



Journal of Simulation Call for Papers

Special Issue on Simulation Research in Africa

Deadline: [30th April 2025]

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Overview of Special Issue:

This call for papers invites submissions for a special issue of the Journal of Simulation focused on modelling and simulation (M&S) research conducted in or related to the African region. There are several examples of recent M&S studies focusing on Africa, e.g., Carnohan et al. (2021) and Giliomee et al. (2023). Many examples of international M&S collaborations with authors affiliated with African institutions also exist (e.g., Samuel et al., 2020; Allal et al., 2021; Bouziane et al., 2021). The special issue will present a collection of research and practitioner papers relevant to the African context that are carried out by African teams, including their international collaborators.

Papers are sought that advance simulation theory, methodology, and practice within the unique contexts, challenges, and opportunities of the African region across diverse domains, including but not limited to agriculture, energy, healthcare, manufacturing, mining, policy modelling, supply chain, transportation, and more.

Studies can focus on conceptual modelling, model formalisms, validation and verification, scenario development and experimentation. Empirical studies must employ a simulation approach. Thus, studies using discrete-event simulation (DES), system dynamics (SD), agent-based simulation (ABS), and hybrid simulation (HS) are within the scope of the special issue. We also welcome studies on hybrid modelling (Mustafee et al., 2018) combining computer simulation (DES, ABS, SD, HS) with analytical models, machine learning models or other modelling approaches. The editors are happy to respond to queries on the fit of a prospective article for the special issue.

The *Simulation Research in Africa* special issue thus provides an outlet to communicate the value simulation brings to solving African problems and improving African systems, as well as the high-quality research underway by African simulation scholars. It seeks to catalyse further growth of simulation expertise in Africa and build international awareness of this emerging community.

- The Special Issue is part of the [JOS Africa Focus initiative](#), which will run from 2024 to 2026. The initiative aims to increase the volume of M&S research in Africa and establish JOS as a top conduit of research papers from authors affiliated with African institutions.
- As part of the development of the special issue, a **paper development workshop** is being organised on the sidelines of the **AFROS 2024 conference**, Tlemcen, Algeria (3-5 November 2024). Please email the lead Guest Editor M'hammed Sahnoun for further details (msahnoun@cesi.fr). Attendance at the workshop is not necessary and authors can choose to submit their original research
- For papers that receive the decision of "R&R/Major revision", JOS has made provision for the **shepherding of papers** by a team of academics who have volunteered their time. The team includes Associate Editors who are members of the JOS Africa Focus group. Please email Nav Mustafee for further information (n.mustafee@exeter.ac.uk).

Subjects covered:

- Literature reviews on simulation research in Africa
- Simulation studies based in Africa and which focus on African systems/problems
- Studies using real African data sets, case studies, or models validated in an African context
- Simulation education, adoption, and capacity-building initiatives in Africa
- Progress and challenges for simulation research in Africa
- International collaborations doing simulation research relevant to Africa
- Critical reviews or comparative studies of simulation applications in Africa
- Other original simulation research conducted in Africa or by African teams
- Invited papers, e.g., viewpoints, from authors with experience in simulation research in Africa
- Practitioner papers on applied research in the African context

Guest Editors:

- **M'hammed Sahnoun** (msahnoun@cesi.fr), CESI LINEACT, France.
- **Mohamed Tarek Khadir** (khadir@labged.net), University of Badji Mokhtar Annaba, Algeria.
- **Ali Wagdy Mohamed** (aliwagdy@gmail.com), Cairo University, Egypt.
- **Mamadou Kaba Traore** (mamadou-kaba.traore@u-bordeaux.fr), University of Bordeaux, France.
- **Saikou Y. Diallo** (sdiallo@odu.edu), Old Dominion University, USA.
- **Nav Mustafee** (n.mustafee@exeter.ac.uk), University of Exeter Business School, UK.

For more information on the JOS Africa Focus initiative, please email Nav Mustafee.

Timeline:

- Announcement of CFP: 1st May 2024
- Paper development workshop: [AFROS 2024 conference](#), Tlemcen, Algeria, 3-5 November 2024 (workshop attendance is not necessary for submitting to the special issue)
- Submission deadline: 30th April 2025
- Initial decisions: 90 days from the date of submission (papers can be submitted any time)
- Revisions due: 90 days from the date reviews are received
- Articles available online: 15 days from the date of final acceptance
- Anticipated print publication: End of 2025/Early 2026

Important details:

- Peer review of manuscripts submitted to the special issue is conducted according to agreed and ethical peer review standards (<http://journalauthors.tandf.co.uk/preparation/ethics.asp>) for the publication of articles, so as to ensure the integrity of peer review and assure the quality of published articles.
- All authors, peer reviewers, and referees comply with the Publisher's guidelines on the ethics of journal publishing (<http://journalauthors.tandf.co.uk/preparation/ethics.asp>) and respect the confidentiality of the review process, and that material under review shall be held to be the contributing author's intellectual property unless and until otherwise assigned.
- Please indicate that your article is for a special issue during the submission process; both in your cover letter and also when asked by the ScholarOne system. You should be able to select the special issue title from a drop-down menu, which will help the Editorial Office and the Editors to correctly allocate your paper for peer review.

References :

- Allal, A., Sahnoun, M. H., Adjoudj, R., Benslimane, S. M., & Mazar, M. (2021). Multi-agent based simulation-optimisation of maintenance routing in offshore wind farms. *Computers & Industrial Engineering*, 157, 107342.
- Bouziane, S. E., Khadir, M. T., & Dugdale, J. (2021). A collaborative predictive multi-agent system for forecasting carbon emissions related to energy consumption. *Multiagent and Grid Systems*, 17(1), 39-58.
- Carnohan, S. A., Clifford-Holmes, J. K., Retief, H., McKnight, U. S., & Pollard, S. (2021). Climate change adaptation in rural South Africa: Using stakeholder narratives to build system dynamics models in data-scarce environments. *Journal of Simulation*, 15(1-2), 5-22.
- Giliomee, J. H., Hull, C., Collett, K. A., McCulloch, M., & Booysen, M. J. (2023). Simulating mobility to plan for electric minibus taxis in Sub-Saharan Africa's paratransit. *Transportation Research Part D: Transport and Environment*, 118, 103728.
- Mustafee, N., & Powell, J. H. (2018). From hybrid simulation to hybrid systems modelling. In *Proceedings of the 2018 Winter Simulation Conference*, pp. 1430-1439. IEEE.
- Samuel, K. G., Bouare, N. D. M., Maïga, O., & Traoré, M. K. (2020). A DEVS-based pivotal modeling formalism and its verification and validation framework. *Simulation: Transactions of the SCS*, 96(12), 969-992.