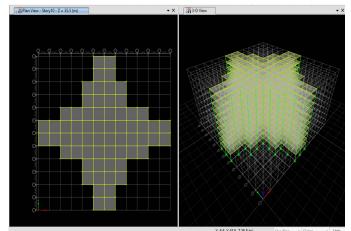
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Research Paper

Studies on Regular and Irregular Tall Structures Subjected to Earthquake Loading.

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J. Civil Eng. Urban., 8(1): 01-05, 2018; pii:S225204301800001-8

Abstract

Multi storey buildings are constructed by Reinforced concrete are subjected to earthquake forces are affected dangerously, they get failure during earthquake. The main reason for this failure is that the irregularity in building structures. In this paper study is made to find the

response of regular and irregular building structures having plan irregularity located in seismic zone V. In this present study Analysis has been made by taking 10 storey building by Response Spectrum Method using ETABS 2015 and code IS 1893:2002 (part 1). Analysis is carried out for Regular and Irregular buildings at a height of 35.5 m in zone V. Behavior of structures are comparing the responses in the form of maximum storey displacement, storey drift, storey stiffness, periods and frequencies of modes during earthquake. Presently there are four models. One is Regular structure and remaining are Irregular structural models, all models have different shape but having same area. An attempt is made to study the Response of building structures with respect to the loads and their combinations. The results comparison is made by taking maximum load combinations considering the primary loads (LL, DL, WL, and EQL). Totally four Configuration models are considered for the analysis.

Keywords: Horizontal irregularity, Earthquake load, Storey shear, Maximum storey displacement, Maximum storey drift.

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Research Paper

Operative Guidelines for Sustainable Designing of Child-Oriented Architectural Spaces.

Khodadad M, Moosavi Nadoshan SM, Khodadad S, Sanei M.

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Abstract

Paying attention to children space has long been important. A large number of researchers have dealt to it, whether in science of psychology and sociology or in the field of architecture. According to the needs of the community and audiences, science of architecture always has seek creative ways to optimize the space for contacts in different fields, such as child-oriented spaces. It has been done with regard to the consideration of human needs and the importance of user's behavior in achieving the goals of sustainable architecture. In addition, according to the theories of psychology, considering the importance of childhood, as one of the most important periods of human life, is so imperative. Therefore, designing a sustainable environment for children is an element, which requires further discussions, and it is necessary to contemplate psychological aspects and behaviors, related to a sustainable approach. In this context, it should be taken into consideration that what the principles of a sustainable design for children are, and, basically, how sustainable environment's definition for the children should be. In this paper, the main effort is to take a step towards sustainable development by raising a discussion of child spaces with a sustainable development approach, and giving a physical dimension to the sustainable development indicators in the areas of children's centers. The research is a descriptive-analytic study, with use of library research method for data collecting, linked with the different categories of sustainability, architecture and psychology. As results, there are some suggested practical solutions to develop physical patterns for designing sustainable children's spaces, each of which could be a field for deeper qualitative and quantitative analysis in future studies.

Keywords: Child-Oriented Space, Sustainable Environment, Sustainable Development.

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