

Observation of aftershock due to the 2016 mid Tottori prefecture earthquake and microtremor observation in the structural damage area of mid Tottori prefecture, Japan

*Tatsuya Noguchi¹, Takao Kagawa¹, Shohei Yoshida¹, Sho Nakai¹, Hiroshi Ueno¹, Kazu Yoshimi¹, Shoya Arimura¹

1. Department of Management of Social Systems and Civil Engineering, Civil Engineering Course Graduate School of Engineering, Tottori University

An earthquake (Mj6.6) occurred in central Tottori Prefecture in Japan on October 21, 2016. We conducted aftershock (strong motion) observation at several temporary sites in this area with housing damages. Characteristics of site amplification effect of the temporary sites were understood from analysis of seismic data. Also densely microtremor observations were carried out to estimate the characteristic of ground vibration in the damage area. Microtremor H/V spectra and a distribution of the predominant period were obtained from observation data. In addition, we checked the relationship between site effects and transfer functions of SH-wave, S-wave velocities, H/V of microtremor strong ground motion.

Keywords: 2016 mid Tottori Prefecture earthquake, aftershocks observation, microtremor observation