What is observed by the IT Strong Motion Seismometer System for Buildings.

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In order to reduce the seismic disaster, it seems to be the usefulness to investigate the seismic vibration of our familiar buildings such as housing, companies, schools, etc. in small earthquake, examine the weak point and improve the earthquake resistance of these building effectively. For this purpose, we devised IT strong motion seismometer as a new type self install strong motion seismometer.

We developed the IT strong motion seismometer system that observes the seismic vibration of building in small earthquake by installing many strong motion sensors (ITK sensor) in the building (Takano et al 2005). By using this system we are observing at each building of No.1 (seismically isolated structure), No.2 (reinforced concrete (RC) structure) and No.3 (steel frame structure) of the Earthquake Research Institute from May, 2006.

We will investigate the result of observations of these buildings of about 1 year, and discuss the possibility of this system as a health monitoring tool of building. Especially, we will investigate the seismic vibration of seismic intensity 1 that large number of observation data have been obtained.