

## **An Investigation into the Interaction of Concrete Frames and Infilled Masonry Walls with Emphasis on the Connections**

**Authors :** Hamid Fazlollahi, Behzad Rafezy, Hassan Afshin

**Abstract :** There masonry infill increases the stiffness of reinforced concrete frames, thus increasing the force of the earthquake also the interaction between the frame and infill, which can have devastating effects on structures. In contrast presence of infill to increase the structural strength and stability. What is seen in the construction and design of structures has largely ignored the effects of infill and regardless infill structure and its positive and negative effects analyzes and designs, that it is not economically justified and the positive effects of positive infill to be increased and almost all of the useful capacity of moment frames used for infill. In this paper, by using ABAQUS software, reinforced concrete frame with masonry infill will be modeled, then add a mechanical rubber element to modify the interaction between the frame and infill and thus reduce the losses caused by the presence of infill explains. Finally, by comparing the analytical curves, benefits of this approach we will study and to present the results of the interaction between the frame and infill masonry needs modification and methods it will provide.

**Keywords :** masonry infill, mechanical rubber, reinforced concrete frame, interaction, ductility

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