PROPOSED SOLUTION

**Virtual Eye - Life Guard for Swimming Pools to Detect Active Drowning**

##### **PROBLEM STATEMENT:**

Swimming is one of the best exercises that helps people to reduce stress in this urban lifestyle. Swimming pools are found larger in number in hotels, and weekend tourist spots and barely people have them in their house backyard. Beginners, especially, often feel it difficult to breathe underwater which causes breathing trouble which in turn causes a drowning accident. Worldwide, drowning produces a higher rate of mortality without causing injury to children. Children under six of their age are found to be suffering the highest drowning mortality rates worldwide. Such kinds of deaths account for the third cause of unplanned death globally, with about 1.2  million cases yearly. To overcome this conflict, a meticulous system is to be implemented along the swimming pools to save human life.

By studying body movement patterns and connecting cameras to artificial intelligence (AI) systems we can devise an underwater pool safety system that reduces the risk of drowning.  Usually, such systems can be developed by installing more than 16 cameras underwater and ceiling and analyzing the video feeds to detect any anomalies. but  AS a POC we make use of one camera that streams the video underwater and analyses the position of swimmers to assess the probability of drowning, if it is higher then an alert will be generated to attract lifeguards' attention.

**IDEA/SOLUTION DESCRIPTION:**

**Swim Eye is a computer vision detection system for the prevention of drowning incidents in swimming pools.**

Swim Eye works like an “extra lifeguard” under the water of your pool.  
Our object recognition software tracks the movements of all swimmers in a pool.  And in the event of a serious drowning incident, SwimEye will provide an alarm to pool lifeguards.  This will help lifeguards improve their reaction-time, as they initiate a rescue.

**UNIQUENESS/NOVALITY:**

 Advanced app features

 The developer tea, size

 The location of the development company

 Need for integrating third-party APIs and services and the corresponding cost.

 The cost of maintenance, support, and updates.

 The cost of industry certifications and compliance.

**SOCIAL IMPACT/CUSTOMER SATISFACTION:**

 Anytime and anywhere access

 Least scope of data loss

 Getting bills approved in real-time

 Controlling expenses through awareness

**BUSINESS MODEL (FINANCIAL BENEFIT):**

When Swim Eye detects a swimmer in distress on the bottom of the pool. It will swimmer in distress on the bottom of the pool, it will raise the radio alarm to pool lifeguards and an visual alarm to out Monitoring and control station.

**SCALABILITY OF SOLUTION:**

This feature of the expense virtual eye helps generate highly tailored and useful reports loaded with infographics and visualized data. The app also comes with in-built analytics tools to deliver insights about how the business is performing.