

عنوان مقاله:

Attention Control Using Fuzzy Inference System in Monitoring CCTV Based on Crowd Density Estimation

محل انتشار:

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خلاصه مقاله:

one important issue in machine vision is using automatic attention control methods for monitoring CCTV cameras, in order to enhance the security of people in public. Result of automatic methods such as crowd density estimation can alert the operator in the case of risk probability increasing. In addition to overall crowd density, other parameters such as regional crowd density and the temporal and spatial criteria of each frame of video should be considered to control the operator's attention correctly. For this purpose, according to the gradual change of crowd density and risk probability in daily hours and uncertainty in our knowledge in evaluation of crowded places, we designed a fuzzy decision making system to make decisions about risk probability. The design of this system is based on the fact that the human visual system tends to direct attention to events that happen with low probability. The efficiency of this system is tested on real data and results are presented to demonstrate the practical applications of this system to aid the human operator.

کلمات کلیدی:

Crowd density estimation, fuzzy decision-making Attention control, CCTV cameras, wavelet transform, support vector machine

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