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**A Low-powered Waste Collector System using Solar Power and Wireless Communication**

**Abstract**

In Philippines, there are rural areas where usually people belong to a poverty are living. Some of these people live on the island where most of them are off-grid, which means electrical power is either absent or a high cost power rate which most of the inhabitants are unable to access them personally. The environmental problems from these communities are sometimes hazardous to the island such as improper waste disposal and poor waste management that would result to contaminated water and food.

This research focuses more on the waste management system that is independent from their power source and is powered from the electricity generated from solar power. The proposed system is being run from an embedded computer that monitors the garbage level from the bin/waste area and alerts the government officials /person-in-charge to be aware and take actions to prevent waste pile-up. Using this system will be the means of smart connected service from island locals to the mainland through the use of wireless communication. The hardware of the proposed system will be using a low-power consumption to accommodate the electricity generated from solar.

With the help of the proposed system, it will help the locals from the island in aiming cleaner environment and prevent environmental disaster.

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About Myself

My name is Jan Dave Abujen Campañera, who graduated with the title of BS Computer Engineering Major in Digital Systems Design from University of San Carlos. I am the eldest and the only male of the 3 siblings. Currently, I still lived together with my parents here in Cebu City, Philippines.

In my personal background, I am a type of person who is silent and kind of introvert/shy when interacting with other people especially to strangers but sometimes I can gather up courage to overcome the challenges ahead of me. Most of the times I enjoy things or spend time alone but I enjoy the most when I’m with people that I am comfortable with.

I am interested on topics belonging to the following categories: Video Editing, Robotics, Embedded Systems and Microprocessor. There are also some topics that are farfetched from what I’ve graduated such as Baking, Cooking, Chemistry and Crafting. I am also a type of person who wants to experiment on basically everything.

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