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AUGUST 2023

THE E-RECYCLE WASTE COLLECTION SYSTEM AT KULIM  
SERVICE UNIT

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**Thesis submitted to the Universiti Teknologi MARA Malaysia in  
partial fulfillment for the award of the degree of the Bachelor of  
Surveying Science and Geomatics (Honours)**

**AUGUST 2023**

## DECLARATION

I declare that the work in this dissertation was carried out in accordance with the regulations of Universiti Teknologi MARA. It is original and is the results of my own work, unless otherwise indicated or acknowledged as referenced work. This thesis has not been submitted to any other academic institution or non-academic institution for any degree or qualification.

I, hereby, acknowledge that I have been supplied with the Academic Rules and Regulations for Post Graduate, Universiti Teknologi MARA, regulating the conduct of my study and research.

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## ABSTRACT

Waste is described as undesired and useless resources and is considered a non-useful substance. Garbage can also refer to waste that is visible in our surrounding environment. Waste management can however be described as the collective efforts made to collect, transport, dispose or recycle and efficiently monitor waste products. One of the waste management is dispose or recycle. Recycle waste products is crucial because it enables the conversion of used or unwanted goods into new or useful goods. Recycling helps in decreasing pollution of the air, water, and land. It utilises less energy as well. Numerous products, including paper, paper, glass and more that can be recycled. Both energy and natural resource conservation are aided by recycling. Recycling lessens soil, water and air pollution, which aids in environmental protection. Recycle is the process of the recycling waste materials into new material and objects. The recovery of energy from waste materials is often included in this concepts. The recyclability of materials depends on its ability to require the properties it has in its original state. This research developed a E-recycle waste collection system at Kulim with aim of achieving develop an applications for recycle item database and analyse the shortest and fastest path distance to collect recycle waste at Kulim Service Unit. The objectives of this research are to identify parameter recycle item and develop database using QGIS for Kulim Service Unit, and to map the location of recycle cages in service area. The system is develop using QGIS software and will publish using GIS Cloud. By create this system it give more benefit to company of waste collection in Malaysia.

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