

CONFERENCE

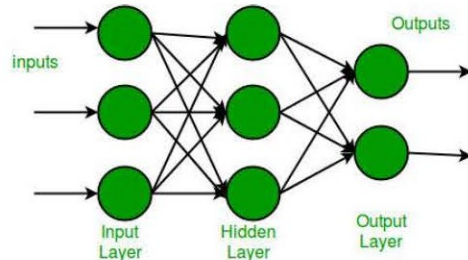
>>>> Sal3n de Actos. Facultad de Ciencias. <<<<

>>>>> Lunes, 17 de febrero 13:15 h <<<<

Title: Neural Networks for Regression: An Introduction to Multi-Layer Perceptron Applications.

Summary:

In this talk, we will introduce the neural network technique and explore its applications across different fields. We will focus on defining a neural network and demonstrate how to use a specific type—the Multi-Layer Perceptron (MLP)—for solving regression problems. In particular, we will discuss applications of MLP in predicting thermophysical properties such as viscosity, surface tension, and thermal conductivity.



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TRAINING

PhD in Technical Physics, Marche Polytechnic University (Italy).

Degree in Mathematics, University of Bologna.

SCIENTIFIC ACTIVITY

In the field of environmental sustainability, he is dedicated to developing innovative methods for predicting the physical properties of liquids and gases, using both theoretical and experimental approaches. His techniques include the use of machine learning algorithms, especially neural networks, and the execution of simulations optimized for single and multiple objectives through advanced numerical optimization software.

Recently, he has been working on building acoustics, exploring how to improve acoustic comfort both indoors and outdoors. In parallel, he investigates outdoor thermal comfort, contributing to the modeling of more livable and sustainable spaces. He continues his research on correlations for the description of solar radiation, seeking to improve building efficiency and the use of renewable energy.