# **Special Issue**

# Novel Computing Methods for Machine Learning

## Message from the Guest Editor

Machine learning (ML) methods have been used in a wide range of applied sciences. These methods fundamentally are based on computational intelligence and employ statistical techniques to give the computers the ability to "learn" and recognize patterns from data. The algorithm of ML models mimics the function of the biological brain using training data to draw predictions and make decisions for new unseen data during the learning process. ML has been the subject of interest and is increasingly developed to support uncertainty quantification, modeling, and design optimization problems. This Special Issue will focus on the most recent applications and developments of ML algorithms employing novel approaches in science and engineering. The topics of interest for publication include but are not limited to:

- Big data analysis and pattern recognition.
- Data-driven modeling techniques.
- Novel machine learning algorithms.
- Optimal architectures of deep learning methods.
- Ensemble of optimizers for training and hybrid models.
- Active learning methods for reliability analysis.
- Machine learning in different applications.

## Guest Editor

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## Deadline for manuscript submissions

closed (1 October 2021)



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### 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

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