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Damper Systems For Low-Rise Building Structures In Low-To-Moderate Seismicity Regions

Most of damper systems have been developed for structures in high seismicity region such as USA, Japan and New Zealand. However, it might not be appropriate to apply these damper systems directly to structures in low-to-moderate seismicity regions such as Korea. Therefore, limitations and requirements were investigated to apply these damper systems to low-rise building structures in Korea. The efficient damper systems, which are slim-type multiple damper system and pivot-type displacement amplification damper system using silicon viscous dampers, were developed for the seismic strengthening of existing low-rise building structures in Korea. The development of damper systems focused on minimizing the cost and the occupied space and maximizing performance of dampers. To verify the validity of the developed damper systems, experimental tests for damper systems and computational simulations for structures with the developed damper system were conducted. Based on the experimental and analysis results, it has been known that the developed damper systems are more economical and efficient than existing similar damper systems.



Speaker Bio

Jang Ho Park is a Professor in the Department of Civil System Engineering at Ajou University in Korea, where he joined the faculty in 2002. He was a chair in the Department of Civil System Engineering at Ajou University until last year, and is a visiting scholar at UCI this year. His primary research area is seismic analysis and design, with particular focus on fluid-structure interaction analysis, soil-structure interaction analysis, and seismic strengthening devices. He received his Ph.D., MS and BS from Seoul National University in structural engineering in 1997, 1992 and 1990, respectively. He worked as a senior researcher at Daewoo Engineering & Construction for 3 years.

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