyping – Done is better than perfect! @FAU

### Description

#### Intro

The IEEE Sensors Spain Chapter and the EELISA Advanced Materials Community have joined together and invited students and young researchers to present their work focused on different types of sensing technologies and materials

#### Attachement

In order to access the full information on the activity, please download the pdf attached.

Community	Advanced Materials for a Sustainable Future		
Coordinator	josem.ulloa@upm.es	ECTS	
Kind of activity	Conference		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG12 - Responsible Consumption & Production   SDG13 - Climate Action
Starting date	2022-10-27	Ending date	2022-10-27
Target group	researcher	Teaching mode	Hybrid
Link	<a href="https://community.eelisa.eu/activities/merging-sensors-and-advanced-materials-young-researchers-perspective/">https://community.eelisa.eu/activities/merging-sensors-and-advanced-materials-young-researchers-perspective/</a>		



## JORNADA CREATIVA SOBRE RETOS DE GESTIÓN DEL AGUA URBANA

### Description

We propose a hands-on seminar / workshop for those students and early-stage researchers that are currently studying technologies and applications in the domain of Artificial Intelligence. This seminar will provide a space for students to communicate their research and jointly with peer and experienced researchers, analyse the potential ethical, human rights and social risks or opportunities. Researchers will have the opportunity to attend both technical and non-technical keynote lectures and coaching circles to analyse and improve fairness, transparency, explainability, security, safety, privacy, user autonomy and other ethical issues that may arise in the application of AI technology.

In this activity, we would like to foster discussions and debates with and among researchers on how to integrate these criteria in their research, along with other legal, technical and financial criteria. A “coaching circles” dynamic will be used so all participants are able to get feedback from peers and professors attending. The activity includes a pre- and post-workshop online meetings. Pre-workshop online meeting (2 hrs.) will be devoted to advance the dynamic of the workshop and facilitate first contacts among participants and their research. Post-workshop online meeting will be devoted to the presentation by participants and discussion of short draft chapters of Ethical, Human Rights and social implications to be integrated in their thesis dissertations or research papers being developed.



# OBJETIVOS DE DESARROLLO SOSTENIBLE



Community	Ethics, Social Commitment & Entrepreneurship AI4Health AI4manufacturing Augmented and Virtual Reality for ENGINEering – AVRENG Metaverse & Sustainability Society Transition towards Digitalization and Energy Decarbonization		
Coordinator	jesus.salgado@upm.es	ECTS	1
Kind of activity	Workshop		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG12 - Responsible Consumption & Production SDG17 - Partnerships for the Goals
Starting date	2022-11-28	Ending date	2023-03-28
Target group	phd researcher business alumni	Teaching mode	Blended
Link	<a href="https://community.eelisa.eu/activities/integrating-ethics-human-rights-and-social-impact-analysis-in-your-artificial-intelligence-research/">https://community.eelisa.eu/activities/integrating-ethics-human-rights-and-social-impact-analysis-in-your-artificial-intelligence-research/</a>		



## Innovation Talk session#5 – Open innovation: a case study of exoskeletons from lab to market

### Description

Next November 10th will take place at the Escuela Técnica Superior de Arquitectura de Madrid (UPM) the Opening Session of the "EELISA Days" with the conference "Science for Peace, Past and Present".

In addition to enjoying the engaging dialogue, the conference is a wonderful opportunity for you to get a level 1 Badge to fill out your EELISA credential.

In order to attend, you must register using the following link:

<https://docs.google.com/forms/d/e/1FAIpQLSfuCEFSQ3w5PQAoLutwbeNqSsK4T4JkAtUI2CaBYLU22zOlyg/viewform>

Community	Tech Diplomacy & International Cooperation		
Coordinator	marta.olea@upm.es	ECTS	
Kind of activity	Conference		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG16 - Peace, Justice & Strong Institutions
Starting date	2022-11-10	Ending date	2022-11-10
Target group	all	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/science-for-peace-past-and-present/">https://community.eelisa.eu/activities/science-for-peace-past-and-present/</a>		





## POST ROUNDTABLE AND WORKSHOP 1: Partnerships for Sustainable Development: Searching for Theoretical and Methodological Perspectives

### 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).&nbsp;

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 Sofía Museums.

Registration deadline:

Until 30 April 2023.

Subtopic 1:

Cybersecurity

Cybersecurity is about balancing risks and opportunities in the cyberspace, the global interconnection of digital networks. Cybersecurity is designed to protect digital property, personal information, and business transactions from accidents, errors, and deliberate attacks.



Contact Hours 10 Dates & 10, 11 & 14 July Director Victor Villagrà

Subtopic 2:

5G: A Lot More Than Just Mobile Communications

5G is the new generation of mobile communications that enhances mobile communication networks, which will be able to offer high-quality services to users with different needs, providing higher data rates, ultra-high reliability, extremely low latencies and ubiquitous massive connectivity over networks that are extremely efficient in the use of energy and radio spectrum resources. While 5G offers the possibility of customizing services to the needs of different users, companies, or applications, it also opens the path to a number of use cases in many different economic sectors, which can take advantage of the existence of 5G networks to increase their use of information and communications technologies (ICT), thus contributing to the digital transformation of the economy and the society.

Contact Hours 10 Dates & 12, 13 & 14 July Director José Manuel Riera

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.

Institution Contact person(s) and position Email address

BME Sára Tóvölgyi / Kata Kapusy / Sándor Kisstovölgyi.sarolta@gtk.bme.hu

kapusy.kata@gtk.bme.hu

ksandor@math.bme.hu	ENPC Marie	Christine	Bertmarie-
christine.bert@enpc.fr	FAU EELISA@FAU-	Teameelisa@fau.de	ITÜ Emrah
Acaracare@itu.edu.tr	PSL Camille	Rogercamille.roger@psl.eu	PSL-Chimie Antoine
Mercierantoine.mercier@chimieparistech.psl.eu	PSL-Mines Alma		Catala
Lunaalma.catala@minesparis.psl.eu	SNS Darya	Krasilnikoveelisa@sns.it	SSSA Rossella
Rasorossella.raso@santannapisa.it	UPB Mariana		
Munteanumariana.munteanu@upb.ro	UPM María	Luisa	Martínez
Munetaluisa.mtzmuneta@upm.es			



# OBJETIVOS DE DESARROLLO SOSTENIBLE



Community	DIGITAL4PPP (People Planet Performance)		
Coordinator	info.summer.school@upm.es	ECTS	
Kind of activity	Summer / Winter / Seasonal schools		
Principal SDG	SDG 9 - Industry, Innovation & Infrastructure	Others SDG	SDG16 - Peace, Justice & Strong Institutions   SDG17 - Partnerships for the Goals
Starting date	2023-07-10	Ending date	2023-07-14
Target group	master   bachelor	Teaching mode	In person
Link	<a href="https://community.eelisa.eu/activities/international-summer-school-cyberspace-security-and-mobile-network-technologies-at-upm/">https://community.eelisa.eu/activities/international-summer-school-cyberspace-security-and-mobile-network-technologies-at-upm/</a>		