**Dataset Name:** Garbage Image Dataset

**Description:** The Garbage Image Dataset consists of images of garbage items collected from nearby localities using smartphones. The dataset is categorized into five different classes. Each category represents a specific type of garbage item commonly found in everyday waste. The purpose of the Garbage Image Dataset is to provide a collection of labelled images of garbage items from different categories. The dataset can be used to train and evaluate deep learning models for garbage classification tasks. By training models on this dataset, they can learn to classify real world images of garbage items into one of the predefined categories.

**Dataset Details:**

1. **Number of Images:** The dataset contains a total of 1504 images.
2. **Categories:**
3. Glass Category:

* Description: This category represents images of garbage items made of glass material.
* Examples: Glass bottles, glass jars, broken glass, etc.
* Number of Images:302

1. Metal Category:

* Description: This category includes images of garbage items made of metal.
* Examples: Aluminium cans, metal utensils, tin cans, metal scrap, etc.
* Number of Images:138

1. Paper Category:

* Description: This category contains images of garbage items made of paper & cardboard.
* Examples: Newspapers, magazines, cardboard boxes, paper packaging, etc.
* Number of Images:312

1. Plastic Category:

* Description: This category comprises images of garbage items made of plastic material.
* Examples: Plastic bottles, plastic bags, food packaging, plastic containers, etc.
* Number of Images:527

1. Clothes Category:

* Description: This category represents images of discarded clothing items.
* Examples: Shirts, pants, dresses, shoes, socks, etc.
* Number of Images:225

1. **Image Format:** Images are in JPG/JPEG/PNG format.
2. **Image Size:** The images have varying resolutions, with an average size of (978 x 1390) pixels.
3. **Annotation Format:** The dataset is provided with image-level annotations indicating the corresponding category for each image.
4. **Data Collection Process:** The images were collected by capturing photographs of garbage items found in nearby localities using smartphones. The dataset aims to represent real-world scenarios and the types of garbage commonly encountered in everyday life.
5. **Data Distribution:** The dataset is divided into train, and test sets. The recommended distribution is as follows:

Train Set: 80% of the total images

Test Set: 20% of the total images

1. **Dataset Usage:**

DATASET

|  |  |
| --- | --- |
| TRAINING SET | TESTING SET |

Performance Evaluation

1. **Data File Structure:** The dataset is organized into the following file structure:

├── train

│ ├── glass

│ │ ├── glass\_image1.jpg

│ │ └── ...

│ ├── metal

│ │ ├── metal\_image1.jpg

│ │ └── ...

│ ├── paper

│ │ ├── paper\_image1.jpg

│ │ └── ...

│ ├── plastic

│ │ ├── plastic\_image1.jpg

│ │ └── ...

│ └── clothes

│ ├── clothes\_image1.jpg

│ └── ...

└── test

├── glass

│ ├── glass\_image1.jpg

│ └── ...

├── metal

│ ├── metal\_image1.jpg

│ └── ...

├── paper

│ ├── paper\_image1.jpg

│ └── ...

├── plastic

│ ├── plastic\_image1.jpg

│ └── ...

└── clothes

├── clothes\_image1.jpg

└── ...