**ABSTRACT**

**Organization Name**: Dr. B R Ambedkar Institute of Technology

**Problem Statement:** Incentivized Tech Bin

**Team Name:** Tandra Techies

**Team Leader Name**: Kuluru Vineeth Kumar Reddy

**College Code**: U-0803/2018

**IDEA:**

To tackle the hindrances towards swachh bharat abhiyan and for cleanliness of our country we are coming with an idea using Android Application and smart dustbins to provide users with incentives in order to attract them for proper garbage disposal.

An application named Go Green was launched in the year 2018 for collecting recyclable waste and providing incentives to users with the feature of “TURN TRASH INTO CASH”. The uniqueness of our idea is that we use smart dustbins which will have the ability to sense the weight and type of garbage (recyclable and non-recyclable) based on which incentives will be given to the users.

Our idea supports swachh bharat initiative by motivating people to dispose garbage in proper way. This also helps in preserving environment by restricting pollution to a greater extent. This system not only usable to smart-phone users but to normal people as well due to its specific features that follow.

**SYSTEM SPECIFICATIONS:**

* **Smart slider:** An automatic slider that opens and closes based on the output given by IR sensor.
* **IR (Infrared) sensor:** A device which works on infrared technology based on the principle of reflectivity and wavelength to sense garbage and non-garbage materials (dark materials, stones, porcelain, etc.).
* **Load cell:** A transducer that converts a load or force acting on it into an electronic signal**.**
* **Android Studio:** For developing gamified application using java as a programming language.

**SYSTEM WORKING:**

The smart dustbin consists of two openings one on the side for non-smart phone users and the other on top (smart slider) for smart phone users. For smart phone users, after scanning QR-code present on the dustbin, the application will get connected to the dustbin. Once the user places the garbage on smart sliders, IR sensor and load cell present beneath the slider will sense the type and weight of the garbage respectively. If the garbage is valid the weight count will be sent to the user’s application. The gamified application adds points to the user account based on the weight he/she received. The points can be converted into rewards as per user convenience.