

Modeling of 3D S-wave velocity structure for sedimentary layers in Kanto area, using microtremor array surveys –part 2-

*Kaoru Jin¹, Shigeki Senna¹, Atsushi Wakai¹, Hiroyuki Fujiwara¹

1. National Research Institute for Earth Science and Disaster Prevention

We have ever engaged in modeling of underground structure from seismic bedrock to ground surface in Kanto area for the purpose of improving accuracy of earthquake ground-motion prediction. In order to advance the underground structure models, microtremor surveys have been conducted at a lot of sites in Kanto plain for these several years. “Senna et.al., 2016” shows that the conventional underground structure models were improved by using records of microtremor array surveys conducted by 2015 and earthquake observations.

In this study, by adding results of microtremor array surveys conducted at about 100 sites in 2016, the underground structure models were improved at the target area in comparison with models constructed in 2015. Above all, velocity layers from V_s500 m/s to V_s900 m/s were modified.

Keywords: microtremor array observation, S-wave velocity structure, Underground structure model