MRT Assignment-3

ROS-2

January 2023

Task-1

By now you would have made simple publishers and subscribers communicating via a rostopic. In reality, we may require to transfer complex messages, images being a part of such messages. Your task is to make a publisher which would take images from your webcam(you can even use any compatible video file) which would publish the images to a topic. You might need something called cv_bridge for converting the image feed to a standard ros message

Task-2

In task-2, you are required to make a subscriber(in a separate python file) to the rostopic you created above and do some processing to the image(You'll need cv_bridge again to revert to OpenCV format). For each image, use Canny edge detection method to find the edge image of the subscribed image. Then display the edge image and the original image horizontally stacked as a continuous feed.

Task-3

After making the above nodes, run both the nodes together and create an rqt graph to visually analyse the connections between nodes. Summarize your learning in a short report, embedding at least one image from the horizontally stacked images, and one image of the rqt_graph.

Git

Create a remote git repository and push your codes and report into it

Resources

- OpenCV Canny Function.
- cv_bridge.