

ARTIFICIAL INTELLIGENCE DEVELOPMENT

VIRTUALEYE-LIFE GUARD FOR SWIMMING POOLS TO DETECT ACTIVE DROWNING

Literature survey

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ABSTRACT:

Safety in swimming pools is a crucial issue. In this paper, real time drowning detection method based on HSV color space analysis is presented which uses prior knowledge of the video sequences to set the best values for the colour channels. Our method uses a HSV that is thresholding mechanism along with contour detection to detect the region of interest in each frame of video sequences. The presented software can detect person in indoor swimming pools and sends an alarm to the lifeguard rescues if the previously detected person is missing for this system is tested on several video sequences recorded in swimming pools in real conditions and the results are of high time. According to the evaluation results, the number of false alarms generated by the system is minimal and the maximum alarm delay reported by the system by the system is 2.6 sec which can relatively be reliable compared to the acceptable time for rescue and resuscitation.

Video surveillance can be used as a tool for monitoring and security. Observing public and private and private sites has increasingly become a very sensitive issue. The visual monitoring capabilities can be employed in many different locations to help people live more safely. Video-based surveillance systems are designed and installed in places such as railway stations, airports, and even dangerous environments. Image processing, pattern recognition and machine-vision based methods are efficient ways for real-time intelligent monitoring of the objects or events of interests

The existing surveillance system delivers valued information in monitoring of large areas. Applying intelligence in video surveillance allows real-time monitoring of places, people and their activities. The tracking approach can change with varying targets and change from single

References:

Virtual Eye-LifeGuard is estimated that every year, 372,000 people around the world die due to drowning, which is considered amongst the top 10 causes of unintentional death.

There was a significant 20% increase in the number of drownings from 2020 to 2021 [2]

When it comes to swimmers in trouble, every second counts. AngelEye LifeGuard makes itself heard loud and clear in case of danger. The built-in notification system produces alarms within 10 seconds on smartwatches, phones, flashing lights and other configurable devices. In addition, AngelEye's advanced technology can provide real-time location and image of the danger, making rescue operations easier.