

More than 130 students from the School of Engineering of Algeciras completed their training with the Fundación Cepsa Chair in 2022

- The Fundación Cepsa Chair at the University of Cádiz published its activity report for last year
- Research grants to reward the initiatives of four scientific groups at the University have begun.

The Fundación Cepsa Chair at the University of Cadiz (UCA) closed 2022 with the participation by more than 130 students, most of them studying at the Algeciras School of Engineering (ETSI), from the Vice-Rectorate Campus Bahía de Algeciras in its various activities.

This year, the Fundación Cepsa Chair has launched scientific research grants, awarding four grants in this first call and thereby allocating 40,000 euros to promoting the lines of study related to energy transition and circular economy that are being undertaken at the University of Cadiz.

The winners of this first edition were the following projects: *Producing volatile fatty acids, enzymatic extracts and bio-hydrogen from macroalgae biomass in a circular economy process*, by the research team led by Cristina Agabo García; *New technology to produce hydrogen from industrial waste*, by the team whose principal investigator is Juan Ramón Portela Miguelez; *Using algae biomass waste to obtain biocrude through hydrothermal liquefaction*, by the research team led by Jezabel Sánchez Oneto; and *Characterization and diagnosis of the evaluation of sludge generated in oil refining*, by the team led by researcher Inmaculada Ramos Lerate.

This year saw another edition of the Specialization in Oil Refining training program, which UCA and Cepsa have been organizing jointly since the 2015-2016 academic year. The program is an optional fourth-year subject offered by the Algeciras Polytechnic School as part of the bachelor's degree in Industrial Technology Engineering. It consists of a total of 36 ECTS (European Credit Transfer and Accumulation System) of on-site training which students complete at the San Roque energy park. 2022 saw the seventh set of students finish this demanding university training program in collaboration with the company, the first of its kind among public universities in Spain. The course ran from

November 2021 to June 2022, with a total of 16 students from the UCA and Cepsa.

One of the numerous initiatives driven by the Fundación Cepsa Chair is the PowerYou Xperience day, in collaboration with the Human Age Institute. Last year the event attracted 107 attendees, all final year students and graduates from UCA and from a variety of degree programs. They were able to take part in an event aimed at improving their employability and enhancing their talents.

Additionally, the Fundación Cepsa Chair awards were given to Leonor María Sillero Moreno in the category of Scientific-Technical Article for her article *Anaerobic co-digestion in thermophilic-mesophilic temperature phase of sewage sludge, wine stillage and poultry manure: Effect of hydraulic retention time on the mesophilic-methanogenic phase*. Jose Manuel Reales Gonzalez was also recognized for his Final Degree Project *"Preparing fuel supply facilities for maritime storage."* Finally, in the invention patent category, Ismael Romero Ocaña was awarded for a composite material for use in stereolithography and the procedure for obtaining it, which opens up opportunities for the cork industry in the area. This year, it was also decided to provide a special mention to Irene González Muñoz for her final degree project *Integration of the Liquefiable Petroleum Gas Recovery Unit (GasconII) in the treatment of olefinic butanes in the Fluidized Catalytic Cracking (FCC) plant*.

The Fundación Cepsa Chair at the UCA has worked for three years with the doctoral thesis of the researcher Marta Barea entitled *Development of analytical methodology to use as a reference and implement in rapid analysis and even in situ for the determination of volatile and aromatic components in petroleum products for use in industry (Electronic Nose)*, which ended in 2022 and will be presented this year.

Fundación Cepsa Academic Chairs in Andalusia

The relationship between Cepsa and the University is constant. The chairs at the universities of Huelva, Seville, Malaga, and Cadiz, which are managed by the Fundación Cepsa, are growing thanks to the contributions and dedication of professionals from both organizations to improve training, innovation and research.

The Fundación Cepsa Chairs in Andalusia have helped thousands of students to gain first-hand experience in a real working environment and bring university professors closer to the reality of industry in Andalusia. Exchanges between technicians and professors have allowed them to improve professionally and apply their newly gained expertise in their daily work. For all these reasons, today Fundación Cepsa is a great ally of universities in Andalusia.



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San Roque, March 20, 2022

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