



OVERVIEW OF PROGRESSIVE COLLAPSE ANALYSIS AND RETROFIT TECHNIQUES

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Abstract

Several studies have introduced techniques to evaluate the vulnerability of structures to progressive collapse. These studies evaluated different structural systems for concrete and steel buildings. The analysis methodologies ranged from linear to nonlinear with static and dynamic approaches. Other studies proposed enhancement techniques to retrofit various types of structures in order to reduce their potential to progressive collapse. In this paper, a review of the previous research conducted on the assessment of vulnerability of structures to progressive collapse is presented. Descriptions of existing retrofit techniques as well as current evaluation and analysis approaches are also discussed.

Keywords: progressive collapse, linear analysis, nonlinear analysis, retrofit

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