Development of Population Data Classified According to Building Type for Earthquake Damage Estimation

ARAI Kensuke\(^1\), and SAKAI Yuki\(^2\)

\(^1\) Student Member, Graduate Student, Graduate School of Systems and Information Eng.,
Univ. of Tsukuba
\(^2\) Member, Professor, Graduate School of Systems and Information Eng.,
Univ. of Tsukuba, Dr. Eng.

**ABSTRACT:** We developed population database classified according to story and building type from census population database in order to estimate earthquake damage more accurately assuming that there are correlation between numbers of non-wooden or high-rise buildings and the population. We constructed the method of estimating population of wooden houses, low-to-mid-rise (1-10 story) and high-rise (over 11 story) non-wooden buildings in the 1km and 500m mesh from The Grid-square Statistics based on the population data we investigated and collected in the selected 20 meshes in Kanto area. We could accurately estimate population of three classified buildings.

**Key Words:** Earthquake Damage estimation, population database, population of buildings, national population census, The Grid-square Statistics