



## AI Engineering: Software Engineering for Artificial Intelligence— Development of Complex Machine Learning Systems

Guest Editor:

**Prof. Dr. Ivica Crnkovic**

Department of Computer Science  
and Engineering, Chalmers  
University of Technology,  
Chalmersplatsen 4, 412 96  
Göteborg, Sweden

Deadline for manuscript  
submissions:

**closed (20 September 2021)**

### Message from the Guest Editor

In the development and implementation of advanced and complex AI applications, particularly in machine learning (ML) applications, the main challenge is not to develop the best models/algorithms but to provide support for the entire application lifecycle—from a business idea, through the collection and management of data, building AI algorithms, software development managing both data and code, product deployment and operation, and to its evolution. Software engineering has, since its initiation more than 50 years ago, provided many means of developing complex software systems. Some of these means can be utilized in the development of AI applications, but there are many new elements that require novel approaches to implement full support of software engineering for AI.

The main objective of this Special Issue is to identify challenges and needs, discuss experiences in the development of complex AI applications and AI-enabled systems, and consider the new approaches, theories, methods, and tools in software engineering that support this development.

The special issue link:

[https://www.mdpi.com/journal/applsci/special\\_issues/](https://www.mdpi.com/journal/applsci/special_issues/)

AI\_Engineering





an Open Access Journal by MDPI

## Editor-in-Chief

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

## 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.

## 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), Inspec, CAPlus / SciFinder, and other databases.

**Journal Rank:** JCR - Q1 (Engineering, Multidisciplinary) / CiteScore - Q1 (General Engineering)

## Contact Us

---

*Applied Sciences* Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
[www.mdpi.com](http://www.mdpi.com)

[mdpi.com/journal/applsci](http://mdpi.com/journal/applsci)  
[applsci@mdpi.com](mailto:applsci@mdpi.com)  
[X@Applsci](#)