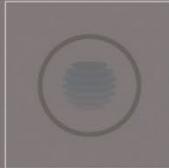


NEWSLETTER
UE STEAM
SCHOOL



NO ● 02

01 ● 07 ● 2022



ESCUELA DE ARQUITECTURA,
INGENIERÍA Y DISEÑO



UE
STEAM
SCHOOL



NEWSLETTER





GIANCARLO MAZZANTI AT THE SCHOOL OF ARCHITECTURE, ENGINEERING AND DESIGN. SECOND SEMESTER COURSE 2021-2022.

Mazzanti says, "Architecture does not only have purpose based on efficacy and utilitarianism, which can be summarized in what we call function. What interests us is architecture as a strategic mechanism for the common good, which is defined by what it does and not only by its essence. It is Architecture that tries to build social relationships among the users in a more humane way that is not exclusively based on economic production where, prior to contemplating the material shape and function, the effects on the immediate environment are thought out" (taken from the course syllabus 2021-2022 at the Universidad Europea, *Playing with anomalies. Architecture and learning for diversity*).

Giancarlo Mazzanti is an architecture graduate from the Universidad Javeriana de Colombia, with postgraduate studies in Industrial Design and Architecture in Florence. He has academic experience as guest lecturer at numerous Colombian universities as well as prestigious universities such as Harvard, Columbia and Princeton. He is the first Colombian architect to have his works included in the permanent collection at the Museum of Modern Art (MoMA) in New York and at the Pompidou Centre in Paris.

After spending an entire semester at our School of Architecture, Engineering and Design, he reflected seriously in the course final on: why we study architecture?, what will come next?, and ultimately, what will the future hold for architects?



A PRIVILEGE FOR THE SCHOOL TO HAVE HAD GIANCARLO PARTICIPATING SO INTENSELY IN ACTIVITIES WITH PROFESSORS AND STUDENTS.





FEMALE ENGINEERS PAVING THE WAY

On the occasion of the International Day of Women in Engineering on June 23rd, as one of the events carried out this month, the School of Architecture, Engineering and Design at the Universidad Europea de Madrid, together with the Women and Engineering Programme of the Royal Academy of Engineers of Spain, celebrated the day by acknowledging the female engineers that paved the way, thus promoting new vocations among young women. The first roundtable at the Universidad Europea de Madrid held its first roundtable on June 17th with the aim of highlighting the work of female engineers in the different fields of engineering.

With the aim of raising awareness of the successful careers of these women: Patricia Ortega García (agricultural engineer, Divisional General in the Spanish Army and Deputy Director of Ground Systems for the Institute of Aerospace Technology, M^a Dolores Norte Gómez (first mining engineer), Inés Gallego Cabezón (industrial engineer, vice-president of the Madrid Association of Industrial Engineers) and Carmen de Andrés Conde (first civil engineer), we were drawn by their experiences during their studies and their professional life.

Friday, 17 June 2022/
link » <https://mujereingenieria.com/event/ingenieras-abriendo-camino/>

ROUNDTABLE ON MATHEMATICS AND DATA SCIENCE

Last April, a roundtable was on mathematics and data science held. It included two students from the Mathematics Engineering applied to Data Analysis degree, Alicia Baltazar and Guillermo Zapata; Marta Almendro, a graduate of this degree; Marta Borrajo, a representative from the professional world who works as a senior data scientist at Geolink; and Enrique Puertas, professor of the Universidad Europea. The present and future of the profession of the data scientist was discussed. They spoke of the enormous demand for professionals at this time. They emphasized the practical approach of the degree, applying real problems of companies. Marta Almendro related that she felt better prepared than other colleagues at work thanks to the transversality of the degree she studied at the Universidad Europea. From the viewpoint of the company, Marta Borrajo said she valued the importance of not learning specific languages or tools but the capacity to translate a business problem to a mathematical problem. Enrique Puertas spoke about the important role that data analysis and artificial intelligence play in every area of science, but he warned of the dangers of misuse of data and the importance of being aware not only of the use of data and its source but also the bias that could occur in the way it is handled.



“WHAT’S IMPORTANT IS NOT LEARNING SPECIFIC LANGUAGES OR TOOLS BUT THE CAPACITY TO TRANSLATE A BUSINESS PROBLEM TO A MATHEMATICAL PROBLEM”

link » <https://www.youtube.com/watch?v=HaXYJdYavCc>



STUDENTS AT THE STEAM SCHOOL DISCOVER THE LATEST TRENDS AT THE “XIV INTERNATIONAL IT SEMINAR”

The **STEAM School** at the Universidad Europea held the “XIV International IT Seminar 2022” from the 19th to the 22nd of April. This event gave students the opportunity to learn first-hand about the latest technological trends in an international and multicultural environment.

During the workshops, students worked in teams to create projects in response to a series of challenges proposed to them.

The Universidad Europea at the Villaviciosa Odón Campus hosted students and professors from **Haaga-Helia University of Applied Sciences** (Finland), **HES-SO University of Applied Sciences** (Switzerland).

The “**IT Seminar**” is an event which is organized yearly among several European universities. One or two professors and about ten students from each university from different degree programmes such as engineering, videogames, or information technologies participate in the event.

Each university organizes a seminar on a contemporary topic.



“STUDENTS DEVELOP PROJECTS WORKING IN MULTIDISCIPLINARY AND MULTICULTURAL TEAMS

On the last day of the IT Seminar, the participants were able to enjoy a visit to the installations of the company **INDRA** in Torrejón de Ardoz.





VISIT TO THE CAB AND INTA

On May 25th, several students and professors from the school visited the Centre for Astrobiology (CAB) at the Centre for Scientific Research (CSIC) and the National Institute for Aerospace Technology (INTA). The origin of the CAB goes back to a proposal made to NASA by a group of Spanish and U.S. scientists led by Juan Pérez-Mercader to join the then (1998) recently created NASA Astrobiology Institute (NAI). Their objective was to establish a research environment that was truly transdisciplinary for the development of the new science of astrobiology.

During the visit, the CAB scientist, José Antonio Rodríguez Manfredi, accompanied and illustrated with his excellent and passionate explanations the different CAB laboratories and what they research in each one. It was a real treat for our students that were given answers to all their queries that, as future physics professionals had piqued their curiosity.



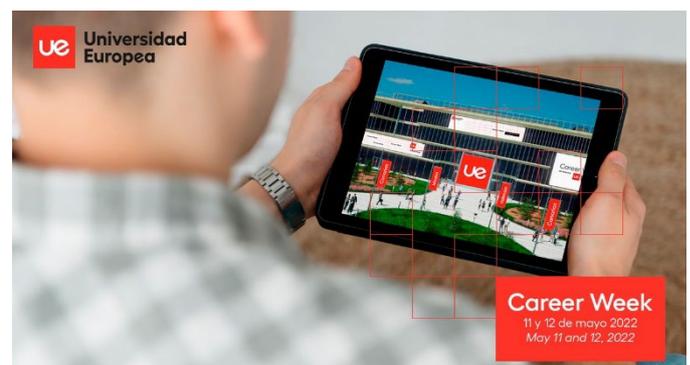
SEVEN POSTGRADUATE STUDENTS CHOSEN FOR THE MENTORING PROGRAMME "WOMEN AND ENGINEERING"

The Royal Academy for Engineering (RAI) has a mentoring program for excellence "Women and Engineering" for the purpose of additional training of female university students in knowledge and skills different from those they received at university. Seven of our female students from the STEAM postgraduate programme have been chosen to participate in this programme and will work with a female professional of acknowledged prestige, allowing for personal training where the student will learn from her extensive experience and where she will have the opportunity to participate in group training sessions and follow-up.

CAREER WEEK AT UNIVERSIDAD EUROPEA 2022

Career Week was held virtually on May 11th & 12th. 1,300 students had the opportunity to connect with over 100 companies in 6 different pavilions, to participate in 47 webinars and to apply for 348 offers of employment and internships.

Various webinars were also designed especially for our STEAM students and focussed on providing them with a vision of the professions covered by their areas of study





HANDSTHINKING HAS RETURNED IN 2022 STRONGER THAN EVER WITH WORKSHOPS, ACTIVITIES AND LECTURES

Universidad Europea held a new edition of HandsThinking, the festival of Architecture, Engineering and Design from the 25th to the 29th of April. Students from the School of Architecture, Engineering and Design (STEAM) have regained their 'big week' with workshops, activities and lectures on design, architecture, art, technology, and sciences.

The HandsThinking initiative has demonstrated the academic model under which the students at the Universidad Europea learn from real projects and multidisciplinary teams, thinking with the hands and experimenting with new technologies and discovering the infinite

The goal is clear: demonstrate that one can learn in a different way; that there is also learning to be had outside the classroom and the textbooks beyond the conventional roles of professor and student. Likewise, multidisciplinary work has the greatest advantage of being in large teams.

It is an authentic festival of STEAM disciplines that have returned another year and full of strength, celebrating meeting points between architecture and IT, between videogames and Mathematics, between physics and design, to mention some of the many other degree programmes.

With more than 35,000 interactions in social networks, with 800 participants in 17 workshops about biomaterials, digital illustration, drones, mural painting, and film music in animation and videogames, etc., in our school's unique spaces such as the Fablab or the Techfactory, and with a grand closing ceremony and final exposition of all the projects developed during the week.



“THE HANDSTHINKING INITIATIVE HAS PROVEN THE ACADEMIC MODEL UNDER WHICH THE STUDENTS OF THE UNIVERSIDAD EUROPEA LEARN”

Handstinking UEM 2022 en
Instagram » https://www.instagram.com/handstinking.fest/?utm_medium=copy_link





SCI-TECH DAY: THE FIRST SCIENCE AND TECHNOLOGY CONFERENCE AT THE STEAM SCHOOL

The STEAM school held its first Science and Technology Conference on May 13th. The goal of the conference was to give our students in IT, Engineering, Mathematics and Physics degree programmes the opportunity to get even closer to the professional world through various lectures by experts. During the event they spoke about basic attitudes and behaviours for joining the labour market and about the technologies most in demand, as well as the spectacular James Webb Space Telescope.

Five professionals gave talks. Laura Lacarra, from Big Data Engineering at Telefónica and ambassador for Women Techmaker, spoke about all those basic things you need to know when starting a career but they do not tell you at university.



Students gave a warm reception, as the words of David San José, computer engineering student, well demonstrated. "I am used to attending different lectures throughout the year in which topics related with technology and science are discussed. But on this occasion, there were several talks focussed on aspects, sometimes underrated, but very relevant. I'm talking about personal development and future projection. That's why I highly recommend that the rest of my classmates try to participate in these talks, regardless of their degree course or their knowledge. It is one of the strong points the university offers."

Carlos Ramírez, a physics student also commented: "Sci-Tech Day has been a great experience that stimulates the curiosity that makes physicists restless.

Two scientists from the European Space Agency, Julio Gallegos and Marcos López-Caniego, worked on the James Webb Space Telescope launched into space last December 25th aboard the Ariane 5 rocket. José Aguilar, PhD in Computer Sciences and a researcher for Marié Curie Horizon 2020, spoke about the fascinating world of artificial intelligence applied to energy production and distribution networks known as Smart Grids. Lastly, Carlos Caño, Service Delivery Manager at Hewlett Packard, gave a wonderful talk on the importance of attitude in the workplace environment.

" I HIGHLY RECOMMEND THAT THE REST OF MY CLASSMATES TRY TO PARTICIPATE IN THESE TALKS, REGARDLESS OF THE COURSE OR THEIR KNOWLEDGE..."

They explained very well all the possibilities that we will have when we finish our degree and we were amazed by the scientists from the European Space Agency talking about the James Webb Space Telescope, without mentioning the aperitifs and the final surprise. A great day."

All in all, a successful conference in which the more than eighty students that attended changed their usual class routine to learn other things that are just as important for their professional development. The conference finished with a small agape where, besides recharging batteries, students were able to chat with the speakers on a one-to-one basis. A total success we hope to repeat next year.



RETO BUSINESS & DATA WEEK

The Business & Data Week 2022 was held the week of the 15th to 22nd of June and aimed at students with a profile in business and technology. It was organized in collaboration with Making Science and Google. It was held simultaneously and at the Alcobendas campus in person or online via YouTube streaming and synchronous work sessions. The participants worked on a set of data, applying the tools provided by the Google Cloud Platform, in order to propose innovative solutions that offer a better experience to customers. They received training from Google and Making Science specialists and monitoring by mentors and experts in business analytics, marketing, big data, data science and other related matters, who accompanied and guided them to achieve the best results possible in their projects.



CENTRE FOR ADVANCED COMPUTER STUDIES (CCA)

We inaugurated our Centre for Advanced Computer Studies in June. These new installations allow students to study in more detail massive data analysis, to carry out simulations and to put into practice a series of concepts related to artificial intelligence or machine learning, among other things.

Although it will continue to grow, the CCA currently has Data Base servers, a Virtual Private Server, a Data Storage server, a Network Attached Storage (NAS) server, a File Transfer Protocol (FTP) server and a Web server, but most important, it houses a cluster of distributed computing that allows us to carry out logic operations at very high speeds thanks to a system of distributed files. Its capacity of calculation is 136 teraflops. The same as 13 Playstation5s combined!

SECOND PLACE IN THE ASTI ROBOTICS

The team comprised of Teodora Nikolaeva, Mario Uceda, David San José and Mahsa Simaei, all students from the STEAM School, presented a car capable of following lines, navigating mazes, drawing and sweeping. It was designed with omni-directional wheels to improve the vehicle's manoeuvrability. The Universidad Europea also received an award for the best educational centre.

The educational robotic event was held in Burgos in May 2022 // For more information click [here](#) »link





OPEN SESSION: EDUARDO ARROYO + ISRAEL ALBA + GIANCARLO MAZZANTI, 2 (+1) LECTURES AND A MUA CRITIQUE SESSION

After the master class given by our guest professor of this semester, Giancarlo Mazzanti, on May 12th we continued with presentations by Eduardo Arroyo (NO.MAD) and Israel Alba, followed by a critique session with the three speakers and students in our Qualifying Master's degree.

The University Master's Degree in Architecture (qualifying) from the Universidad Europea de Madrid is designed in accordance with the PBL (Project Based Learning) methodology.

This allows for transversal and personalized learning, structured around a problem statement and the student's individual master's final project. Ours is the first school in Spain and the third in the world to obtain simultaneously NAAB International Certification (Icert, USA) and Royal Institute of British Architects (RIBA) Validation, which facilitates professional practice in the USA, Great Britain and the Commonwealth respectively.

Thursday, 12 May 2022, 18:30 o'clock, Central de Diseño de Matadero Madrid
<https://www.mataderomadrid.org/programacion/conferencia-eduardo-arroyo-israel-alba-giancarlo-mazzanti>

THE DEGREE IN THE FUNDAMENTALS OF ARCHITECTURE AND THE MASTER'S IN ARCHITECTURE HAVE OBTAINED NAAB INTERNATIONAL RECERTIFICATION FOR A PERIOD OF SIX YEARS

We received a favourable notification letter in May from the National Architectural Accrediting Board:

NAAB, established in 1940, is the oldest accrediting agency in the United States and its fundamental principles that serve as a guide and inspiration are a commitment to excellence:

- to foster a culture of continual improvement that seeks positive transformation;
- to promote diversity and inclusion, ensuring the inclusion of diverse populations to enrich the learning environment;
- to boost effective communication that articulates the value of an accredited architectural education to students, the profession, and the communities architects serve;
- to encourage the spirit of collaboration and promote transparency and cooperation in the responsibility of preparing future architects for professional practice



It is therefore an endorsement of equivalency with the best programmes for architectural studies in the U.S. and identifies ours as perfectly compatible in every significant aspect.



FINAL HPE CDS TECH CHALLENGE

Last April the HPE CDS Tech Challenge, the company's major programming competition in Spain, took place in Las Rozas, Madrid, and finished with a 24-hour hackathon around new technologies and their contribution to the development of cities of the future.

José María de la Torre, managing director of Southern Europe, president and CEO of Hewlett Packard Enterprise, was in charge of the closing ceremony and the handing out of awards, giving the final touch to an innovative initiative that is a part of the HPE CDS talent programme.

Participating in the HPE CDS Tech Challenge were 246 IT students from universities and professional training centres from all around Spain. For six months, they faced tests focussed on the world of software development, networking, algorithms and logic. Only 21 finalists, divided in 5 teams, competed for the victory. Among the awards was the option for the winners to do an internship at Hewlett Packard Enterprise. The finalists were from the Universidad de Santiago de Compostela, the Universidad Europea de Madrid, the Universidad de León, and the Universidad de Castilla-La Mancha.

Congratulations go to the members of our finalist team: Francisco Afán, Juan Alberto Raya and Pablo Pascual.



STEAM SCHOOL CHESS TOURNAMENT

The largest natural neural network, to date, is the human brain. To reinforce this network we practise words and repeat movements that model and perfect our capabilities from the very day we are born. One of the essential exercises to learn strategy and improve our reasoning is to play, and from childhood, we do this as often as we can. With these lines in mind, professor José Alberto Aijón decided to offer, in the 2021-2022 academic year, a section in the Science Club that fosters concentration and thinking.

CELESTIAL OBSERVATION

On May 6th, 24 students from the Physics Club went for a night-time outing to Los Molinos in the Madrid Sierra as part of the course on Astronomical Observation. During the outing they were able to learn about interesting aspects such as telescope assembly, its professional use, how it is calibrated, as well as the location of stars and constellations. It was undoubtedly an experience they will not forget and perhaps will initiate an important calling for some of them.





APPLIED SYSTEMS ENGINEERING WORKSHOP (ASEW 2022) AT THE STEAM SCHOOL OF THE UNIVERSIDAD EUROPEA

The first edition of the Applied Systems Engineering Workshop (ASEW) was held at the school on June 9th. Nine successful cases of systems engineering were presented at ASEW 2022. Kirsten Helle, from TechnipFMC, gave the inaugural speech on systems engineering applied to underwater extraction of gas and oil. ASEW is co-organized by the School, the Spanish Association of Systems Engineering (AEIS), ISDEFE and SENER Aeroespacial

This is a forum for sharing experiences in the application of systems engineering. In the afternoon, the participants and speakers attended a workshop directed by Alejandro Salado to analyze how to reduce noise and bias when verifying requirements. More than 30 professionals from every sector attended the ASEW 2022.

9 June 2022 . <https://www.aeis-incose.org/evento/asew-2022/>

VISITING PROFESSOR

PhD. AURILLA ARNTZEN

Dr. Aurilla Arntzen, professor at the University of South-Eastern Norway, expert in systems engineering and artificial intelligence, specialist in knowledge management and cofounder of the Institute for Knowledge Management and Innovation in Southeast Asia, was a visiting professor at the School in March. She held meetings with professors of diverse research groups to share experiences in the presentation of proposals in competitive projects. She gave master classes to students in the Master's of Applied Systems Engineering. She also worked with professors in the preparation of articles for conferences and indexed journals.

Aurilla held meetings with students and professors to address different aspects on the application of systems engineering in different projects. She presented her work as head of the Horizonte2020 USEPE project. A project financed with European funds, USEPE plans to elaborate an operations concept that guarantees that airborne vehicles keep a safe distance (both drones and manned aircraft) in crowded urban airspace.



“KNOWLEDGE IS THE ONE OF THE MOST IMPORTANT ASSETS THAT EXISTS FOR ANY ORGANIZATION”

March 2022 <https://cordis.europa.eu/project/id/890378/es>



EDUCATIONAL SUMMER CAMP AT UNIVERSIDAD EUROPEA 2022

Summer Camp is a high level education camp that took place from June 27th to July 1st. The goal was to offer students in their second and third year of high school a different experience. For one week, they could find their vocation by participating in the workshops of the various professional areas that are in most demand today. During the workshops, the participants are given the opportunity to experience our project-based learning.

The students are given a tour of the installations and allowed to work in our laboratories. They are encouraged to attend the self-awareness and orientation workshops, as well as to learn about career opportunities. The participants are able to attend workshops on design, photography, industry 4.0, physics, biomedical engineering, digital manufacturing, and data science. Then they can enjoy the experience of an “Escape Room” and are invited to a barbecue on campus to finish the day.

From June 27th to July 1st
<https://universidadeuropea.com/campamento-educativo/>

COLLABORATION WITH BARTTLET SCHOOL OF ARCHITECTURE Y RAVENSBORNE UNIVERSITY LONDON

Alberto Sols, director of the School of Architecture, Engineering and Design, and his deputy director, Francisco Domouso, visited two prestigious London universities that award degrees in architecture and design with the aim to establish collaboration agreements for an exchange programme.

The visit was to strengthen ties with Bartlett School of Architecture, one of the most prestigious schools of architecture in the world. They were hosted by Frédéric Migayrou, the Chair.

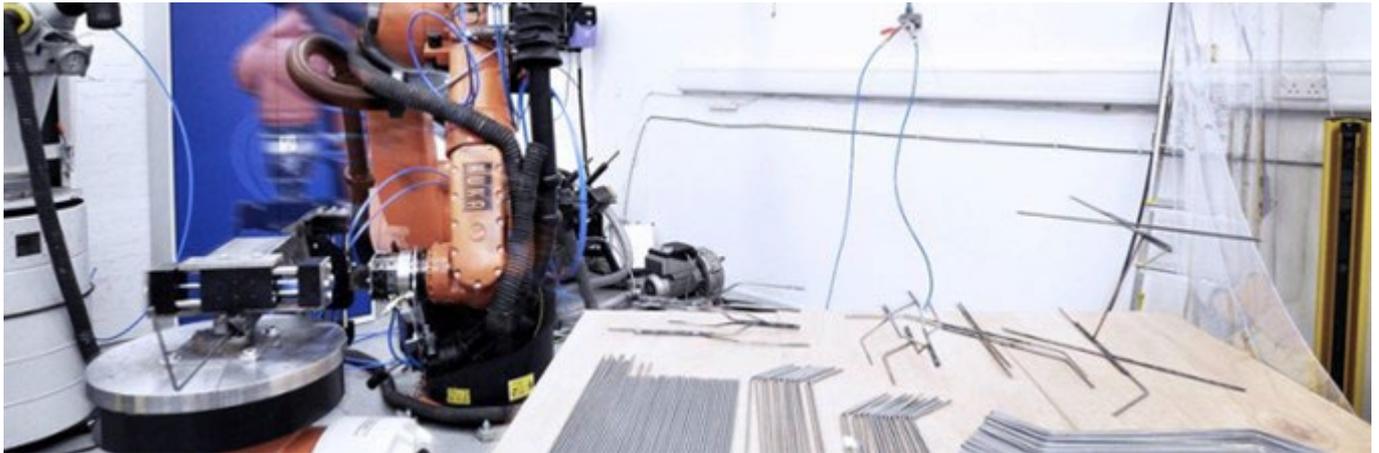
As a result of this collaboration, this summer on July 11, 2022, we will launch the first SUMMER WORKSHOP: OBJECTS OF THE MUNDANE, organized by BARTTLET PROSPECTIVE and UNIVERSIDAD EUROPOEA.

They also visited Ravensbourne University London, a prestigious and cutting edge school of architecture and design with a spectacular campus and installations. Andy Cook, vice chancellor was their host. They are already initiating the process to establish agreements for degrees in architecture and design.



“COLLABORATION BETWEEN TE SCHOOL OF ARCHITECTURE, ENGINEERING AND DESIGN AND BARTTLET SCHOOL OF ARCHITECTURE”

May 2022//uem.es/newsletter



SUMMER WORKSHOP 2022: OBJECTS OF THE MUNDANE: Bartlett BPRO + UEM

Bartlett B-Pro and Universidad Europea have partnered to initiate a 2022 summer workshop in collaboration with the 3D robotic printer Nagami. This workshop will explore new design and computer methods for automated manufacturing in architecture. This open workshop offers architecture, engineering and design students the opportunity to learn firsthand about the latest design tools and processes and about digital manufacturing. This is a partnership with one of the 12 best schools of architecture in the world.

Instruction will be given by professors from Bartlett and from Universidad Europea. Students will learn to transform the most mundane into exciting new objects, buildings and urban spaces through novel and sustainable manufacturing methods, such as large-scale 3D printing with recycled plastics and robotic assembly, boosted by artificial intelligence, physical simulation and other computer tools.

11th-22nd July 2022 in Madrid. FabLab and other laboratories of the Universidad Europea (Villaviciosa de Odón, Madrid), and in the Nagami factory of large-scale robotic manufacturing in Ávila.
<https://universidadeuropea.com/en/summer-course-architecture-madrid/>



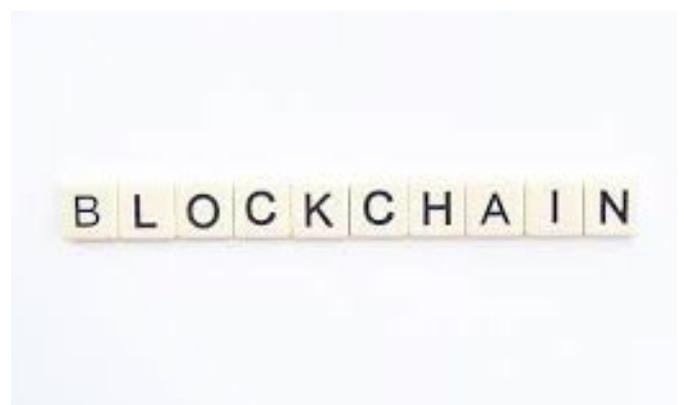
NEW EXPERIMENTAL CENTRE FOR ELECTRONICS AND BIOAPPLICATIONS

A new space will be added for students in the STEAM School at the Universidad Europea de Madrid during the 22/23 course year. Located near the Industria 4.0 laboratory, engineering students will have a space where they will be able to experiment with all types of electronic systems.

This space will be equipped with specific material for development and experimentation using electronic bioapplications. This will be especially beneficial in the Biomedical Engineering degree.

EVALUATION SESSION FOR STARTUPS IN THE BLOCKCHAIN MASTER

On July 9th, the first evaluation session will be held for startups organized within the activities of the Blockchain Master taught in a boot camp format. Students have been working during the 14-week programme on a business idea that uses technologies learned throughout the course. They will present them to potential investors and real experts in the world of Blockchain, Metaverso and Venture that evaluate startups on a daily basis.



OUR GRADUATES

SONIA SUAREZ MORENO. GRADUATE OF THE MASTER'S DEGREE IN ENGINEERING OF ROADS, CANALS AND PORTS

Sonia is the Production Manager of EMESA Madrid Calle 30 and became a member of the new Governing Board of the Madrid Association of Engineers of Roads, Canals and Ports in April. This association was created in 1979 and has 9000 members. Among its functions is to give support to the professional practice, to defend the profession, to foster continuous training and the development of road engineering.

Madrid Calle 30 has 48 km of tunnel, the longest motorway tunnel in Europe and one of the longest in the world. As Production Manager of EMESA, she gives support to the CEO in the elaboration and supervision of the company's strategic lines and coordinates the company's technical areas, which are basically made up of the Control Centre, Incidence Response and Maintenance teams, both in civil works and installations.

She manages a team of 300 people, 35 of which are engineers in the branches of civil engineering, industrial engineering, telecommunications engineering and computer engineering.



MARTA ALMENDRO. GRADUATE IN MATHEMATICAL ENGINEERING APPLIED TO DATA ANALYSIS 2021

Marta began at IBM as an intern and is now a full employee. Her current role is that of prevention technician for what IBM calls their 'ecosystem'. She is responsible for growing and feeding the technical capacities of IBM commercial partners so that they absorb IBM products into their own solutions and acquire specialization and autonomy. The focus is in the area of Business Automation using technologies directly linked to artificial intelligence and to a cloud hybrid strategy.

The company specializes in a modular set of integrated software components created for any cloud environment and designed to automate work and accelerate business growth.

These solutions to global automation allow for analysis of workflows, design applications with integrated AI, assign tasks to bots and monitor performance.

As she herself says, "the most enriching part of my degree was that it was very eclectic. The subjects covered a broad horizon of knowledge, from a more technical level to the development of soft skills, within the framework of project-based learning. It is now that I have been able to see firsthand how this learning model has sown its fruits. My current day to day activities consist of working in a team, close to customers and commercial partners in order to understand and resolve their business needs."



"MY WORK HAS BECOME AN ENVIRONMENT THAT PROMOTES GROWTH BOTH AT THE PROFESSIONAL AND PERSONAL LEVEL"



NATALIA MOLINERO WINNER OF THE TOP AWARD IN THE SECOND EDITION OF THE ALUMNI GRANTS PROGRAMME

Natalia studied telecommunications engineering at the Universidad Europea de Madrid. Just before graduating, she shared the results of her final degree project, a simulation model of the transmission and reception in the 4G LTE network, publishing it on the Mathworks platform. It is still being downloaded today and used by students and professors in different parts of the world.

After finishing her studies in telecommunications engineering in 2013, she did a Master's in Wireless Communication Systems at the University of Sheffield (United Kingdom). During the course, she received several honours, among them, the Graduation Award.

In 2014, Natalia worked in Rotherham (United Kingdom) as an Applications Engineer at Reflex System, a security systems company, and for three years as a Research Associate for the University of Sheffield doing research on 5G networks.

Since 2017, she has been working at Netmetri where she is in charge of developing services for the main operators in Spain and in other European countries. Furthermore, her current position has allowed her to become a "Certified Associate in Project Management (CAPM)" from the Project Management Institute (PMI).

In her project "Methods for optimizing energy efficiency in the generation, storage, transmission and reception of information", winner of the top award in the second edition of Alumni Grants Programme, she proposed the improvement of the processes of generation, storage, transmission and reception of information by searching for algorithms for the codification and distribution of energy that are efficient from the energy point of view and maintain levels of quality service provided by the latest standards such as 5G.

link » <https://alumni.universidadeuropea.com/recursos-singular/conoce-a-natalia-molinero>

MÓNICA GUILLÁN. GRADUATE OF ENGINEERING IN INDUSTRIAL ORGANIZATION

Mónica Guillán obtained her Master's in Industrial Organization, Project Management and Business. She currently works as a senior consultant at Management Solutions where she carries out regulatory and strategic projects about government, quality and data strategy in one of the leading financial entities in the sector.

She is specifically engaged in the functional definition within the framework of data governance and quality, as well as its subsequent implementation and monitoring of the organization's regulatory and strategic projects.

