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REDEVLOPMENT SLUM MODEL BY REVIT PROJECT

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Abstract – Building Information Modelling (BIM) is a high-technology process transformational method to address project complexity and rapid development. A BIM-based project produces digital assets that transform how supply chain partners work together to improve the design and construction process, enabling early problem identification and removal, generating cost and schedule benefits, and improving the facilities management and operations process after occupancy. Rather than the traditional two dimensional (2D) process used in facilities design and construction, the BIM delivery method uses three-dimensional (3D) digital model BIM offers advantages in multidisciplinary collaboration, cost and schedule, project understanding, and design constructability. Access to digital models early in and during the design process offers a multidisciplinary view, with higher-order collaboration among project participants and better design understanding through visualization, reducing Requests For Information (RFIs) and field rework .

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1.INTRODUCTION

- BIM as Management involves working with the models to successfully maintain and communicate the project information. The process of managing a BIM project is different from the traditional way of working. BIM projects require all project stakeholders to be involved at the early stage. BIM encourages closer collaboration with the team members avoiding loss of information.
- Traditional project life-cycle involves linear process of carrying out the activities.Linear project work-flow has obvious disadvantages of loss of information and ambiguity in critical decisions until the last minute. Linear work-flow does not involve all project stake holders early in the project to help avoid abortive work.
- BIM project life-cycle encourages collaboration of the entire project team during the full life-cycle. BIM also provides access to seamless communication with minimal loss of information and enables the team to make critical project decisions early in the process. In this project the study is done by taking into consideration the methods of Qualitative risk analysis.

2. NEED OF STUDY

Collaboration can often be disjointed among the members of a construction team. The BIM coordination model solves this problem by merging the individual sub-models from the various disciplines into one, enabling collaboration across the board.

The coordinated BIM model represents a dimensionally accurate rendering of a building or structure, giving it an authentic, detailed sense of scale. In turn, this gives the future owners of a building a thorough idea of what the finished product will look like before renovation or construction even begins.

3. OBJECTIVE OF STUDY

BIM is often used to gather information about a facility at various phases during a facility's life. Whether that is to count the specific amount of an element or determine the current status of a facility element in order to properly manage that asset, the use of BIM can greatly assist in this effort. This sub-purposes of BIM Uses include: Qualifying, Monitoring, Capturing, and Quantify. In this primary purpose of BIM Uses, the author is collecting, gathering and organizing information about the facility. This purpose of BIM Uses does not determine the meaning or make inferences about the meaning of the information gathered, rather it is solely focused on the collection and organization of the information. This is often the first step of a comprehensive series of BIM processes

4. LITERATURE REVIEW

BIM Technology

Salman Azhar,PHD ,A.M.ASCE

Building information modeling (BIM) is one of the most promising development in architecture ,engineering, construction (AEC) industry with BIM technology , an accurate virtual model of building is digitally constructed it helps engineers to plan and visualize the structure before construction it gives precise information of this modal as

schedule estimation , sections, layouts, solar study and structure analyze and other necessary information.
Streets As Tools For Urban Transformation In Slums: A Street-Led Approach to Citywide Slum Upgrading
Dr. Joan Clos,
Under-Secretary-General of the United Nations Executive Director, UN-Habitat.
BIM Software In Architectural Modelling International Journal Of Innovative Technology And Exploring Engineering. Projects: Software programmesSoftware Authors:

Zeynep Onur

Near East University

Fatemeh Nouban

Near East University

The Computer Models Of Buildings That Contain All The Information About Future Facilities, Which Is Called BIM (Building Information Modeling) Technologies, Took An Important Place In

Architectural Offices And Architectural Design. By Means Of BIM Technologies, The Main Groups Of Specialists Had A Chance To Collaborate From The Very Beginning Of The Creation Of The Building Model And Its Use Up To The End Of The Design Of The Building. Since The 1960s, Computer Programs Were Mainly For Drawing, But With BIM

Technologies, It Is Possible To Present A Virtual

Reality Of A Building Process

Book Enhanced Building Information Models Using Iot Services And Integration Patterns Project: IoT BIM and GIS for Smart Cities Authors:

Umit Isikdag

Mimar Sinan Güzel Sanatlar Üniversitesi

This book explains how to combine and exploit sensor networks and internet-of-things (IoT) technologies and Web-service design patterns to enrich and integrate Building Information Models (BIMs). It provides approaches and software architectures for facilitating the interaction with (and between) BIMs through Web services, and for enabling and facilitating the fusion of the information residing in such models or of information acquired from IoT technologies. The proposed software architectures are presented in the form of design patterns. This information fusion will facilitate many novel application fields ranging from emergency response, to urban monitoring and surveillance, and to smart buildings. The book consists of 8 chapters. The first 2 chapters focus on the basics of BIMs, while chapter 3 presents fundamental service-oriented architecture

5. LITERATURE SUMMARY

BIM Technology Salman Azhar,PHD ,A.M.ASCE Building information modeling (BIM) is one of the most promising development in architecture ,engineering, construction (AEC) industry with BIM technology , an accurate virtual model of building is digitally constructed it
helps engineers to plan and visualize the structure before construction it gives precise information of this modal as schedule estimation , sections, layouts, solar study and structure analyze and other necessary information. **Streets As Tools For Urban Transformation In Slums**: A Street-Led Approach to Citywide Slum Upgrading Dr. Joan Clos, Under-Secretary-General of the United Nations Executive Director, UN-Habitat. A presented the evidence-based argument that streets, by being natural parts of city networks and urban layouts, are a potentially vigorous tool to achieve physical improvements in slums as well as to integrate slums into the city, to regular rise land and security of tenure, and set the basis for sustained citywide transformation and local economic
development. **Compendium OfInnovative Emerging Technologies**
DurgaShanker Mishra Secretary Ministry of Housing & Urban Affairs Government of India About 90% of the building work including finishing is complete in plant/casting yard leading to significant reduction in construction & occupancy time. **BIM Software InArchitectural Modelling International Journal Of Innovative Technology And Exploring Engineering.** Projects: Software programmesSoftware Authors: ZeynepOnur Near East University FatemehNouban Near East University The Computer Models Of Buildings That Contain All The Information About Future Facilities, Which Is Called BIM
(Building Information Modeling) Technologies, Took An Important Place In Architectural Offices And Architectural Design. By Means Of BIM Technologies, The Main Groups Of Specialists Had A Chance To Collaborate From The Very Beginning Of The Creation Of The Building Model And Its Use Up To The End Of The Design Of The Building. Since The 1960s, Computer Programs Were Mainly For Drawing, But With BIM Technologies, It Is Possible To Present A Virtual Reality Of A Building Process **Book Enhanced Building Information Models Using IotServices And Integration Patterns** Project: IoT BIM and GIS for Smart Cities Authors: UmitIsikdag MimarSinanGüzelSanatlarÜniversitesi This book explains how to combine .

6. RESEARCH METHODOLOGY.

The main purpose and objective of the research methodology is to identify the risks in the construction projects and perform the risk analysis via the Qualitative method of risk analysis.

The stages of research methodology are ;

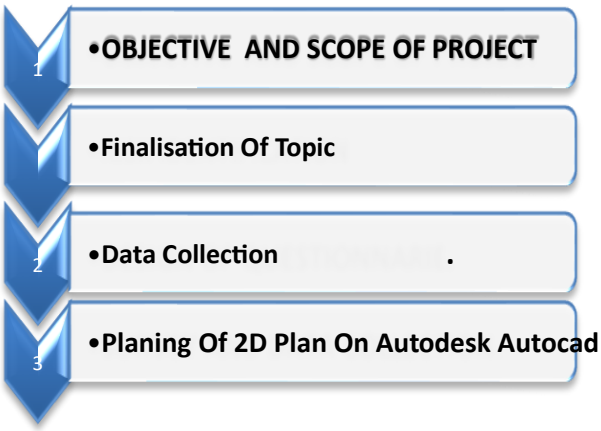

Fig -1: Figure

Collaboration is the key to succeed in any construction project. BIM models enable to team to work in more collaborative environment. BIM Collaboration enables all project stakeholders to access critical project information at all stages of the project more accurately. BIM Collaboration is made easy by having the team to follow a standard methodology for modelling and communication from the beginning.
Adopting BIM for a project requires upfront preparation with standards and workflows and BIM specific training to be conducted for the team members

ability 1-5

High - From 4-5 occurrence of probability

Medium - 3 occurrence of probability

Low - Between 1-2 occurrences of probability

Impact 1-5

High – This type of risk has a great impact on the project and hence the work has to be stopped.

7. RESULT AND DISCUSSION

• Increased productivity

• Enhanced communication

• Reduced conflicts & RFIs

• Improved control over information

• Control on the budget • Increase in over-all project quality

• Competitive advantage

• New business opportunities

• Control over consultants and other project stake holders At an organisational level, implementing BIM not only keeps the organization up to date with the industry practices but also has several other benefits.

8. CONCLUSIONS

Increased productivity
- *Enhanced communication*
- *Reduced conflicts*
- *Improved control over information*
- *Control over consultants and other project stake holders*
- *Control on the budget*

• Increase in over-all project quality
- Competitive advantage
- New business opportunities

Although BIM isn't a new concept by any means, it's obvious that it is the future of the AEC industry. Hopefully, this article helped you become aware of the enormous potential of BIM software Revit and the way it can be utilized in architecture, engineering, and construction.

9.REFERENCES

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10.BIOGRAPHIES

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