

Special Issue

Advances, Applications, and Challenges of Deep Learning-Aided Computer Vision and Pattern Recognition in Intelligent Transportation

Message from the Guest Editors

Intelligent Transportation Systems (ITS) refer to the integration of advanced electronics and information technology during different stages of transportation. In the past decade, emerging technologies in computer vision, Artificial Intelligence (AI), and smart sensing have greatly facilitated the development of ITS in various industries, e.g., the autonomous vehicles industry. Nevertheless, upon incorporating these emerging technologies into ITS applications, a series of challenges are yet to be properly addressed. Several pressing concerns are as follows: the impact of adverse weather conditions; object detection and tracking under occlusion; transferability and generalizability of deep learning models; and multi-modal data fusion, processing, and feature extraction. Therefore, research efforts need to be devoted to developing innovative strategies based on advanced AI, computer vision, and sensing techniques to tackle these practical challenges. This Special Issue welcomes original research articles and literature reviews on innovative developments and applications in the field of deep learning-aided computer vision and pattern recognition in ITS.

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Electronics is a multidisciplinary journal designed to appeal to a diverse audience of research scientists, practitioners, and developers in academia and industry. The journal is devoted to fast publication of latest technological breakthroughs, cutting-edge developments, and timely reviews of current and emerging technologies related to the broad field of electronics. Experimental and theoretical results are published as regular peer-reviewed articles or as articles within Special Issues guest-edited by leading experts in selected topics of interest.

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