**Project Design Phase-I**

**Proposed Solution**

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| Date | 22 October 2022 |
| Team ID | PNT2022TMID22872 |
| Project Name | Real-Time River Water Quality Monitoring and Control System |
| Maximum Marks | 2 Marks |

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| **S.No.** | **Parameter** | **Description** |
| 1. | Problem Statement (Problem to be solved) | It is difficult to collect the water samples from all the area of the water body. The lab testing and analysis takes some time and hence the lab result does not reflect real time water quality measurement due to delay in measurement. |
| 2. | Idea / Solution description | This project proposes a IOT Based Water  Quality alarm system. Using Python, IOT Cloud  Platform ,IBM Cloud, Node- RED,IBM IoT  Platform,IBM Nodered,IBM Cloudant  DB, Mobile App it will alert the authority either by sending E-mail/SMS alert or by triggering some alarm. |
| 3. | Novelty / Uniqueness | The uniqueness of our proposed project is that the authorities need not have to monitor the water continuously .They need only to pass the message to the locals when an SMS alert is triggered. The alert can be sent to the authorities if the water quality is not good so that they can go and announce the localities not to drink that water. A notification will be sent to them through email or message inside the system. |
| 4. | Social Impact / Customer Satisfaction | Using this project, it will immensely help people to become conscious against using contaminated water |
| 5. | Business Model (Revenue Model) | This project is not only used for water quality monitoring, also for detecting contaminants and to simulate and evaluate quality parameters for quality control |
| 6. | Scalability of the Solution | The main advantage of this project is Cloud storage platform helps in storing the sensor data immediately and wirelessly to the robust servers. |