

**Project Design Phase-II**  
**Solution Requirements (Functional & Non-functional)**

|               |  |
|---------------|--|
| Date          | 03 October 2022  |
| Team ID       | PNT2022TMID30129   |
| Project Name  | Project – Virtual Eye – Lifeguard for Swimming Pool to Deduct Active Drowning. |
| Maximum Marks | 4 Marks  |

**Functional Requirements:**

Following are the functional requirements of the proposed solution.

| FR No. | Functional Requirement (Epic) | Sub Requirement (Story / Sub-Task)                                     |
|--------|-------------------------------|--|
| FR-1   | User Registration/Login       | Via Email<br>Via Phone number  |
| FR-2   | User confirmation             | Confirmation Via OTP<br>Confirmation Via Email                         |
| FR-3   | User location                 | Band linked with sensor<br>Sensor points out the location of the band. |

**Non-functional Requirements:**

Following are the non-functional requirements of the proposed solution.

| FR No. | Non-Functional Requirement | Description  |
|--------|----------------------------|--|
| NFR-1  | <b>Usability</b>           | The Sensors placed in the pool will be monitoring for signals continuously which makes the swimmer protected and safe.                           |
| NFR-2  | <b>Security</b>            | The sensor can receive signals from all ends of the pool simultaneously which can be transmitted to the lifeguard immediately.                   |
| NFR-3  | <b>Reliability</b>         | The signal received by the sensor can be transmitted to the lifeguard with the exact location of the drowner.                                    |
| NFR-4  | <b>Performance</b>         | It can detect the body movements of a drowning person which has a high accuracy rate.  |
| NFR-5  | <b>Availability</b>        | The signals from the bandwidth are available all over the pool which can be easily detected by the sensor which in turn can alert the lifeguard. |
| NFR-6  | <b>Scalability</b>         | The sensor can detect any number signals from the user without reducing the efficiency of the bandwidth and alarm accordingly.                   |