Project Design Phase-I
Solution Architecture

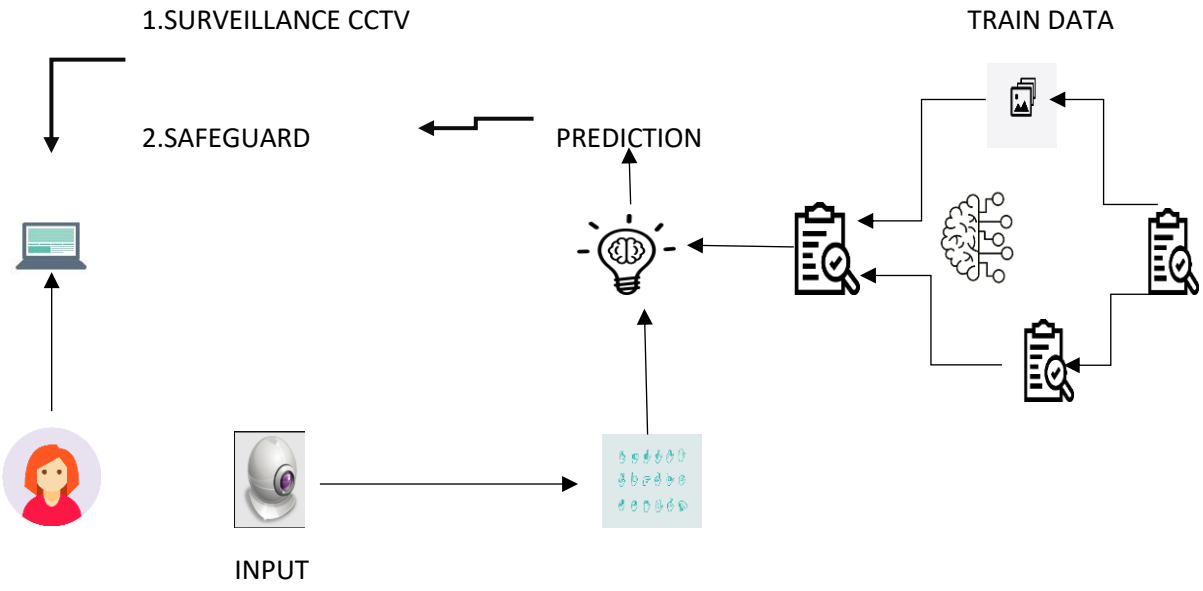
Date	19 September 2022
Team ID	PNT2022TMID01897
Project Name	Project – VIRTUALEYE-LIFEGUUARD FOR SWIMMING POOL TO DETECT ACTIVE DROWNING
Maximum Marks	4 Marks

Solution Architecture:

Solution architecture is a complex process – with many sub-processes –

- Underwater drowning detection in public swimming pools is a challenging task. To detect drowning swimmers, an implementable real-time detection system with high accuracy is needed.
- In this paper, we propose a novel camera-based drowning detection algorithm. The input video sequences are obtained from under water cameras. Moving object in the alert zone will be extract from background by background subtraction.
- The inter-frame based denoising scheme is employed to eliminate complex interferences in the water. Experimental results are shown that the proposed algorithm can detect the drowning swimmer more accurately without massive computations.

Example - Solution Architecture Diagram:-



Reference: Kingi wearables http://www.kingii.com/kingii_wearable.html Jul 2018.