

## **COST ANALYSIS AND TENDERING OF IRRIGATION DEPARTMENT**

The irrigation department deals with various construction projects under the irrigation department. This project entitled “Cost analysis and tendering of irrigation department” is a web based application for automating the cost estimation and tendering of different construction works in irrigation department. The irrigation department announces new construction project plan and estimate cost through the web. Only the registered contractors can quote tender for a particular project. The new project details will be posted on the notice board then the public also can view it. The limitation of existing system is that the cost estimation is calculated using Microsoft Excel. For each work separate worksheet are also created. So the work becomes time consuming. There is an issue of security in the existing system. To make the data secure and to make the estimation process easy the proposed system can be used.

### **Modules/Users**

#### ► Irrigation department:

This is the super user of the whole system. The irrigation department can manage the whole system. He/she is included in the top level management. The main functionalities include:

- Login.
- Manage profile.
- Manage Senior engineer.
- Manage Junior engineer.
- Manage Overseer.
- Manage contractor.
- Accept/Reject Project plan.
- Issue fund to Senior engineer.
- Schedule meetings.

■ Senior engineer:

Senior engineer comes under the supreme power. The senior engineer is included in the middle level management. The main functionality includes:

- Login.
- Tender issue.
- Accept/reject application from contractor.
- Project planning.
- Tender approval.
- Stage wise payment.
- Fund request to department.
- Approval changes and send notification.
- Approve project changes and allocate fund.

■ Junior engineer:

Junior managers are the first line managers who comes under the senior manager. They have less power than the senior managers. The main functionality includes:

- Login.
- Cost estimation.
- Fund request to senior engineer.
- View changes and reporting.
- Change project plan and report/submit to senior engineer.

■ Overseer:

Overseers are the bottom level management. Their main functionalities include the overall management of the sites included in the projects. Other functions include:

- Login.
- Site stage approval.
- Fund requesting to junior engineer.
- Change detection and reporting.

■ Contractor:

They also comes under the low level management. They create the tender for each project. Their functionalities include:

- Login.
- Quote tender.
- View status of tender.
- Make changes (based on notification from senior engineer).

■ Guest:

They are the unauthenticated users of the system. They can just view the tenders and their details. The main functionalities include:

- View gallery.
- View new project details.
- View new tender details.