14th World Congress on Computational Mechanics (WCCM XIV)
8th European Congress on Computational Methods in Applied Science and Engineering (ECCOMAS 2020)
July 19- 24, 2020, Paris, France

STRUCTURAL INTEGRITY AND FAILURE ASSESSMENT

TRACK NUMBER 100

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Key words: Structural Integrity, Structural Design, Failure Analysis, Fatigue Mechanics, Health Monitoring.

ABSTRACT

Structural integrity and failure assessment have been considered by many fields of engineers in the literature since it is a multi-disciplinary concept. The assessment procedure vitally ensures that structural elements will remain functional throughout their service lives. Structural failure refers to the loss of structural integrity by means of loss at the component or system-level elements. The main concern of integrity assessment as an aspect of engineering is that a structural failure may be avoided at the service level by designing the structure to withstand its designated loads. Hence, for satisfactory structural performance, structural safety, failure, and interaction between them should be both taken into account throughout the design and analysis stages. The main purpose of this minisymposium is to provide the researcher with a comprehensive perspective on structural integrity and its sub-disciplines. Topics of interested include but are not limited to: Structural integrity, sustainable structural design and analysis, failure analysis and case studies, damage, fatigue, and fracture of materials and structures, durability, safety and reliability analysis of structural components, and structural health monitoring.