Project Design Phase-I
Proposed Solution
Template

Date	9 October 2022
Team ID	PNT2022TMID51072
Project Name	Virtual Eye - Life Guard For Swimming Pools To Detect Active Drowning
Maximum Marks	2 Marks

Proposed Solution:

S:No.	Parameter	Description
1.	Problem Statement	Even with a lifeguard on duty, swimmers may still have trouble in underwater or in parts of the pool beyond the lifeguard's field of view.
2.	Idea / Solution description	In this project, we install the cameras in underwater to detect the drowning people. If the image is detected, it triggers the alarm to alert the Life Guard who rescue the drowning peoples. Using deep learning, image can be recognized using artificial intelligence.
3.	Novelty / Uniqueness	We use YOLO Algorithm to track the position and the location of a drowning person. Because of its high accuracy and fast detection speed. So it helps lifeguard to save people within seconds. The uniqueness of our system software is what makes it unique.
4.	Social Impact / Customer Satisfaction	Drowning is 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. Drowning globally has a higher death rate than air pollution or water pollution.
5.	Business Model	The number of features in our software system makes it attractive to lifeguards, swimmers and business operators. We can introduce the software-based approach for making a good income. It is extremely useful to lifeguard and swimmer operators, as well as other organization involved in the marine industry.
6.	Scalability of the Solution	We use an IBM cloud server to collect and maintain the data on swimmers in our swimming pools. Our software system can be used by the company driver who manages the pools. We will ensure the safety of the swimmers as well as ensure their personal data is kept safe.