

# **VirtualEye - Life Guard For Swimming Pools To Detect Active Drowning**

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## **PROBLEM SOLUTION FIT**

Safety is paramount in all swimming pools. The current systems expected to address the problem of ensuring safety at swimming pools have significant problems due to their technical aspects, such as underwater cameras and methodological aspects such as the need for human intervention in the rescue mission. The use of an automated visual-based monitoring system can help to reduce drowning and assure pool safety effectively. This study introduces a revolutionary technology that identifies drowning victims in a minimum amount of time and dispatches an automated drone to save them. Using YOLO(You Only Look Once) model, it can detect a drowning person in three stages(1.Surprise Drowning,2.Involuntary Breath Holding,3.Unconsciousness). Whenever such a situation like this is detected, the inflatable tube-mounted self-driven drone will go on a rescue mission, sounding an alarm to inform the nearby lifeguards. The system also keeps an eye out for potentially dangerous actions that could result in drowning. This system's ability to save a drowning victim in under a minute.

## **SOLUTION ARCHITECTURE**



