**Group: 6**

Quick Fire Response

And

Brigade Management System

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**Introduction:**

Bangladesh Fire Service and Civil Defense is one of the most active organizations ensuring peoples’ safety. Unfortunately the total management system of this organization is quite manual and inefficient. So, our project is to design a system which will automate some sectors of the organization and make this organization more helpful.

**Our Objectives:**

1. Ensuring quick response for every fire call
2. Automate the control room
3. Lessening the manual paper based work in the stations
4. Automating the administrative works
5. Making a rich database of Infrastructures and water sources around major cities.
6. Automated License management system

**Proposed Sub Systems:**

1. Fire Response
2. Fire station Management
3. Training System
4. License System

**Current Scenarios and Problems of the Subsystems:**

1. **Fire Response**
   1. Existing Scenario and Problems:  
      Currently when fire breaks out, people get panic and start searching for a phone number to contact fire station. It becomes tough to manage number at times. To be specific they cannot connect to more than one number at a time. Out of fear people often fail to mention the exact location. Therefore, the total process gets more complicated and lengthy.  
      Main problem of this process is that sometimes people cannot reach the hotline timely as the total communication process is manual and phone based. So if more than 5 or 6 phone calls collide at the same time, other callers find the number busy.  
      Fire calls are received by the control room of the head quarter. When they get a call they instantly try to know the exact location of fire break out and possible cause of fire. Then the massage is forwarded to nearby station via wireless. The station takes necessary steps like confirming the precise location and sending firefighters with essential equipment to the spot. It becomes difficult to find nearby water source, as no complete database is made. The whole process is very time consuming.
   2. Our proposed System:

We propose an quick alert system, using internet or android application, which will directly inform the nearby station from one’s area when a fire breaks out. Thus it freeing us from the problem of limited number of hotlines available at any time. Again we are maintaining an area based database of infrastructure which will provide us the exact location of the affected area

1. **Fire Station Management System** :
   1. Existing Scenario and Problems:   
      To maintain a fire station almost all the official works are manual.   
      Complete Worker Duty roster of the workers are not auto generating. Keeping log of firefighting resources log is also manual. All the monetary work like billing, giving salary to the non-gazette workers are manual and paper based.   
      Current duty location of fire cars are also not recorded digitally.
   2. Our proposed System:  
       We want to automate fire station’s total management system. Worker’s database will contain their total information and performances. Their duty time will be auto generated .billings will be computerized. Current location of fire cars will be tracked via computer with a smart phone. This total process will help the authority to know their system very well and well informed.
2. **Training System:**
   1. Existing Scenario and Problems:  
      Bangladesh Fire Service and Civil Defense authority has to run several training session for different officers, fire fighters and civil people throughout the year. For different types of trainee different trainings are arranged. It becomes difficult for the authority to select trainee from the workers from different stations, as no detailed complete database of workers are kept. Again for different stations different kind of training is necessary, that also has to be accurately classified.   
      For volunteer trainees existing manual application procedure is quite irritating. An automated application and processing is required.  
      Setting schedules for training and arrangement of the schedules are also not automated.
   2. Our proposed system:  
      Automated training scheduling process is proposed.  
      An automated system for selecting trainee from different stations according to station’s workers condition and necessity will be implemented. The authority will also be able to select the proper worker for proper training according to his experience and prior trainings by using the system.  
      Whole system be computerized and online, so that anyone from any part of the country can apply for taking a training as volunteer easily. Also, the selection process of the trainee for the director office will be easier.
3. **License System:**
   1. Existing Scenario and Problems:  
      For civil safety any kind of infrastructural establishments like buildings, CNG filling stations, factories required to have fire safety license according to the existing law, which is provided by Bangladesh Fire Service and Civil Defense. Now the application process for the license is manual and paper based. After the application is filled, an inspector is assigned for the inspection of the design of the infrastructure by the director general office. Everyday thousands of applications are filled, so it becomes a herculean job for the office to assign inspectors for the buildings.  
      After the inspection process is over successfully, license issued. This manual process could be much easier with an automated system.  
      Again existing licenses are to be renewed after some span of times. To keep track of the licenses and dates, there is no alternative to an automated system

Sometimes buyers and dealers need to contact the authority of fire service to check the validity of license of any infrastructure before signing a deal. But it becomes quite impossible to find all the papers in time.

* 1. Our proposed system:  
     We will implement a system that will make the whole application process online and just in time. Assignment of inspector and reporting process will be online and digitalized, so that any time progress of any license is known.  
     For old licenses monitoring and verifying process will be made computerized, that will make easier for inspector to inspect and check the validity of the license.

**Worthiness of Our project:**

In our system we are maintaining databases of infrastructure and water resources, fire history, license, workers , equipment’s which help us with any kinds of query .this will lessen our paper based work, system loss. And moreover, quick response system will contribute to higher survival rate in fire mishaps.

**Our roadblocks to this project:**

Main drawbacks of our project is maximum workers are ignorant of computer technology and they don’t know how to operate computer. Again there is a lack of efficient manpower. Creating a whole new database of infrastructure, water source, fire stations can be a time consuming process.

**Conclusion:**

Our objective is to help Fire Service and civil Defense with a well-organized management system so that they can render better service to people. We are hopeful that we can automate a part of the system that will benefit both the fire fighters and civilian.