

Empowering hybrid twins from physics-informed artificial intelligence

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World is changing very rapidly. Today we do not sell aircraft engines, but hours of flight, we do not sell an electric drill but good quality holes, ... and so on. We are nowadays more concerned by performances than by the products themselves. Thus, the new needs imply focusing on the real system subjected to the real loading that it experienced until the present time in order to predict the future responses and in this manner, anticipate any fortuity event or improve the performances.

Here, usual modeling and simulation techniques are limited because of the fact that a model is sometimes no more than a crude representation of the reality. Artificial Intelligence irrupted and became a major protagonist in many areas of technology and society at the beginning of the third millennium, however many times it require impressive training efforts (incredible amount of data, most of them inexistent, difficult to collect and manipulate, extremely expensive in time and resources).

A highway to circumvent these difficulties and successfully accomplishing the most efficient (fast, accurate and frugal) generation of information and knowledge facilitating a real-time decision-making in engineering in general, and in forming processes in particular, consists of a hybrid paradigm combining real-time physics ad real-time data-driven modelling.

Data: 9 de Abril de 2021.

Lugar: Online a través de MS Teams. Tódalas persoas interesadas en asistir, poden solicitar, antes das 14 horas do 6 de abril, o enlace de acceso a MS Teams ao correo-e: masec@usc.es

Duración: 1 hora (aproximadamente).

Hora: 12:00h.

