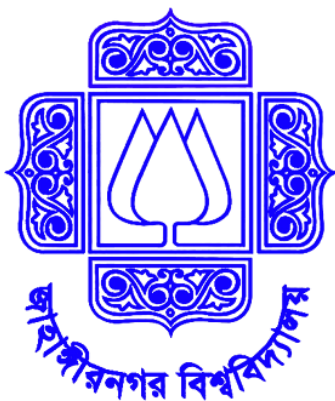


# JAHANGIRNAGAR UNIVERSITY

Institute of Information Technology



**ASSIGNMENT 1**  
**PMIT 6223 IOT & FOG COMPUTING**  
Fall 2023 Semester  
Date of Submission: October 20, 2023

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## Introduction

We are living in an era of the 4th industrial revolution, where smart technologies are taking us to a world that has massive opportunities for everybody. With this, there's also come new challenges. As a result we have to overcome these to take the advantages & grab our fair share of these opportunities. Let's talk about challenges. Here, Dhaka, the capital of our country is the 4th densely populated country of the world. And while talk about the population in Dhaka, one question is came to mind, are we all are living safe in Dhaka? Think about our garments or industrial sectors where the lower and mid-lower people are work daily. Are those places are safe while any types of disaster happens? Among them let's talk about fire. It can be cause unexpectedly, anywhere, anytime. According to the report of "TBS News" from 2016-2021 a total of 3,093 people were killed & 13,800+ were injured due to fire. The report also said the number of fires increased on average of 22%. In last year a report by fire service said a total of 117060 fires have been reported in last six years where 6,081 were in industries. Most of the time while in any area/institution got fired, the local people complain about that they can't get to reach fire service, where from the fire service also complained about the opposite. This always cause a controversy which side is correct.

## Solution

Manual fire-safety or protection material are always important. But if the massive fire occurs then we obviously need the assist of fire-service. Now, if we make any IoT device which will warn people as like the fire-alarm & also send immediate emergency telephone calls or messages to the nearest fire station as well, then the controversy of calling fire services can be removed.

# Proposed Diagram

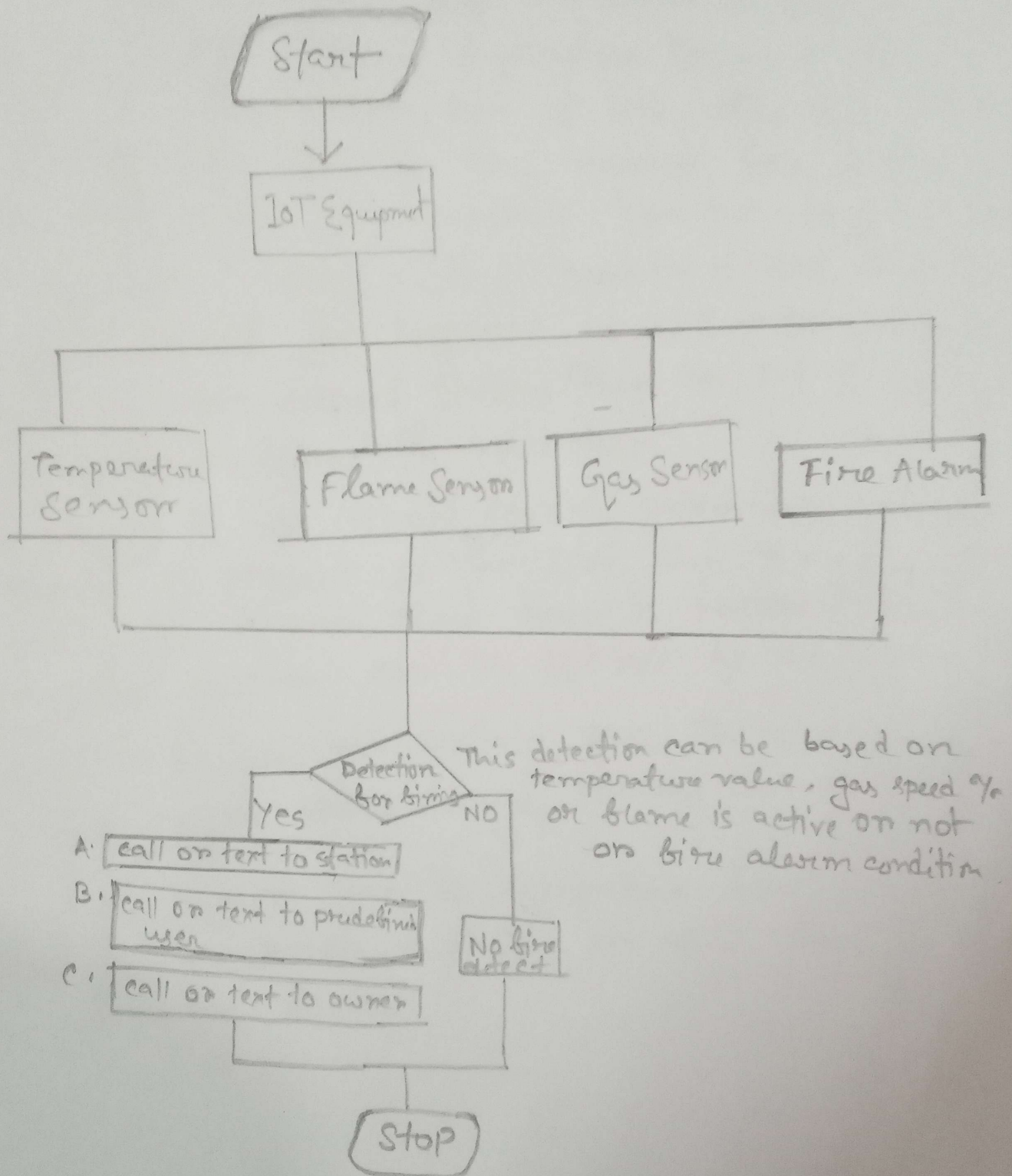


Fig: Flow Diagram of proposed system

## Equipment

Sensor : Temperature, Flame, Gas.

Others: Fire Alarm, Mobile devices,

IoT equipment: Network device or microcontroller.

## Functionality or Proposed Working System.

Main purpose of this system is monitor & track the current status of the fire alarm, temperature sensor & gas sensor etc. If the fire occurs, then it will notify the owner, the pre-defined users & the nearest fire stations via message or calls. The message type can be pre-recorded voice or text message. If currently dialed number is busy or did not get response, it will immediately try to the other pre-defined stations. Then can call or text the previous number if necessary.

There might be a remote control system. Let's say if the owner is present at the spot, then there is no need to notify the owner that firing is happened. So, then the control system can be operated by the owner.

In power failure or certain case there might be a backup power ~~proce~~ storage process can be used.

The whole system can be compatible for mobile devices like the remote-control or used through high end computer device.