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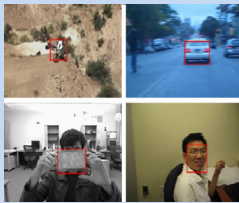
本期封面图片由合肥工业
大学孙锐(190135)提供



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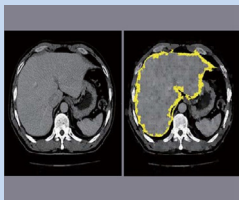


Research on target tracking based on convolutional networks

180668

Zhao Chunmei, Chen Zhongbi, Zhang Jianlin

Aiming at the applications of target tracking, an improved convolutional network Siamese-MF (multi-feature Siamese networks) based on Siamese-FC (fully-convolutional Siamese networks) was proposed to further improve the tracking speed and accuracy to meet the requirements of target tracking in engineering applications.



Joint energy active contour CT image segmentation method based on super-pixel

190104

Liu Xia, Gan Quan, Liu Xiao, Wang Bo

An active contour segmentation method for organs CT images based on super-pixel and convolutional neural network (CNN) is proposed to solve the sensitive problem of the initial contour of the segmentation method of the CT image.



Rotating invariant face detection via cascaded networks and pyramidal optical flows

190135

Sun Rui, Kan Junsong, Wu Liuwei, Wang Peng

The rotation-invariant algorithm based on cascaded network and pyramid optical flow is proposed. Compared with other detection algorithms, the detection speed of the proposed algorithm has a great advantage, and the window jitter problem in the video is well solved.



Multi-candidate association online multi-target tracking based on R-FCN framework

190136

E Gui, Wang Yongxiong

Because of low reliability in target detection, high tracking loss rate and unsmooth trajectory in online multi-target tracking, an online multi-target tracking model based on R-FCN (region based fully convolutional networks) network framework was proposed.

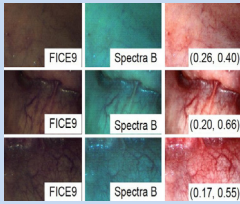


An open-pit mine roadway obstacle warning method integrating the object detection and distance threshold model

190161

Lu Caiwu, Qi Fan, Ruan Shunling

In order to solve the problem that the current driving warning method cannot adapt to the unstructured road in open-pit mine, an early warning method that integrates target detection and obstacle distance threshold was proposed.



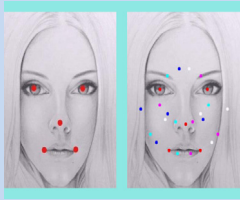
Vessel enhancement of endoscopic image based on multi-color space 190268
Wang Qiang, Tao Pei, Yuan Bo, Wang Liqiang

In order to improve the contrast between the blood vessels and tissues of the images obtained by medical electronic endoscopes, a vessel enhancement method of non-linear contrast stretching in multi-color space was proposed according to the characteristics of endoscopic vascular images.



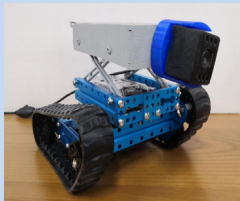
Anti-occlusion and re-tracking of real-time moving target based on kernelized correlation filter 190279
Tang Xuemeng, Chen Zhiguo, Fu Yi

The algorithm for the anti-occlusion performance of kernelized correlation filter was improved. An improved KCF algorithm based on Sobel edge binary mode algorithm was proposed.



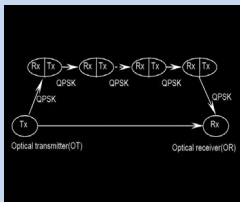
Multi-angle key point detection of face based on deep learning detector 190299
Zhao Xingwen, Hang Lijun, Gong Enlai, Ye Feng, Ding Mingxu

In order to meet the speed and accuracy requirements of face key point detection, firstly, cascaded prediction was carried out on the basis of SSD. Secondly, based on the cascade shape regression method of LBF, a multi-angle initialization algorithm based on the difference between the facial pixels was proposed.



Research on defect inspection method of pipeline robot based on adaptive image enhancement 190304
Li Ping, Liang Dan, Liang Dongtai, Wu Xiaocheng, Chen Xing

In view of the problem about uneven image acquisition and inaccurate edge extraction in pipeline detection process, a pipeline robot defect inspection method based on adaptive image enhancement was proposed.



Performance study of multi-hop coherent OFDM FSO system over M distribution model 190337
Wu Hao, Wang Yi

The performance of multi-hop coherent orthogonal frequency division multiplexing (OFDM) free space optical (FSO) system was studied by using quadrature phase shift keying (QPSK) modulation.