

Special Session on
Applications of Artificial Intelligence in Bio-Technology
at
14th World Congress on Nature and Biologically Inspired Computing
(NaBIC 2022)
on
World Wide Web
December 14-16, 2022

<http://www.mirlabs.org/nabic22>

Objectives and Scope

Biotechnology has resulted in scientific breakthroughs that can be used to a variety of sectors, including medicine, agriculture, and environmental research. Biotechnological applications with high scientific significance include advanced medicines, genetically modified organisms (GMOs), genome-editing technologies such as CRISPR, and synthetic creatures. In addition to their benefits and usability, these applications have raised — and continue to raise — significant ethical, legal, and social issues. Over the last few decades, both traditional and innovative biotechnological breakthroughs have sparked heated arguments over ethical concerns, which have influenced the development of national and international regulations in some situations.

In the future years, artificial intelligence (AI) and machine learning approaches will transform the field of biotechnology; this Special Issue will provide an excellent forum for researchers in this subject.

Automated data processing, data analysis, and predictive modelling assistance for real-time monitoring, and adjusting appropriate forecasting models using data-driven techniques with the full capacity of Artificial Intelligence (AI) techniques are still not systematically benefiting the Biotechnology mechanism and design.

The purpose of this Special Issue on "Artificial Intelligence" is to bring together many of the existing research initiatives on AI applications in biotechnology into a single open-source document. The contributions to this Special Issue will cover a wide range of topics in Biotechnology from a multidisciplinary community of physicists, material scientists, biologists, and engineers working on functional materials, including, but not limited to, the application and development of more efficient AI techniques in experimental, theoretical, and review contributions from a multidisciplinary community of physicists, material scientists, biologists, and engineers working on functional materials.

Subtopics

The topics include, but are not limited to:

- AI in Biotechnology
- AI in drug target identification,
- AI in drug screening,
- AI in image screening,

- AI in predictive modelling.
- AI in Ethics
- AI in Legal implications
- AI in Social implications
- AI in Genome editing
- AI in GMOs
- AI in Cell and gene therapies
- AI in Synthetic biology
- AI in Biosafety
- AI in Policy

Paper Publications

- Proceedings will be published in Lecture Notes in Networks and Systems, Springer (Indexed in SCOPUS, INSPEC, WTI Frankfurt eG, zbMATH, SCImago)
<https://www.springer.com/series/15179>
- Papers maximum length is 10 pages
- Papers must be formatted according to Springer format (Latex/word) available at:
<https://www.springer.com/de/authors-editors/book-authors-editors/manuscript-preparation/5636#c3324>

Important Dates

Paper submission due: September 30, 2022

Notification of paper acceptance: October 31, 2022

Registration and Final manuscript due: November 10, 2022

Conference: December 14-16, 2022

Special Session Chairs

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