

Application of Earthquake Early Warning System to Estimation of Long-period Ground Motion for High-Rise Building in Tokyo, Japan

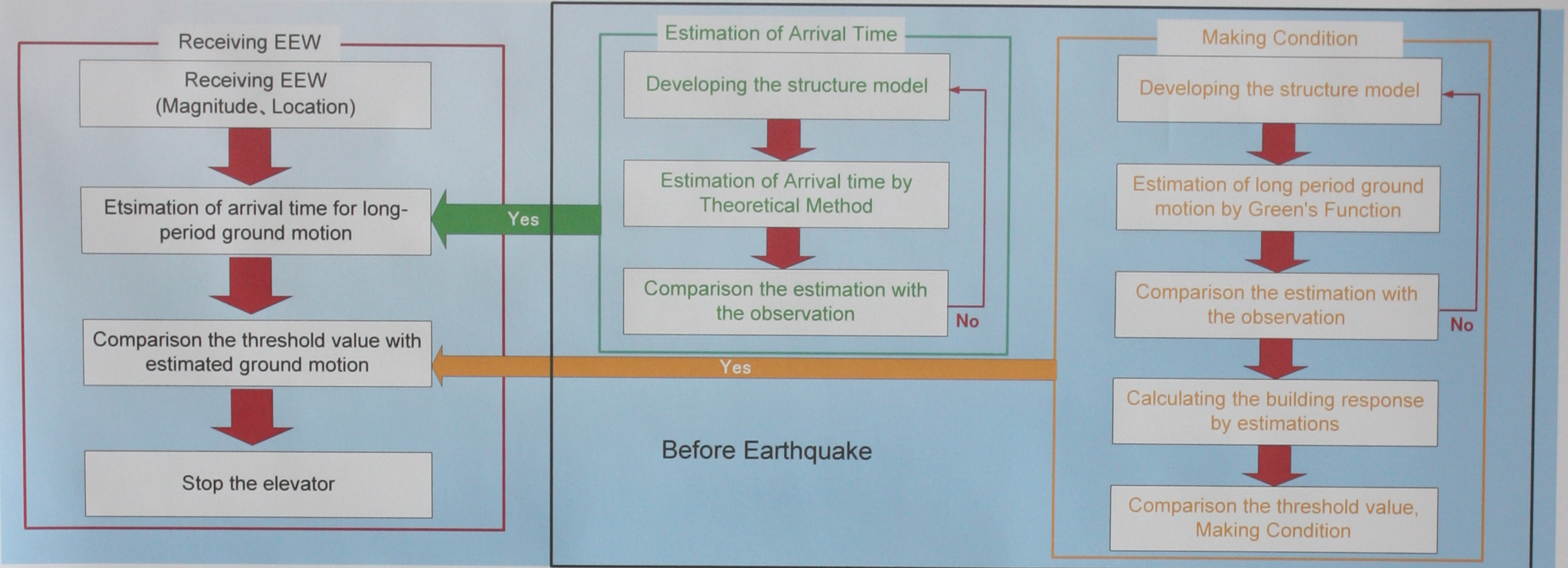
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Introduction

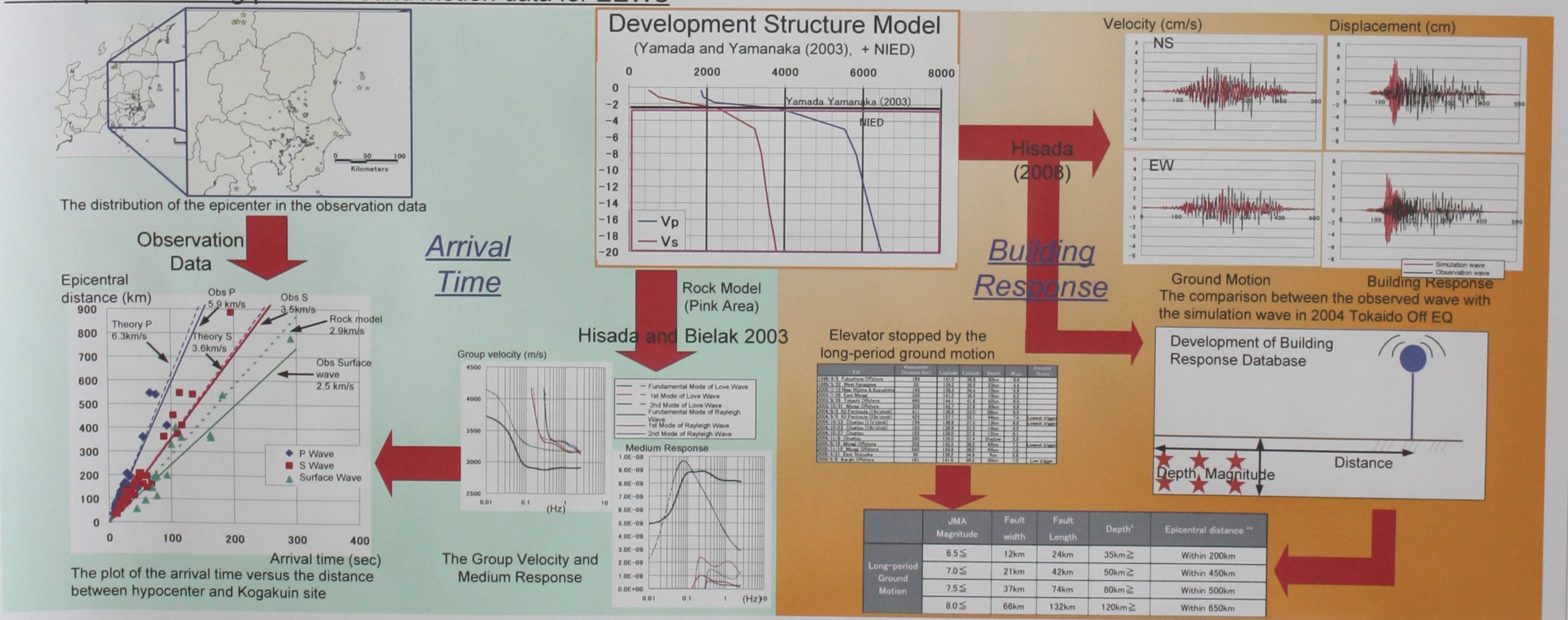
The Shinjuku campus of Kogakuin University is located in the downtown Tokyo, and is a high-rise building of the 29-stories with 149m of height and about 3 sec of the 1st natural period. The campus building needs to prepare for the two types of large earthquakes: one is M7 earthquakes under the Tokyo area, and the other is M8 earthquakes from a rather far subduction zone.

In order to reduce earthquake related damage from those earthquakes, we apply EEWs (Early Earthquake Warning System) to the elevator control system of the high rise building of Kogakuin University. In addition, we use EEWs on disaster drill to promote it to the staffs, teachers and students in the building.

Flow of the elevator emergency operation for long-period ground motion



Development of Long-period Ground motion data for EEWs



Application of EEWs to Disaster Mitigation Plan

