ASCE-ASME Journal of Risk and Uncertainty in Engineering Systems - Call for Papers

Part A: Civil Engineering, and Part B. Mechanical Engineering
The Editorial Board of the ASCE-ASME Journal invites contributions presenting state-of-the-art research and best practices for addressing risk, disaster and failure-related challenges arising from uncertainty. We particularly welcome emerging research relating to availability and processing of big data, including data driven decision support, machine learning and further computational intelligence tools relating to risk and uncertainty.

How to submit
Part A: https://ascelibrary.org/journal/ajrua6
Part B: http://risk.asmedigitalcollection.asme.org/journal.aspx

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Editorial Message

We are proud to receive an Impact Factor of 3.084 for Part A of our journal. Simultaneously, we experience an upward trend for Part B and anticipate a respective reflection in an impact factor in the next cycle. This success is based upon a team effort with high quality contributions by all authors, rigorous reviews, and dedicated management by the editorial team, for which I express my personal appreciation and thanks. A particular feature of our journal related to its success is its dedication to most current challenges in a multi-disciplinary setting. The current Special Section "Probabilistic Approaches for Robust Structural Health Monitoring of Wind Energy Infrastructure", curated by E. Chatzi and I. Abdallah for Part B, integrates structural analysis with machine learning and data analysis for green energy solutions. Technical papers involve aspects of human behavior, environmental, health and economic aspects, as well as communication and cybersecurity. The editorial on Climate Resilience Technologies for Infrastructure provides a perspective for emerging developments across disciplines as they are needed in the larger context of our grand challenges. We particularly invite contributions and proposals for Special Issues and Special Collections, which address our challenges with emerging multi-disciplinary approaches.
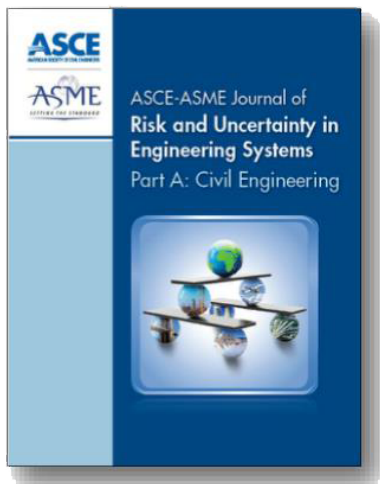

Please contact the Editor or the Managing Editors by email if you have an interest to guest edit a special collection (Part A) or a special issue (Part B).

Both Part A and Part B are listed in the Emerging Sources Citation Index by Clarivate Analytics, formerly Thomson Reuters, with Part A being indexed since 2019. From 2016 onward, all articles are included in Web of Science and Scopus.

Statement on Open Access
The editorial team motivates authors to share their pre-prints and/or accepted versions of their paper via institutional or other repositories, scientific social networks or personal websites in the spirit of Open Science. Please make sure to abide by embargos and other Journal Policies, which can be found here for part A and here for part B.

skip to Part B

Part A Civil Engineering - News

Update your library with the latest reading from the ASCE-ASME JRUES journals:

LATEST ISSUES

❖ V8-3: June 2022 *(in progress)*
❖ V8-2: June 2022 *(in progress)*

CALL FOR PAPERS

- Special Collection on [Benchmarking Data-driven Site Characterization Methods](#) (SC052A). Paper submission deadline: August 1, 2022.
- Special Collection on Uncertainty Quantification and Propagation in Structural Health Monitoring and Prognostics

LATEST REVIEWS

- [Resilience-Based Design of Infrastructure: Review of Models, Methodologies, and Computational Tools](#)
  Mahdi Shadabfar, Mojtaba Mahsuli, Yi Zhang, Yadong Xue, Bilal M. Ayyub, Hongwei Huang and Ricardo A. Medina
- [Time-Dependent Reliability of Aging Structures: Overview of Assessment Methods](#)
  Cao Wang, Michael Beer and Bilal M. Ayyub
- [Structural System Reliability: Overview of Theories and Applications to Optimization](#)
  Junho Song, Won-Hee Kang, Young-Joo Lee and Junho Chun
- [Emerging Technologies for Resilient Infrastructure: Conspectus and Roadmap](#)
  Mahmoud Reda Taha, Bilal M. Ayyub, Kenichi Soga, Sherif Daghash, Daniel Heras Murcia, Fernando Moreu and Eslam Soliman

LATEST SPECIAL COLLECTIONS

- [Special Collection on Bayesian Learning Methods for Geotechnical Data](#), Ka-Veng Yuen, Jianye Ching, Kok Kwang Phoon
- [Special Collection on Resilience Quantification and Modeling for Decision Making](#), Gian Paolo Cimellaro and Nii O. Attoh-Okine

Please contact the Editor or Managing Editors by email if you are interested in guest editing a Special Collection (Part A)

🏅 Part A - Awards & Recognitions

Editor's Choice Paper
[Time-Series Prediction in Nodal Networks Using Recurrent Neural Networks and a Pairwise-Gated Recurrent Unit Approach](#), by Yanjie Tong and Iris Tien

Most Read Paper
[Climate Impact Risks and Climate Adaptation Engineering for Built Infrastructure,](#) by Mark G. Stewart and Xiaoli Deng

Most Cited Paper
[Scale of Fluctuation for Spatially Varying Soils: Estimation Methods and Values](#), by Brigid Cami, Sina Javankhoshdel, Kok-Kwang Phoon, and Jianye Ching

Editor's Choice Collection
For each issue of the journal, the Chief Editor may select a paper to be featured on the journal homepage in the ASCE Library. The paper is available for free to registered users for 1 to 4 months, depending on how frequently the journal is published. A list of Editor's Choice selections is available [here](#).

2021 Outstanding Reviewers
André T. Beck ∎ Nicholas Chileshe ∎ You Dong Ketson ∎ Roberto Maximiano dos Santos∎ Ao Du ∎ Cheng-Wei Fei ∎ Wenping Gong ∎ Cao Wang ∎ Jie Zhang ∎ Wengang Zhang

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PART A Best Paper Award
Awarded annually to one paper in Part A appearing in the preceding volume year.

2021 Best Paper Award
[Global Decoupling for Structural Reliability-Based Optimal Design Using Improved Differential Evolution and Chaos Control](#), by Ali Khodam, Pooria Mesbahi, Mohsenali Shayanfar, Bilal M. Ayyub

The awarded papers are made freely available from the ASCE Library for one year to anyone interested once registered and logged in to download.

Part B Mechanical Engineering - News

Update your library with the latest reading from the ASCE-ASME JRUES journals:

LATEST ISSUES

❖ V9-1: March 2023 (*in progress*)
❖ V8-4: December 2022 (*in progress*)
❖ V8-3: September 2022 (*in progress*)
❖ V8-2: June 2022

❖ V8-1: March 2022
❖ V7-4: December 2021
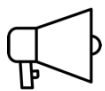❖ V7-3: September 2021
❖ V7-2: June 2021

LATEST REVIEWS

- A Recent Review of Risk-Based Inspection Development to Support Service Excellence in the Oil and Gas Industry: An Artificial Intelligence Perspective, by Taufik Aditiyawarman, Agus Paul Setiawan Kaban, Johny Wahyuadi Soedarsono
- Prognostics and Health Management of Wind Energy Infrastructure Systems, by Celalettin Yüce, Ozhan Gecgel, Oğuz Doğan, Shweta Dabetwar, Yasar Yanik, Onur Can Kalay, Esin Karpat, Fatih Karpat, Stephen Ekwaro-Osire
- Uncertainty Quantification for Additive Manufacturing Process Improvement: Recent Advances, by Sankaran Mahadevan, Paromita Nath, Zhen Hu

- [Optimizing Predictive Maintenance With Machine Learning for Reliability Improvement](#), by Yali Ren
- [Path Integral Methods for the Probabilistic Analysis of Nonlinear Systems Under a White-Noise Process](#), by Mario Di Paola and Gioacchino Alotta

LATEST SPECIAL ISSUES

- [Special Section on Risk, Resilience, and Reliability for Autonomous Vehicle Technologies: Trend, Techniques, and Challenges](#), by Mohammad Pourgol-Mohamad, Arun Veeramany, Bilal Ayyub
- [Special Section on Probabilistic Approaches for Robust Structural Health Monitoring of Wind Energy Infrastructure](#), by Eleni Chatzi and Imad Abdallah
- [Special Issue on Uncertainty Quantification and Management in Additive Manufacturing](#), by Zhen Hu, Saideep Nannapaneni, Sankaran Mahadevan
- [Special Section on Risk and Uncertainties in Offshore Wind and Wave Energy Systems](#), by Vikram Pakrashi, Jimmy Murphy, Budhaditya Hazra
- [Special Section: Nonprobabilistic and Hybrid Approaches for Uncertainty Quantification and Reliability Analysis Matthias](#), by Matthias G.R. Faes, David Moens, Michael Beer, Hao Zhang, Kok-Kwang Phoon
- [Special Section on Response Analysis and Optimization of Dynamic Energy Harvesting Systems in Presence of Uncertainties](#), by Agathoklis Giaralis, Ioannis A. Kougioumtzoglou, Pol D. Spanos

Please contact the Editor or Managing Editors by email if you are interested in guest editing a Special Section/Issue (Part B).

📢 Call for Papers - Part B

- Special Issue on [Digital Twins: A New Frontier in Critical Infrastructure Protection and Resilience](#) (SI053B). Paper submission deadline: December 31, 2022.

🏅 Part B - Awards & Recognitions

Most Read Paper

[Improving Site-Dependent Wind Turbine Performance Prediction Accuracy Using Machine Learning](#), by Sarah Barber, Florian Hammer, Adrian Tica

Most Cited Paper

[Structural Life Expectancy of Marine Vessels: Ultimate Strength, Corrosion, Fatigue, Fracture, and Systems](#), by Bilal M. Ayyub, Karl A. Stambaugh, Timothy A. McAllister, Gilberto F. de Souza, David Web

Featured Article

[Resilience Decision-Making for Complex Systems](#), by Julian Salomon, Matteo Broggi, Sebastian Kruse, Stefan Weber, Michael Beer

Reviewers of the Year 2021

Chen Jiang ■ Imad Abdallah

Part B Best Paper Award

Awarded annually to one paper in Part B appearing in the preceding volume year.

2021 Best paper Award

[On the Effect of the Electrical Load on Vibration Energy Harvesting Under Stochastic Resonance](#), by Panagiotis Alevras

The awarded papers are made freely available from the ASME Digital Collection for one year to anyone interested, once registered and logged in to download. Moreover, ASME offers the authors a one-year free subscription to Part B.

The award for the Best Paper published in 2021 in Part A and Part B will be presented to the authors in attendance at the ASME Safety Engineering and Risk Analysis Division (SERAD) award ceremony at the International Mechanical Engineering Congress & Exposition (IMECE) which will be held during the period October 30-November 3, 2022, Columbus, OH, https://event.asme.org/IMECE. The authors who will not be able to attend the ceremony in person will receive the award's plaque by mail. The ASME Safety Engineering & Risk Analysis Division (SERAD) and the ASCE Infrastructure Resilience Division (IRD) will present the winners for Part A and Part B, respectively, with US$1000 cash award (to be shared among authors), and subsidize the travel of one author up to US$500.

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