Special Issue

Artificial Intelligence Potential to Solve Multiple Complex Geodetic Problems

Message from the Guest Editors

Artificial intelligence (AI) has emerged as a powerful tool for addressing complex challenges in geodesy. By leveraging AI methods and algorithms (ANNs, CNNs, SVM, RF, DT, KNN, ARIMA, XGBoost, ML, DL, and others), geodetic problems can be solved more efficiently and with greater precision. AI is becoming increasingly crucial for solving complex problems related to increasing volumes of multi-sensor data from satellites and ground. The scalability of AI to analyze large datasets and automate processes drives both progress and new insights.

The Special Issue is to present the latest advances in using artificial intelligence methods to solve complex geodetic problems, which include, but are not limited to, the following:

Al for integrating multiple geodetic data sources; Geodetic data processing and analysis using Al; Geospatial data interpretation, modeling, and prediction;

Al for error detection and calibration;

Al and GNSS observation analyses;

Al methods and algorithms for time series analysis;

Al for geoid modeling;

Al applications for real-time monitoring;

Al for geohazard assessment and prediction;

Al for climate change monitoring;

Al supporting interdisciplinary research.

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Message from the Editor-in-Chief

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