

Special Issue of *Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability* on Reliability Analysis for Infrastructure Systems

Submission closing date: **November 20th, 2020**

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Reliability Analysis is a process aiming to analyse the reliability of a technical system. It provides basic information to asset managers in their planning resources to ensure the system operating at a desired level of performance. Infrastructure systems are an essential asset in modern businesses and its reliable operation is important to the countries as their incapacity will have a debilitating impact on security, national economy, national public health or safety, or any combination of these matters. Thus, ensuring the availability and safety of these infrastructure systems are vital for business operation. As such, research on reliability analysis of infrastructure systems is needed in modern businesses and it will be the main focus of this special issue.

Scope

This special issue of *Proceedings of the Institution of Mechanical Engineers, Part O: Journal of Risk and Reliability* invites contributions on Reliability Analysis of Infrastructure Systems, such as onshore and offshore energy generation systems, transportation systems, telecommunication systems, etc. The Guest Editors seek submissions with an original perspective and advanced thinking on the theme addressed. Both theoretical models and practical studies are welcome. Possible topics include, but are not limited to, the following:

- Meta-models for reliability analysis
- Root cause analysis
- Human reliability
- Reliability data collection and analysis
- Service system reliability
- Advanced simulation techniques for reliability analysis
- Reliability analysis methods
- Systems reliability assessment
- Use of reliability analyses
- Uncertainty and sensitivity analysis
- Expert elicitation
- Failure analysis
- Reliability modelling and analysis
- Availability modelling and analysis
- Repairable systems analysis

Papers for this special issue are to be submitted electronically at:

<https://mc.manuscriptcentral.com/jrr>. Please stipulate 'SI: Reliability Analysis for Infrastructure Systems' during the submission process. Submitted papers should not have been previously published or be currently under consideration for publication elsewhere. Manuscripts will be peer-reviewed following the normal standards and procedures of this journal. For details on formatting

requirements, authors are invited to check Guide for Authors at <https://journals.sagepub.com/author-instructions/PIO>.

Planned timeline

The deadline for submission of full manuscripts is **November 20, 2020**. The full review process is expected to be completed within six months of receipt of the papers.

Authors with questions about the suitability of proposed topics for this special issue are encouraged to contact the guest editors.