

## Special Issue

# Soil Engineering for Improving Water, Solutes, and Heat Dynamics of Arid Lands

### Message from the Guest Editors

This Special Issue aims to bring together interdisciplinary research focused on the design, testing, and application of engineered soil systems to enhance soil–water–atmosphere interactions in harsh arid and semi-arid landscapes. Contributions may include innovations in soil structure modification, the use of amendments such as biochar and hydrogels, the use of smart capillary barriers, the management of salinity or waterlogging, and subsurface manipulation to improve irrigation water storage and use efficiency by crops. The goal of this Special Issue is to collect papers (original research articles and review papers) to provide insights into advanced theoretical and practical knowledge in the domain of soil engineering for smart irrigated agriculture and land sustainability. Submissions linking technology, landscape-scale land planning, the modeling of water–solute–heat–flow of modified soils, the effect of organic and inorganic amendment on soil quality and water–solute transport, rhizosphere engineering, and ecosystem resilience under harsh arid soil conditions are particularly encouraged.

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### Guest Editors

Dr. Said Al-Ismaily

Dr. Daniel Menezes-Blackburn

Prof. Dr. Abdulrasoul Al-Omran

Prof. Dr. Ali Akbar Moosavi

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### Deadline for manuscript submissions

closed (30 April 2026)



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## About the Journal

### Message from the Editor-in-Chief

*Land* is the only open access journal covering all aspects of land science, and it is a pioneering platform for publishing on land system science. Our editorial board is comprised of eminent scholars. We publish high quality research on societally relevant, emerging and innovative topics and results in land system research. It is now one of the top land journals with a significant Impact Factor, and has a goal to become the best journal in land in the coming years.

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### Editor-in-Chief

Prof. Dr. Christine Fürst  
Department Sustainable Landscape Development, Institute for  
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