



IET

IET Image Processing

Call for Papers

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Special Issue on:

Deep Learning for Real-Time Image Enhancement

Real-time images are often captured and processed without any buffer delays. Since most real-time images are captured from many sources, the quality of the image resolution may vary. However, due to recent advancements in image processing, there are various types of real-time image processing and enhancement techniques. Real-time image enhancement may lead to high computational overhead and delays in the transmission of the images, and to overcome these limitations, deep learning techniques may be an asset moving forward.

Using deep learning, various hidden layers present will capture important features of an image or a frame. When the image is captured on a real-time basis, it can be processed by deep learning more efficiently and effectively. However, there may be significant performance pressure on the processing and evaluation of real-time high resolution and multi-resolution images. This special issue provides an exemplary forum for researchers to discuss theories and ideas associated with real-time image enhancement using deep learning methods. Also, this special issue discusses all the challenges and limitations of using deep learning models in real-time image processing.

Topics of interest include, but are not limited to:

- Deep learning-based real-time image enhancement techniques
- Intelligent learning algorithms for real-time image reconstruction and enhancement
- Real-time image security and privacy using deep learning
- Federated learning methodologies used in real-time image enhancement
- Enhancement of real-time images in remote sensing applications using deep learning techniques
- Deep learning pattern recognition in real-time image processing and enhancement
- Evaluation of enhanced real-time images using deep learning methods
- Computational-based deep learning models for detection of abnormalities in real-time captured images
- New objective functions of deep learning for real-time image reconstruction
- Performance analysis of semantic segmentation of images using deep learning algorithms
 - Limitations of deep learning and hybrid models for realtime image processing

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