

Special Issue

The Soil Microbiome: Diversity, Genomics and Potential Applications in Climate Smart Agriculture

Message from the Guest Editors

The soil microbiome, a vital, yet often overlooked component of the planet's health, is composed of a diverse community of microorganisms living in the soil. Due to the complexity and versatility of their enzymatic, genetic and metabolic functions, they interact with each other, the soil environment and plants. In doing so, they play crucial roles in nutrient cycling, plant health, soil structure and fertility, carbon sequestration, greenhouse gas regulation and ecosystem resilience. However, the soil microbiome is largely influenced by both intensive agricultural practices and the changing soil climate. Thus, to maintain the sustainability of agricultural productivity as well as ecosystem functioning that lead to improved human health and food security, it is vital to have a healthy microbiome. Recently, the application of various DNA sequencing technologies such as next-generation sequencing has enabled scientists to better understand soil microbes... We accept manuscripts that deal with the taxonomic, phylogenetic and functional diversities of soil microbiomes, including studies that address the various modes of actions of the soil microbiomes...

Guest Editors

Dr. Ahmed Idris Hassen
Prof. Dr. Olubukola Oluranti Babalola
Dr. Timothy Sibanda

Deadline for manuscript submissions

closed (20 May 2025)



Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



mdpi.com/si/219456

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

mdpi.com/journal/

[applsci](https://doi.org/10.3390/applsci)





Applied Sciences

an Open Access Journal
by MDPI

Impact Factor 2.5
CiteScore 5.5



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



About the Journal

Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

Prof. Dr. Giulio Nicola Cerullo
Dipartimento di Fisica, Politecnico di Milano, Piazza L. da Vinci 32,
20133 Milano, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, Inspec, Embase, CAPIus / SciFinder, and other databases.

Journal Rank:

JCR - Q2 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)