Special Issue

Real-Time Object Detection and Classification Using Advanced Sensing Techniques

Message from the Guest Editor

Object detection is to locate and identify the category of the target. It is an important basic task in the field of computer vision. Normally, we perform object detection based on RGB sensors. However, for some special scenarios, such as sudden fast-moving objects, objects in harsh environments, tiny objects, small dim objects, etc., traditional RGB-based algorithms may fail to detect these types of objects. Besides, in the actual computer vision systems, such as autonomous driving, we usually need these algorithms to be as efficient as possible to detect objects in real time. The purpose of this special issue is to explore real-time object detection based on advanced sensors. Potential topics include but are not limited to:

- Real-time object detection and tracking systerms;
- Real-time object detection with event camera/spiking camera;
- Real-time object detection with LiDAR/Radar;
- Detection of fast moving objects;
- Detection of tiny object;
- Detection of dim small object;
- Lightweight object detection models;
- Real-time open-world object detection.

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Sensors is a leading journal devoted to fast publication of the latest achievements of technological developments and scientific research in the huge area of physical, chemical and biochemical sensors, including remote sensing and sensor networks. Both experimental and theoretical papers are published, including all aspects of sensor design, technology, proof of concept and application. Sensors organizes Special Issues devoted to specific sensing areas and applications each year.

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