

Special Issue

Application of Bayesian Networks to System Safety and Reliability

Message from the Guest Editors

The Conventional Bayesian network (BN) and its advanced extensions the dynamic Bayesian network (DBN) and the limited memory influence diagram (LIMID) have become very popular in the last decade among safety and reliability communities. The present Special Issue aims to deal with novel and innovative applications of BN to system safety and reliability assessment, other than its ordinary applications that prevail in cause–effect modelling and probability updating. Of particular interest are unpublished and original applications of BN (as well as DBN and LIMID) to the following:

- Safety/reliability assessment of dynamic systems, and modelling and analysis of dynamic failures and cascading effects
- Optimal/cost–benefit/safety-based design and decision-making
- Resilience/vulnerability assessment of systems with regards to random failures, intentional attacks, and natural disasters
- Human error probability assessment
- Innovative integration of BN with information theory, game theory, agent-based modelling, optimization techniques, etc., for foregoing application domains

Guest Editors

Prof. Dr. Nima Khakzad

Dr. H.R. Noel Van Erp

Prof. Pieter van Gelder

Deadline for manuscript submissions

closed (20 December 2019)



Safety

an Open Access Journal
by MDPI

Impact Factor 1.7
CiteScore 3.7



mdpi.com/si/20232

Safety
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
safety@mdpi.com

[mdpi.com/journal/
safety](https://mdpi.com/journal/safety)





Safety

an Open Access Journal
by MDPI

Impact Factor 1.7
CiteScore 3.7



[mdpi.com/journal/
safety](https://mdpi.com/journal/safety)



About the Journal

Message from the Editor-in-Chief

Editor-in-Chief

Prof. Dr. Raphael Grzebieta
Transport and Road Safety (TARS), University of New South Wales, Old
Main Building (K15), Sydney, NSW 2052, Australia

Author Benefits

High Visibility:

indexed within Scopus, ESCI (Web of Science), SafetyLit,
and other databases.

Journal Rank:

CiteScore - Q2 (Safety Research)

Rapid Publication:

manuscripts are peer-reviewed and a first decision is
provided to authors approximately 37.2 days after
submission; acceptance to publication is undertaken in 5.7
days (median values for papers published in this journal in
the first half of 2025).