



Trends and Prospects in Artificial Intelligence and Mechanical Analysis

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Deadline for manuscript
submissions:

closed (10 January 2024)

Message from the Guest Editor

Dear colleagues,

In the field of structural and mechanical engineering, problems can be challenging when an engineering system is too complicated with non-linearity. Since Artificial Intelligence (AI) is able to capture complex non-linear relationships between inputs and predictions, it has been widely used to develop prediction models in many fields of mechanical engineering. It takes advantage of a large amount of measured data and as the amount of data keeps growing, AI algorithms learn to make more accurate predictions. For the prediction of mechanical behavior, a variety of AI models has been used in this area, e.g., PINN (Physical Informed Neural Network). Studies have shown that AI models generally have higher accuracy and robustness than those based on empirical or semi-empirical models. From previous studies, AI models demonstrate feasibility and accuracy for the mechanical prediction problem, which can serve as a valuable solution for engineering practice in the age of big data.





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Message from the Editor-in-Chief

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