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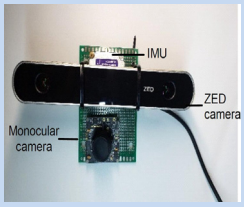
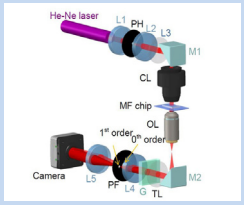


Equal-scale structure from motion method based on deep learning

190006

Chen Peng, Ren Jinjin, Wang Haixia, Tang Yuesheng, Liang Ronghua

A method of equal-scale motion restoration structure based on deep learning was proposed. First, the convolutional neural network was used to obtain the depth information of the image. Then, an inertial measurement unit (IMU) was introduced, and the acceleration and angular velocity and the camera position were demonstrated.

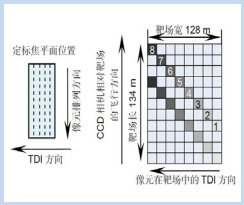


Microfluidic diffraction phase microscopy and its application in parasites measurement

190046

Gu Xin, Huang Wei, Yang Limei, Li Feng

A method of using diffraction phase microscopy combined with microfluidic chip was proposed to quantitatively measure waterborne parasites. A diffraction phase microscopy system was built up by combining interferometry with optical microscope to achieve high sensitivity real-time measurement of parasites.

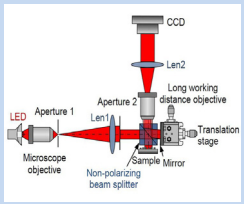


Design and data processing of TDICCD real-time radiation correction system

190112

Ning Yonghui, Shi Junxia, Liu Chunxiang

In order to increase the lifetime of the TDICCD imaging system in space and to decrease the impact on the imaging quality for a long-time working in orbit, a system of real-time radiation correction in space was designed.

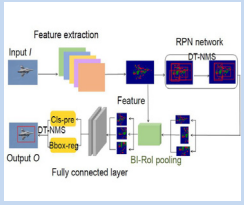


Study of low-noise phase-shifting digital holographic microscopy using a long working distance objective

190140

Hui Qiannan, Duan Cunli, Feng Bin, Wang Fan, Guo Rongli

In order to improve the measurement accuracy, a kind of phase shifting digital holographic microscopy based on a long working distance microscopic objective was proposed.



Improved algorithm of Faster R-CNN based on double threshold-non-maximum suppression

190159

Hou Zhiqiang, Liu Xiaoyi, Yu Wangsheng, Ma Sugang

According to the problems of target missed detection and repeated detection in the object detection algorithm, an improved Faster R-CNN algorithm based on dual threshold-non-maximum suppression was proposed.