



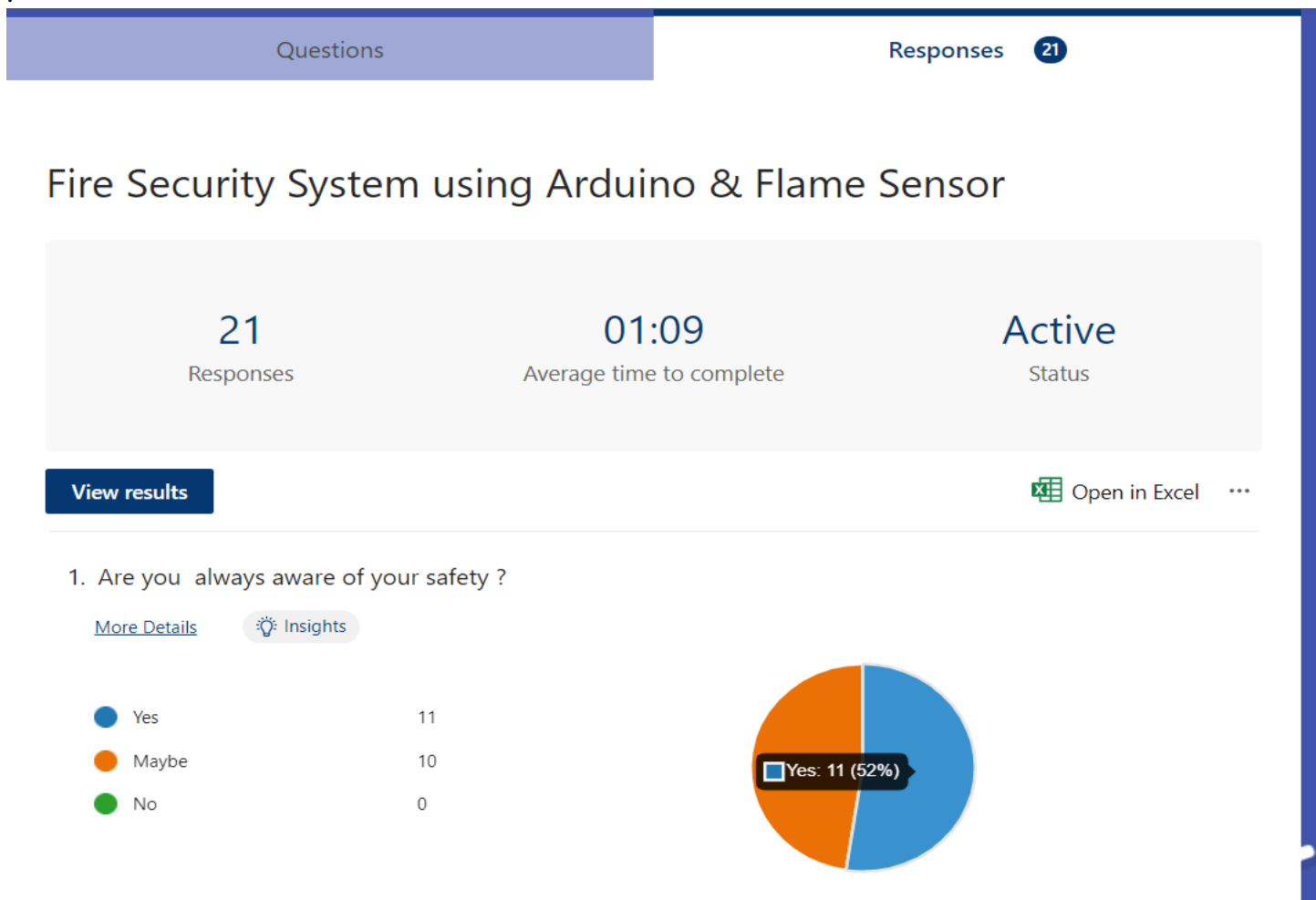
# MICROPROCESSOR & EMBEDDED SYSTEM PROJECT PROPOSAL FORM

**SEMESTER: Summer 2021-2022**

**PROJECT TITLE: Fire Security System using Arduino and Flame Sensor.**


## 1. Survey to develop a process for complex engineering problems considering cultural and societal factors (use pie chart):

This survey was conducted to develop the process for complex engineering problems considering cultural and societal factor where 21 people participated. The result of the survey is given below

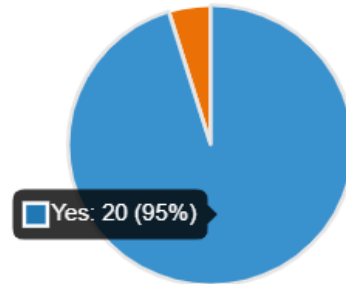


2. Do you think sometimes fire may negative impact in life ?

[More Details](#)

 Insights

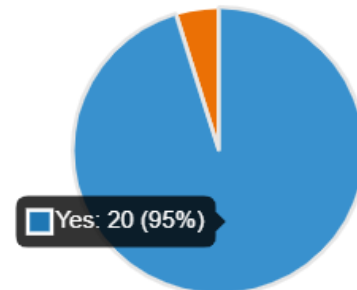
● Yes	20
● No	1



3. Do you think modern technology should be used to put out fires?

[More Details](#)

● Yes	20
● No	1

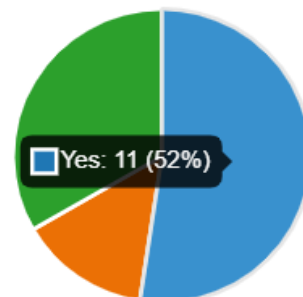


4. Do you think a technology that can detect and prevent fire and it will be helpful in real life ?

[More Details](#)

 Insights

● Yes	11
● No	3
● Maybe	7



5. Which type of technology you like to elimination fire?

[More Details](#)

- Only fire alarm system in moder... 6
- Both Fire alarm and control syst... 15

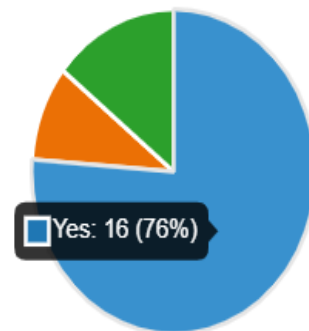


6. Do you think in our living areas as well as factories there should have fire control and fighting system ?

[More Details](#)

[Insights](#)

- Yes 16
- No 2
- Maybe 3

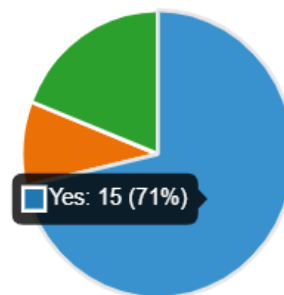


7. Do you think there needs to be a system that can easily Prevent fire ?

[More Details](#)


[Insights](#)

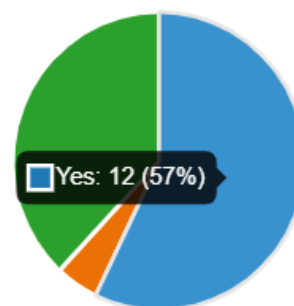
- Yes 15
- No 2
- Maybe 4



8. Would it to be easier to have a system by which fire alarm and air supplying fan be controlled automatically if there is fire occur?


[More Details](#)

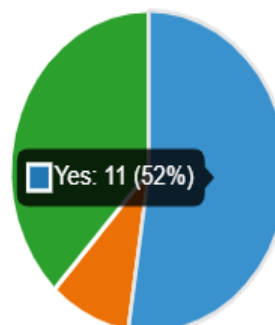
 Insights



9. Do you think fire controlling system is must be used everywhere now?


[More Details](#)

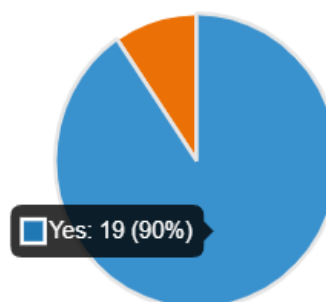
 Insights



10. Do you think that by using this fire controlling system we can reduce the death rate of people by burning in fire ?


[More Details](#)

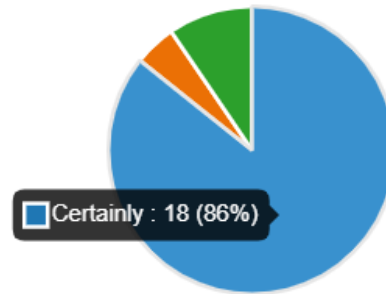
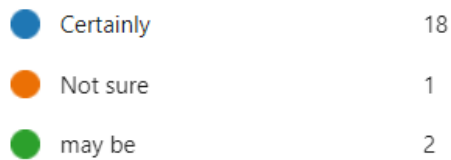
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### 11. Do you think we should work on a fire security system ?

[More Details](#)

 Insights

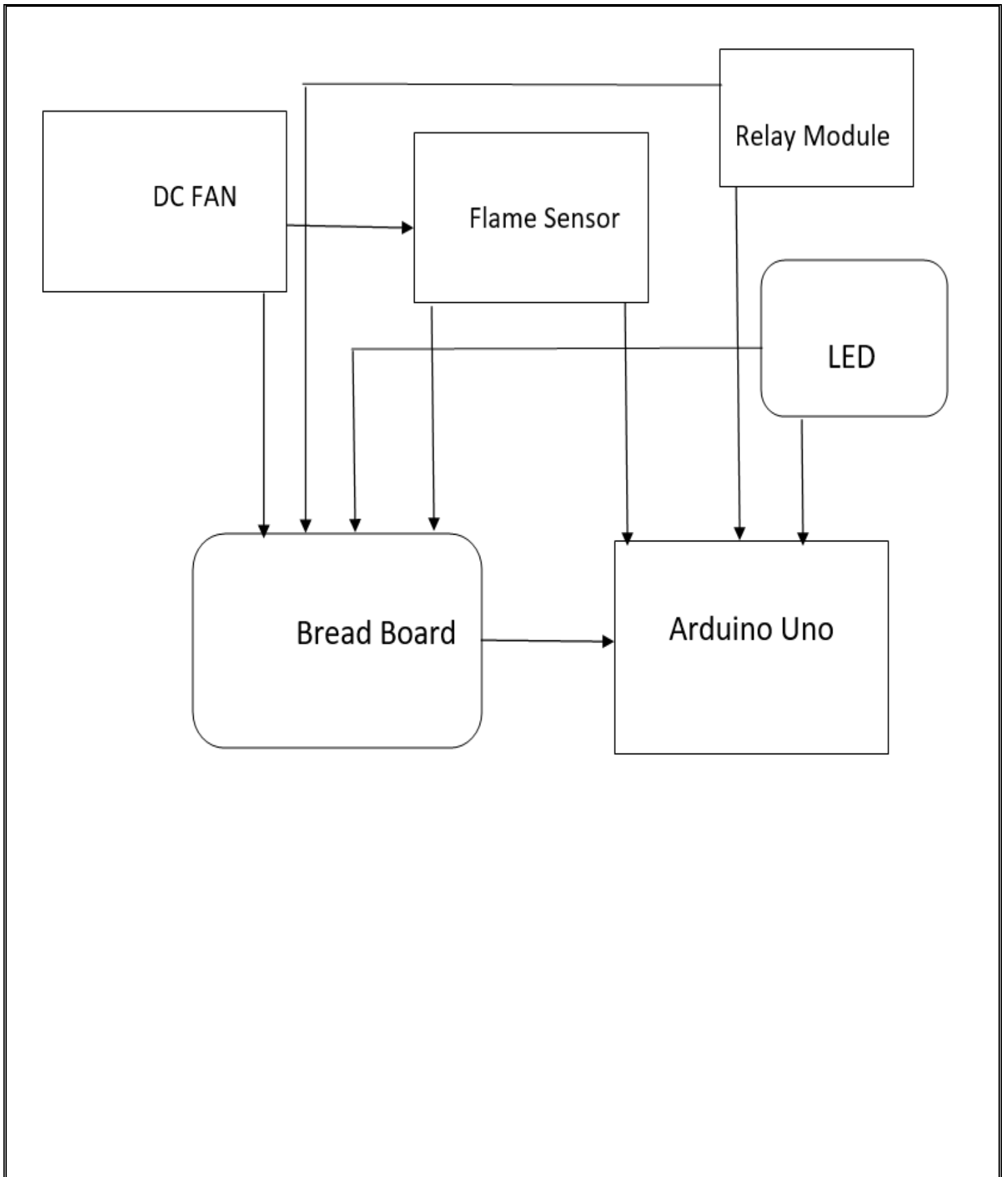


### GOALS AND BENEFITS OF PROJECT:

Our proposed project is about fire controlling/Security system using Arduino & Flame Sensor. The purpose of our project is to make a fire control system with low cost. In our project there will be fire detection system, monitoring system and appliance system. Actually this system will be an automated system. Once we deploy the system it works automatically. This technology will allow people to locate the fire occurred location as there will be automatically fire alarm system when fire occurred. Moreover, this technology has an emergency flame sensor to detect the fire and there will a fan to prevent the fire. So this project will be helpful for people who live in such areas which are more likely to catch fire. The main features of our proposed project is to make it with low cost so that people can easily afford it and implement it simply so that people can use it's functionality without any difficulties.

### EXPERIMENTAL BLOCK DIAGRAM:





## PROJECT TIMELINE(GANTT CHART):

Activity Key	JULY				AUGUST			
	Week1	Week2	Week3	Week4	Week1	Week2	Week3	Week4
Idea Generation	■							
Survey Making		■						
Goals & Benefits		■						
Research			■	■				
Reviewing				■				
Gathering Information					■			
Gathering Components					■			
Model Design					■	■		
Connecting Components						■		
Simulation							■	
Testing							■	
Documentation							■	■
Final Review								■

## REFERENCES:

1. Ashwini C 1 , Delfin.S 2 , Nelluri Harinadh 3 ,” Smart Fire Alarm System Using Arduino”, Volume 7, Issue 5, May (2019)
2. Zephaniah Shiwalo Obanda, “Multi-sensor fire detection system using an Arduino Uno microcontroller”, 2017
3. Abdennabi Morchid, Rachid El Alami, Hassan Qjidaa, Mustapha El Alaoui, Hassan Touati,



Karim El Khadiri & Mohammed Ouazzani-Jamil, “Fire Safety System Implementation for Controlling and Monitoring a Siren in Smart Farm Using Gas Sensor and Flame Sensor”, International Conference on Digital Technologies and Applications ICDTA 2022: Digital Technologies and Applications pp 733–742

4. Md Iftekharul Mobin<sup>1</sup> , Md Abid-Ar-Rafi<sup>2</sup> , Md Neamul Islam<sup>3</sup> , and Md Rifat Hasan<sup>4</sup>,” An Intelligent Fire Detection and Mitigation System Safe from Fire (SFF)”, International Journal of Computer Applications (0975 - 8887) Volume 133 - No.6, January 2016
5. Vedashree J., Abinaya S, Ganesh Babu C, Muchenedi Hari Kishor,” Fire monitoring system using RF module”, ISSN: 2454-132X Impact factor: 4.295 (Volume 5, Issue 2)
6. Manzar E Hassin, Adnan Al Neon; Sal Sabila, Rashedur M. Rahman , “Smart Fire Detection and Security System”, 2021 IEEE 12th Annual Ubiquitous Computing, Electronics & Mobile Communication Conference (UEMCON)

#### FOR FACULTY USE ONLY

#### COMMENTS BY COURSE TEACHER:

**COURSE TEACHER'S NAME**

**COURSE TEACHER'S SIGNATURE**

**DATE**

# GROUP MEMBERS

(Maximum 8 students are permitted to carry out a single Project. However, depending on the capability of the students, 5 number of students may be allowed but not less than that)

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REMARKS (for OFFICE use only)	