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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Contact Management System using C programming"

Submitted By,


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| Athmashree H A | 4AL20CS026 |
| Arav Hanshik | 4AL20AI005 |
| Mohammed Bilal | 4AL20CS075 |
| Raksha | 4AL20CS107 |


Under the Guidance of


Mr. Pramod V B
Department of Mechanical Engineering


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DEPARTMENT OF BASIC SCIENCES
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2020–2021

# ALVA'S INSTITUTE OF ENGINEERING AND TECHNOLOGY

## MIJAR, MOODBIDRI D.K. -574225

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The bonafide students of **Department of Basic Sciences, Alva's Institute of Engineering and Technology,** affiliated to VISVESVARAYA **TECHNOLOGICAL UNIVERSITY, BELAGAVI,** during the academic year 2020–2021. It is certified that all corrections/suggestions indicated for Internal Assessment have been incorporated in the report. The report has been approved as it satisfies the academic requirements in respect of Micro-Project work prescribed for Bachelor of Engineering.

**Mr. Pramod V B**
**Mini Project Guide**

**Dr. Ramaprasad A.T,**
**HOD Physics**

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## ABSTRACT

In this project, people can do things like create a new contact for a person with their name, phone number, address, and email address. This is where one can find a list of all of the contacts in their contact file. One can also edit the name, phone number, or address of any contact, as well as delete any account. This project is similar to a phonebook or an electronic notebook for keeping track of people's contact information. The only difference is that this is a straight forward C programming console project. The contacts can be sorted by name, address, and email address. The file handling method is used to save the data in the file. We will only be able to comprehend this project after running the source code

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "A project on maintainance of pending works:Qheap SPEEDES"

Submitted By,


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| Shreyas | 4AL20AI041 |
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Under the Guidance of


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## ABSTRACT

For maintaining its set of pending events in ascending time order, the Synchronous Parallel Environment for Emulation and Discrete-Event Simulation (SPEEDES) now uses the SPEEDES Qheap, a new general-purpose priority queue data structure. For large numbers of elements, empirical tests have demonstrated that this data structure outperforms more standard priority queue data structures without breaking down. The SPEEDES Qheap needs to do two operations: (1) inserting time-tagged events (time denotes an event's priority — low time means high priority) and (2) removing the event with the least time tag. Because events that may generate future occurrences must always be handled in ascending temporal sequence, these activities aid SPEEDES in preserving causality.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

# "A technique for Cricket Scorecard Management using C"

Submitted By,


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| Awez Ahamed | 4AL20AI007 |
| Monika L R | 4AL20CS080 |
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## ABSTRACT

The Cricket Scorecard Management System is a straightforward project written in the C programming language. This project employs the method of file management, in which data such as runs, player names, wickets, and strike rates are saved in a file. When the project is completed, the welcome screen with the main menu appears first. There will be three options available on the menu: new score sheet, view score sheet, and exit. If user pressed 1, the project will prompt user for the name of the file where the data will be saved. After creating a file, the user begins entering data, which is then saved in the specified file. After user entered his/her data, the software will prompt the user to press 'e' to edit or 'c' to proceed. The departure, which closes the project, is the final choice

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Bank Management System using C"

Submitted By,


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| Rahul | 4AL20CS106 |


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## ABSTRACT

In this project, one may do things like create a new contact for a person with their name, phone number, address, and email address. This is where one can find a list of all of the contacts in his/her contact file. One can also edit the name, phone number, or address of any contact, as well as delete any account. This project is analogous to a phonebook or an electronic journal, which are used to keep track of people's contact information. The only distinction is that this is a simple C console project. One may sort the contacts by name, address, and email address. The data in the file is stored using the file handling mechanism. Only after running the source code one can be able to comprehend this project

B19

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "C Program based Cyber Management System"

Submitted By,


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## ABSTRACT

To store the data in the file, the project employs the notion of file management. This project makes use of well-known technologies such as multithreading and sockets. The Cyber Management System project will be extremely beneficial to programmers who are just starting out and want to learn how to code. This project is split into two sections, one for the client and the other for the server. Each component has its own set of source codes. The client will allow access to the cyber services for the clients, while the server will handle the settings. The two, namely the server and the client, are in sync with one another. The Cyber Management System's job is to connect the various computers in the Cybercafes so that the user can talk with every computer in the lab. This project is primarily aimed at the multi-client cyber cafe

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "School Billing System using C Program"

Submitted By,


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## ABSTRACT

The best C programming project is the School Billing System, which is a console-based project with no visuals. This is the greatest time to submit this assignment during our first year of college because it will have an impact on our grades. This project enables us to bill under two different sorts of accounts: one for workers and the other for teachers. During the project's execution, one will not find a single mistake. The school billing system employs file management techniques as well as data structures and functionalities. This will assist us in gaining a better understanding of the C programming language

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "A novel method for Departmental Store Management System"


Submitted By,

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| Gurulikhith | 4AL20CS043 |
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2020–2021

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This is to certify that the Micro-Project entitled **"A novel method for Departmental Store Management System"** has been Successfully Completed by

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**Mini Project Guide**

**Dr. Ramaprasad A.T,**
**HOD Physics**

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## ABSTRACT

The Departmental Store Management System is a graphical-free console-based application written in the C programming language. This programme may be used in any department shop where one can add, modify, search, delete, and show product information. This project also employs the file handling approach, which allows us to save all of the goods data, such as rate, product name, and price, in a single file. The data is saved in the file, and one can access it at any time. The void gotoxy(int x, int y) function is utilised in this project. This feature enables the user to print text from any location on the screen. Because of its length, we haven't mentioned the source code

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "A Project for Student Management System"

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| Rachana Nayak | 4AL20CS104 |


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## ABSTRACT

Because of the design employed in this project, the Student Record System is the best of all the projects described above. The file handling approach is used to keep track of student records in a single file. This file serves as a database for this project, allowing us to conduct actions like inserting records, modifying records, searching for records, and deleting records. One of the most appealing aspects of this project is the ability to generate student grade sheets. The console window in this project is divided into two parts: one that is static and does not change, and the other that is dynamic and changes over time. The text is coded in a variety of colours, making it visually appealing. The code is incomplete, and the project will need to be updated. Code was used to create this project. Blocks created with the GCC compiler

B85

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-

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A MICRO PROJECT REPORT ON

# "Hangman Game Project using C"

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## ABSTRACT

The Hangman Game is a very simple project created in C to demonstrate that games can also be created in C. This game project's coding is done in such a way that the user finds the game to be very engaging while playing it. During the development of the project, no graphics, user-defined functions, or user-defined header files were used. The hangman project is designed to be extremely user-friendly. With the help of the GCC compiler, this project is created in the IDE code:: Blocks. When we start the game, we'll be asked to guess one character. The user is given five attempts to guess the characters

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Library Management System using C Programming"

Submitted By,


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## ABSTRACT

The Library Management System is a console-based, non-graphics application written in the C programming language. The compiler used to create the project is code:: Blocks, which is based on the GCC compiler. The file handling approach is used to save book data in a specified file. One can execute actions such as returning books, storing book and student information, and issuing book information. In fact, one can do operations similar to those performed by the Real Library. After running this programme, one will have a good understanding of how the operations in the library are carried out

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "A novel Medical Store Management"

Submitted By,


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| Mokshith | 4AL20EC024 |
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## ABSTRACT

With the help of the Medical Store Management System Project, one may insert, delete, and edit customer, pharmaceutical, and supplier records that have been added to the stock. This project is a graphics-free console application. This project's source code is extremely long and error-free, and it was created and compiled using the Code:: Block IDE and the MinGW compiler. Because the method of file handling is utilised extensively to save the data in a particular file, this project is quite complete. .The use of Data Structure is also done for storing and organizing the data

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–

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A MICRO PROJECT REPORT ON

# "Pacman Game Project using C"

Submitted By,


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| S Vishwesh Nayak | 4AL20CS120 |


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# CERTIFICATE

This is to certify that the Micro-Project entitled **"Pacman Game Project using C"** has been Successfully Completed by

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**Mr. Pramod V B**
**Mini Project Guide**

**Dr. Ramaprasad A.T,**
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## ABSTRACT

The snake game in this project resembles Pacman to some extent in that it will be driven along a predetermined course. The Pacman eats or erases the specified blue path as he moves along it. The more you eat the path, the higher your score will be. This game application is simple to use and gives the impression of playing the genuine game. This project is a console-based programme aimed at providing amusement. With the help of the GCC compiler, this project was created in the C language utilising code

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–

590 018

A MICRO PROJECT REPORT ON

# "Network Monitoring System to perform real-time monitoring"

Submitted By,


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| Gagandeep M Donkannavar | 4AL20CS040 |
| Adith P Kotian | 4AL20CS006 |
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## ABSTRACT

The local administrator can use the Network Monitoring System to perform real-time monitoring, data collecting, data analysis, and transfer. Administrator has options for new user registration, updating and deleting user accounts, enabling or disabling user accounts, time allotment of users, viewing system details of any user, viewing hardware and software defects in any system connected through the network, capturing the system of any user using his system, detecting network failure, and accessing full control of any user at any time. When an administrator discovers that a user is engaging in illegal behaviour, he can suspend or terminate that user's account.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

# "TELEPHONY APPLICATION USING PROGRAMMING INTERFACE"

Submitted By,


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| James Joseph | 4AL20CS052 |
| Monisha M | 4AL20CS081 |
| Mohammed Sharfuddin | 4AL20EC023 |


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## ABSTRACT

This project Telephony Application Using Programming Interface (TAPI) allows applications to control telephony functions between a computer and telephone network for data, fax, and voice calls. It includes basic functions, such as dialing, answering, and hanging up a call Call someone by clicking on their picture or other image Use a similar graphical user interface (GUI) to set up a conference call and then attend the call at the scheduled time, See who you're talking to individually or at a conference call, Add a voice note to an e-mail note you send or listen to a voice note attached to an e-mail note you receive, Program your computer to automatically receive phone calls from certain numbers (but not from others), Send and receive faxes, Do these things from a portable wireless cellular telephone telephone/computer as well as from a desktop computer.

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Calendar Project using C language"

Submitted By,


| | |
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| Keerthna K | 4AL20AI020 |
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## ABSTRACT

This Calendar application can basically perform three major tasks: determining the day that corresponds to a given date, month, and year; and determining the day that corresponds to a given date, month, and year. After one runs the code, navigate using the arrow keys on your keyboard. Next should be pressed with the key 'n,' and prior with the key 'p.' The utilisation of the file-handling technique is one of the most appealing parts of this programme. With the help of this great feature, one may add important notes to certain dates. The calendar programme is primarily based on a console with no graphics. The month's days are highlighted in white, while Sundays are highlighted in red.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

# "APP TO TRACK THE MOVEMENT OF BUS"

Submitted By,


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| Likhith C G | 4AL20CS065 |
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## ABSTRACT

Many people in the society travel through public transportation mainly buses. To track the distance between the user and bus and time required for bus to reach the bus stop can be obtained through GSM. By using advanced technologies such as RS232 serial communicator, MAX232 IC. The detailed explanation is given in the paper

B2

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "A Zigbee Based Wireless Sensor Network for Sewerage Monitoring"


Submitted By,

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## ABSTRACT

Sewage blockages are a major source of sewer floods as well as pollution. If water companies do not provide a realistic way to prevent flooding, they will face heavy fines and huge operational costs. As a result, sewer condition detection is required on a regular basis in order to determine the best course of action for resolving this serious issue.This study describes a unique low-cost wireless sensor technique for proactively detecting obstructions and transmitting event data to a central control centre. The suggested WSN will be shown in a real-world setting in an urban setting. Furthermore, the difficulties of this technology in a field experiment, as well as the data collected in terms of sensor and communication dependability, were discussed

B14

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Card Based Security System"

Submitted By,


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**Dr. Ramaprasad A.T,**
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## ABSTRACT

This is a microprocessor-based security system that can identify cardholders based on name references. Specific passwords for individual cardholders are also used to control access to any given point. The system will play an audio alert if an erroneous password is entered. This is a high-security, low-cost project that may be executed in a variety of security zones.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Based on a microcontroller Identifier for Power Theft"

Submitted By,


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## ABSTRACT

Science and technology, with all of its wondrous developments, has captivated human life to such a degree that it is difficult to imagine a world without them. While technology is progressing, we need also be aware of the rise in unethical actions. From a technical standpoint, "Power Theft" is a serious crime that is all too often and has a direct impact on a country's economy.

B20

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Through the Power line,you may regulate on /off and send data"

Submitted By,


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**Dr. Ramaprasad A.T,**
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## ABSTRACT

The concept of delivering information via the electrical power distribution network as a communication channel is known as power line communications (PLC). This technique allows information to flow over the same wiring that provides power. This unique communication concept aids in the bridge-building of the electrical and communication networks. It opens up the possibility of creating intelligent buildings with a large number of devices connected via a Local Area Network.

The use of the Internet has increased in recent years. If this type of network connection could be provided across the power line, utilities may potentially become communication providers, a fast developing business.

B30

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "A simple Employee Record Management System"


Submitted By,

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## ABSTRACT

As the name implies, one may have a concept for this project. The data is stored in a specified file using the file management method. This is a pretty easy project that allows us to manage the data of employees who work for a particular firm or organisation. Using this project as a guide, one will learn how to do file operations such as inserting, editing, and deleting data from a file. The main drawback to this project is that one can just list the data, not search for specific data items. one can alter this programme using certain ides if one can have an understanding about searching techniques in C

B33

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Micro Controller based Dissolving Process Controller"

Submitted By,


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## ABSTRACT

Micro Controller Based Dissolving process controller is used in plants to make solution or to mix two chemicals in a desired amount. Here it is used to make solution of aluminium chloride. With that we can reduce the man power needed. Moreover it is also provided with the options of an administrator who can decide and control the amount and this facility is protected with password.

B36

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Local PCO Meter | Electronics Project"

Submitted By,


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| Anusha | 4AL20CS021 |
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**Mini Project Guide**

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## ABSTRACT

This is the project were the capable of barring STD,ISD and moblie calls this STDsare very important for those who didn'thavethe sell phones and also help the poor people and for us also when we are in critical conditions , certain manual entries have to be made in the caculator for example , for pluse rate of Rs 1.26, number 1.26is to be entered after switching 'on' the calculator followed by pressing of '+' button twice on- hook condition is represented by existance of 48v to 52v across the line. whether it's a working-day or holiday on receipt of 16kHz pulse,output pin 8 of IC LM567 goes 'low' for duration f the pluse

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

# "STREET LIGHT MONITORING AND CONTROLS IN REAL TIME USING GSM TECHNOLOGY"

Submitted By,


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| Arihant Mahaveer Sagare | 4AL20CS022 |
| Vignesh | 4AL20ME022 |
| Manjunath I Konesagar | 4AL20CV009 |


Under the Guidance of


Dr. Shashi Kumar K
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2020–2021

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## ABSTRACT

Street light is a raised source of light that is commonly used along walkways and streets when the surrounding turns dark. Nowadays, most of the existing street light systems are wired which are not only difficult to construct but also has poor flexibility. To overcome this, wireless system is required. In this report, we are using GSM technology which uses power efficiently by remotely monitoring and controlling the system. This system will ease the fault detection and maintenance. System allows us to make the most efficient use of the energy received from the sun to power street lights. Solar energy is collected with the aid of solar panel and battery is charged during day time and this energy is used to power street lights during night. Developed intelligent system turns the light ON and OFF depending on the vehicle or pedestrian movement, Real Time Clock and light intensity at the same time. Microcontroller processes the information from the sensors and is transferred to nearby control terminal (Base station with Raspberry PI as a compute module) to monitor the status of the street lamp using GSM technology via Short Message Service (SMS)

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

# "DIGITAL STOPWATCH"

Submitted By,


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## ABSTRACT

Stopwatches are used as time keeping device in many fields, usually in sports. Stopwatch is of two types ANALOG AND DIGITAL, but mostly digital stopwatch are used owing to its accuracy and ease of use. Here we have tried to realize a digital stopwatch of reasonable accuracy and reliability. This particular stopwatch can count up to 9 minutes and 59.9 seconds, and is accurate up to one tenth of a second. Its circuit is very simple and easy to appreciate. The heart of the circuit is a stable mv followed by counter and decoder stages. The circuit operates on 5 volt supply. It uses a 7 segment LED display of common anode type to show time.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Solar Charger Circuit using IC LM317"

Submitted By,


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## ABSTRACT

Solar energy is the most sought-after energy source, with fuel price spikes dominating headlines. Solar chargers are simple, portable, and ready-to-use equipment that anybody, especially in rural regions, can utilise. Going solar may help with a variety of issues, including reducing carbon emissions and reducing reliance on fossil fuels, as well as addressing the current energy crisis. The purpose of this project is to create a portable solar charger. Solar panels do not provide regulated voltage, which is required to charge batteries. As a result, to maintain the requisite constant voltage, an external adjustable voltage regulator is employed. To guarantee that charging is stopped off at the saturation point, a zener diode is activated.

B53

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Barcode decoder based on a microcontroller"

Submitted By,


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## ABSTRACT

Barcode decoder based on a microcontroller Code 39 is decoded by the microcontroller-based Barcode Decoder. The Code 39 barcode symbology was the first to encode alphanumeric data strings. As a result, numerous industrial groups have adopted this technology to meet their labelling needs. It is widely accepted as the industry standard for labelling needs. It can be found in a wide range of applications. The industrial Digital slot Reader from Hewlett-Packard is used here.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Converter from analogue to digital"

Submitted By,


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## ABSTRACT

A tunable analog-to-digital converter that produces M-bit samples for use with an operating circuit. To switch on the analog-to-digital converter, the operating circuit provides a first enable signal. In addition, in response to a circumstance, a sensor provides an analogue signal. When the initial enable signal is received, the tunable analog-to-digital converter comprises a primary analog-to-digital converter that accepts the analogue signal and converts it to a primary digital signal.

B61

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Motion control wireless data transfer"

Submitted By,


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## ABSTRACT

The main thing of the work is to minimize the space control requirement for a motor control system by making a wireless communication between the motor driver unit and control unit .It occupies space for motors , circuits, connections, units and we should have to save the space for control circuit wiring and unit . When the control unit is made with wireless communication, the motor control unit can be moved everywhere to the system. This improve the time to reach the operation time. This indicates the responsibility and order of planning of the motor system with various constant quantity in advance

B71

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Remote controlled vehicle with limitless range"

Submitted By,


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## ABSTRACT

In this proposed project, one mobile phone which controls the robot will makes call to another mobile phone attached to the robot. If any button is pressed during call, at the other end of the call we can hear a tone corresponding to the button pressed. By using the phone connected in the robot, this robot will recognize the DTMF tone. By using DTMF decoder MT8870, the ATmega16 micro controller will process the received tone. The DTMF decoder MT8870 will decodes the DTMF tone into its equivalent binary digit and this binary digit is transferred to the micro controller. The mobile that makes a call to another mobile stacked in the robot is called as a remote. The construction of receiver and transmitter units is not required in this proposed robotic project. When we are transferring telephone signaling over the line in voice-frequency band to the call switching center, we used DTMF signaling. In real time, the signal generated by the DTMF encoder is the direct algebraic summation of the amplitude of two sine waves of different frequency, i.e., pressing '5' will send a tone made by adding 1336Hz and 770Hz to the other end of end of the line. In table I we had shown the tones and assignment in a DTMF system.

B80

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Electronic Watch Dog Project"

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## ABSTRACT

Many people have pet dogs stationed at their front doors in the past and even now. The dogs' purpose is to bark anytime someone comes in via the door. Because it accomplishes the same purpose of detecting the presence of a human at a premises' entry, this project is dubbed the Electronic Watch Dog Project. At the entrance to the premises that has to be protected, a pair of IR sensor transmitters and receivers are installed. In our situation, this is what works in this project. The IR beams are cut when a person or burglar who is unaware of the security equipment set at the entrance enters through the door. The cutting of IR rays sets off a chain of events in the circuit, culminating in the sounding of a burglar alarm. The owner of the premises may learn that someone has entered through the door after hearing the alarm. In the same way, this device can be installed at any perimeter that needs to be protected from intruders. The IR rays from the transmitter reach the IR receiver, signalling to the 555 IC that there is now no signal between the sensors. When an intruder cuts the IR rays, however, the receiver output changes, causing the 555 IC to activate. This finally causes the UM66 IC to be triggered. As a result of these events, the speaker connected to the circuit board's output begins to ring, alerting the intruder at the secured permeter.

B82

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

# "Rain Sensing Automatic Car Wiper"

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## ABSTRACT

The wipers on today's cars are manual devices that switch on and off manually. As a result, we recommend a rain-sensing automatic wiper system that activates when rain is detected and shuts off when the rain stops. The goal of our concept is to automate the wiper mechanism and eliminate the necessity for manual intervention. A rain sensor, a microprocessor, and a driver IC are used to run the wiper motor. A rain sensor in our system detects rain, which is subsequently processed by a microcontroller, which then takes the required action. When rain falls on the rain sensor, it completes its circuit with water and transmits a signal to the microcontroller.This data is now processed by the microcontroller, which then directs the motor IC to perform the desired action. To replicate a car wiper, the motor driver IC now drives a servomotor.

B84

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Solar Panel With Sun Position Tracking"

Submitted By,


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## ABSTRACT

The proposed project will track the sun to guarantee that the solar panel receives the most sunlight possible at all times of the day. The project comes in handy on misty days. A solar panel and a stepping motor are required to keep the system tracking the sun and moving according to the maximum amount of sunlight received. A stepper motor and a microprocessor from the 8051 family that generates stepped pulses on a regular basis rotate the panel. Electricity is supplied to the motor using an interface IC.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–

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A MICRO PROJECT REPORT ON

# "Fire Sprinkler System with intelligence"

Submitted By,


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**Dr. Ramaprasad A.T,**
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## ABSTRACT

When the effects of a fire have been identified, such as when a specific temperature has been achieved, a fire sprinkler discharges water. Automatic fire sprinklers work by using a fusible link that melts or a frangible glass bulb containing liquid that breaks at a predetermined temperature, allowing the plug in the orifice to be pushed out of the orifice by the water pressure in the fire sprinkler piping, resulting in water flow from the orifice. The water stream hits a deflector, which creates a precise spray pattern that supports the sprinkler type's aims (i.e., control or suppression). The spray from modern sprinkler heads is directed downward. Each automated fire sprinkler is unique.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "tracking and positioning systems"

Submitted By,


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| Madhushree | 4AL20IS024 |
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## ABSTRACT

A "tracking system," often known as a "locating system," is a device that monitors moving people or things and provides a timely, ordered series of location data for further processing. The 'Tracking and Positioning' project is part of a 'Security and Surveillance' system that needs security personnel to monitor their positions within a secured area. In common usage, the words "security" and "safety" are interchangeable, but in technical terms, "security" denotes that something is not only secure, but has also been secured. The 'Security and Surveillance' system is designed to give all-around security to a limited area (such as a research facility) as well as round-the-clock monitoring.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

# "APPLICATION OF ROBOTICS ON FIRE FIGHTING TECHNOLOGY"


Submitted By,

| | |
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| Vishma D | 4AL20AI049 |
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## ABSTRACT

A device that can detect and extinguish a fire on its own is long overdue. Many house fires start when someone is sleeping or is not at home. With the development of such a device, people and property can be saved at a much higher rate while sustaining relatively little damage from the fire. Our task as electrical engineers was to design and build a prototype system that could detect and extinguish a fire autonomously. It also aims to reduce air pollution. In this project, we will create a Fuzzy-based Microcontroller-controlled Robot. It is the Robot that can navigate a model structure, locate a â€oburning oil derrickâ€ (lit candle), and extinguish it with the assistance of a Blower.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–

590 018

A MICRO PROJECT REPORT ON

# "CONVERSION OF DIGITAL ASPECTS TO ANALOG"

Submitted By,


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## ABSTRACT

A tunable analog-to-digital converter that produces M-bit samples for use with an operating circuit. To instruct the analog-to-digital converter to turn on, the operating circuit generates a first enable signal. In addition, in response to a condition, a sensor generates an analog signal. When the first enable signal is received, the tunable analog-to-digital converter includes a primary analog-to-digital converter that receives the analogue signal and converts it to a primary digital signal. A comparator and a secondary analog-to-digital converter are also included in the tunable analog-to-digital converter. The comparator compares the primary digital signal's value to a predetermined value and generates a second enable signal based on the primary digital signal's value and the predetermined value. A secondary analog-to-digital converter is used.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–

590 018

A MICRO PROJECT REPORT ON

# "Buzz incoming and outing call router"

Submitted By,


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## ABSTRACT

I prepared an microprocessor-based system, which is capable of routing all the incoming and outgoing calls in the telephones by various parties by initializing the give switches. Especially this is very useful in the areas like hilly stations where the tele density is extremely poor. I prepared it for the purpose of utilizing it for the routing the incoming calls for master to slave instrument located in the various locations in the word. I designed it in such a way that further this instrument will not allow the parties to do any of the outgoing call from the slave locations from any point of the world

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Easy Telecom Billing System"

Submitted By,


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| Jeswin | 4AL20AI018 |
| Rahul Leimapokpam | 4AL20CV017 |
| Sayeed Abdul Rahman | 4AL20CS127 |


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## ABSTRACT

The Telecom Billing System Project is similar to the operations carried out by telecommunications firms. Where, one can perform actions such as adding a record with a name, phone number, and payment amount. one can also make payments by simply entering phone number instead of corresponding name. This project also uses the file handling mechanism to save data in a specific file. This project will teach us how to use the file handling method to insert, list, search, and delete records from a file. The Telecom Billing System project was written in Code-Blocks with the gcc compiler, so it will not run in Turbo C

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

# "ELECTRONIC VOTING MACHINE PROJECT USING 8051 MICROCONTROLLER"

Submitted By,


| | |
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## ABSTRACT

This project is done mainly because we face many problems while voting. So know I would like abstract about my project. This project is designed for electronic voting machine by using Fingerprint identification method. we used 8051 microcontroller And then simulated with in proteus ISIS using PIC18F4520. The microcontroller Program was written in C in MPLAB IDE. It's less time consuming and cost effective. At last we would like to conclude our topic as it is very useful for society and it is also used in some other countries.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Digital security for printer using GSM"

Submitted By,


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**Dr. Ramaprasad A.T,**
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## ABSTRACT

This system involves reading the data from PC and the data is embedded in the security kit with password protection. GSM printers can be controlled using office, home or any screen printing techniques. This system is used to read the printing statement from printer and send it to the microcontroller through RS232 communication. The printer or PC can be operated through remote GSM SMS control using mobile communications

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

# "ELECTRIC BILLING USING SMART PHONE BY GSM TECHNOLOGY"

Submitted By,


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## ABSTRACT

In this micro-project we prepared an system which automatically sends the SMS for each and every customer of electric billing this mobile billing system will cost for every two months by using my new system called GSM technology and it also consist auto billing and also automatic SMS reply system which gives quick answer to customer . This system will reduce work as by doing auto billing for all.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–

590 018

A MICRO PROJECT REPORT ON

# "Switching and Signaling in Telecommunication network"

Submitted By,


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## ABSTRACT

In this project one can energize any electrical device in our home, from any where in the world and we can do it without paying for telephone call, with telephone triggered switches we can do just that. The device described here is a circuit, which responds to the sound of the telephone deli, there is no need to make any hard wire connections to the telephone line, and it is this feature which permits you to build and use this device without any permission from the department of telecommunications.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Digital stopwatch"(Chronometer)"

Submitted By,


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## ABSTRACT

Digital Stopwatches (also called as chronometers)are used as timekeepers in variety of fields, including sports. Analog or digital stopwatches are available. Because of their higher accuracy and ease of use, digital stopwatches are far more common than analogue stopwatches. We attempted to create a digital stopwatch with reasonable accuracy and dependability in this project. This stopwatch has a maximum count of 9 minutes and 59.9 seconds. It has a precision of one tenth of a second. The circuit is relatively simple and straightforward to construct. The circuit's heart is a steady mv, which is followed by counter and decoder stages. The circuit is powered by a 5-volt DC source. The time is displayed on a seven - segment LED display with a common anode type.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–

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A MICRO PROJECT REPORT ON

# "Piezoelectric Based Visitor Sensing Welcome Mat"

Submitted By,


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| Sinchana R Naik | 4AL20CS149 |
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**HOD Physics**

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## ABSTRACT

What kind of doormat do you have? Is it just a simple carpet for wiping your feet before entering? A doormat should be capable of much more. As a result, we've created a project that alerts you when a visitor or guest approaches the doormat. We use piezoelectric sensors here, which use the piezoelectric phenomenon to convert acceleration, force, and pressure into electric impulses. This notifies the user by turning on the buzzer. As a result, there is no need for a doorbell because the doormat can automatically identify visitors and alert them on their behalf. Mat can actively detect whether there is a change in pressure from someone or something standing or sitting on the Mat thanks to the built-in Piezo sensor. It's also not just a doormat. It's a weight-sensitive layer of smart foam that you can place under your doormat or anywhere else in your home where pressure-sensitive responses are required.

B75

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Health Monitoring System using 7-Segment Display & Atmega Microcontroller"

Submitted By,


| | |
|---|---|
| Nesara S Gowda | 4AL20IS033 |
| Mallikarjuna N P | 4AL20CS067 |
| Spandana | 4AL20CS150 |
| Vishwanath M | 4AL20EC063 |


Under the Guidance of


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2020–2021

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## MIJAR, MOODBIDRI D.K. -574225

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This is to certify that the Micro-Project entitled **"Health Monitoring System using 7-Segment Display & Atmega Microcontroller"** has been Successfully Completed by

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## ABSTRACT

This health monitoring system is a highly valuable tool for keeping track of a patient's health data. This system continuously monitors the patient's heart rate and temperature reading. We use two 7 segment modules to display the parameters in our health monitoring system project since the display has a longer viewing distance. We can also set an upper and lower limit for the temperature and heartbeat. If the temperature rises above the specified high limit or falls below the set low limit while monitoring, the buzzer rings and the load switches off. When the heartbeat sensor is removed, the system senses a low heartbeat, the buzzer sounds, and the load is turned off. In an emergency, this buzzer can assist the patient's well-wishers in taking action. The bulb turns on and the alert goes off when the temperature and heart rate are in control

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

# "Automated Night Lighting System"

Submitted By,


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| Manoj M | 4AL20CS069 |
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## ABSTRACT

We present a completely automated night lighting system that detects light conditions and turns on or off a load or bulb based on the intensity of the light. To achieve this objective, the system employs an LDR, a 555 timer, and relay-based circuitry with an AC load connection. The circuitry uses a 555 timer-based circuit to drive a relay for a set time period when the light intensity falling on the LDR falls below a certain level. As long as there are night/low light circumstances, this procedure continues and the load is switched on via a relay. The mechanism turned off the load to turn off the lighting as soon as the lighting increased.Thus we have a fully automated night lighting system.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–

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A MICRO PROJECT REPORT ON

# "A Visitors Counter that may be used in both directions"

Submitted By,


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## ABSTRACT

This counter may be used to determine the current number of visitors in the room. It may be used in venues like movie theaters, buildings, and workplaces. Instead of a counter-and-display circuit, it employs a basic calculator to keep costs down. By disconnecting the calculator from the circuit, it can be used as a regular calculator. The circuit is simple to construct and all of the components are readily available in the market.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Quiz Game Project using C Language"

Submitted By,


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| Marvil Vinith Lobo | 4AL20AI024 |
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## ABSTRACT

This quiz game project is similar to the hangman game, which is a console-based application written in the C programming language. A large number of questions are asked in this game. If the user answers correctly, a monetary prize is given to each single individual response. This game was created using the following programming language Code created using the GCC compiler that put the user's general knowledge to the test. The user is frequently asked a question about science, film, sports, geography, and other topics. The turbo c compiler will not be able to run this project. The contest question is phrased in such a way that it encompasses all contest fields. One can also save the user name of the user who scored the highest, and there is a way to reset the score in this game. We divided the game into two rounds to make it more intriguing. In order to advance to the second round, one must qualify in the first

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "A Snake Game Project for kids"

Submitted By,


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## ABSTRACT

The Snake game is a simple console-based project that is built without the use of graphics. One will get the true feel of a mobile snake game while playing this game. The only difference between this project and the mobile snake game is that the mobile game uses images, whereas we did not utilise visuals in this project. Food is placed at various co-ordinates on the screen for the snake to eat. When the snake eats the food, its length is automatically expanded by one element while playing the game. When the snake eats the food, the score rises as well. Only three lives are given in this game to score points; after three lives, the game will immediately end

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

# "A simple Tic Tac Toe Game Project for school children"

Submitted By,


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| Dhareppa Sangappa K | 4AL20CV002 |
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**Dr. Ramaprasad A.T,**
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## ABSTRACT

When we were in school, we used to play this game under the notebook pages. This game makes us miss school and the recess time at school where we could play with your pals. This game is a console-based application that does not use visuals. It's the same as noughts and crosses, which are sometimes known as 'Xs' and 'Os,' which is another name for the game. With the help of the GCC compiler, this game was created in the C language utilising Code. We will not encounter any errors after completing this project, and the source code is also not excessively large. There are 765 states of space complications in the Tic Tac Toe game. Arrays are used in the game because the 'Xs' and 'Os' are stored in distinct arrays. One must choose between 'X' and 'O' while playing the game

BSH

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Digital stopwatch"

Submitted By,


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| Harshitha N P | 4AL20CS046 |
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## ABSTRACT

Stopwatches are used as time keeping device in many fields, usually in sports. Stopwatch is of two types analog and digital, but mostly digital stopwatch are used owing to its accuracy and ease of use. Here we have tried to realize a digital stopwatch of reasonable accuracy and reliability. This particular stopwatch can count up to 9 minutes and 59.9 seconds, and is accurate up to one tenth of a second. Its circuit is very simple and easy to appreciate. The heart of the circuit is a stable mv followed by counter and decoder stages. The circuit operates on 5 volt supply. It uses a 7 segment led display of common anode type to show time.

B57

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "A PROJECT ON TENS UNIT"

Submitted By,


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**Mr. Arjun S Rao**
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## ABSTRACT

Transcutaneous electrical nerve stimulation (TENS or TNS) is the use of electric current produced by a device to stimulate the nerves for therapeutic purposes.transcutaneously applied currents used for nerve excitation although the term is often used with a more restrictive intent, namely to describe the kind of pulses produced by portable stimulators used to reduce pain.TENS units work by delivering small electrical impulses through electrodes that have adhesive pads to attach them to a person's skin.

B85

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Auto Electronic School Bell"

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## ABSTRACT

School Bell is conventionally rung by a person who has been designated to do it. This is done on a periodic basis. With the advent digital electronics, this task can be automated by this project that has been specially designed for this scenario. It can be used in School for ringing class timeout bells as well as in factories and industries for various purposes. A Bell can be connected to the project board's output side. The system will ring this bell on a regular basis to alert those in the vicinity that a task is about to begin or that a task is about to expire. This function is useful for school teachers who need to take classes on time. It can be used in factories to signal the start of work, break times, and plant closings. Because of the circuit's architecture, this project can count intervals of 45 minutes and a 30-minute lunch break. Time is counted in 30 minute and 45 minute increments using two decade counters and a 555NE timer. An SCR is activated when the timing signals reach the predetermined time, allowing AC power to be output at the Bell connector. The start and end of the Bell sequence are controlled by a push button that is connected to the circuitry.

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "An advanced alcohol sensing and engine locking system for cars"

Submitted By,


| | |
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| Pratham P | 4AL20AI031 |
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| Shreya P J | 4AL20CS142 |


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## ABSTRACT

This is used to detect and drive the ignition on/off relay for the drug driver control system. We have implemented an alarm system in this device that will send the car's location to the nearest police station or the driver's relatives if the alcohol level is above the normal permitted level, and the ignition system of the car will turn off after the detection.

B5

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

# "SMART DYNAMIC INFORMATION- BASED CAR PARKING GUIDANCE"

Submitted By,


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This is to certify that the Micro-Project entitled **"SMART DYNAMIC INFORMATION- BASED CAR PARKING GUIDANCE"** has been Successfully Completed by

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## ABSTRACT

This paper focus on dynamic car parking information optimization .The large number of vehicle constantly seeking access to congested areas in cities means that finding a public parking place in often difficult and causes problems for drivers and citizen alike. To break down these problems this paper idea implemented 'DYNAMIC CAR PARKING NEGOTIATION AND GUIDANCE USING AN AGENT BASED PLATFORM'

B18

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "DTMF Based Home Automation"

Submitted By,


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| Prajwal R | 4AL20EC033 |
| Abubakkar Siddiq | 4AL20CS005 |
| Shramik S Shetty | 4AL20IS046 |
| Usha G M | 4AL20CS165 |


Under the Guidance of


Mr. Arjun S Rao
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## ABSTRACT

In Mobile Controlled Home Automation using DTMF, a smart logic control based on embedded systems has been implemented. The DTMF based home automation is controlled by mobile signals. Mobilecontrolled Home Automation system using DTMF technique is all about controlling a relay using DTMF decoder . The relay is controlled from a mobile phone even at a far away distance by making a call to the other mobile phone attached to the DTMF decoder in the home automation system. During the course of the call, if any button is pressed, the tone corresponding to the button pressed is heard at the other end. This tone is called "Dual Tone Multi Frequency tone (DTMF)".Using DTMF code, each relay corresponding to a particular code turns ON/OFF. The relay will be attached to a corresponding appliance at home. When each appliance needs to be turned ON , the corresponding relay needs to be ON as well. This circuit can also be used to control the water tank motor by setting the ontime.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Two-Way Wireless Anti-Theft Alarm for Two-Wheeled Vehicles"

Submitted By,


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| Tejas R | 4AL20IS055 |
| Varsha U K | 4AL20CS167 |


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## ABSTRACT

The main goal of this project is to keep track of a two-wireless wheeler's anti-theft alarm system. The proposed project is simple to use and operates effectively

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

# "SMART DYNAMIC INFORMATION- BASED CAR PARKING GUIDANCE"

Submitted By,


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## ABSTRACT

This paper focus on dynamic car parking information optimization .The large number of vehicle constantly seeking access to congested areas in cities means that finding a public parking place in often difficult and causes problems for drivers and citizen alike. To break down these problems this paper idea implemented 'DYNAMIC CAR PARKING NEGOTIATION AND GUIDANCE USING AN AGENT BASED PLATFORM'.

B45

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Detection of Speed of Vehicles"

Submitted By,


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## ABSTRACT

India is the country with the highest number of road fatalities, the most of which are caused by excessive speeding. There have been numerous attempts to develop reliable and effective methods of detecting overspeeding automobiles. One such device is a hand held over a speeding detector. The problem of such a gadget was that it was bulky and operated only with professional hands; also, by the time a speed reading was received, the vehicle would have already left.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

# "USING LOOP DETECTORS CONTROLLING TRAFFIC LIGHT"

Submitted By,


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## ABSTRACT

Loop detectors ensure that traffic lights are controlled accurately and reliably. Each lane has two inductive loop detectors, one before and one after the stop line. Every passing car is tracked and recorded. It is possible to set a delay time. After that time, any car that passes is photographed twice in quick succession. The first shot depicts the crime, while the second indicates that the vehicle was in motion. The camera is set up in such a way that the red light can be seen in the image. Cars and trucks are distinguished through loop detection. For each category, a distinct speed threshold can be installed. When the lights are green, red, or amber, the traffic signal cameras can also be used to measure speed.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Automatic overspeed detector"

Submitted By,


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## ABSTRACT

In this project we developed a prototype sleek hand held device that can be operated by the traffic official whenever he observes an over speeding vehicle, to obtain the correct speed of the vehicle. It has a 2 digit 7-segment display, which can display speeds up to 97km/h. It also has two switches, which are used for starting the device and for enabling it only when required. The state of the device is indicted by three status indicating LEDs which display the following conditions: a green LED indicating power on, an orange LED indicating the set or enabled condition, and a red LED indicating speeds in excess of 100 km/h.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Automated Charging Machine(ACM)"

Submitted By,


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## ABSTRACT

This project is related to ACM which provides the public with the ability to recharge a mobile device ,often for a small fee. Similar to vending machines , ACM's take cash ,then charge the connected devices. Basically we use PC RS232 Communication. These places include Airports, Shopping malls,parks, clubs, Supermarkets, Campuses and other popular locations. Public charging stations for mobile devices appeared around 2006. A variety of features have been introduced to these machines, including lockers, U V sanitation and wirelessly updated advertising space.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

# "GSM MODULE IN REMOTE ELECTRICAL LOADS CONTROL"


Submitted By,

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| Prashanth V K | 4AL20EC034 |

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## ABSTRACT

This project has low cost solution to Remote Control and Monitoring via your mobile phone. It had 2 output relay and 4 input colsure contect. Lighting,central heating boiker,pumps etc are controled by using output and input can be connected thermostats,security Sensors and flood detectors.

B64

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

# "CELLPHONE OPERATED ROBOT"

Submitted By,


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| Shubhashri S | 4AL20EC052 |
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## ABSTRACT

The use of radio signals to remotely control a device is known as radio control (abbreviated as R/C or simply RC). The word is widely used to refer to the use of a hand-held radio transmitter to operate miniature automobiles. Radio-controlled cars are also used in [traffic] by industrial, military, and scientific research organisations.

Any mobile device that is operated by a means that does not restrict its motion with an origin external to the device is referred to as a remote control vehicle. A radio control device, a cable between the control and the vehicle, an infrared controller are common examples. A remote control vehicle (also known as an RCV) varies from a robot in that it is always controlled by a person and does not take any positive action on its own. Remote vehicle control is one of the major technologies that underpins this sector. A vehicle must be capable of travelling accurately to a target location, navigating inside that region to complete its task, and returning to base with the same accuracy and safety

B67

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "GESTURE CONTROLED ROBOTIC ARM"

Submitted By,


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## ABSTRACT

In this micro-project we developed an trainable remotely controlled robotic arm using DC motors. we prepared robotic arm which will perform primary pick and place operations and we can also save the movements of the arm and repeat the recorded actions without any error corrections. This arm has an 360 degrees of actions . The robotic arm is mounted on a base that allows it to perform different coordinates. we used Arduino Mega 2560 for controlling functionalities of the robot. we prepared this robot in two stages. In the first stage, the robot will be controlled with the help of potentiometer and in the second stage of development, remote functionality was added. we prepared this arm with the functionality by which the arm is controlled by the Bluetooth also. so it will make our daily life easy, better and simple.

B72

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Anti-lock brakes with traction control at a low cost"

Submitted By,


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**Mr. Gopala Krishnna**
**Mini Project Guide**

**Dr. Ramaprasad A.T,**
**HOD Physics**

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## ABSTRACT

In this project we created a traction control system that detects wheel slip and adjusts the wheel velocity as needed. Robotic vehicles are growing more complicated, and high levels of movement control are frequently required. When a vehicle's wheels start to slip, it's best to modify the speed of the wheels so that the vehicle moves in the desired direction.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Efficient Power Manager Project"

Submitted By,


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| Arpitha | 4AL20CS073 |
| Aravinda | 4AL20EC006 |
| Keerthana G | 4AL20IS020 |


Under the Guidance of


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## ABSTRACT

The technology is designed to use the least amount of energy possible by keeping track of the number of people in the space. When someone enters the room, the electric loads are turned on, and they are turned off when no one is present. In order to accomplish this, the system employs Infrared Sensor pairs, which saves a significant amount of energy. Each pair consists of two sensor pairs set in opposing directions at a certain distance from one another. The IR transmitter sends infrared rays directly to the receiver, which receives the signal and passes it to an 8051 microcontroller. The IR sensor module detects when a person enters the room and sends this information to the microcontroller. This input is processed by the microcontroller, which then turns on the load. The system also counts the number of persons present at this time and increments a counter with each arrival; this count is displayed on a 7-segment display. The sensor detects no presence when the last person leaves the room and so turns off the load/lamp. To demonstrate as a burden, a tiny lamp is employed.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "AC Power Strength Controller System"

Submitted By,


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| Chaithrashree M G | 4AL20EC008 |
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## ABSTRACT

The project's purpose is to manage AC power using the concept of thyristor firing angle control. The required proportion of power supply can be entered using a keypad. The data is delivered to an 8051 microcontroller, which initiates the firing angle and changes the load power. To match the power to the needed one, a TRIAC is used in series with the AC load. An LCD panel shows the percentage of power delivered by the user.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–

590 018

A MICRO PROJECT REPORT ON

# "SYSTEMATIC ANALYSIS OF LOCATING AND ASSITING CONSUMER"

Submitted By,


| | |
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| Shriprasad D Joshi | 4AL20AI042 |
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**Dr. Ramaprasad A.T,**
**HOD Physics**

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## ABSTRACT

The 'Tracking and positioning' project is part of a 'Security and Surveillance' system that requires monitoring security personnel's positions within the secured area. In general, the word "security" is synonymous with "safety," but as a technical term, "security" means that something is not only secure, but has also been secured. The 'Security and Surveillance' system seeks to provide all-around security to a restricted area (such as a research lab) while also monitoring the area around the clock to prevent a potential security breach.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

# "INDICATION OF CONSUMPTION OF ENERGY"

Submitted By,


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**Dr. Ramaprasad A.T,**
**HOD Physics**

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## ABSTRACT

Hospital electricity demands are distinguished by the need for high-quality, guaranteed supplies. The existence of captive electricity uses, as well as the size and consistency of the electrical and heat loads required by hospitals, are factors that could support the installation of natural gas-fired cogeneration plants (CHP). The goal of this paper is to estimate the technical potential of CHP in hospitals. This potential is evaluated using a classification of hospitals based on specific energy consumption indicators, taking into account gas-fueled engines associated with absorption cooling systems. A potential figure of approximately 500 MWe was obtained, but effective implementation is hampered by the inherent challenges of the hospital sector.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Departmental Store Management System"

Submitted By,


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| Pavan Kumar V | 4AL20CS090 |
| Bhoomika | 4AL20AI009 |
| Pavan kumar V | 4AL20CS091 |
| Rithik R.M | 4AL20CS116 |


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**Dr. Prameela Kolake**
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**Dr. Ramaprasad A.T,**
**HOD Physics**

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## ABSTRACT

The Departmental Store Management System is a non-graphic console-based application written in the C programming language. This programme may be used in any department shop where one can add, modify, search, delete, and show product information. This project also employs the file handling approach, which allows us to save all of the goods data, such as rate, product name, and price, in a single file. The data is saved in the file, and you can access it at any time

B13

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "GSM Path Planning For Blind Person Using Ultrasonic"

Submitted By,


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## ABSTRACT

This project describes the system architecture for a navigation tool for visually impaired persons. The major parts are: a multi-sensory system (comprising stereo vision, acoustic range finding and movement sensors), a mapper, a warning system and a tactile human-machine interface. The sensory parts are described in more detail, and the first experimental results are presented. The main Objectives are Approximately 1% of the human population is visually impaired, with roughly 10% of that group being completely blind. Mobility issues are one of the side effects of being sight impaired. Many technologies are currently available for worldwide navigation. Handheld GPS systems for the blind, for example, are now accessible in outdoor scenarios. Local path planning and collision avoidance are not useful techniques for local navigation. Traditional navigational aids, such as a guide dog and a cane, are valued, but they do not fully handle local navigational issues. The use of guiding dogs on a broad scale is not feasible (the training capacity in the Netherlands is about 100 guide dogs yearly; just enough to help about 1000 users). The cane is very confining.

B26

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Sonar-based security system based on a microcontroller"


Submitted By,

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| Akshata Jagadeesh Hunashimara D | 4AL20CS011 |
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## ABSTRACT

This project is built on the RADAR principle. A SONAR module is installed on a stepper motor in this project. The SONAR module puts out ultrasonic waves and scans the room as the stepper motor turns. As a result, if this project is placed in the centre of a room, it may scan the entire area, and the scanning range is determined by the SONAR module employed. The range of a Polaroid 6500 series sonar ranging module is approximately 6" to 35ft.

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–

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A MICRO PROJECT REPORT ON

# "Meteorological Weather Plant"

Submitted By,


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## ABSTRACT

Few years ago, I was in a state where all my outdoor plans would get cancelled simply because I relied on the weather apps. Reality then hit me that this apps where feeding me with data from station based miles away and they weren't gonna give me 100% accurate reports. Then I invented a device "Meteorological Weather Plant", fast forward I'm always ahead of mother nature and I can easily tell her next move (i.e weather pattern). This Meteorological Weather Plant give results in a very small accurate value within fraction of seconds and records accuracy of the weather, like temperature, pressure, wind speed, rain fall and humidity. This device consists of LCD display, a mobile wireless protocol and hardware protocols, sensing unit and alarm system.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "A Simple Personal Dairy Management"

Submitted By,


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**Dr. Ravi Kumar**
**Mini Project Guide**

**Dr. Ramaprasad A.T,**
**HOD Physics**

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## ABSTRACT

This is one of the most impressive C programming projects. Personal Dairy Management is a console-based application that does not make use of graphics. The Personal Dairy Management System is used to keep an individual's personal data, as the name implies. We can store information such as a person's name, phone number, address, date of birth, and residence. One may also keep track of vital information such as meeting details and other activities. To store the data in the file, this project use the file handling mechanism. One must first enter the password before one can read, update, or delete the record. Viewing the main menu or adding records does not necessitate the use of a password

B48

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "An advanced reflective colour sensor system for different applications"

Submitted By,


| | |
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## ABSTRACT

In many industries, the ability to sense colour precisely can be crucial. In this paper, a novel reflective colour sensing system is presented for process monitoring and control applications textile industries. The system is developed using a solid state RGB sensor and a smart signal processing algorithm implemented on micro-controller architecture. A hybrid neural network comprising Self organizing mapping and Back propagation architecture is used for colour zone classification and exact colour identification of papers. Demonstrator applications and simulation results are discussed to highlight the importance of sensor and accuracy in measurement.

B48

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Fabrication Of Intelligent Voice Operated Fire Extinguisher For Vehicle"

Submitted By,


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**HOD Physics**

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## ABSTRACT

This project aims on implementing a voice operated intelligent fire extinguisher for vehicle.This can be achieved by connecting a speech input. Advantages of this system is that it's handfree,time saving and fast data input operators. As soon as the speech input gets the command the sprinklers fitted can be moved in any direction. The system should consist a recognization System to avoid obstacles and understand the meaning of speech command .

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–

590 018

A MICRO PROJECT REPORT ON

# "USAGE REDIO FREQUENCY IDENTIFICATION DEVICES TO HELP BLIND PEOPLES"

Submitted By,


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| Chandana | 4AL20CS033 |
| Ganesh B M | 4AL20CS041 |
| Amith N Harikantra | 4AL20CS012 |
| Akshay Krisnappa Sonar | 4AL20EC005 |


Under the Guidance of


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2020–2021

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## ABSTRACT

location and tracking system becomes very important to our future world of pervasive computing, whereinformation is all around us. Location is one of the most needed information for emerging and future applications. Since the public use of GPS satellite is allowed, several state-of-the-art devices become part of our life, e.g. a car navigator and a mobile However, location phone with a built-in GPS receiver. information for indoor environments is still very limited. Several techniques are proposed to get location information in buildings such as using a radio signal triangulation, a radio signal (beacon) emitter, or signal fingerprinting. Using Radio Frequency Identification (RFID) tags is a new way of giving location information to users. Due to its passive communication circuit, RFID tags can be embedded almost anywhere without an energy source. The tags stores location information and gives it to any reader that is within a proximity range which can be up to 10-15meters for UHF RFID systems. We propose an RFID-based system for navigation in a building for blind people or visually impaired. The system relies on the location information on the tag, a user's destination, and a routing server where the shortest The route from the user's current location to the destination. The navigation device communicates with the routing server using GPRS networks. We build a prototype based on our design and show some results. We found that there are some delay problems in the devices which are the communication delay due to the cold start cycle of a GPRS modem and the voice delay due to the file transfer delay from a MMC module.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

# "NAVIGATION MULTI PROCESSOR SYSTEM"

Submitted By,


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| K K Koushik | 4AL20CS055 |
| Punya N | 4AL20CS103 |
| Praveen Vishwakarma | 4AL20EC037 |


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## ABSTRACT

In this project we prepared an system which will be used to control and monitoring the transceiver or the navigation receiver in any corner of the world with the optional of the glide slope receiver and which optional audio amplifier in the aircraft at any point

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Use of radio frequency identification devices to assist blind people"

Submitted By,


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| Khushi V Ksheerasagar | 4AL20CS061 |
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## ABSTRACT

In our future world of pervasive computing, where information is all around us, a location and tracking system becomes critical. One of the most important pieces of information for emerging and future applications is location. Since the public use of GPS satellites is permitted, a variety of cutting-edge equipment, such as a car navigator and a mobile phone, have become a part of our daily lives. Location phone with built-in GPS receiver, on the other hand. There is still a scarcity of knowledge about interior surroundings. Using a radio signal triangulation, a radio signal (beacon) emitter, or signal fingerprinting, several ways for obtaining position information in buildings have been proposed. RFID tags are a novel means of providing consumers with location information

B10

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Attendence monitoring intelligent classroom"

Submitted By,


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| Krishna Vijaya Sapagale | 4AL20CS062 |
| Sanket R Durgekar | 4AL20CS126 |
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## ABSTRACT

Intelligent automation has now established itself in every field throughout the world. Our project is a step forward in the management of classroom attendance and power in colleges and institutions. The utilisation of low-cost technology for highly reliable applications, together with newly developed algorithms, allows the automation process to reach consumers at a lower and more consistent cost.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Automatic Road Reflector Light"

Submitted By,


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| Poorvika B M | 4AL20IS035 |
| Manish N | 4AL20CS068 |
| Swathi M V | 4AL20CS158 |
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## ABSTRACT

The Automatic Road Reflector is a basic yet effective solution that will assist us in automating traditional road reflectors. A raised pavement marker is a safety item that is used on the road at night to guide vehicles down the path. The Automatic Road Reflector system is intended to take the place of the current safety equipment. The suggested system is intended to detect and respond to the intensity of ambient light. When the ambient light is reduced during low light, the system detects this and turns on the reflector. When there is bright light, on the other hand, the system will go into power conservation mode and save energy. A photoresistor, also known as a light-dependent resistor, is used to detect light intensity. The Light Dependent Resistor is used in light sensing because it works on the basic principle of photoconductivity. The word photoconductivity refers to a phenomena in which a substance's conductivity increases when it comes into contact with light. In general, the LDR is made up of a substance that has low conductivity in darkness and enhances its conductive property when it comes into contact with light. A typical light-dependent resistor has a resistance of 1MOhm in the dark and a resistance of a few KOhm in the light. The Automatic Road Reflector can be quite useful in guiding cars on their way at night. The colour of the LED can be adjusted to meet a variety of requirements. They can be used to split the road, indicate a curve, or indicate a road exit. They're especially beneficial in places like airports and airport hangers, where many colours of road reflectors are employed for diverse functions

# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

## "Synchronously Blinking Emergency Light"

Submitted By,


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| **Manoj** | **4AL20CS070** |
| **Yeshaswini R** | **4AL20CS173** |
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## ABSTRACT

If the mains energy fails and there is no backup power, visibility becomes a problem at night. Due to poor visibility, the likelihood of a person being injured as a result of falling over or colliding with household items increases. This can be avoided with the Smart Emergency Light system. The system includes a light sensor that detects ambient light. The sensor detects when the intensity of light falls below the level of visibility (which occurs frequently due to power outages at night), and notifies the system. The system replies by turning on a slew of white LEDs that are wired to it. This aids in restoring visibility by restoring a normal light intensity level. The LEDs will stay on until the system is turned on. When the system is turned off and on again, the system begins a new scan of the ambient light intensity level. An LDR is a light-dependent component that uses ambient light to generate a level of output at its terminals. As a result, a bright environment differs from a gloomy environment with few or no lights. This value is used to programme a timer IC to turn on the LEDs linked to it for a set period of time. If the ambient light remains low, the LEDs will remain on since the timer IC receives the trigger from the LDR. Synchronously blinking emergency lights can help maintain visibility in this fashion.

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# VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

## "Plant Moisture Monitoring System"

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## ABSTRACT

Planting a tree in an environment where the seed or plant would not receive adequate water from natural sources such as rain or ground water in its early stages has always been a cause of concern for tree planters. This is where a self-contained moisture monitoring system for plants can help. The technology keeps track of the soil's moisture level in real time. If it is discovered during monitoring that the soil moisture level is lower than recommended, an audible visual alarm will be triggered. This alarm is then received by the plant's caretaker. The alarm goes off when the plant is watered, and the monitoring cycle continues. We utilise a timer IC to clock the monitoring process in this system. The moisture level of the soil is detected using a moisture level sensor. A visual alarm is provided by an LED, while an auditory alarm is provided by a buzzer to the plant's caretaker. Thus, using a simple combinational circuit and a sensor, we can help save a plant by maintaining the moisture level of the plant's soil and thus keeping the plant healthy in this project.