**PAPER SUBMISSION FOR THE TEAM WIT ACE HACKATHON**

**TEAM NAME:** THE SURVIVORS

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**SHORT DESCRIPTION:**

The pandemic has opened our eyes on the importance of environment cleanliness. The country joined and is still attempting all possible opportunities to keep the environmental challenges at bay to enable a cleaner safer world. This has also driven that mindfulness of all actions that we do are going to shape our future and would probably be the only way to rope ourselves out of the pandemic. Keeping all of this in the per-view, we would like to propose a solution for Effective Waste Management and Maintenance – that aims at optimized disposal and pickup techniques for rural and urban India. The name of our proposal is “CLEAN & HEAL YOUR WORLD!.

**ASSUMPTIONS:**

* The area of implementations are SMART CITY SERVICES & CONNECTED
* The Government of India is supportive of SMART CITY liaised solutions and the data is shared across all the platforms.
* The proposed SMART Waste Management Application is a default application that is used across the base strata
* The Property Tax Number becomes the primary key connecting the property to the surrounding trash locations viable for use.

**LONG DESCRIPTION:**

The problem prevailing today denotes the absence of any system to dispose our waste. This has results in all varieties of infections besides COVID and has also made the Monsoons’ water clogging a bigger pain than pleasure. The proposed SMART Waste Management Application addresses the main problem by providing every house-hold resident an opportunity to find a spot for waster disposal and by not allowing any littering anywhere.

Every disposal bin in locked using a sensor panel. Every resident in each location is provided with a sensor key that allows him to

1. Understand which of the bins in the 1 km radius is available to take trash.
2. On reaching the spot – he can open the trash only on using the sensor key.
   1. For every trash he drops into the bin correctly – he is awarded points
   2. For every trash he litters he is fined via points which will calculated towards his property tax
   3. For every organic trash which supports recycling – he is awarded additional points
   4. All of the positive points add to value that is deducted off the annual tax due the following year.
   5. The sensor is available per house per location and cannot be used across the locations.
   6. Access management of the sensors is responsibility of the property owner.
3. Given that all of the tax is now sensor based – any mismatch/ malpractices/ criminal actions will be monitored and reviewed.
4. At the trash bins, once the trash bin is 80% full, the location is frozen and the pick-up trucks are intimated of the same. This location will no longer active until the trash pick up is complete. Any further attempts in the same situations are controlled by the lock of the trash bin not unlocking.
5. User Registration to use the apps to be obtained by using the House Address
6. House Address validity can be verified using Property Tax ID

FLOW CHART

ARCHITECTURAL DIAGRAM

IBM SYSTEMS/SERVICES USED: