B2

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

"A Zigbee Based Wireless Sensor Network for Sewerage Monitoring"

Submitted By,

Pragathi Tejaswi Naik	4AL20CV015
Sathyam A V	4AL20AI037
Vinyashree Jain	4AL20EC061
Siddarth Yuvaraj Kendhuli	4AL20CS147

Under the Guidance of

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Mr. Pramod N
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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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Ullas H U	4AL20AI048
Rahul R Poojary	4AL20IS038
Tejas Ravi	4AL20CS160

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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.

B17

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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Abhilash H	4AL20CS001
Sahana	4AL20IS042
Toshif Husen Patil	4AL20CS164

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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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Afran Sayyed Karim	4AL20CS008
Sudheer	4AL20IS050
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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,

M Ashok kumar	4AL20AI022
Abdullah	4AL20AI001
Faris	4AL20CS038
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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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Anuj S Shetty	4AL20CS019
Pallavi P	4AL20ME017
Hrishikesh R	4AL20CV003

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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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Varun S Bhandary	4AL20ME021
Kaushik	4AL20CV005

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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

B58

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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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"

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Monisha R	4AL20CV010

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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.

B46

VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

"Solar Charger Circuit using IC LM317"

Submitted By,

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Under the Guidance of

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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.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

"Barcode decoder based on a microcontroller"

Submitted By,

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Hardik Prabhu	4AL20CS045
Anu K	4AL20CS018
Chetana M	4AL20EC010

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This is to certify that the Micro-Project entitled **"Barcode decoder based on a microcontroller"** has been Successfully Completed 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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CERTIFICATE

This is to certify that the Micro-Project entitled **"Motion control wireless data transfer"** has been Successfully Completed by

Prajakta	**4AL20EC032**
Jayasurya R D	**4AL20CS053**
Priya D B	**4AL20CS098**
Pooja P	**4AL20EC031**

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. Hemanth S
Mini Project Guide

Dr. Ramaprasad A.T,
HOD Physics

H. O. D.
Dept. Of Physics
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Mijar, MOODBIDRI - 574 225

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

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

"Remote controlled vehicle with limitless range"

Submitted By,

Diya	4AL20IS016
Lavanya	4AL20CS063
Shivakumar H M	4AL20CS135
Shruthi	4AL20EC051

Under the Guidance of

Mr. Arjun S Rao
Department of Electronics and
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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.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

"Electronic Watch Dog Project"

Submitted By,

Sudeep K	4AL20IS049
Mayur J Gupta	4AL20CS071
Rohit I Kattimani	4AL20CV018
Fathima Thahiba	4AL20IS017

Under the Guidance of

Ms. Sowmya
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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.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI-590 018

A MICRO PROJECT REPORT ON

"Rain Sensing Automatic Car Wiper"

Submitted By,

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Mohamed Adnan Akram	4AL20CS074
Bhavana M	4AL20EC007
Mohammed Sufiyan	4AL20IS027

Under the Guidance of

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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.

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VISVESVARAYA TECHNOLOGICAL UNIVERSITY,BELAGAVI–590 018

A MICRO PROJECT REPORT ON

"Solar Panel With Sun Position Tracking"

Submitted By,

Chiranth H S	4AL20ME006
Mohith S Shetty	4AL20CS079
Padala satti Babu	4AL20EC028
Ravindra Reddy	4AL20IS032

Under the Guidance of

Dr. Shashi Kumar K
Department of Physics

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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.