Challenge Problem Statement: Localization

1. Generated map should have a high accuracy
2. Localization should be implemented on real-time manner (at least, 10Hz)
3. Does not use State-Feedback-Data of Robot
To enable robot to navigate autonomously in hotel or convention

PROBLEM: Localize Robots in Indoor Environments

Enough Number of Distinctive Features
Continuous Landmarks Observation and Permanent Structure

Wide Area with Small number of Useful Features
Repeated Landmark Features
Many Bumps and Stairs
Obstacles are Ruling in the Scene

SLAM algorithm (provides the reasonable level of localization in such environment)

The goal of Challenge: Enable the given robot system to localize in DASL