

# Safety and Reliability of Systems and Processes



SUMMER SAFETY AND RELIABILITY  
SEMINAR 2020

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**Supported by Gdynia Maritime University and Polish Safety and Reliability Association.**

**PUBLISHER:**



**Gdynia Maritime University**  
ul. Morska 81-87  
81-225 Gdynia  
[www.umg.edu.pl](http://www.umg.edu.pl)

<https://ssars.umg.edu.pl>  
ISBN 978-83-7421-320-2 (printed)  
e-ISBN 978-83-7421-321-9 (eBook)  
DOI: 10.26408/srsp-2020



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## PREFACE

The monograph presents new developments and current trends in different topic areas of safety and reliability of systems and processes, delivered by excellent specialists researching in this field. The collective monograph consists seventeen chapters authored by the researchers from five countries. The original and creative contributions to particular chapters' area selected after a strong review process of the 14<sup>th</sup> Summer Safety and Reliability Seminar 2020 that was organized jointly by the Gdynia Maritime University and the Polish Safety and Reliability Association and took place in the Austeria Conference Hotel in Ciechocinek in Poland from 26<sup>th</sup> to 30<sup>th</sup> September 2020. The Seminar was a great opportunity for researchers working in safety and reliability of systems and processes areas to transfer knowledge and enrich the comprehensions of this scientific community.

The chapters of this collective monograph include the advanced methods for the safety and reliability analysis of complex systems and processes and their real applications to disseminate the newest achievements in the field. The subjects are chosen in an effort to dynamically represent the methodological advancements developed to meet the newly arising challenges in the field of safety and reliability. In this volume, the emphasis is focused on the following subjects:

- reliability and safety of complex systems and processes modelling, identification and prediction,
- critical infrastructure safety and operation cost optimization,
- critical infrastructure accident consequences modelling,
- reliability and safety of transportation systems and processes.

The accepted chapters are forming the monograph entitled "Safety and Reliability of Systems and Processes, Summer Safety and Reliability Seminar 2020", published by Gdynia Maritime University.

We, the editors of this volume, would like to express our thanks to all Authors for their research results that contribute to further progress in safety and reliability and create excellent and valuable source for scientists, researches, MSc and PhD students and practitioners working in this area.

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