Semantic Mapping and Reasoning Approach for Mobile Robotics

Serdar Bora Sayin, Caner Guney and Murat Kendir (Turkey)

SUMMARY

The mobile robots need to have semantic information in their map representation about the entities in the environment in order to reason about their surroundings. Hence the mobile robots can act intelligently in the environment and solve autonomously a variety of robotic tasks. In this study, semantic mapping framework is established to give mobile robots the ability to perform high-level robotic tasks based on the semantic information. GeoRoSS is an autonomous mobile robot equipped with a reliable and precise 3D laser scanner that digitalizes environments. High quality geometric 3D maps with semantic information are automatically generated after the exploration by the robot.

Semantic Mapping and Reasoning Approach for Mobile Robotics (9245)
Serdar Bora Sayin, Caner Guney and Murat Kendir (Turkey)

FIG Congress 2018
Embracing our smart world where the continents connect: enhancing the geospatial maturity of societies
Istanbul, Turkey, May 6–11, 2018