



Hardware Architectures for Real Time Image Processing

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Message from the Guest Editors

The development of hardware architectures for real-time image processing is an important requirement when dealing with critical applications where data must be processed in a restricted timeframe. Moreover, it is an interdisciplinary field that gives support to a wide variety of disciplines, such as electronic engineering, computer science, industrial control, physics, mathematics, biology, food quality assessment, medicine, etc. Although these circumstances arise in several applications, and several solutions have been proposed in the past, the large amount of data per unit of time currently provided by image sensors supposes a major challenge for feasible hardware implementations. Not only have the frame-rates and the resolution of the images increased, but additionally, some image modalities incorporate spectral information, depth information, contextual information, metadata, etc., making the implementation requirements even more stringent. In addition to time processing, many systems must meet constraints on weight, size, power or cost, resulting in exhaustive and time-prohibitive design-space explorations.





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Message from the Editor-in-Chief

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