

Deadline extended! Please check updated submission schedule!
IEEE Transactions on Intelligent Transportation Systems
Special Issue Call for Papers
Machine Learning for Traffic Sign Recognition

Recognition of traffic signs is a challenging real-world problem relevant for intelligent transportation systems. It is a multi-category classification problem with unbalanced class frequencies. Traffic signs show a wide range of variations between classes in terms of color, shape, and the presence of pictograms or text. However, there exist subsets of classes (e.g., speed limit signs) that are very similar to each other. Further, the classifier has to cope with large variations in visual appearances due to illumination changes, partial occlusions, rotations, weather conditions etc.

Although first commercial systems have reached the market and several studies on sign detection have been published, systematic comparisons of different approaches are scarce.

The special issue focuses on unbiased evaluation of new and existing methods from computer vision, machine learning, and related fields for traffic sign recognition. Empirical evaluation should be based on freely available benchmark data.

The special issue is organized in the context of the German Traffic Sign Recognition Benchmark (GTSRB), a competition at this year's IEEE International Joint Conference on Artificial Neural Networks (IJCNN 2011). The GTSRB data is freely available from <http://benchmark.ini.rub.de>.

Important dates

First submission deadline:	January 11, 2012
Notification of first decision:	March 15, 2012
Revision submission deadline:	May 15, 2012
Notification of final decision:	August 15, 2012
Final manuscript (camera ready) submission deadline:	September 1, 2012
Publication:	Fourth issue 2012 (December)

Submission

Manuscripts should be submitted at <http://mc.manuscriptcentral.com/t-its> by selecting the manuscript type "Special Issue on MLFTSR".

Guest editors

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