



VELAMMAL COLLEGE OF ENGINEERING  
AND TECHNOLOGY  
MADURAI-625009, TAMILNADU, INDIA



# EEE TECHMANIA'21

*VOLUME 14 ISSUE 22 - MAY 2021*

PRESENTED BY  
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

# VCET

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## VISION AND MISSION

### **VISION:**

To emerge and sustain as a center of excellence for technical and managerial education upholding social values.

### **MISSION:**

- Imparted with comprehensive, innovative and value-based education.
- Exposed to technical, managerial and soft skill resources with emphasis on research and professionalism.
- Inculcated with the need for a disciplined, happy, married and peaceful life.

# EEE DEPARTMENT

## VISION AND MISSION

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### **VISION:**

To produce quality Electrical Engineers for industry and good citizens for society through excellence in technical education and research.

### **MISSION:**

- To empower graduates with sophisticated knowledge and technical skills.
- To explore, create and develop innovations in Electrical Engineering and Technology.
- To provide beneficial service to the rural, state, national and international communities.

### **PROGRAM EDUCATIONAL OBJECTIVES:**

1. Graduates will professionally be competent, excel in academics and solve wide range of problems in Electrical and Electronics Engineering field to serve the needs of Employers.
2. Graduates will engage in continuous professional development activities through Lifelong Learning to enhance technical knowledge and communication skills.
3. Graduates will excel in leadership quality and managerial capability which leads to Entrepreneur that bridge the gap between the advanced technology and the end users.

# MESSAGE FROM HEAD OF THE DEPARTMENT



I'm delighted to see the creative work that students have contributed to the TECHMANIA'21-May issue. College life is a period of life during which students start turning out into professionals by exploring and developing their innate talents and skills. I am very glad that the department has always been unstoppable in its progress, because of the active participation of students and the huge efforts of the professors towards the progressive development of students. Our department has also been actively involved in various activities that has thrown light upon the hidden talents of our students. They stand as a witness to the monumental efforts, taken by the management to make the college a center of excellence in education and research. It is great to find a considerable number of articles, poems and art works, which stand as testimonials not only for students talents but also for their dedication and commitment in their works. I am sure that this magazine would definitely inspire and encourage all students to contribute even more to the forthcoming issues. And, I am looking forward for the upcoming issues of the magazine with a hope and a wish that it would set bench marks for student magazines.

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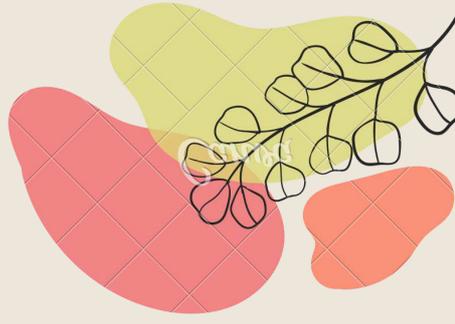
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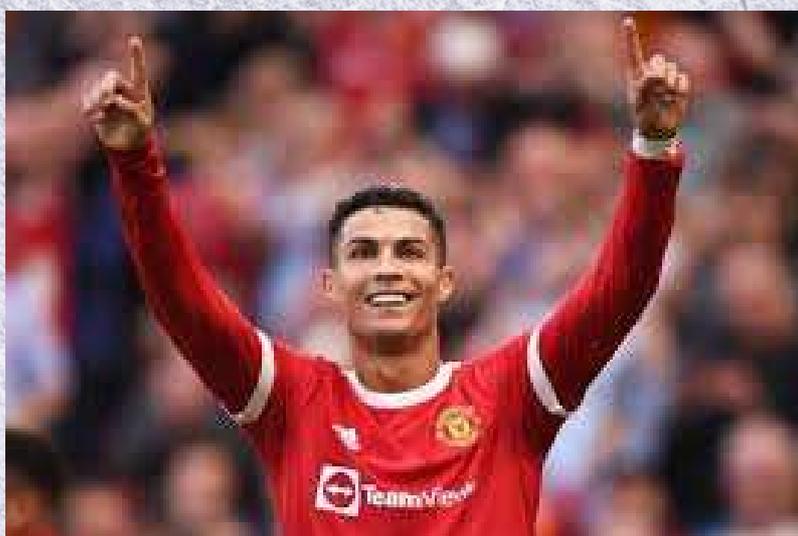


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# CRISTIANO RONALDO

**Cristiano Ronaldo dos Santos Aveiro was born on February 5, 1985, in Madeira, Portugal to Maria Dolores dos Santos Aveiro and José Diniz Aveiro. Cristiano has an elder brother, Hugo and two elder sisters, Elma and Liliana Cátia. His name was inspired by the former US-president, Ronald Reagan, whom his father was influenced by.**

**The island of Madeira was also the place where Cristiano first learned to master his skills as a footballer. He spent his early years playing for his local team, Nacional, and by the time he turned 12 years old, he already made his name for himself as one of Madeira's top footballers . It wasn't long before he started to catch the attention of other big Portuguese clubs.**



**Among Sporting was Benfica, a team Cristiano and his father followed as a young boy. However he eventually chose to play for Sporting which was a team his mother loved and followed as she was growing up, to play with the likes of Figo was the dream for her son.**

**He was then spotted by former Liverpool manager, Gerard Houllier at the age of sixteen but Liverpool had no intentions to sign him at that time because they thought he was too young and he needed more time to develop his skills. However, in the summer of 2003, when Sporting played against Manchester United and defeated them, Cristiano caught the attention of Manchester United manager, Sir Alex Ferguson.**

**Ronaldo began his senior career with Sporting CP, before signing with Manchester United in 2003, aged 18, winning the FA Cup in his first season. He would also go on to win three consecutive Premier League titles, the Champions League and the FIFA Club World Cup; at age 23, he won his first Ballon d'Or. Ronaldo was the subject of the then-most expensive association football transfer when he signed for Real Madrid in 2009 in a transfer worth €94 million (£80 million), where he won 15 trophies, including two La Liga titles, two Copa del Rey, and four Champions Leagues, and became the club's all-time top goalscorer.**

**He won back-to-back Ballons d'Or in 2013 and 2014, and again in 2016 and 2017, and was runner-up three times behind Lionel Messi, his perceived career rival. In 2018, he signed for Juventus in a transfer worth an initial €100 million (£88 million), the most expensive transfer for an Italian club and for a player over 30 years old. He won two Serie A titles, two Supercoppe Italiana, and a Coppa Italia, before returning to United in 2021. Ronaldo made his international debut for Portugal in 2003 at the age of 18 and has since earned over 180 caps, making him Portugal's most-capped player. With more than 100 goals at international level, he is also the nation's all-time top goalscorer. Ronaldo has played in and scored at 11 major tournaments; he scored his first international goal at Euro 2004, where he helped Portugal reach the final.**

**On June 2010 Ronaldo became the fourth footballer ever to have a wax statue at the Madame Tussauds museum in London. In his hometown there is a museum, Museu CR7 which is dedicated only to Ronaldo containing his trophies, medals, rare pictures and everything related to Ronaldo. Ronaldo was doubtful about wearing the Number 7 shirt because he thought it would be too much pressure on him as the number 7 shirt was worn by legends like Johnny Berry, Eric Cantona and David Beckham. After wearing it, he was forced to live up to the number.**

**Ronaldo donates blood regularly and does not smoke or have any tattoos on his body. Ronaldo has won the FIFA world player of the year award, Ballon d'Or, the Golden Boot, and has been named the UEFA Club Forward of the Year as well. Ronaldo also has a fashion boutique named CR7 and models for men's fashion wear. The store is famous for featuring diamond studded clothing. He is rich and famous but is always involved with charity, fund raising and donations to NGOs. He has funded schools in Gaza and also acts as the Ambassador to Save the Children and The Mangrove Care Forum in Indonesia**

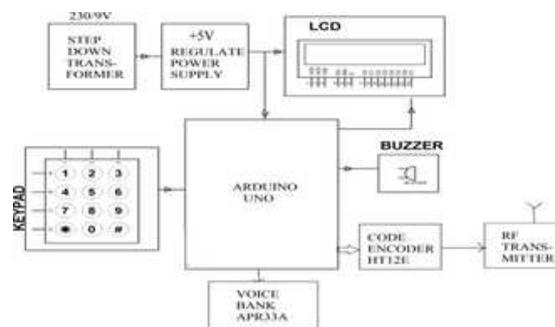
**Ronaldo has been the subject of several works. His autobiography, titled Moments, was published in December 2007. His sponsor Castrol produced the television film Ronaldo: Tested to the Limit, in which he was physically and mentally tested in several areas; his physical performance was consequently subject to scrutiny by world media upon the film's release in September 2011. Cristiano Ronaldo: The World at His Feet, a documentary narrated by actor Benedict Cumberbatch, was released via Vimeo in June 2014. A documentary film directed by Anthony Wonke about his life and career, titled Ronaldo, was released on 9 November 2015**

**HARIHARAN I**

**II EEE**

# TECHNOCARETAKER

*The aim of this project is to remind people who forget to take their medicines on time. Elderly people because of their age usually forget to take their medicines. This project will help to remind the patient to take his/her medicine at prescribed time. The proposed system is best suited for elderly people and people who are very busy, as this device will not only remind them of their medicines with a buzzer sound but also displays the name of the medicine to be taken at that time.*

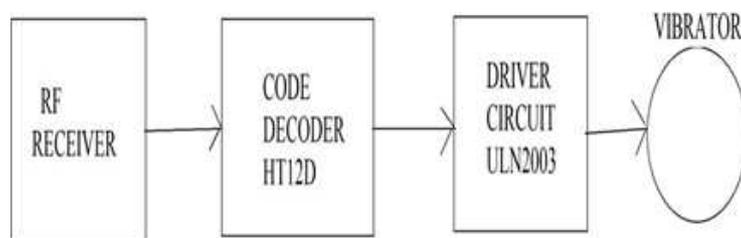


*The microcontroller used in this project is of ATMEGA328 family.*

*This project in future can be enhanced by integrating it with RF technology, so that the Deaf and Dumb patient receives a reminder about the medicine he has to take via vibrator on his/her wrist or on his/her pocket*

## **MICRO CONTROLLER UNIT:**

The Arduino Uno is a microcontroller board based on the ATmega328 . It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz crystal oscillator, a USB connection, a power jack, an ICSP header, and a reset button. It contains everything needed to support the microcontroller.



## **LCD DISPLAY:**

LCD is mainly used for display the information. Here we are using 2x16 LCD. Operation of the LCD is the declining prices of LCDs. The ability to display numbers, characters, and graphics. This is in contrast to LEDs, which are limited to numbers and characters.

## **ALARM CIRCUIT:**

The output from a MC is connected to the base of transistor bc547 through a resistor 4.7k .The transistor collector point connected to the buzzer. When there is a positive bias from the port.

## **POWER SUPPLY:**

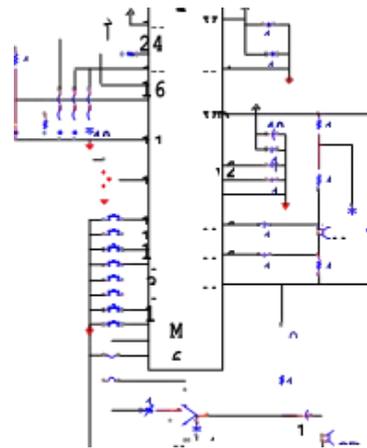
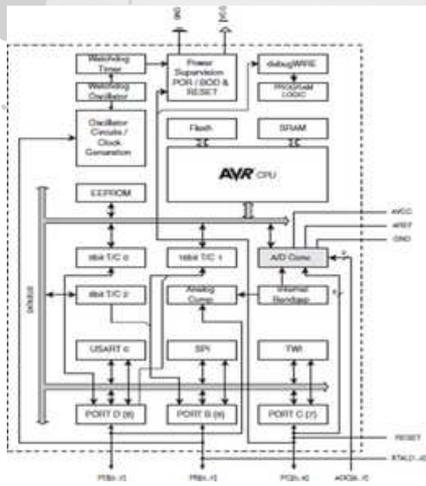
*A power supply circuit is very essential in any project. This power supply circuit is designed to get regulated output DC voltage. 7805 IC is used to give the constant 5v supply. Bridge rectifiers using diodes is used for rectifying purposes. The power supply section is for supplying voltages to the entire circuit unit.*

## **MEMORY:**

*The Atmega328 has 32 KB of flash memory for storing code (of which 0,5 KB is used for the bootloader); It has also 2 KB of SRAM and 1 KB of EEPROM.*

## **INPUT AND OUTPUT:**

*Each of the 14 digital pins on the Uno can be used as an input or output, using `pinMode()`, `digitalWrite()`, and `digitalRead()` functions. They operate at 5 volts. Each pin can provide or receive a maximum of 40 mA and has an internal pull-up resistor (disconnected by default) of 20-50 kOhms. In addition, some pins have specialized functions*



## **MESSAGE MODE:**

In fixed 1/ 2/ 4/ 8 message mode (C2.0), user can divide the memory averagely for 1, 2, 4 or 8 message(s). The message mode will be applied after chip reset by the MSEL0 and MSEL1 pin.

## **RECORD MESSAGE:**

During the /REC pin drove to VIL, chip in the record mode. When the message pin (M0, M1, M2 ... M7) drove to VIL in record mode, the chip will playback "beep" tone and message record starting.

## **PLAYBACK MESSAGE:**

During the /REC pin drove to VIH, chip in the playback mode.

When the message pin (M0, M1, M2 ... M7) drove from VIH to VIL in playback mode, the message playback starting.

*The project on MED REMINDER is working fine, getting the parameter envisaged during the conceptual stage.*

*During the design, as well as during the construction, greater care has been put into avoid hiccups at the final stage. The PCB layouts were prepared with utmost care to incorporate the circuits in a modular manner. The circuit is made as simple as to our knowledge. Also components were selected keeping in mind their availability and cost.*

*It was a very interesting process of developing the prototype, stage by stage and testing the same. We have to go through fairly large pages of data related to the components etc. It was a useful and fulfilling assignment to get the project completed in time. This gave us a sense of satisfaction and accomplishment.*

**BOOBAESH.S**  
**II YEAR EEE**

# IOT BASED WEATHER MONITORING AND FLOOD DETECTION

*Flood is one of the natural disasters that cannot be avoided. It happens too fast and affected so many lives and properties. Before this, most of the existing system that has been developed is only focus on certain areas. Other than that, majority of the public cannot monitor and have no idea when the flood going to be happened since they do not have any information and data about the weather condition. The proposed system is suitable for cities and village areas. Furthermore, if the public has an internet access, they can monitor what is happening and predict if there is any upcoming flood at the web server.*

*In order to find the flow rate a water flow meter is used which send the flow rate to the IoT web server. IoT stores data in privately in private channel by default. Thus, the result obtained shows the designed system is capable of monitoring the flood prone areas*

## **OBJECTIVE OF PROJECT**

*Flood monitoring system is a system that is developed using the platform of IoT to get it stored or retrieved which is of data from the systems using the protocol of HTTP in LAN. This system relies on NodeMCU boards in which it acts as transmitter and receiver the IoT application acts as server. NodeMCU's are placed at the flood-prone areas in which it will be acting as transmitting unit in which it consists of a Water level sensor that is used for detecting the level of water and this data is sent to IoT server to get stored.*

## **Existing System**

*The existing is real time flood monitoring system with Wireless Sensor Networks. We observed that this system cannot provide or measure the different environment conditions using Wireless Sensor Networks, and also noticed that the existing WSN of flash flood alerting cannot provide forecasting of future disasters. So in this case of floods it takes more time to send message to the people living in the nearest area so that the people could not save their lives.*

## **Proposed System**

*Smart IoT Flood Monitoring System is developed to alert the public closest to the area when there is upcoming flood.*

*The collected data from the sensor are gathered and will be forwarded to microcontroller and data will be displayed at web server. Then, data will be analyzed and compared.*

*This project will update the water level at the web server and the system will issue an alert signal to the citizens for evacuation so that fast necessary actions can be taken.*

## **History of IoT**

*“When wireless is perfectly applied the whole earth will be converted into a huge brain, which in fact it is, all things being particles of a real and rhythmic whole.*

*IoT is a digital implementation of Tesla’s prophetic vision.*

## **1. Business Benefits**

*Why are 98% of companies planning IoT initiatives? Here is how your business can benefit from IoT: It can both increase revenue and decrease costs, especially through better product development, increased efficiency, better-protected IP, and more stable revenue streams.*

## **2. Better Product Development:**

*IoT connectivity allows for better customer understanding, which is the key to retail success.*

*No self-respecting web developer would release a website without analytics that track the site's popularity, but this is precisely what developers of non-IoT products have done throughout history.*

## **3. Increased Operational Efficiency:**

*George Westerman, the director of MIT's course "Internet of Things: Business Implications and Opportunities," has stated that IoT's "main value, at least for the first stages, is going to be in operations." He forecasts both lower operating costs and improved productivity.*

## **4. Better Protected IP:**

*Historically, manufacturers ran the risk of competing with copycats (especially if they produced overseas, particularly from China). IoT products, however, are protected by their “cloud half.” Even if the physical version of a product is duplicated, the copy lacks access to the manufacturer’s cloud, including its IoT analytics and perhaps even the ability to run the product at all.*

## **5. More Stable Revenue Streams:**

*Continuous customer connections allow improved business models, which is literally how a company makes money.*

*Peloton, which sells what is essentially a stationary bicycle with a tablet attached, makes much of its money through content subscriptions.*

## **6. Consumer Benefits**

*Consumers will see improvements from IoT as well, generally through increased convenience, greater satisfaction, improved products, and more services.*

## **7. Increased Convenience due to Automation:**

*For most consumers, “convenience” is the first benefit of an IoT home. IoT can automate chores, even fulfilling necessities that many forget to do, such as checking the expiry dates of food or medicine.*

## **8. Better Energy Efficiency:**

*Many customers want to save energy, but this goal can be difficult to achieve. With IoT, data from connected devices can provide insights to homeowners that allow for more energy efficiency and decreased utility bills.*

## **9. Higher Quality Products:**

*For some devices, increased connectivity has an improvement on the device itself. Starting in the 1990s, heavy equipment manufacturer Caterpillar began embedding connectivity in its equipment.*

## **10. More Services in Total:**

*Since it's a clear example that consumers can understand, everyone is talking about smart homes.*

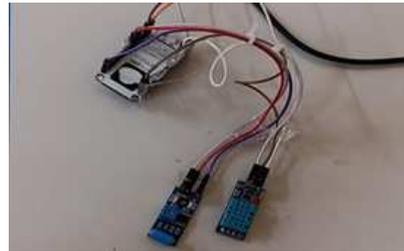
## **Nodemcu ESP8266 Pinout:**

*For practical purposes ESP8266 NodeMCU V2 and V3 boards present identical pinouts. While working on the NodeMCU based projects we are interested in the following pins.*

*Power pins (3.3 V).*

*Ground pins (GND).*

*Analog pins (A0).*



*The model proposed has been already tested and it is working as presented in this paper. It will monitor each and every aspect that can lead to flood. If the water level rises along with the speed, it will send an alert immediately. It also ensures increased accessibility in dealing and reverting to this catastrophic incident. In summary, it will help the community in taking quick decisions and planning against this disaster.*

**KEERTI.J.S**  
**III YEAR EEE B**

# DUAL AXIS SOLAR TRACKER USING ARDUINO

Due to fast development of technology, most of the people around the world need to use energy to complete their daily work. Many natural energy sources are increasingly being used in the society. One of them is solar energy that uses the solar panel and solar tracker.

Solar Energy is a clean energy source available in abundance throughout the world. This energy can be converted to electrical form by means of Solar panels. The conversion efficiency of solar panels is about 20%. The use of solar trackers raises the efficiency to around 35%-40%, thereby providing more output power.

Solar trackers are devices, which align the panels almost perpendicular to the direction of falling sun-rays. This is done because of the fact that solar panels give out maximum output only when incident rays are perpendicular to them.

Dual axis systems provide movement in both the directions and are hence more efficient and reliable. Both these systems work on the outputs provided by the photo sensors which are compared and analyzed to provide the necessary data for the correction of alignment.

This paper discusses the prototype design of a study level, dual-axis, active solar tracker using light dependent resistor (LDR) sensor and Arduino UNO. One small solar plate, four LDR sensors, two small servo motors, and one Arduino UNO microcontroller have been utilized in making this prototype tracker.

The main part of the control system is the microcontroller, which collect the sensors signals and decide which motor should move to which direction for adjusting the system in such a way that the sun light falls directly on the panel

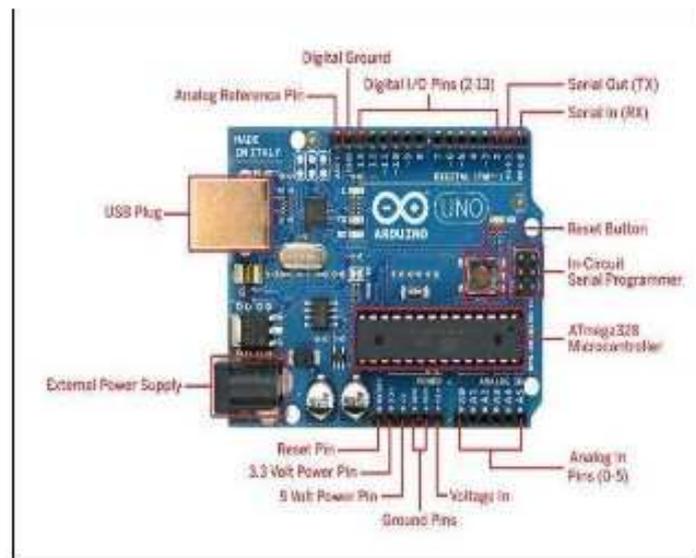
. Both systems have a similar control system consisting of motors, sensors which are directed by some analog or digital control circuitry.

## **ARDUINO UNO:**

Arduino Uno is a microcontroller board based on 8-bit ATmega328P microcontroller. Along with ATmega328P, it consists other components such as crystal oscillator, serial communication, voltage regulator, etc. to support the microcontroller.

Arduino Uno has 14 digital input/output pins (out of which 6 can be used as PWM outputs), 6 analog input pins, a USB connection, A Power barrel jack, an ICSP header and a reset button.

Arduino can be used to communicate with a computer, another Arduino board or other microcontrollers. The ATmega328P microcontroller provides UART TTL (5V) serial communication which can be done using digital pin 0 (Rx) and digital pin 1 (Tx).



## Advantages of Solar Energy:

Renewable Energy Source. Among all the benefits of solar panels, the most important thing is that solar .

Instruction of the sensors when sunlight detected by the following; sensor 1 as west-north direction, sensor 2 as east-north direction, and sensor 3 as east-south direction.



The most commonly used electric motor is permanent magnet brushless DC motors as they are easy to maintain. Novel innovative tracking systems will include dynamic weather forecasting and cooling of the PV system with wind or water.

The Dual-axis solar power tracking system was set up and tested using MATLAB, and ARDUINO code. It is designed according to the circuit to trap the sun in all directions. It has better efficiency and sustainability to give a better output compared to fixed solar panels.

Space requirement of tracking system is very less.  
Advancements in technology has minimized the maintenance required  
Generation of more electricity means cost to be paid for electricity service is reduced

**-Ajay.S.S**  
**II-year EEE**

## **Energy Conservation with modern technology:**

Energy conversion monitoring system is an electronic system that monitors load voltage and current or packs with various parameters. However, on the market is very expensive and not suitable for low-cost embedded systems.

As the Arduino Uno is widely used for low-cost microcontroller boards, easy programming environment, and open-source platforms for building electronic projects, therefore, this study focuses on Arduino Uno based Energy conversion monitoring system with smart automation.

This system consists of current and voltage sensors to monitor and use the PIR sensor to obtain the automation, an Arduino Uno microcontroller with Wi-Fi module and a liquid crystal display (LCD) to view the monitored reading.

In order to develop this system, there are three objectives to be achieved. First, the relationship between input and output of the sensors must be derived mathematically.

The mathematical expression obtained can be verified by connecting and disconnecting the circuit with load and monitoring the value of output sensors.

Then, a complete prototype of the Energy conversion monitoring system was developed by connecting the LCD, current and voltage sensors to the Arduino Uno microcontroller and connection with PIR sensor to automate the unit with relay.

In this project, we will build an IoT based energy monitoring System using ESP8266 where you can monitor the load voltage and current and also automate light using Passive Infrared Sensor to sense the human presence and turn on light.

Energy monitoring system is the most significant demands to decrease the energy expenditure from the businesses. The Energy Monitoring System is accomplished through sense the current and voltage, along with data loggers. Data logger is utilized to get these data from sensors via ESP8266 protocol.

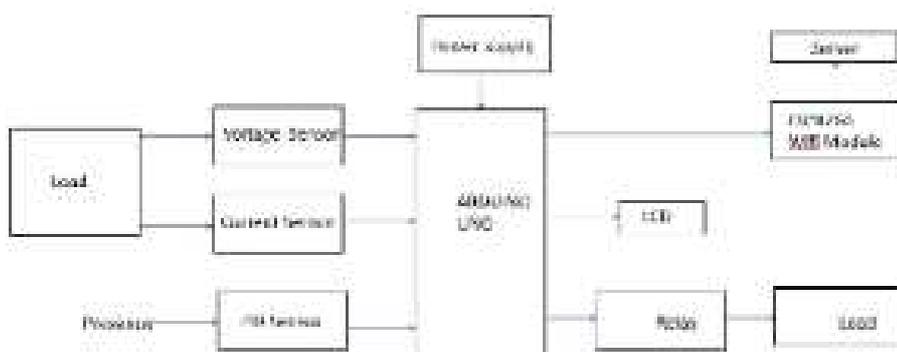
The automation achieved by sensor convey the presence of human to the Arduino and operate the relay.

Smart appliances can inform homeowners of real-time consumption so that they can monitor their energy usage.

The PIR sensor detects the human presence in the room then convey the information to the Arduino for further process then the Arduino decide the operation of the relay unit that connected with the load.

The server the contain data can viewed by the Think view Application on mobile with authorized connect line the provide by Think view website.

The server data logger maintains a record of reading that gained by the Arduino and data converted into a graphical representation in the mobile dash board.



## ARDUINO UNO:

The Arduino Uno is an open-source microcontroller board based on the Microchip ATmega328p

They are placed around the conductor that's current we want to measure



Current transformers are essential in many applications. For instance, they are often used in sub-metering to determine energy usage by separate tenants.



I/O pins (six capable of PWM output), 6 analog I/O pins, and is programmable with the Arduino IDE (Integrated Development Environment), via a type B USB cable. It can be powered by the USB cable or by an external 9-volt battery, though it accepts voltages between 7 and 20 volts.

## **CURRENT SENSOR:**

Current transformers use this magnetic field to measure current flow. If the CT is designed to measure AC current, inductive technology is often used. AC current changes potential, which causes the magnetic field to continually collapse and expand. In an AC current sensor, wire is wrapped around a core.

## Working Principle:

Current transformers can either step-up, step-down, or keep the current the same. Sensors that step-up or step-down current are often referred to as transformers. Sensors typically consist of two coils. The coil on which the current passes is called the primary winding and the coil in which voltage is induced is called the secondary winding. For many of the current transformers that we sell at Aim Dynamics, the conductor that the CT is installed around serves as the primary winding and the secondary winding is within the transformer. The core that the secondary winding is wrapped around depends on what the sensor is designed to handle.

The turns ratio of a transformer is the number of turns in the secondary winding divided by the number of turns in the primary winding ( $\frac{N_S}{N_P}$ ).

This ratio determines whether a transformer steps the voltage up or down. The ratio of the secondary to the primary voltage is equal to the turns ratio, as given by the equation

## **CONCLUSION:**

The project that presented the architecture and the implementation of Energy Conservation system with modern technology. The system consists of sensor to sense the energy consumption by using current and voltage also using ESP8266 to upload the readings into server with help of Wi-Fi, it can view at any were using authorized channel in Thinkview App by the user.

Automation is archived using PIR sensor and relay unit connected with Arduino uno.

In order to conserve energy we need to keep a check on all the type of resources that are being used in our day to day life.

**- Divya.S**  
**II-year EEE**

# **IoT BASED DRIPS MONITORING SYSTEM:**

Better health is the central to human happiness and well-being. Patients' safety is the fundamental to provide that happiness and it is the absence of preventable harm caused to the patient at the time of health care. WHO's work on 'Health and development' tries to make sense of these complex links.

It is concerned with the impact of better health on development and poverty reduction, and conversely, with the impact of development policies on the achievement of health goals. In particular, it aims to build support across government for higher levels of investment in health, and to ensure that health is prioritized within overall economic and development plans.

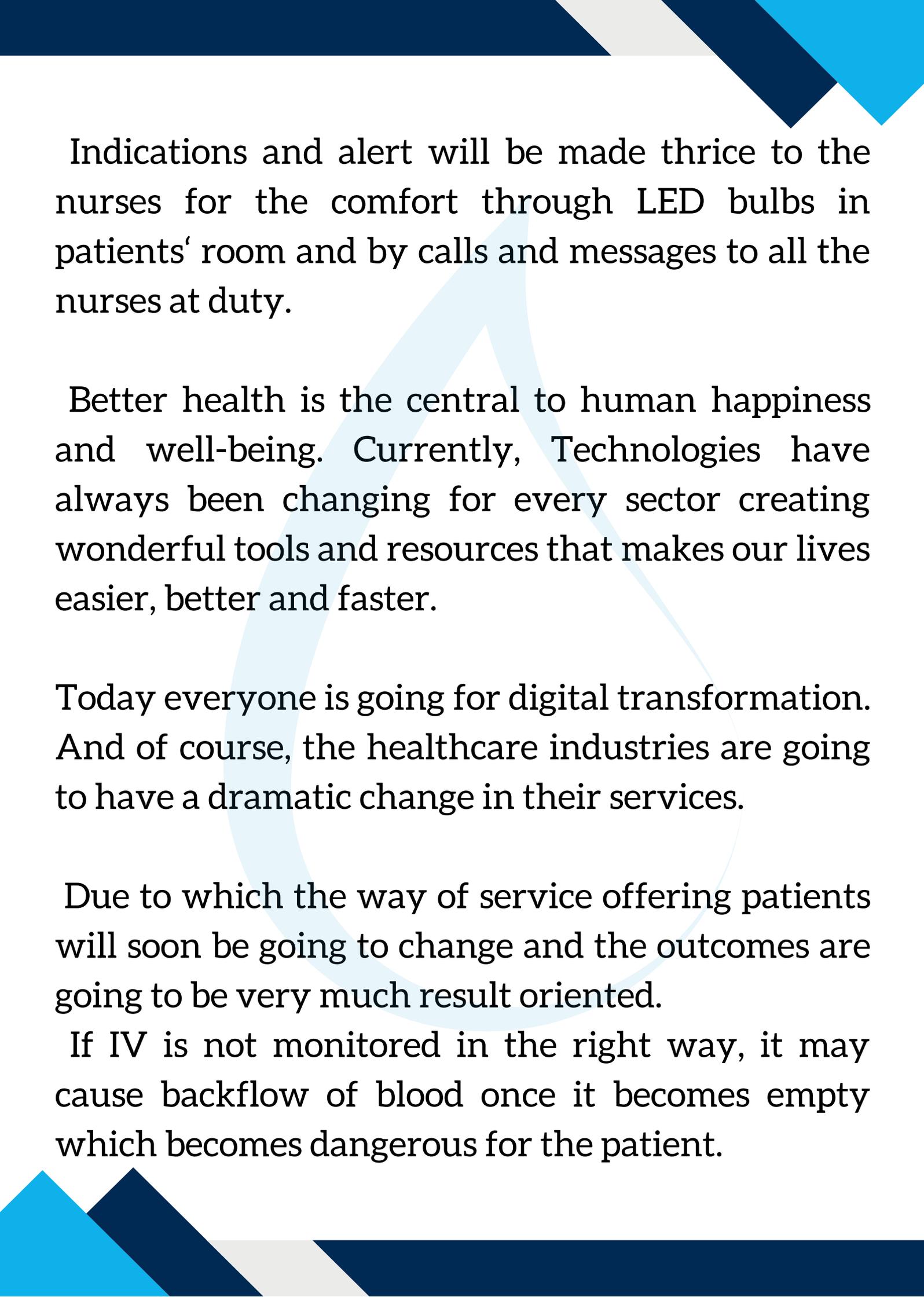
In this context, 'health and development' work supports health policies that respond to the needs of the poorest

Currently, Technologies have always been changing for every sector creating wonderful tools and resources that makes our lives easier, better and faster.

Today everyone is going for digital transformation. While information technologies, the Internet, and mobile technologies are introducing innovative approaches to knowledge exchange, communication, and new knowledge generation, the health system is comparatively slow in taking up these approaches towards healthcare service delivery.

The project work involves monitoring of the saline bottles in hospitals.

This framework comprises of Arduino AT Mega 328, Load Cell, HX711 Amplifier, LED and GSM Module. With consideration to the difficulty faced by the patients and the nurses on the completion of the saline (drips)



Indications and alert will be made thrice to the nurses for the comfort through LED bulbs in patients' room and by calls and messages to all the nurses at duty.

Better health is the central to human happiness and well-being. Currently, Technologies have always been changing for every sector creating wonderful tools and resources that makes our lives easier, better and faster.

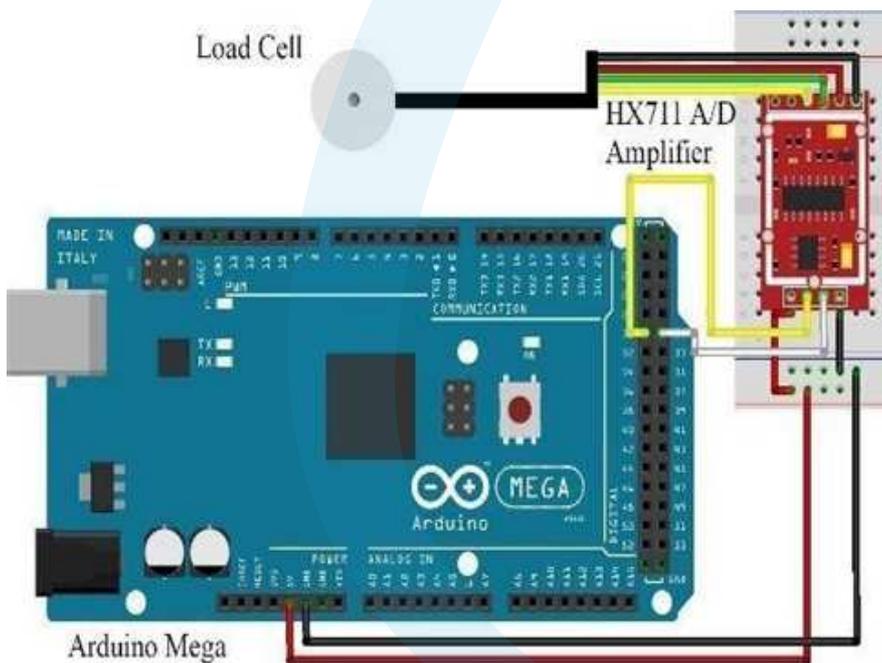
Today everyone is going for digital transformation. And of course, the healthcare industries are going to have a dramatic change in their services.

Due to which the way of service offering patients will soon be going to change and the outcomes are going to be very much result oriented.

If IV is not monitored in the right way, it may cause backflow of blood once it becomes empty which becomes dangerous for the patient.

## THE MAIN OBJECTIVES ARE ::

- To monitor the fluid level by the Load cell and HX711 amplifier.
- To avoid harms caused to patients health due to negligence towards saline completion.
- To make the saline monitoring automatic and to inform the doctor/nurse spontaneously for patient safety.



be fixed on the saline stand with the load cell amplifier HX711. The saline bottle will be hanged at the centre of the load cell so that it can measure the weight of the bottle.

Arduino Uno will be in the patient's room and once the bottle has reached to 40 percent of saline , the arduino will be activated and it glows the LED bulb (red color to indicate emergency) which will be placed in front of the patient's room.

By this way, anyone passing the room will be able to identify that it is an emergency and intimate the nurses nearby.

Later when the saline level reaches to 20 percent, Arduino will alert GSM Sim 800a used to send a message to mobile phones of all the nurses in duty indicating the need to change the saline bottle.

This will hence give time for the nurses to replace the bottle accordingly.

The Drips bottle will be connected or hanged to the load cell. The load cell which is in turn connected to the load cell amplifier HX711. Initially the saline level will be full. The amplifier is connected to the microcontroller Arduino AT Mega 328.

he outputs of the Arduino are given to GSM module sim 800a and LED bulb. The GSM module is connected here which can be further used for the process of sending messages or calls to the nurses and doctors. An automated Saline monitoring system will thus be very much accurate due to 1kg load cell.

It will help us monitor patients at regular intervals of time through different alerts.

It will also keep the nurses free from haste and panics. It is very beneficial and cost effective. Moreover this will never go unnoticed since alert is given to multiple mobile phones via messages and calls.

to monitor the patient 24/7 with the help of a camera and inform the doctors about th patients.



**JEYABALAN.M**  
**II YEAR EEE**

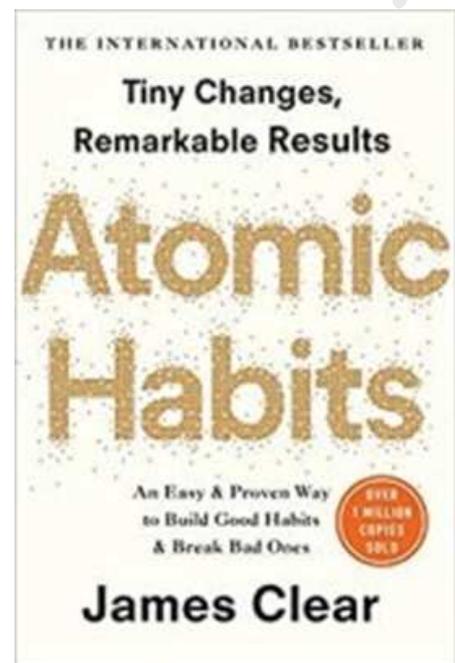
# BOOK REVIEW : ATOMIC HABITS

BY : JAMES CLEAR

## ABOUT THE BOOK

An atomic habit is a regular practice or routine that is not only small and easy to do but is also the source of incredible power; a component of the system of compound growth. Bad habits repeat themselves again and again not because you don't want to change, but because you have the wrong system for change. Changes that seem small and unimportant at first will compound into remarkable results if you're willing to stick with them for years

Habits are the compound interest of self-improvement. If you want better results, then forget about setting goals. Focus on your system instead. The most effective way to change your habits is to focus not on what you want to achieve, but on who you wish to become.



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The Four Laws of Behavior Change are a simple set of rules we can use to build better habits. They are (1) make it obvious, (2) make it attractive, (3) make it easy, and (4) make it satisfying. Environment is the invisible hand that shapes human behavior.

“Small changes in context can lead to large changes in behavior over time.”

“Every habit is initiated by a cue. We are more likely to notice cues that stand out.” “Make the cues of good habits obvious in your environment.”

The inversion of the 1st Law of Behavior Change is make it invisible.” “Once a habit is formed, it is unlikely to be forgotten.” “People with high self-control tend to spend less time in tempting situations. It’s easier to avoid temptation than resist it.” “One of the most practical ways to eliminate a bad habit is to reduce exposure to the cue that causes it.” “Self-control is a short-term strategy, not a long-term one.” “The 2nd Law of Behavior Change is make it attractive.” “The more attractive an opportunity is, the more likely it is to become habit-forming.” “Habits are a dopamine-driven feedback loop.

## **ABOUT THE AUTHOR :**

James Clear is a writer and speaker focused on habits, decision making, and continuous improvement. He is the author of the no. 1 New York Times bestseller, Atomic Habits. The book has sold over 5 million copies worldwide and has been translated into more than 50 languages.

Clear is a regular speaker at Fortune 500 companies and his work has been featured in places like. His popular "3-2-1" email newsletter is sent out each week to more than 1 million subscribers. You can learn more and sign up at [jamesclear.com](http://jamesclear.com).



**RAGUL RAJA.S**  
**II YEAR EEE**



**IDIOMS  
AND  
PHRASES**

# 1. IN STITCHES

## MEANING:

If you're "in stitches", you're laughing so hard that your sides hurt.

## EXAMPLE:

"He was so funny – he had me in stitches all evening."

## ORIGIN:

Presumably comparing the physical pain of intense laughter with the prick of a needle, "in stitches" was first used in 1602 by Shakespeare in *Twelfth Night*. After this, the expression isn't recorded again until the 20th century, but it's now commonplace.

## **2.A RED HERRING**

### **MEANING:**

Often used in the context of television detective shows, a red herring refers to something designed to distract or throw someone off a trail. Hence in a detective show, a clue that appears vital to solving a mystery is often added to heighten suspense, but may turn out to have been irrelevant; it was a red herring.

### **EXAMPLE:**

“It seemed important, but it turned out to be a red herring.”

### **ORIGIN:**

A herring is a fish that is often smoked, a process that turns it red and gives it a strong smell. Because of their pungent aroma, smoked herrings were used to teach hunting hounds how to follow a trail, and they would be drawn across the path of a trail as a distraction that the dog must overcome.

### **3. BITE OFF MORE THAN YOU CAN CHEW**

#### **MEANING:**

If you “bite off more than you can chew”, you have taken on a project or task that is beyond what you are capable of.

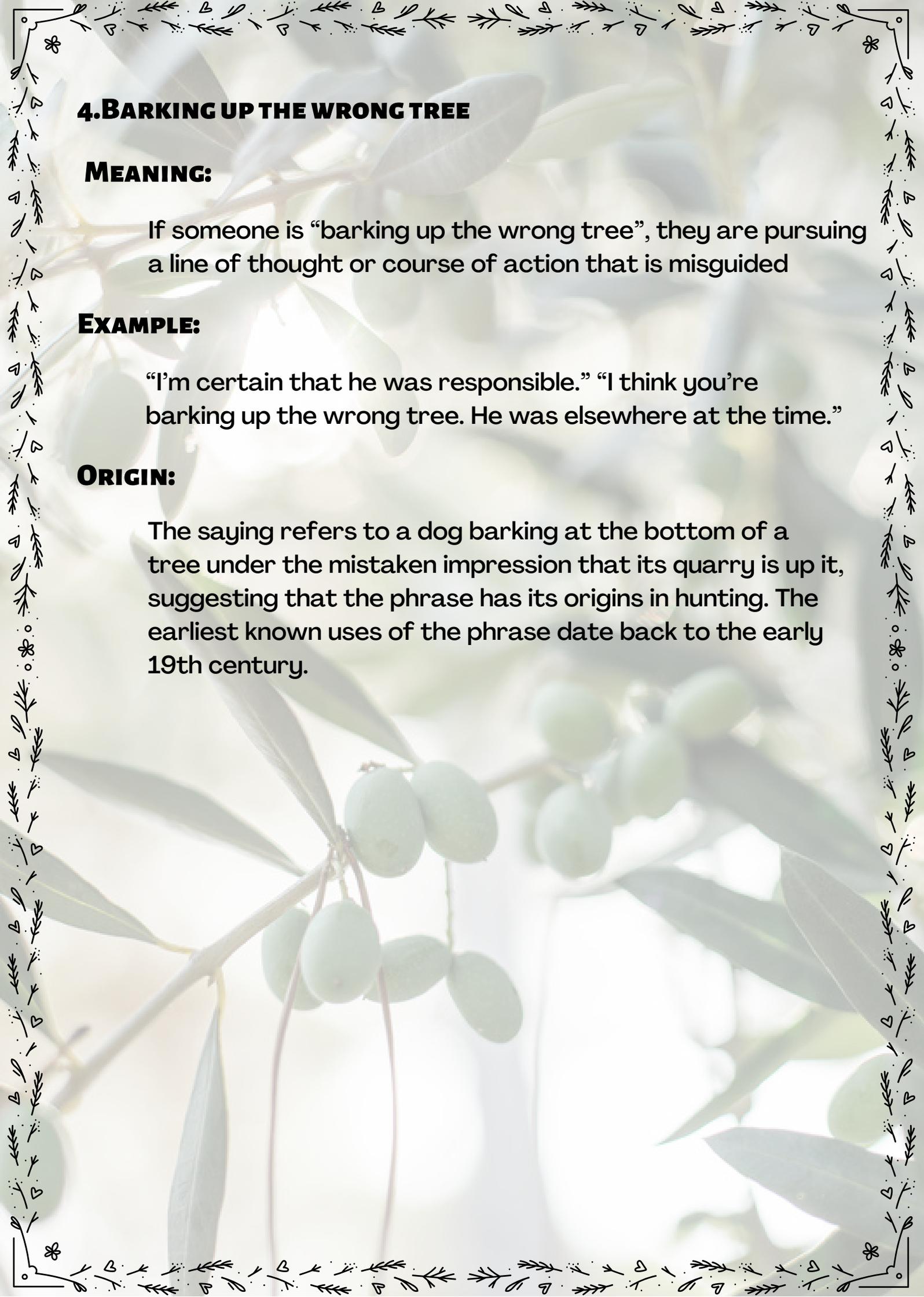
#### **EXAMPLE:**

“I bit off more than I could chew by taking on that extra class.”

#### **ORIGIN:**

This saying dates back to 1800s America, when people often chewed tobacco. Sometimes the chewer would put into their mouth more than they could fit; it’s quite self-explanatory!





## 4. BARKING UP THE WRONG TREE

### MEANING:

If someone is “barking up the wrong tree”, they are pursuing a line of thought or course of action that is misguided

### EXAMPLE:

“I’m certain that he was responsible.” “I think you’re barking up the wrong tree. He was elsewhere at the time.”

### ORIGIN:

The saying refers to a dog barking at the bottom of a tree under the mistaken impression that its quarry is up it, suggesting that the phrase has its origins in hunting. The earliest known uses of the phrase date back to the early 19th century.

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## 5. BLOW ONE'S OWN TRUMPET



### MEANING:

Blowing one's own trumpet means to boast about one's own achievements.

### EXAMPLE: :

Without meaning to blow my own trumpet, I came top of the class.

### ORIGIN:

Though phrases meaning the same thing had been in use for centuries, the actual expression is first recorded by Anthony Trollope in his 1873 work *Australia and New Zealand*.

*by,*

**S.ADEEB  
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# POEM



**THE GUEST HOUSE**

**THIS BEING HUMAN IS A GUEST HOUSE.**

**EVERY MORNING A NEW ARRIVAL**

**A JOY, A DEPRESSION, A MEANNESS,**

**SOME MOMENTARY AWARENESS COMES**

**AS AN UNEXPECTED VISITOR.**

**WELCOME AND ENTERTAIN THEM ALL!**

**EVEN IF THEY ARE A CROWD OF SORROWS,**

**WHO VIOLENTLY SWEEP YOUR HOUSE**

**EMPTY OF ITS FURNITURE,**

**STILL, TREAT EACH GUEST HONOURABLY.**

**HE MAY BE CLEARING YOU OUT**

**FOR SOME NEW DELIGHT.**

**THE DARK THOUGHT, THE SHAME, THE MALICE.**

**MEET THEM AT THE DOOR LAUGHING AND INVITE THEM IN**

**BE GRATEFUL FOR WHATEVER COMES.**

**BECAUSE EACH HAS BEEN SENT**

**AS A GUIDE FROM BEYOND.**

**BY,**

**HAREESHANGAR.M**

**1 YEAR**

**20EEE27**



# Art Work!





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