

Project Design Phase-I
Proposed Solution Template

Date	15 October 2022
Team ID	PNT2022TMID24428
Project Name	Project - Virtual Eye – Lifeguard for Swimming Pools to detect Active Drowning.
Maximum Marks	2 Marks

Proposed Solution Template:

Project team shall fill the following information in proposed solution template.

S.No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	Swimming pools are generally places of fun and healthy exercise, but they can be deadly as well. Even with a lifeguard observer on duty, swimmers may still have trouble in underwater or in parts of the pool beyond the lifeguard's field of view. Identifying the drowned person in the crowd will be difficult from above
2.	Idea / Solution description	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. Using deep learning, image can be recognized. If the image is detected, it triggers the alarm to alert the Life Guard who rescue the drowning peoples.
3.	Novelty / Uniqueness	The uniqueness of our system software to track the position and the location of a drowning person. We use YOLO Algorithm. Because of its high accuracy and fast detection speed. So it helps lifeguard to save people with the help of advanced technology.
4.	Social Impact / Customer Satisfaction	The device will be socialized in no time because of the help of this device. Drowning globally has a higher death rate and is also the third leading cause of unexpected deaths worldwide, especially among children under the age of six. To overcome this conflict our drowning detection system will have an impact on society.
5.	Business Model (Revenue Model)	The number of features makes it attractive for end users to use our software system. It is medium cost.

6.	Scalability of the Solution	Our software system can be used by the company driver whomanages the pools. We use the IBM cloud server to collect and maintain the data. We will ensure the safety of the swimmers
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