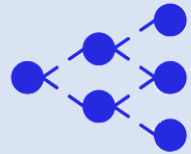




av-AI-lable PROJECT:

UHPC concrete materials selection by AI and ML



av-AI-lable



**SME (SPAIN):
TESELA, MATERIALS INNOVATION
AND HERITAGE S.L.**



ABOUT TESELA

- Technology-Based Company SME
- Since 2015
- Padul (Granada, Spain)
- Born from Granada University



MAIN TEAM FOR av-AI-lable



Eugenio Navarro
CEO



Gaspar Carrasco-Huertas, PhD
R&D Project Manager



Jorge Aguilar
AI Developer



Miriam Alguacil
R&D Technician



Gabriela Tarifa
R&D Researcher



Spanish Platform for the Building Sector
Diffusion partner

HEADQUARTERS

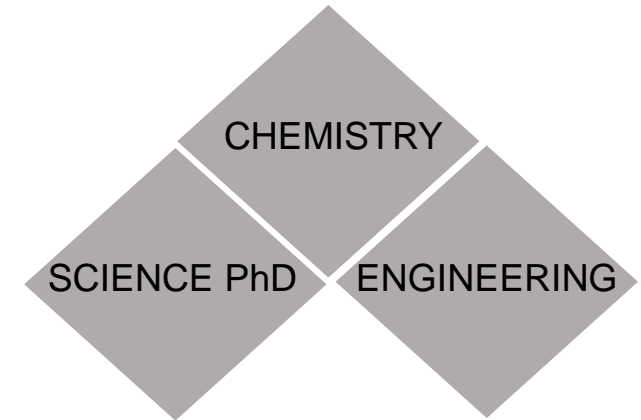


SUSTAINABLE
CONSTRUCTION
CLUSTER OF ANDALUSIA



GRANADA UNIVERSITY.
SCIENCE FACULTY

MEMBERS BACKGROUND



THE CHALLENGE:

Sustainability and performance prediction of UHPC by AI and ML methods using physical and chemical experimental test data

THE SOLUTION

Develop a **feasibility study** for an **AI/ML tool** that can predict the performance of **UHPC mixtures** by the selection of adequacy of sustainable materials, reducing the time and cost of material selection experiments, facilitating to consider of the high-performance UHPC materials in the designing phase of any project.

OBJECTIVES TO ACHIEVE

1. **Reduce human expert dependency** and avoid time-consuming experimental tests.
2. **Limit the fraction of materials** to be manufactured.
3. Simple and quick **obtention of the properties** of a UHPC that can be used in specific applications.



Figures:

*Left: Common procedure of mixing.
Right: UHPC structural application.*

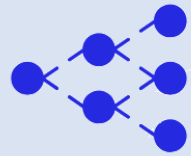
IMPORTANCE OF AI IN TESELA

- Promote the adoption of AI in TESELA
- Produce specific materials and increase estimated revenue stream per year.





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