| Project Name | Smart Waste Management system |
|--------------|-------------------------------|
|              | forMetropolitan Cities        |

## **Project Design Phase II Functional Requirements**

## **Functional Requirements:**

Following are the functional requirements of the proposed solution.

| FR.NO | Functional Requirements | Sub Requirement (Story/Sub-Task)              |
|-------|-------------------------|---|
| FR-1  | User registration       | Registration through e-mail id & Mobilenumber |
| FR-2  | User confirmation       | Confirmation via email Confirmation viaOTP    |
| FR-3  | Web application         | Node-Red -Service                             |
| FR-4  | Configure to Device     | IBM Watson IOT Platform                       |

| FR-5 | Database      | Detailed database of bins and stands |
|------|---------------|--------------------------------------|
| FR-6 | Python Script | IBM IOT Platform                     |

## **Non Functional Requirements**

Following are the non-functional requirements of the proposed solution

| FR.NO | Non-<br>Functional<br>Requirement | Description  |
|-------|-----------------------------------|--|
| NFR-1 | Usability                         | The reduction of waste   |
| NFR-2 | Security                          | Prediction in bin fulness  |
| NFR-3 | Reliability                       | Effective waste disposal   |
| NFR-4 | Performance                       | Optimize source allocation, reduce running costs and increase sustainability of waste services |
| NFR-5 | Availability                      | Available for the allocated time by the municipality or the private companies                  |

| NFR-6 | Scalability |   |
|-------|-------------|---|
|       |             | This is very effective in managing waste    |
|       |             | inbig city. Here priority system is used to |
|       |             | clean the city all the time without any     |
|       |             | overflowing dumpsters                       |