ABSTRACT

Topic : **BUILDTECH CONSTRUCTION MANAGEMENT SYSTEM**

Project Nature : Mini Project Extension

Completion Level : Completion 40% of Mini Project

BuildTech Construction Management System is a web application to manage all day to day operations required by the customer who is constructing an individual house, buildings, offices etc. It provides information in a quick time according to the requirements that are to be fulfilled. It also provides a convenient method of online construction contracts. This system provides consistency of data and develops the user friendly and interactive website which will reduce the paper works, faster and easy work and save the time. The user can also reduce the time and effort in searching contractors by using this system. Labours can easily find jobs and also contractors can find best labours. The current system is based on manual procedures. Means, all the records of about customers, contractors, labours, etc. are stored manually into the file registers, which is too lengthy and tedious. They have to maintain that record for long duration, but maintaining all these records as manually is very difficult task when the organization is very big. If we search for a contractor manually, it takes a lot of time and also very difficult. Modifying the records is not very easy, since for a minute change the whole record would be required to re-enter. For instance , if the address of any contractor changes then locating that contractor and doing modification in registers is very tedious. It also takes much time for doing entry and checking of records. There is also possibility of mismatching of entries during entry of records. To make and maintain the different reports about construction work is also very tough and tedious job. Information is stored into registers, which requires large storage space. Searching particular record is very tedious job, since as a time passes the condition of the registers becomes bad. Every year, they have to maintain new registers. The curent system is less convenient in managing stakeholders including plan approval, less transparency, no standardized packages, project often delayed with no progress visibility, unskilled labour force and unmonitored quality of material and not all technology based. The current system has too much manual work and increases burden on workers but doesn't provide good result.

To overcome the drawbacks of existing system and ease the working of such consultancies our project comes into the picture. Our website is multifunctional which includes customer information, contractor information, labour details, project details etc. The master file that is file which contains all the details of the data's which are kept for long time are contractor master, customer master and labour master. The contractor master contains all the details of completed projects, on-going projects, rates and details of different categories of house, weekly progress report, payment details etc. The customer master contains personal details of the customer like customer id, customer name, profession, residential address, new project etc. Also, the customer can easily find the contractor based on the rating of contractors performance. This helps the customer to fulfill his dream project construction with the help of a contractor through online. This system helps the customer to get its project done smoothly, efficiently and in less time and also helps the contractor to increase the work and income source. This system is designed to help the customer, contractor and as well as the labours. This system helps to maintain the records of users and also it allows doing the manual operations in an automated form. Computerized system will help the customers, contractors to minimize the time and efforts consumed by using manual system. Security is an important aspect in the project and is maintained using a username and password which is unique for each users. A user can only login if he provides the correct username and password.

Advantages of Proposed System

- Provide information in a quick time according to the requirements that is to be fulfilled.
- Easy to search and retrieve the information stored.
- Convenient i.e 100% responsibility from plan approval to handover
- Security of data and Redundancy and Inconsistency of data is removed.
- Transparent at every level including new project details, weekly progress report, advance payment details etc.
- Fixed pre-agreed project cost with standardized packages.
- The paper work would be reduced to a greater extent.
- Customer can give project plan details and requirements online.
- Customer and Contractors can do online payment.
- Contractor can increase work and income and can also find labours easily.

Users of the System

- ➢ Admin
- ➢ Contractor
- ➢ Customer
- ➢ Labour

Modules of BuildTech Construction Management System

Our system has two main modules. One is the admin, and the other is the user. User module is again divided into three parts; either the user can be a contractor or a customer or a labour. Interfaces for both users are different.

➢ **Admin:**

This module is present only for one account. That is, no one can register as admin after the one account is created. Admin account has all the privileges to check any particular contractor or customer, to block any account, to verify users, add services etc.

- View customers/contractors/labours

- Verify customers/contractors/labours

- Add labour category

- Add services

- Add state/district

- Edit profile

- Change password

➢ Contractor:

This is one of the most important modules which helps customers to make their construction work easier. As there are three types of user accounts, the contractor is a kind of account which is asked at the time of user registration. Then after the registration, the contractor can see all the projects that are updated by the customers for construction, so that the contractor can study the project plan details and requirements of the customer. Contractors can also assign labours to worksites and make payment to them.

- Login to the portal

- Manage profile

- View project of customers

- Study project details

- Prepare detailed estimation of project

- Contractor see site location

- Process payment online

- Search and View labours

- Allocating duties for labours

- Payments to labours

➢ Labours:

Next important module is the labour module. Labour can register into this system based on their labour category. After registration, he will get notification from contractor about worksite duties and get paid by the contractor.

- Labour Registration

- Login to the portal

- Manage and View Profile

- View contractor request

- View worksite location

➢ **Customer:**

Another important module is the customer module. After registration, customer can search contractors nearby them and based on their rating customer can upload project details to those contractors and can also make payment to them online.

- User Registration

- Login to the portal

- Manage and View Profile

- Upload project

- View Estimation Details

- Search contractors

- Online payment to contractors

- Add Complaints