



Universidad
Europea

NEWSLETTER
UE STEAM
SCHOOL

NO ● 04

31 ● 12 ● 2022



ESCUELA DE ARQUITECTURA,
INGENIERÍA Y DISEÑO

UE
STEAM
SCHOOL

NEWSLETTER

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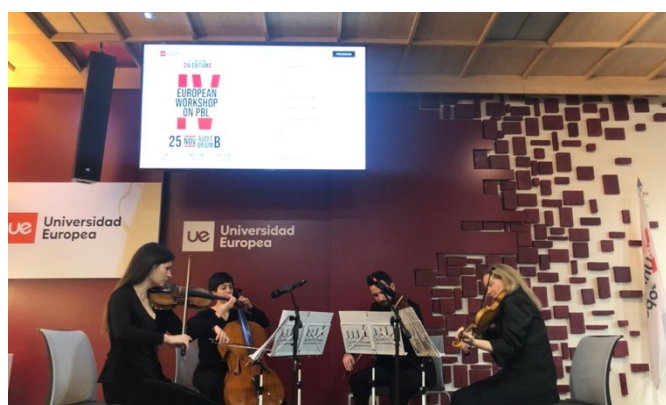




IV EUROPEAN WORKSHOP ON PROJECT-BASED LEARNING

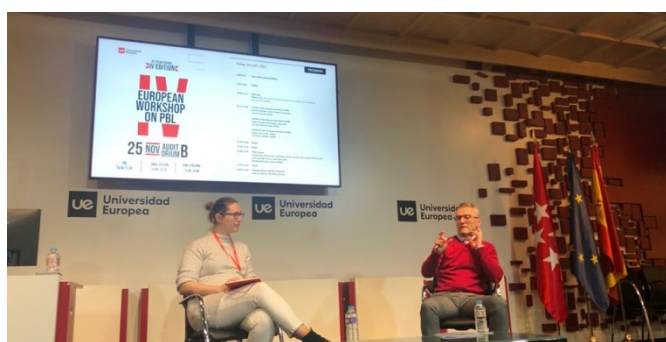
The IV European Workshop on Project-Based Learning was held on November 25th at the School. This year the format chosen was three pairs of professors who discussed the past, present and future of project-based learning. The six then participated in an active, interesting and enriching debate with the School's faculty. This fourth edition illustrated our strong commitment to continuous improvement in order to keep growing as a learning organization. The first pair to speak was Mariola Penadés, from Johns Hopkins University, and Kenneth Gómez, from the Project-Based School Office (Oficina PBS).

Mariola comments were brilliant: *You cannot train a student without knowing and understanding how his or her brain works.* The second to intervene were Pedro Urteaga, from the Universidad de Mondragón and Silvia Lavado from the PBS Office. Among his profound insights, resulting from his extensive experience at Mondragón, Pedro pointed out the adoption of the methodology to achieve greater student involvement and learning. The third pair was Javier Collado, from the PBS Office and a professor from our School, María José Terrón, substituting at the last minute Elaine Collinson from Edinburgh Business School who was unable to attend. The ensuing debate was a great opportunity to continue learning individually and collectively. The event was further enlivened by the unforgettable musical interpretations of the string quartet NONAME. The excellent organization of the workshop was coordinated by the PBS Office, impeccably managed by Alberto Galindo, the true master of ceremonies for the event.»



“STUDENTS MUST ACHIEVE METACOGNITION AND BE AWARE OF THE INVESTMENT RETURN ON THEIR EFFORTS TO LEARN”

(Mariola Penadés)





RAFAEL DE LA-HOZ AT THE MASTER LECTURES SERIES

After the encounter with the artist Antonio López last semester, the Master Lectures series was restarted on December 1st with the architect Rafael de La-Hoz, leading figure and author of some of the most iconic and recognised buildings of our contemporary architecture.

Founded in 1920, the firm Rafael de La-Hoz was undoubtedly one of the forerunners of modern Spanish architecture, a pioneer in design, architecture and sustainability and source of inspiration for architects, designers and engineers.

In 2000, a new phase began, led by Rafael de La-Hoz Castanyes (Córdoba, 1955), who has designed large architectural complexes for major multinationals such as Endesa, Telefónica and Repsol, as well as having significant international impact.

With tremendous generosity and

Rafael was tremendously generous and gave a lively speech, sharing his wise reflections with the many students who attended the event. »

<https://universidadeuropea.com/eventos/ciclo-maestros-rafael-hoz/>

GAMEJAM Nº 20: MADRID NEON GAMEJAM WEEKEND

From the 18th to the 20th of November 2022, the Universidad Europea held the new edition of "Madrid Neon GAMEJAM Weekend" in person (finally). Organised by UEGameStudio, it was an initiative of the Universidad Europea and MadridInGame (Madrid City Council Videogames cluster). Students learned to create videogames in just 48 hours following a specific theme: "Transform Madrid". More than 100 students participated, forming work teams to develop their creativity, design and programme a videogame. All the teams ate, slept and worked in rooms set up for that purpose at the UEM Villaviciosa de Odón Campus. The work was intense but the objective was well-worth the effort. They achieved a finished product within the time allotted. The winners were:

First prize: Guillermo Juan García-Delgado Álvarez, Ignacio Molina Casaus, fifth-year students at URJC.

Second prize: Marta Heras Albares, Silvia Salgado Pascual, Víctor Maestro García, Roberto Morilla Rivero y Cristina Tejedor Cabanas. Second-year students at UEM.

Third prize: Lucas Rodríguez Bravo, Manuel Gutiérrez Castro, Noah Mateo Almagro, Lucía Deltell Valle y Daniel Lora Ganancias. First-year students at URJC.»

<https://www.youtube.com/watch?v=cjZDhjCIm74>



GAMEJAM Nº 20: MADRID NEON
GAMEJAM WEEKEND IN
COLABORATION WITH
MADRIDINGAME (MADRID CITY
COUNCIL VIDEOGAME CLUSTER)



VI EDITION 'MENTORING EXCELLENCE'

Once again, the School participated in the Mentoring of Excellence program of the Royal Academy of Engineering. In this VI Edition, seven brilliant female students from the Master's Degrees in Industrial Engineering; Civil Engineering; Aeronautical Engineering; and Telecommunications Engineering were included in the programme. For our female students, participating in the program was an extraordinary opportunity to have mentors from a selection of companies helping them develop the qualities that are essential for a successful career.

The closing ceremony was held in September. The testimonies of the mentees and mentors illustrated the enormous added value of this program for everyone. It is a very necessary and meritorious initiative of the Royal Academy of Engineering, with which many companies fortunately collaborate and to which the School also contributes with the aim of promoting an important and necessary female presence in the STEAM field.»

FORMULA UEM IN MadridMotorStudent, THE GRAND UNIVERSITY MOTOR EVENT IN THE MADRID REGION

Students who are part of the Formula UEM team and representatives of the Universidad Europea de Madrid had the opportunity to attend in October the II edition of MadridMotorStudent, an event organized by the Colegio Oficial de Graduados e Ingenieros Técnicos Industriales de Madrid (COGITIM).

In this event, thirteen teams from nine Madrid universities presented, at the Jarama racetrack, the prototypes with which they compete in Formula Student and Moto Student.

The event was attended by approximately 2000 students from Madrid's vocational training schools (technology branch) and high school graduates in technology. They had the opportunity to enjoy all the scheduled activities in person, from a Technical Day to a Technological Classroom where the Universidad Europea, along with several other universities in Madrid, exhibited the STEM degree programmes they offer.

The FORMULA UEM team demonstrated the acceleration and handling of the car that competed in the Formula Student Spain and Formula Student UK tests during the summer of 2022. A memorable experience for all the team members involved each year in the design and construction of the car. »

link » https://www.youtube.com/watch?v=03up4_q9aXQ



“FORMULA UEM IS AN EXAMPLE OF A MULTI-DISCIPLINARY TEAM WORKING ON A COMMON PROJECT MAKING GREAT ACHIEVEMENTS”



THE OCTOBER FACULTY MEETING WAS SPECIAL FOR MANY REASONS

The first faculty meeting of the course year took place on October 4th and was unique for several reasons. It was the first in-person faculty meeting after the pandemic.

This was the start of a new academic year at the School which has once again grown in volume, quality, and prestige. And we had a very special guest. The Olympic medallist, José Luis Abajo ('Pirri') spoke about the importance of self-knowledge, self-control and attitude in order to achieve success. He finished his talk with a mini-fencing class in which everyone participated.»

"IF YOU WANT BE SUCCESSFUL,
REMEMBER THREE THINGS: SELF-
KNOWLEDGE, SELF-CONTROL AND
ATTITUDE"
(‘Pirri’)

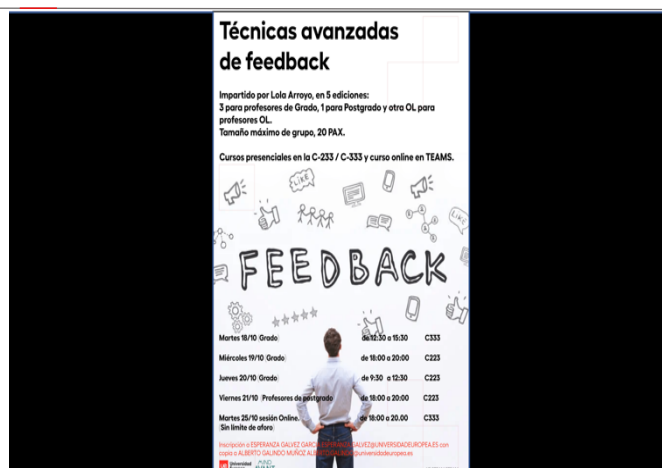


CLUBS FAIR

In October, as every year, the traditional Club Fair was held and attracted more than 2500 visitors. 22 clubs showcased their projects and activities for the 2022-2023 academic year. In the STEAM School, the student clubs that stood out were: Formula UEM, Robotics, Science, Air Division, Game Studio 2.0, Computer Science and New Technologies, UE Architecture Discussion, Role Playing, Photography and Video, Design, and PhysX.»

COURSE ON ADVANCED FEEDBACK TECHNIQUES

As part of our improvement plan, aimed at strengthening our pedagogical model of project-based learning, a course on "Advanced Feedback Techniques" was given during the month of October by Lola Arroyo from Mind Avant. The course, held as a workshop, was organized in five sessions in order to allow all teachers, including specific postgraduates and teachers of blended and on-line programs to attend. During the five sessions, almost one hundred teachers attended the training and were able to delve a little deeper into the tools used to provide formative feedback to their students.»





CELEBRATING 20 ISSUES OF REIA (REVISTA EUROPEA DE INVESTIGACIÓN EN ARQUITECTURA) PUBLISHED BY UNIVERSIDAD FIIRNPFA

On November 28th, we celebrated 20 issues over 10 years of our *Revista Europea de Investigación en Arquitectura* (REIA). Since its creation, REIA has been disseminating research that expands our understanding in the field of architecture, seen as a transversal field of knowledge that deals with the management of the physical and cultural complexity of the human environment. In these 10 years, REIA has published papers that border on the different disciplines. REIA has a scientific committee comprised of leading researchers and theoreticians and is governed by an editorial board. The publishing tasks are carried out by the editing team. The review is published every six months and is included in the AVERY INDEX, LATINDEX and DIALNET.

REIA is open to researchers, theoreticians, doctoral students, historians, critics, to all architects and non-architects, to all those who want to make original and rigorous contributions to the understanding of a field that is in constant expansion, which we call *architecture*. To celebrate the 20 issues, a special print edition has been published with outstanding articles that have appeared in the review during this period written by Josep Llinás, Juan Domingo Santos, José María Torres Nadal, José Morales y Sala Giles, Juan Navarro Baldeweg and Andrés Perea. The central act of the celebration was a conversation between Andrés Perea and Patricio Martínez, a graduate in architecture from UEM, who obtained the top position in the National Ranking of Architecture of the Spanish Society of Academic Excellence. It was a great honour to have Andrés Perea back at the School, professor of Architecture at the European University for many years and a reference of Architecture in Spain. »

REIA #20 NÚMEROS
REVISTA EUROPEA DE INVESTIGACIÓN EN ARQUITECTURA

Josep Llinás
Construcción animada: animales

Juan Domingo Santos
Memoria y experiencia

José María Torres Nadal
Objeto Benidorm

José Morales y Sara Giles
Proyecto, espacios, deseos. Alteraciones sobre el habitar

Juan Navarro Baldeweg
El tapiz, unas visiones y un proyecto

Andrés Perea
Sobre las herramientas de exploración arquitectónica

28 de noviembre
Auditorio B 12:30

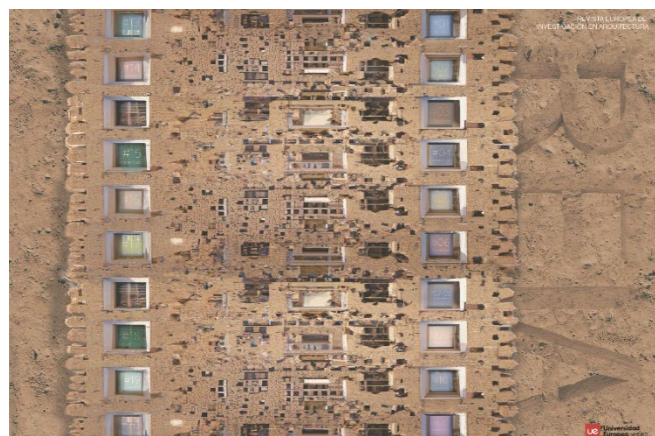
Andrés Perea
conversa con Patricio Martínez

Se hará entrega del ejemplar

 Universidad Europea



CELEBRATING 20 ISSUES OF REIA (REVISTA EUROPEA DE INVESTIGACIÓN EN ARQUITECTURA), PUBLISHED BY UNIVERSIDAD FIIRNPFA





PLENARY MEETING OF THE AEC AUTOMOTIVE COMMITTEE AT THE UNIVERSIDAD EUROPEA DE MADRID

The AEC Automotive committee held their 326th plenary session in December at the Universidad Europea de Madrid. The meeting commenced with a welcome by the committee president, Oscar Gil, and the vice-dean of the engineering undergraduate programme, Verónica Egido, who expressed her gratitude for being able to bring together the university and business in these types of events. Carlos Talayero, head of the master's degree in Automotion Engineering at EUM, shared several successful cases of professional practices and master's theses by the university's students:

The plenary was able to review such issues as the implementation of the LEAN methodology, robotic process automation, the application of 5S methodologies, additive manufacturing, vehicle micro hybridisation, etc.

An activities plan was presented by the committee for 2023, as well as an update on the organisation of the 27th Conference for Automotive Quality.

As a final touch, the members of the board visited the UEM

link » <https://www.linkedin.com/feed/update/urn:li:activity:7009164355996946432/>

LECTURE BY SARA DE GILES: ACTIVATED ARCHITECTURE, RELATIONAL SPACE

We welcomed Sara Giles on November 24th as part of the Master Lectures Series organised by the Architectural Projects Area. Sara de Giles is professor of Architectural Projects at ETSA in Seville. She shares a studio with José Morales and is a senior partner at MGM Architects.

Her work developed from significant awards in conceptual competitions with a built environment that reflects a strong coherence among every aspect of the project, and special attention to detail through total control of materials and technological solutions. She has been a guest lecturer and speaker at various universities, curator with José Morales for the XIV Spanish Architecture and Urbanism Biennial. Her works have been award-winning and extensively exhibited.»



“WE CONSIDER OUR STUDIO A SMALL LABORATORY IN WHICH WE DO ARCHITECTURAL RESEARCH”

(Sara de Giles)

Article by Sara de Giles and José Morales in our *Revista Europea de Investigación en Arquitectura*, available at: https://abacus.universidadeuropea.com/bitstream/11268/6561/2/REIA_09_00.pdf



MORE THAN 15 VISITS TO DIFFERENT PLACES OF INTEREST

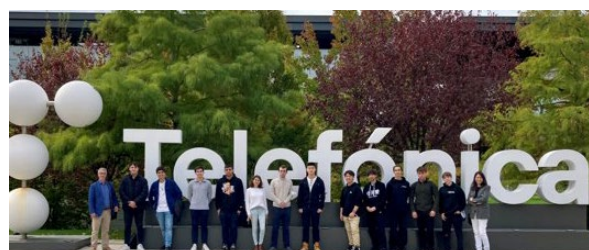
Throughout the year, our students have once again enjoyed the opportunity to visit singular professional environments related to their future professions. These visits give them the chance to learn about the different career options they will find when they finish their studies, allowing them to see first-hand what it is like to work in each of them. This also helps them to better choose where to do their internships in their final year. This year, more than a dozen visits have been organised for the different degree programmes to places such as the INTA Astrobiology Centre, TELEFÓNICA's "La Cabina", RAMEM and their cameras for telescopes, HEWLETT PACKARD ENTERPRISE, the NATIONAL



OBSERVATORY, NAGAMI DESIGN, the cement factory EL ALTO, and CITRAM (Public Transport Innovation and Management Centre), the rainwater drainage works in EI ENSANCHE DE VALLECAS, TALGO, LASERCOR, the installations at the AEROPUERTO DE TERUEL, the LUNAR MUSEUM and AIRBUS, among others.



THE AIM IS TO BRING THEM CLOSER TO COMPANIES, TO LEARN ABOUT THEM, AND TO BE ABLE TO CHOOSE WHAT CAREER THEY WANT TO PURSUE.





SEMINARS AND WORKSHOPS

A variety of sessions are offered to our students focussing on deepening their knowledge. We highlight a few:

The 75th anniversary of the bipolar transistor, the most important invention of the 20th century – October 24, 2022

Dr. Ignacio Mártel de la Plaza, physicist and professor of electronics at the Universidad Complutense de Madrid, gave an informative lecture on the occasion of the 75th anniversary of the bipolar transistor, which had enormous importance in the technological development of the last century. The event took on special significance in the current economic and social context, namely the chip and semiconductor supply shortages that are having a major impact on the global economy.»

link » <https://universidadeuropea.com/noticias/universidad-europea-conferencia-divulgativa-transistor/>

Visit of Huawei Spain to the STEAM School- October 28, 2022

Francisco Almeida, software engineer at Huawei Spain, gave a talk on the possibilities of applications development offered by Huawei Mobile Services. The session included the analysis of multimedia tools, machine learning and image recognition and security, among others. Attending the seminar were students of computer engineering and mathematical engineering applied to data analysis, as well as students from the advanced degrees of STEAM.»

link » <https://universidadeuropea.com/noticias/estudiantes-steam-universidad-europea-visita-huawei-espana/>

Quantum physics and reality: The keys to the 2022 Nobel Prize winners: Alain Aspect, John Clauser and Anton Zeilinger – December 1, 2022.

Dr. Jorge Luis Hita, quantum research scientist at BBVA, explained to the physics undergraduates the universe of quantum mechanics in a seminar devoted to the phenomenon of quantum entanglement and its implications for quantum information.

The research in this field was awarded the Nobel Prize for Physics in 2022. Dr. Hita used accessible language and simple examples to make it easier for those attending the seminar to understand such a complex area of study.»

link » <https://universidadeuropea.com/noticias/jorge-luis-hita-comparte-estudiantes-conocimientos-fisica-cuantica/>

Practical course on React – Diciembre 9, 2022

The engineer Carlos Azaustre, professional and renowned promoter in the field of web development, Google Developer Expert (GDE) and winner of the Microsoft MVP (Most Valuable Professional) in 2022, held an introductory workshop on React for third-year computer engineering students. During the session, students were able to programme a functional and operative application using the well-known Javascript library. This strengthened the experiential learning of our students through techniques used at the professional level.»

link » <https://universidadeuropea.com/noticias/aprendiendo-react-carlos-azaustre/>





MARIOLA PENADÉS, PROFESSOR VISITANTE

Dr. Mariola Penadés, professor at Johns Hopkins University, expert in neuroscience and project-based learning, will be at the school as guest lecturer from mid-January to mid-February. After her brilliant talk at the IV European Workshop on Project-based Learning last November, her presence at the University has created tremendous excitement. The School Board, several research groups, the biomedical engineering department and the Project-based School Office are some of the groups that will most interact with her.»

“MORE THAN A METHODOLOGY,
PROJECT-BASED LEARNING IS A
CULTURE”

(Mariola Penadés)



MASTER LECTURES SERIES: MANUEL GARCÍA VELARDE

Next February 17, 2023, physics professor Manuel García Velarde, Honorary Professor at the STEAM School and one of the most influential and award-winning physicists on the international scene, will participate in the MASTER LECTURES series.

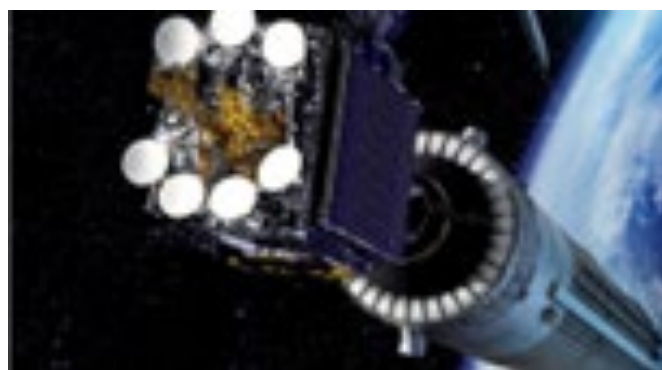
The MASTER LECTURES series is an initiative of the STEAM School with the purpose of organising encounters between students and master lecturers from the different disciplines.

During these sessions, students have the chance to ask the guest lecturers questions and the lecturers answer from their current perspective.

MASTER LECTURES are held every teaching semester. The painter Antonio López and the architect Rafael de La-Hoz have already participated in the series.»

ANZEN SATELLITE CONTROL SYSTEMS

During the month of February 2023, the undergraduate students in aerospace engineering at the Universidad Europea de Madrid will have the opportunity to attend a course on the design of control systems for the attitude and orbit of a LEO (Low Earth Orbit) satellite. Offered by the company Anzen Engineering, this will allow students to learn, at the hands of Pablo López Negro, R&D engineer, about all the design stages and the main development phases of space vehicles. A wonderful chance to supplement knowledge acquired from the undergraduate degree with the experience of a top company in the aeronautics sector.»





JOSE MOLINS AT ERIS ENGINEERING

At the end of 2020 I began my master's degree in applied systems engineering at the Universidad Europea de Madrid. This same year I set up, with two other partners, the company Eris Engineering. Our company designs and develops advanced vision systems and electromagnetic systems of high reliability and precision. Prior to this, I worked as a systems engineer and architect on national and international defence programmes. Studying the Master's in Systems Engineering was very enriching in many areas of engineering. It mainly helped me to improve my analytical skills, to understand better the needs of our clients and to have a greater global view. In fact, this is very present in my company, Eris

understanding the client as much as possible is what differentiates us. This requires greater effort mainly at the beginning and helps us to generate a stable and secure base to begin the design of the system that will be delivered to the client. Thanks to the teaching staff in the master's programme with experience in the industry and the project-based methodology, the practical approach is always present. This is the most important thing that I have gained from taking the master's course: learn to think and define requisites and design strategies from a practical point of view and apply them to the demands of the industry today. Learning was combined with real-life business projects.»

ALBERTO VILLANUEVA AT RAVENSBOURNE UNIVERSITY, LONDON

I finished my degree in architecture at UEM almost a decade ago. Later, I moved to London where I specialised in 'environmental design'. From then on, it was a real experience in collaborating and discovering how the role of the architect can go beyond the traditional route.

I presented research project in 2015 that opened the door to collaboration with NASA and the European Space Agency (ESA). The incorporation of new technologies, new materials and overpopulation were the focus for exploring a field that would become more relevant in later years.

UEM played a very important role for me in discovering and enjoying the creative and technical aspects of the profession, as well as encouraging good academic practices that encouraged me to explore the world of teaching and research. This synergy between science, technology, creativity and teaching has allowed me to participate and represent Spain as 'Ambassador for Science in the UK'.

We collaborated with Adidas on the first 3D printed models of footwear with recyclable materials and the incorporation of 'mycelium fungus' into fashion textiles as part of the Mars exhibition at the Design Museum in London.

I am currently the Head of the School of Architecture at Ravensbourne University London, a role I perform along with my architectural practice. We have recently collaborated with the Obama Foundation, Tinker Hatfield and Idris Elba to create links between Chicago and London with a commitment to providing more inclusive access to education and industry for young people in both cities.»



“THE UNIVERSIDAD EUROPEA DE MADRID PLAYED A VERY IMPORTANT ROLE FOR ME IN DISCOVERING AND ENJOYING THE CREATIVE AND TECHNICAL ASPECTS OF THE PROFESSION”
(Alberto Villanueva)