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Shaking Table Test of Base Isolated Structure under Long Period Type Earthquake Excitations

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Keywords	long type earthquake excitation, base isolated structure, shaking table test

Technical Support Skills	・ Structural design with seismic, base isolated and passive controlled structures ・ Shaking table test of base isolated and passive controlled structures ・ Disaster prevention education with earthquake and Tunami for students

Research Contents

Shaking table test of base isolated structure under long type earthquake excitation

The severe and great earthquakes such as the 2003 Tokachi offshore, the 2004 Kii peninsula southeast offshore and the 2011 off Pacific coast of Tohoku earthquakes are happened after the 1995 south of Hyogo prefecture earthquake. The predominant periods of these long period earthquake ground motions are from 3sec to 11 sec.

The earthquake shaking table having department of architecture at Akashi National College of Technology carried out the modification of the shaking table machines in 2011 and 2013 years. This new earthquake shaking table could be reappeared all earthquake waves which observed at K-net seismograph recording systems installed in Japan.

The purpose of this study are to verify and estimate the following two things: 1) the demonstration of reappearance in the long period earthquake ground motions using two direction shaking table, and 2) the development of base isolated system devices corresponding to the long period earthquake ground motions.

The research results obtained in the study would be presented to these treatises in AIJ and the research paper in ANCT.

Available Facilities and Equipment

3D shaking table machine	
Multi data recording systems	