ARTIFICIAL INTELLIGENCE
VIRTUAL EYE-LIFE GUARD FOR SWIMMING POOL TO DETECT ACTIVE DROWNING

The topic of drowning detection systems (DDS)in the sport and leisure industry both across the UK and globally. Advancements in technology,coupled with the importance of pool safety, has led to its growing

prominence, with mention of DDS now in documents such as HSG179 - the latest UK standards document for health and

safety in swimming pools (Health and Safety Executive, 2018).

The literature review draws from a range of sources including standards documents from international and national bodies, reports, academic articles, books, online articles, and news reports. To supplement this, a group of key stakeholders involved in pool safety were consulted to signpost towards any sources that were felt to be relevant to this review. Sources on DDS in outdoor environments are beyond the scope of this literature review and have been excluded dueto the challenging variance compared with indoor swimming environments.

LIFEGUARD SURVEY:-

This was an area of work that was outside the original scope of the project, but following the first advisory group meeting it became apparent that it was important to gather opinion from as many lifeguards as possible, and a survey would have a far wider reach than the focus groups that were planned. As such this piece of work was added in as an addition to the original work plan, with the idea that the findings from the survey would also formulate the themes that would be discussed at the subsequent lifeguard focus groups.An online survey was designed and created following extensive collaboration with RLSS and the operator group involved in the project. The survey was designed for all lifeguards, regardless of whether they had used DDS themselves. The topics that were covered included:

>> Lifeguard age and experience

>>Perceptions of challenges in lifeguarding role

>> Use of DDS (if relevant)

>> Perceptions of DDS

>> Pool scanning and the 10:20 protocol

The survey was incentivised with a prize draw for two £100 Amazon vouchers. The RLSS kindlyassisted in the distribution of this by emailing the link out to their network of qualified lifeguards. The survey was open for two weeks in September, and these actions enabled us to collect over 6,000 responses.

ADHIYAMAAN COLLEGE OF ENGINEERING
BATCH NO-B11-541E

TEAM LEADERS
USHA C

TEAM MEMBERS
VARSHINI
YAZHINI
VIJAYALAKSHMI