metals

an Open Access Journal by MDPI

IMPACT FACTOR 2.5

CITESCORE 5.3

Fatigue Design and Life Assessment of Offshore Wind Turbines

Guest Editor:

Prof. Dr. Ali Mehmanparast
Department of Naval Architecture, Ocean and Marine Engineering, University of Strathclyde, Glasgow G1 1XQ, UK

Deadline for manuscript submissions:
closed (30 April 2022)

Message from the Guest Editor

An efficient source of renewable energy, which is increasingly the preferred solution for realising the world's short- and long-term energy ambitions, is offshore wind. Offshore wind turbines (OWTs) are typically designed for 20–25 years of operation with their foundations made of steel structures. During their lifespan, these offshore structures are subjected to cyclic loading conditions in corrosive environments introducing corrosion-fatigue damage in the material.

In this Special Issue, we seek to provide a wide set of articles on various aspects of material selection, analysis of the loading conditions and degradation mechanisms in the context of structural design, integrity, and reliability engineering of OWT steel structures. Articles on the materials and microstructures, structural life assessment, risk and reliability engineering, and O&M analysis of OWTs are desired. Experimental, numerical, and analytical studies with sufficient level of contribution to knowledge are equally encouraged for publication in this Special Issue.

metals

IMPACT FACTOR 2.5

CITESCORE 5.3

an Open Access Journal by MDPI

Editors-in-Chief

Prof. Dr. Hugo F. Lopez
Department of Materials Science and Engineering, College of Engineering & Applied Science, University of Wisconsin-Milwaukee, 3200 N. Cramer Street, Milwaukee, WI 53211, USA

Prof. Dr. Yong Zhang
Beijing Advanced Innovation Center of Materials Genome Engineering, State Key Laboratory for Advanced Metals and Materials, University of Science and Technology Beijing, 30 Xueyuan Road, Beijing 100083, China

Message from the Editorial Board

Metallic materials play a vital role in the economic life of modern societies; contributions are sought on fresh developments that enhance our understanding of the fundamental aspects related to the relationships between processing, properties and microstructure – disciplines in the metallurgical field ranging from processing, mechanical behavior, phase transitions and microstructural evolution, nanostructures, as well as unique metallic properties – inspire general and scholarly interest among the scientific community.

Author Benefits

Open Access: free for readers, with article processing charges (APC) paid by authors or their institutions.
High Visibility: indexed within Scopus, SCIE (Web of Science), Inspec, Ei Compendex, CAPlus / SciFinder, and other databases.
Journal Rank: JCR - Q2 (Metallurgy and Metallurgical Engineering) / CiteScore - Q1 (Metals and Alloys)

Contact Us

Metals Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/metals
metals@mdpi.com
𝕏@Metals_MDPI