Project design phase 1

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Proposed solution template:

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

	Problem solution	Virtual eye - Lifeguard for swimming pools to detect active drowning
	Idea/Solution description	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. Drowning is the 3rd reason for the highest unintentional deaths, and that‘s why it is necessary to create trustable security mechanisms. This project aims to create a system that will be able to automatically detect drowning incidents in the swimming pool using human action detection. The drowning detection model will be used to process and classify video that will be

		given to the system which will be recorded using live surveillance cameras. The system will break this video in image frames and apply a model over it and if the early actions of drowning like hand waving, water splashing or diving is detected then the system will set the alarm so that the lifeguards can initiate their rescue operations.
	Novelty / Uniqueness	To detect human action detection automatically using long term recurrent convolutional network.
	Social impact / Customer Satisfaction	In this case of an accident we can help them by using the surveillance cameras. Not only cameras but also an alarm will be raised if someone is detected as drowning.It is more useful to rescue people from drowning.
	Business model (revenue model)	We can generate revenue from the lifeguard and other swimming pool authorities.
	Scalability of the solution	LRCN is end-to-end trainable and appropriate for vast visual understanding tasks such as video description, activity recognition and image captioning