UDC 778

KEY POINTS IDENTIFICATION IN THE HDR IMAGES

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**Research methodology.** A method of analysis has been used when searching the solution of the creation of high quality panoramic images. The mathematical principle of research has been used to identify key points of the HDR images. David Lowe’s SIFT algorithm has been used to determine the local features of an image that is invariant to changes in image scale and rotation, and partially invariant to changes in exposure.

**Results.** The peculiarities of the SIFT algorithm has been considered for determination of relevant items. With the help of this algorithm the image with local features has been characterized and identified. The level maximum and minimum in the Gaussian pyramid brightness value have been identified in order to detect the key points, their orientation having been determined, too.

**Novelty.** The issue of key points identification in the HDR images has been investigated. A method for creating panoramic images from the series created HDR images has been proposed.

**The practical significance.** The advantage of the method for creating panoramic images from the series created HDR images is an opportunity to provide a higher level of quality of the resulting panorama that will be useful for professional and amateur photographers.