# **Mini Project Documents**

#### Sinhgad Technical Education Society's



#### SINHGAD ACADEMY OF ENGINEERING

(Affiliated to University of Pune and Approved by, AICTE, New Delhi.)

S. No. 40/4 A. Near octroi Post, Kondhwa –Saswad Road, Pune – 411048.

★: (020) 26934441, 26934550, Fax: 020- 26934297,

E-mail: saeprincipal@sinhgad.edu, Website: www.sinhqad.edu

#### Department of Electronics and Telecommunication

Date: 15/02/2021

## **Notice**

All TE students are informed to form the groups and select the topic for Mini Project. Register your groups and topic to Mrs. V M Sardeshmukh up to 18/02/2021.

Maximum students in one group are 3 students.

(Prof. V.M. Sardeshmukh) ESMP Coordinator (Prof. K. M. Gaikwad) HOD, E&TC

Class

TEA -

Notice Brand

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E-mail: saeprincipal@sinhgad.edu, Website: www.sinhgad.edu

### Department of Electronics and Telecommunication

Date: 22/03/2021

## **Notice**

All TE students are informed to note that week 30/03/2021 to 02/04/2021 will be observed as internal submission and presentation week for ESMP. GroupWise presentation will be taken for Mini project.

(Prof. V.M. Sardeshmukh) Mini –Project Coordinator (Prof. K. M. Gaikwad) HOD, E&TC

Class

TEA -

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## Department of Electronics and Telecommunication

Date: 22/02/2021

# **Notice**

All TE students are informed to submit the synopsis of respective topic on or before 26/02/2021

(Prof. V.M. Sardeshmukh) Mini -Project Coordinator HOD, E&TC

Class

TEA -

	Sinhgad'	lechanical Education Societys		
	Sinhgad	Academy of Engineering Kondhwa		
	Dept of E	lectronics & Telecommunication		
	Group for	TE Mini Project - Academic Year 20:	20-21	10
Group No	Roll num		NAME OF THE PROPERTY OF THE PR	
Group NC	ETTA001		Title of Mini Project	Guide
	ETTA001	JHA SAURABH BHAGWAN JYOTSHNA KUMARI		
G1	ETTA035	MANIJA KAMLE	-	
	1	MANUEL MANUEL	GSM based notice board	VMS
G2	ETTA003	PATEL AMAN BASHA		
	ETTA004	SAMICHHA RANA	Bidirectional Visitor Counter using 8051	
	ETTA005	URWESH SUNIL CHAUDHARI	Microcontroller	VMS
			Wild County Cher.	VIVIS
G3	ETTA006	ATUL DHARNE		
	ETTA008	NIKHIL SONJE	Short range radar system using 8051	
	ETTA025	SANKET MALLAWAT	microcontroller	VMS
	FTTANA			***************************************
	ETTA010	RAHUL WARKHADE		
G4	ETTA011 ETTA039	ANUP SARODE		VMS
04	E11W038	SAURABH MURALIDHAR MAHAJA	Temperature Controlled DC Fan	
	ETTA012	Aditya Malode		
	ETTA021	ANIKET S.DUBEY		
G5	ETTA022	KHILARE SHAMBHURAJ SHAMRA		
	1000	SHAMRA SHAMRA	Gas Detection Using PIC	
7-5-1	ETTA013	TEJAS SHINDE		
G6	ETTA038	TUSHAR PARMESHWAR SABLE	Engeleting and desired at 1400	
		TO STATE OF THE ST	Encryption and decryption for Military	VMS
	ETTA014	REWATI SADAFALE	Microcontroller based Overheat detector	
20000	ETTA019	MAANAS VHORA	using Temperature Sensor with Buzzer	
G7	ETTA032	DURGA SUBHASHCHANDRA KAR	Indication	1010
			ind-casion.	VMS
	ETTA015	RUTUJA SAKHARE		
	ETTA023	JAMADAR FIZA ABBASALI	Alcohol detector with buzzer indication using	
	ETTA09	SAINATH RASANE	Microcontroller	VMS
				VIVIO
	ETTA016	SAHIL RAMTEKE		
	ETTA020	SHASHIKANT GUJAR	ASSESSMENT OF THE PROPERTY OF	
799	ETTA043	SAGAR DESH BHRATAR	GSM based security system	VMS
	ETTA028	ADITYA YAYADE		
	ETTA036	ADITYA KAKADE VISHWAJEET JAGTAP		
G10	ETTA042	ATUL YADAV	Automatic sanitizer dispenser with live covid-	
	2.111012	ATOL TADAY	19 updates	VMS
	ETTA017	AADISH GONDHALEKAR		
	TTA026	ROHAN SHRIVASTAV		
	TTA027	MUKUL SUNIL BISEN	smart mirror union couch country	
		7.55	smart mirror using raspberry Pi	VMS
	TTA033	DHANSHRI LONKAR		
G12 E	TTA040	MAHIMA KUMARI		VMS
	TTA041	BHAGYASHRI DESHMUKH	Vater level controller using 8051 microcontrolle	
			- Fring 4491 (merocondrolle	VIVIO
	TTA029	ADITYA KANIMAR		
-	TTA030	AADITYA KIRAN KHANDKE	Meanwayane dayona and annear annear	
313 E	TTA031	ABHUAT THAKARE	Student attendance using RFID and 8051	VMS
_				
12	TTA037	AKASH BIRADAR		
G14 E	TTA024	VAIBHAV BHALERAO	9	
	TTAU34	SOHAM WADHONKAR	AT DANK BUILDING	
		STEM DOWN INDER	IoT Based Patient Health Manitoring System	VM5
	TTA007	RISHIKESH LIMBKARI		
	TTA044	ANANT ZENDEKAR	Figure Brint horsed From 11-11 A. III.	
	The street of the second	DHANADE NILESH	Finger Print based Exam Hall Authentication	(\$100.00)
		Manager and American	System	VMS
316 ET	TTA018	KADAM UNMESH		
	TTA045	RUSHIKESH KHEDEKAR		
	TTA047	SONAWANE	Simple Programmable Robotiv Arm	1/140
			Province incoder will	VMS

MXS. V. M Sardelhmukh John John

H. O. D.

Dept. of Electronic &

Telecommunications

SMMGAD ACADEMY OF EMGG

Kondhwa (Bk), Pene - 48





This is to certify that the project report entitled

# ALCOHOL DETECTOR WITH BUZZER INDICATION USING MICROCONTROLLER

Submitted By

RUTUJA D. SAKHARE FIZA A. JAMADAR

SAINATH H. RASANE

EXAM NO: T150433015

EXAM NO: T150433018

EXAM NO: T150433045

Is a bonafide work carried out by them under the supervision by Prof. Mrs V. M. Sardeshmukh and it is approved for the partial fulfilment of the requirement of Savitribai Phule Pune University for the Employability Skill and Mini Project in the Third Year of Electronics and TelecommunicationEngineering.

This project report has not been earlier submitted to any other institute or University for the award of any degree or diploma.

Prof. V M Sardeshmukh

Dr K. M. Gaikwad

Dr K. P. Patil

Project Guide

H.O.D

Principal, SAOE, Pune

Place: Pune

Date: 13 | 06 | 21





This is to certify that the project report entitled

# Bidirectional Visitor Counter Using 8051 Microcontroller and Buzzer

Submitted By

AMAN PATEL SAMICHHA RANA URWESH CHAUDHARI

EXAM. NO: T150433042 EXAM. NO: T150433054 EXAM. NO: T150433067

Is a bonafide work carried out by them under the supervision by Prof. Mrs V. M. Sardeshmukh and it is approved for the partial fulfilment of the requirement of Savitribai Phule Pune University for the Employability Skill and Mini Project in the Third Year of Electronics and TelecommunicationEngineering.

This project report has not been earlier submitted to any other institute or University for the award of any degree or diploma.

Prof. V M Sardeshmukh

Dr K. M. Gaikwad

Dr K. P. Patil

Project Guide

H.O.D

Principal, SAOE, Pune

Place: Pune

Date: 13 | 06 | 24





This is to certify that the project report entitled

#### LPG Gas Leakage Detection and Alert System

Submitted By

ADITYA MALODE ANIKET DUBE SHAMBHURAJ KHILARE EXAM NO: T150433035 EXAM NO: T150433015 EXAM NO:T150433030

Is a bonafide work carried out by them under the supervision by Prof. Mrs V. M. Sardeshmukh and it is approved for the partial fulfilment of the requirement of **Savitribai**Phule Pune University for the Employability Skill and Mini Project in the Third Year of Electronics and TelecommunicationEngineering.

This project report has not been earlier submitted to any other institute or University for the award of any degree or diploma.

Prof. V M Sardeshmukh

Dr K. M. Gaikwad

Dr K. P. Patil

Project Guide

H.O.D

Principal, SAOE, Pune

Place: Punc

Date: 13 (06/2)





This is to certify that the project report entitled

### **GSM** based Home Security System

Submitted By

SAHIL RAMTEKE SAGAR DESHBHRATAR SHASHIKANT GUJAR

EXAMNO:T150433052 EXAM NO: T150433009 EXAM NO:T150433059

Is a bonafide work carried out by them under the supervision by Prof. Mrs V. M. Sardeshmukh and it is approved for the partial fulfilment of the requirement of Savitribai Phule Pune University for the Employability Skill and Mini Project in the Third Year of Electronics and TelecommunicationEngineering.

This project report has not been earlier submitted to any other institute or University for the award of any degree or diploma.

Prof. V M Sardeshmukh

Dr K. M. Gaikwad

Dr K. P. Patil

Project Guide

II.O.D

Principal, SAOE, Punc

Place: Pune

Date: 13/06/21





This is to certify that the project report entitled

# Automatic Fan speed control system Using microcontroller

Submitted By

RAHUL WARKHEDE ANUP SARODE SAURABH MAHAJAN EXAM NO: T150433070 EXAMNO:T150433055 EXAM NO:T150433032

Is a bonafide work carried out by them under the supervision by Prof. Mrs V. M. Sardeshmukh and it is approved for the partial fulfilment of the requirement of Savitribai Phule Pune University for the Employability Skill and Mini Project in the Third Year of Electronics and TelecommunicationEngineering.

This project report has not been earlier submitted to any other institute or University for the award of any degree or diploma.

Prof. V M Sardeshmukh

Dr K. M. Gaikwad

Dr K. P. Patil

Project Guide

H.O.D

Principal, SAOE, Pune

Place: Punc

Date: 13 |06 | 21



## SINHGAD ACADEMY OF ENGINEERING KONDHWA, PUNE-411048

### SAVITRIBAI PHULE PUNE UNIVERSITY

### DEPARTMENT OF ELECTRONICS AND TELECOMMUNICATION ENGINEERING

T.E. (E&TC) - 2020-2021

#### PROJECT SYNOPSIS ON

## "Temperature Controlled DC FAN"

#### Submitted by

Sr.N	o. Name	Roll no.
1.	Rahul Warkhede	ETTA010
2.	Anup Sarode	ETTA011
3.	Saurabh Mahajan	ETTA039

Guided by

Prof. V.M.Sardeshmukh

#### Introduction

Electric fan is one of the mostpopularelectrical devices due to its cost effectiveness andlowpower consumption advantages. It is a commoncircuitand widely used in many applications. It is also one ofthemost sensible solutions to offer a comfortable andenergy efficient. In fact, the fan has been long used and still available in the market.

Nowadays, the demand for accurate temperature control and air freshening control has conquered many of industrial domains such as process heat, automotive, industrial places or office buildings where the air is cooled in order to maintain a comfortable environment for its occupants. One of the most important concerns involved in heat area consist in the desired temperature achievement and consumption optimization. Fan can be controlled manually by pressing on the switch button, where in this method, any change in the temperature will not give any change in the fan speed, except the usage change the speed of the fan which is manually. So, an automatic temperature control system technology is needed for the controlling purpose in the fan speed according to the

temperature changes.

Many researches focusing on automatic temperature control system application in different fields will gain the benefits. For examples, an automatic temperature controller for multi-element array hyperthermia systems, multi-loop automatic temperature control system design for fluid dynamics, design of automatic temperature-control circuit module in tunnel microwave heating system, the automatic temperature system with Fuzzy self-adaptive Proportional-Integral-Derivative (PID) control in semiconductor laser.

This paper will show how PIC16F877A microcontrollers can be used and applied in a real-world application. One practical use is to integrate a microcontroller in a temperature control system that can be used for automatically controlling a roomtemperature.

#### LiteratureSurvey

Automatic controls play an ever-increasing role in a human way of life. Automatic control is vast technological area whose central aim is to develop control strategies that improve performance when they applied to a system, the distinct characteristic of automatic control is that it reduces the human operator. One such gadget is the fan. The fans are generally available with speed control, depending on the requirement the speed is set. Usually, when the temperature is high the fan set at high speed and at lower temperatures the fan is operated with lower speed. This is done manually using human. In this paper, an automatic control solution is suggested to control the fan speed. A circuit with LM35DZ temperature sensor, PIC16F877A microcontroller, brush less DC

motor and few of electronic components is designed and implemented to control the fan speed automatically. As an additional feature LCD is used to present the temperature and the fan speed. Finally, the designed system circuit is tested in many times and performed verywell.

#### Motivation

Controllers like pid ,Arduino ,89s52 are either costly or too complex. Also controllers like 8051 have less functions and don't have inbuilt adc. So we used pic micontroller for AGM which is cost effective, less complex and has more functions.

#### **ProblemStatement**

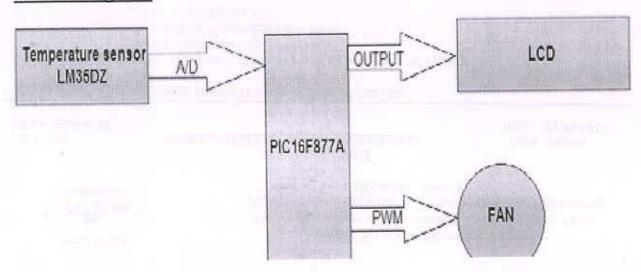
The problem happens when the ac fan is still functioning although in the event of cold weather. The function is uncontrolled and must be manually turned on and off or reduced the speed of the fan. Sometimes it can lead to high usage of electricity which in turn raises the electricity bill when the user forgot to switch it off. The system also does not have the capacity to adjust the room temperature regardless of the ambient temperature. To address the problem, the automatic temperature control ac fan that can control the temperature automatically is proposed. The advantages of such a system are less energy usage, and provides more convenient to the consumers.

#### Objective

The main objective of this study is to discusses about temperature controlled fan block diagram, working of each block and properties. At the end of this work student involved shall also be able to:

- 1. To control the speed of a dc fan.
- 2. To design a controller using temperature sensor.
- To analyses the performance of the controller.

#### **Block Diagram**



#### COMPONENTS

The microcontroller PIC16F877A, is the heart of the system. It accepts inputs from the temperature sensor, LM35 which allows for the measurement of the current room temperature, then the controller will give the action to maintain the required fan speed. LCD is used to display the fan speed and room temperature.

#### Software Tools used:

Proteus 8 Professional

#### Conclusion

This design and construction of fan speed control system is to control the room temperature using Temperature sensor and PIC microcontroller. As conclusion, the system which designed in this work was perform very well, for any temperature change and can be classified as automatic control.

#### Reference

- I. B. LEVĂRDĂ and C. BUDACIU, "The Design Of Temperature Control System Using Pic18f46201," 2010.
- Data sheet, LM35 Precision Centigrade Temperature Sensors, National Semiconductor, Nov., 2000
- 3 .Microchip, Brushless DC (BLDC) Motor Fundamentals, July 2003
- T. C. Lun, Microcontroller for Variable Speed BLDC Fan ControlSystem, Freescale Semiconductor.
- 5. Data sheet, 16 x 2 Character LCD.