

## Special Issue

# Emerging Feature Engineering Trends for Machine Learning

### Message from the Guest Editors

Feature engineering is a crucial process aimed at building high-quality data representations from raw data that accurately capture the nature of the problem. Quality data directly impacts the performance of machine learning algorithms by improving their efficiency. In the case of inference algorithms, feature engineering could lead to interpretable models. In big data, obtaining quality data also represents a key element since they provide veracity and validity. It is necessary to develop and/or adapt feature engineering techniques that take into account the volume of data and the technologies, programming paradigms, and available platforms. This Special Issue aims to provide comprehensive coverage on new and state-of-the-art feature engineering and data preprocessing methods for standard and big data problems. Keywords

- data preprocessing
- smart data
- data munging
- data wrangling
- feature engineering
- data cleaning
- data normalization
- feature extraction
- feature selection
- data transformation
- data integration
- noise identification
- missing data
- data reduction
- data discretization
- instance selection
- instance generation
- class imbalance

---

### Guest Editors

Prof. Dr. José Salvador Sánchez Garreta

Department of Computer Languages and Systems, Universitat Jaume I,  
12071 Castelló de la Plana, Spain

Prof. Dr. Vicente García

División Multidisciplinaria en Ciudad Universitaria, Universidad  
Autónoma de Ciudad Juárez, Av. José de Jesús Delgado 18100, Ciudad  
Juárez 32310, Chihuahua, Mexico



## Applied Sciences

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 5.5



[mdpi.com/si/98704](https://mdpi.com/si/98704)

*Applied Sciences*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[appls@mdpi.com](mailto:appls@mdpi.com)

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





# 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, CAPlus / SciFinder, and other databases.

#### Journal Rank:

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