# VirtualEye - Life Guard For SwimmingPools To Detect Active Drowning

**TEAM ID** : PNT2022TMID44696

**TEAM MEMBERS:** ELANGOVAN D (732519104006)

MONAL PRARHAP S (732519104018) TAMIZHARASAN M (732519104029) KARTHIK S (732519104010)

**DEPARTMENT**: COMPUTER SCIENCE & ENGINEERING

**COLLEGE NAME:** SHREE VENKATESHWARA HI-TECH ENGINEERING

COLLEGE, GOBI.

#### PROPOSED SOLUTION

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.

## **NOVELTY**

Novelty detection is specified use of machine learning algorithms. While a single function may be applied in the detection of novel or unusual data, often layers of functions are applied consecutively, each with a specified purpose. For example, a layer of the network can be trained to identify all anomalous data, while an additional layer atop the other can be trained to decide whether the anomalous data is relevant to the networks goal, or outlying and irrelevant. This way, neural networks can filter out unnecessary novelty detections and be trained to look only for specific instances of anomalous data.

#### **SOCIAL IMPACTS**

It is a drowning detection system that detects every dangerous situation and accident. This software works in the Public pools, Theme parks and Training Centers where all the peoples go for the Swimming. With the cameras installed in the pool to continuously scan the pool. The combination of hardware, software and profound innovations, today this Technology represents excellence in drowning detection in the public places.

#### **BUSINESS MODEL**

Artificial intelligence is drifting out of R&D labs and into the business world. Millions of industries across the globe and top-notch companies are fitting together the power of AI and Applied artificial intelligence (AAI). Most of the business industries spot the scams using machine learning algorithms in nanoseconds to improve customer satisfactions. A vivid rise in the machine learning tools, business platforms, and applications-based tools were developed to quench the business satisfactions. These state-of-the-art technologies not only compressed the quality of the internet and the software industry but also other verticals such as built-up, healthcare system, legal, automobile, and agriculture as well as in safety.

### **SCALABILITY**

Currently, nearly half of all companies rely on artificial intelligence (AI) for handling data quality. This powerful tool can be used to quickly and effectively predict investment outcomes, as well as to devise strategies or establish long-term goals. Scalable AI pertains to how data models, infrastructures, and algorithms are able to increase or decrease their complexity, speed, or size at scale in order to besthandle the requirements of the situation at hand. As improvements continue with data storage capacities as well as computing resources, AI models can be created with billions of parameters. It's extremely helpful for extracting value from large data sets and spotting patterns or trends that would be difficult or impossible for a human to notice. Load scalability pertains to software that can speed up its performance with regard to the available computing power.