

The Fundación Cepsa-ULL Chair Analyzes the Application of Neural Networks in the Industrial Sector

- **Researcher Daniel González gives a master class in which he highlights the importance of predictive models for medium-term planning**

The Fundación Cepsa Chair for Innovation and Energy Efficiency at the University of La Laguna held a master class today entitled Modelo de redes neuronales aplicado al sector industrial (Model of Neural Networks Applied to the Industrial Sector), taught remotely by ULL researcher Daniel González.

The talk was introduced by the director of the Chair, Andrea Brito, and Cepsa's Canary Islands director, José Manuel Fernández-Sabugo, who stressed the importance of promoting knowledge transfer between the academic world and the business sector through this type of initiative.

During the conference, attended by more than 60 people, Daniel González explained the basic concepts of machine learning and the development of artificial neural networks. He underlined the importance of analyzing a large quantity and variety of data in order to apply intelligent computing algorithms and machine learning.

The objective is to have validated predictive models that relate to genuine industrial problems. The results facilitate advance understanding and modeling of the evolution of the different factors involved in the process of medium-term planning.

During his talk, González also spoke about a case study concerning the impaired performance of a gas turbine for generating electricity due to degradation caused by environmental variables relating to the presence of Saharan dust in the air, a phenomenon known in the Canary Islands as calima.

During the master class he also explained the ULL's current line of research and discussed some of the work currently being done with respect to the use of neural networks in industry.

The session was brought to a close by the head of Cepsa's Research Center, Joana Frontela, who emphasized the importance of master classes like this one since they promote the exchange of knowledge and training between the teachers and researchers at the University of La Laguna and the professionals at Cepsa, thus increasing talent within both organizations.

Ms. Frontela noted that this was the first in a long series of master classes on interesting topics, and that she hoped that they would attract many knowledge seekers. "The objective is to harness the experience of both organizations, Cepsa and the University, to facilitate and promote the growth of knowledge," she said. In this respect, she said that the topics for upcoming sessions would be ad hoc, although always oriented toward the subject of the Chair: innovation and energy efficiency.

After the summer break, Cepsa's Research Center will host a master class, for any researchers and experts from ULL who are interested, on R&D+I at the energy company, which will focus on the scientific method used by Cepsa to ensure success in its projects.

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Fundación Cepsa
canarias@fundacioncepsa.com
Tel: (+34) 922 60 27 07
www.fundacioncepsa.com