



Machine Learning for Technical Systems

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Deadline for manuscript
submissions:

closed (31 December 2022)

Message from the Guest Editors

Functionality and features of technical systems, like assembly lines, robotic systems, motor vehicles, and imaging systems are becoming increasingly enhanced by data-driven machine learning algorithms. However, this application area imposes challenges. Firstly, the safety of these systems needs to be guaranteed, requiring data-driven models that are interpretable after training, and can be subject to thorough validation. Second, many technical systems generate continuous streams of data during operation, requiring advanced techniques for learning on data streams that can deal with concept drift and imbalanced data. Third, in such big data scenarios, the labeling of data is often expensive, raising the need to select the most representative data points.

This Special Issue welcomes contributions that present novel algorithms or extensions of existing algorithms to meet these and other challenges in the application of machine learning to technical systems. Benchmarking of the proposed methods on data sets from real technical systems is most welcome.





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Message from the Editor-in-Chief

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