

VSLAM Implementation on the Low-Budget Tello Drone for Cost-Effective Autonomous Navigation

Abstract

The present work focuses on the application of visual simultaneous localization and mapping (VSLAM) in the context of monitoring and mapping areas using the low-budget Ryze Tello drone.

Experiments conducted using ORB-SLAM3 demonstrated the algorithm's effectiveness in localizing and mapping the Ryze Tello drone both indoors and outdoors. The analysis of results highlights the effectiveness of ORB-SLAM3 algorithm in low-budget drones equipped with monocular camera.