**Geospatial community mapping system for emergency and routine preparedness**

SE-C-11

Ofek Atayak; ofekat@ac.sce.ac.il   
Sahar Gabay; saharga@ac.sce.ac.il

Advisors: Dr. Hadas Chassidim1, Dr. Batel Yossef Ravid1

1SCE - Shamoon College of Engineering, Be’er-Sheva

This project presents a geospatial community mapping system designed to enhance urban planning by integrating local community perspectives. A targeted survey was distributed to residents to capture their perceptions of the community, with responses combined with demographic, geographic, and logistical data for comprehensive profiling. Using a GIS-based Plotly interface, the system enables users to visualize community structures, identify key characteristics, and match resources to local needs. A prototype of the system is currently being piloted in the city of Beer Sheva to demonstrate its functionality in a real urban environment. Combining data analysis and interactive design, the platform helps municipalities and emergency services make efficient decisions in both routine and emergency situations.

Keywords: community, mapping, gis, interactive visualization, urban planning.