



5th International Conference on Structural Integrity and Durability, ICSID 2021

## Preface

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### 1. Preface

The International Conference on Structural Integrity and Durability, ICSID 2021 was organized by the Faculty of Mechanical Engineering and Naval Architecture, University of Zagreb, and the Croatian National Group of the European Structural Integrity Society (ESIS), in Dubrovnik in Croatia from September 7 to 10, 2021.

Due to the Covid-19 pandemic situation, ICSID 2021 was organized as the Hybrid Conference i.e, a combination of on-site and online presentation to provide the safety and conveniences for participants. The Conference was held at the Centre for Advanced Academic Studies (CAAS) of the University of Zagreb, in the city of Dubrovnik. The magnificent old building of CAAS is situated in the centre of Dubrovnik on the Croatian Adriatic Coast, in the vicinity of the most prominent historical places of the Old Town (<http://icsid2021.fsb.hr/>). Online presentations were held

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using a commercial meeting platform. In total 57 on-site and online presentations were given, including five plenary lectures.

The objective of the ICSID 2021 Conference was to bring together scientists, researchers and engineers from around the world to discuss how to analyse, predict and assess the fatigue and fracture of structural materials and components. The Conference provided a forum for discussion of contemporary and future trends in experimental, analytical and numerical fracture mechanics, fatigue, failure analysis, structural integrity assessment, and other important issues in the field.

A wide range of topics was covered such as: Structural integrity of 3D-printed structures; Models, criteria and methods in fracture mechanics; Finite element methods and their applications; Effect of residual stresses; Fatigue and fracture of weldments, welded components, joints and adhesives; Reliability and life extension of components; Fracture and damage of cementitious materials; Fatigue and fracture of polymers, composites and biomaterials; and others.

Prior to the ICSID 2021 Conference a two-day Summer School with the topic “Fatigue and fracture modelling and analysis” was organized for graduate students, researchers, and engineers from industry. Those participants who came to Dubrovnik, besides the excellent technical program, had the opportunity to enjoy their stay in Dubrovnik, one of the most famous Mediterranean cities, world celebrated symbol of historical heritage and beauty, which has found its place in the UNESCO World Heritage List.

As the Guest Editors of this Conference Proceedings, we wish to thank all authors for their contributions.

Guest Editors of the *Procedia Structural Integrity* ICSID 2021 Conference Proceedings:

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