# ENTRep Dataset Usage Guideline

ENT Endoscopy Analysis Challenge at ACM MM 2025

## 1. Dataset Format

Each image in the ENTRep dataset is annotated by clinical experts. The annotation file is in JSON format, with each entry structured as follows:

```
{
  "Path": "13135998_240329090725185831_121_image03.png",
  "Classification": "nose-left",
  "Type": "abnormal",
  "Description": "mào vách ngăn (T)",
  "DescriptionEN": "a spur on the septum"
}
```

- **Path**: Image filename
- **Classification**: Anatomical region label.
- **Type**: Condition type (`normal` or `abnormal`)
- **Description**: Vietnamese clinical description
- **DescriptionEN**: English description (used in Task 3)

## 2. Challenge Tasks

### Task 1: Image Classification

- **Objective:** Predict the `Classification` and `Type` of each image.
- **Input:** Raw image.
- **Output:** anatomical region (e.g., `Ear Right, Ear Left, Nose Right, Nose Left, Throat, VC-open, VC-closed`).

**Evaluation Metric:**

- **Accuracy** for each label separately (Classification).
- Optionally: joint accuracy if both labels are predicted together.

### Task 2: Image-to-Image Retrieval

- **Objective:** Retrieve the most visually similar images to a given query image.
- **Input:** A query image.
- **Output:** A ranked list of image paths from the dataset.

**Evaluation Metric:**

- **Recall@K** (K = 1, 5, 10): A retrieved image is considered relevant if it shares the same `Classification` and `Type` as the query image.
- **Formula:**

$$\text{Recall@K} = \frac{\#\text{relevant images in top } K}{\#\text{relevant images in dataset}}$$

### Task 3: Text-to-Image Retrieval

- **Objective:** Given a text query (`DescriptionEN`), retrieve the corresponding images.
- **Input:** A clinical description in English.
- **Output:** A ranked list of image paths matching the description.

**Evaluation Metric:**

- **Recall@K** (K = 1, 5, 10): An image is considered relevant if it matches the ground-truth image for the given `DescriptionEN`.

## 5. Contact

For questions or support, please contact the organizers:
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