

Levying and Anticipate of a Structural Project using our In-depth Analysis process

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Abstract: In modern world predicting the possible outcome is a huge task and in our day to day life usage of technology becomes the part of our life. A better understanding of how momentum is absorbed into the initial non-negative terms in the pressure expression of a shock wave is made possible by Momentum-incorporated Symmetric Non-negative (MSNS), an analytical and computational tool. We focus on the scenario with negative momentum in particular. Latent Factor Models (LFM) is a statistical method for estimating the association between latent variables derived from a collection of items or instances and observable data, which is the dependent variable. The LFM approach, in essence, enables us to quantify the contribution that each item makes to the estimation of an outcome variable. In recent years, technology has started to play a significant role in the area of research. That to the process of construction research and analysis takes a huge part, which becomes more fruitful if we reduce the waiting time through our analysis process and by getting the price estimation. Here Qualitative research was quickly adapted and aided by the technology. This qualitative research is done through the process of Qualitative Data Analysis (QDA) process, which helps in the in-depth analysis. It is also used in statistics, which is also known as the categorical data. Next Theil-Sen estimator, which has been proposed as preferable to least squares estimation due to its high precision in the presence of data. Here we predict the estimation with high efficiency, and accuracy level is very high.

Keywords: Big mart, Web scraping, Sales forecasting, Future prediction, Machine learning.

1. Introduction

The potential risks associated with building, as it can provide a thorough evaluation of the project in order to ensure the safety of the structure. Additionally, technology can also provide data that can be used to improve the overall efficiency of the entire project, from planning to completion QDA allows researchers to efficiently and accurately analyse qualitative data, including text, audio, and video, to identify patterns and themes. It also allows for the ability to visualize the data and gain insights, as well as to make connections between themes. It can also be used to identify patterns or trends in the data and to generate hypotheses or theories about those patterns. Additionally, QDA can be used to compare and contrast different data sources, as well as to identify relationships between data points. The use of technology in qualitative research has allowed researchers to gain deeper insights into their data and to draw more meaningful conclusions. QDA has enabled researchers to save time, as well as to gain a better understanding of their data. QDA. Technology has made it easier for researchers to analyse large amounts of

data, as well as to quickly identify patterns and trends in their data. The Next Theil-Sen estimator, which has been suggested as an alternative to least squares estimate due to its high precision in the presence of data, is used for more precise trend and pattern detection. Here, the estimation is predicted with a high degree of efficiency and accuracy.

2. Categorization and Description of Works

[1]. Ragy Jose, Restina Mathew, Sandra, Mohit Y S and Sankerthana Venu (2017) "Analysis and Design of Commercial Building by ETABS". Structural Analysis is a branch which involves in the determination of behaviour of structures in order to predict the responses of different structural components due to effect of loads. Each and every structure will be subjected to either one or the groups of loads, the various kinds of loads normally considered are dead load, live load, earth quake load and wind load. ETABS is a software which is incorporated with all the major analysis engines that is static, dynamic, Linear and non-linear, etc. and especially this Software is used to analyse and design

the buildings. Our project "Analysis and Design of Commercial building using analysis and design and as the 4- storey building has similar floors ETABS is the perfect software which can be adopted for analysis and design.

[2]. Ali Kadhim Sallal (2018) "Analysis and Design of 10 storey building using ETABS". A G+9 storey building is considered for this study. This paper presents a building where designed and analysed under effect of earthquake and wind pressure by using ETABS software. Analysis is carried out by using ETABS. They have concluded that, the values of dead, live, floor finish loads obtained by the ETABS program are similar to the IS Code, various important results like bending moments, shear force and deflection results are carried out using ETABS.

[3]. Omprakash, S. Tousif Ehtesham, C MD Faraaz, Shaik Shabbir Basha, Shaik Riyaz(2018) An earthquake is the shaking of the surface of the Earth, resulting from the sudden release of energy in the Earth's lithosphere that creates seismic waves. Effects are often classified as primary and secondary impacts. Primary effects occur as a direct result of the ground shaking, e.g. buildings collapsing. Secondary effects occur as a result of the primary effects, e.g. tsunamis or fires due to ruptured gas mains. In structural engineering, a bracings is a lateral load system composed to counter the effects of lateral load acting on a structure. Bracings are structural members used to augment the strength of RCC structures.

[4]. M Mallikarjun, Dr P V Suraya Prakash (2016) Hyderabad is the fifth largest city in our country. As it is rapidly developing in the field of construction in the city is very costly. The design process of structural planning and design requires not only imaginations and conceptual thinking but also a sound full knowledge on how a structural engineer can economies the structure besides the knowledge of practical aspects, such as recent design codes, bye laws, experience, intuition and judgment.

[5]. Varalakshmi V et.al (2014) [1] analyzed a G+5 storey residential building and designed the various components like beam, slab, column and foundation. The loads namely dead load and live load were calculated as per IS 875(Part I & II)-1987 and HYSD bars i.e. Fe 415 are used as per IS 1986- 1985. They concluded that the safety of the reinforced concrete building depends upon the initial architectural and structural configuration of the total building performance.

[6]. Chandrashekar et.al (2015) [2] analyzed and designed the multi-storeyed building by using ETABS software. A G+5 storey building under the lateral loading effect of wind and earthquake was considered for this study and analysis is done by using ETABS. They have also considered the chances of occurrence of spread of fire and the importance of use of fire proof material up to highest possible standards of performance as well as reliability. They suggested that the wide chances of ETABS software which is very innovative and easier for high rise buildings so that time incurred for designing is reduced.

[7]. Balaji.U and Selvarasan M.E (2016) [3] worked on analysis and design of multi-storeyed building under static and dynamic loading conditions using ETABS. In this work a G+13 that material property to be linear, static and dynamic analyses were performed. The non- linear analysis was carried out by considering severe seismic zones and the behaviour was assessed by considering type I soil condition. Different results like displacements, base shear were plotted and studied.

[8].Geethu et.al(2016) [4]made a comparative study on analysis and design of multi storied building by STAAD.Pro and ETABS softwares. They provided the details of both residential and commercial building design. The planning was made in accordance with the national building code and drafted using Auto CAD software. They concluded that while comparing both software results, ETABS software shows higher values of bending moment and axial force.

3 Performance Analysis of the Proposed Methodology in terms of Existing and proposed approach

In past the better prediction of values with accuracy and good computational efficiency was not achieved in a fulfilled way, this is because of momentum-incorporated symmetric non- negative equation and its huge numerical solution and it is been difficult mainly because of inflection point. To solve it in our proposed model, we achieve it by analysing and prediction of the estimator values, so that we get better results in terms of computational productivity with better time efficiency. In addition to being the most widely used estimator in linear model fitting, it also provides additional benefits over other models that offer a better statistical fit and more accuracy (especially when the parameter being estimated has a high value). However, as mentioned above the data accuracy and computational efficiency is more accurate but it is not fulfilled. These exceptions will

be solved in the future. To achieve the objectives of the study that is to analyse and design commercial building and by manual method, which meets the basic requirements such as safety, durability, economy, aesthetic appearance, feasibility, practicability and acceptability. It has been proposed to follow the following methodology. Surveying is a basic tool for a Civil engineering science. Before any civil engineering work has to start, surveying has to be done and then we must prepare a plan or map of the area showing topographical details related to design of structure etc. Good planning and management of a geotechnical site investigation is the key to obtaining sufficient site information for designing a structure in a timely manner and with minimum cost for the effort needed. The engineering properties of soil like water content, density and SBC are calculated by conducting tests in laboratory. The structural plan is prepared using auto cad. Handling data in any sector is a tedious job that too in an automation industry where there is numerous amount of data to be processed, the delay which is about to happen is a difficult task to evade. But it is not so impossible to avoid, here in our model we have proposed the system which makes sure that our data which is to be processed are dimensionally good and also finds the missing data with good accuracy. The study of qualitative variables, such as the characteristics of people, things, and events, is known as qualitative data analysis. Unlike quantitative or quality, but the overall experience may be qualitative in character. Qualitative Data Analysis algorithm which handles the estimation part in our application, this is the crucial part in which estimation happens to find out the best cost estimation in the process of building construction. Then our regression model which is Theil-Sen is used to predict the accurate value in the prediction of land area by getting the material details as the input, which acts as the test data set and gives the missing data.

4. Methodology and Results

Estimation becomes a tedious job, but here in our model we have the capacity to monitor both missing data and estimation with good computation efficiency. To building construction is necessary for all types of structures, including private structure, whether a home or construction process. Business building. Parts of the construction are built using materials, and the shape and size of the structure are evaluated to determine how it should be made. We can choose whether they are able to ashly our new home will be covered with stoner concrete. The advent of technology in this industry has significantly improved the to processing the

data and getting result is not a big task, but predicting the data with good accuracy is a big process, but here in our project we have used the which is a simple linear model which also has the property of robustness and qualitative data analysis which is also known as deductive approach, which helps in the process of making the accuracy better. These accuracy helps in our building construction model to get accurate land ready our details provided and estimation of the project is by qualitative data analysis method which becomes more effective in our case.

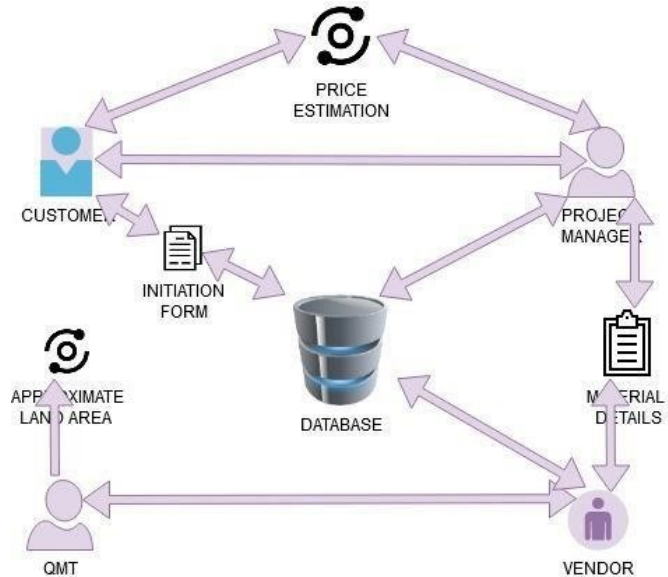


Fig 1. Overall Architecture

5 Conclusion

Today's society makes it difficult to forecast potential outcomes, and technology use has ingrained itself into our daily lives. Momentum-incorporated Symmetric Non-negative (MSNS), an analytical and computational method, enables a better comprehension of how momentum is absorbed into the initial non-negative terms in the pressure expression of a shock wave. In particular, we concentrate on the scenario with negative momentum. Latent Factor Models (LFM) is a statistical method for estimating the association between observable data, which is the dependent variable, and latent variables produced from a collection of items or instances. We can really measure the contribution that each item provides to the estimation of an outcome variable using the LFM approach.

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