IoT Based Smart Waste Segregation Using Machine Learning for Home Environment

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I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science.

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DECLARATION

I hereby declare that this dissertation to the best of my knowledge, is solely composed by myself and it neither contains any direct or indirect materials from previously published articles nor written by another person. Further, this thesis has not been submitted for any award or degree of any other university or institute of higher education except as specified.

Sign: ..……..

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Date: ……04/02/2023

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Abbreviations

DL - Deep Learning

AI - Artificial Intelligence

CNN - Convolutional Neural Network

CPU - Central Processing Unit

GPU - Graphics Processing Unit

TPU - Tensor Processing Unit

RPI - Raspberry Pi

IOT - Internet of Things

DNN - Deep Neural Network

RPI - Raspberry Pi

RNN - Recurrent Neural Network

ANN - Artificial Neural Network

VGG - Visual Geometry Group

CED - Canny Edge Detection

PHT - Probabilistic Hough Transformation

ReLU - Rectified Linear Unit

HLT - Hough Line Transformation

RAM - Random Access Memory

CUDA - Compute Unified Device Architecture

Multilayer Perceptron (MLP)

Grad-CAM - Gradient - Class Activation Map

URL - Uniform Resource Locator

CC - Cubic Centimeter

PCA - Principal Component Analysis

L1-PCA- L1-Norm Principal Component Analysis

PHT - Probabilistic Hough Transformation

HLT - Hough Line Transform

ReLU - Rectified Linear Unit