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

EEE TECHMANIA'20

VOLUME 13 ISSUE 21 - DEC 2020

PRESENTED BY
DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

VCET

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

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

Seeing the students original work for the TECHMANIA'20- Dec 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. 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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Elon Musk

Musk was born in Pretoria, South Africa, where he grew up. He briefly attended the University of Pretoria before moving to Canada at age 17, acquiring citizenship through his Canadian-born mother.Two years later, he matriculated at Queen's University and transferred to the University of Pennsylvania, where he received bachelor's degrees in Economics and Physics. He moved to California in 1995 to attend Stanford University but decided instead to pursue a business career, co-founding the web software company.

In 200 Musk founded SpaceX, an aerospace manufacturer and space transport services company, of which he serves as CEO and Chief Engineer.

In 2004, he was an early investor in electric vehicle manufacturer Tesla Motors, Inc. (now Tesla, Inc.). He became its chairman and product architect, eventually assuming the position of CEO in 2008. In 2006, he helped create SolarCity, a solar energy company that was later acquired by Tesla and became Tesla Energy. In 2015, he co-founded OpenAI, a nonprofit research company promoting friendly artificial intelligence (AI). In 2016, he co-founded Neuralink, a neurotechnology company focused on developing brain–computer interfaces, and founded The Boring Company, a tunnel construction company.

He agreed to purchase the major American social networking service Twitter in 2022, for $44 billion, but later stated he was terminating the deal; he is currently involved in a legal battle with Twitter which intends to complete the transaction. Musk has proposed a hyperloop high-speed vactrain transportation system and is the president of the Musk Foundation, which donates to scientific research and education.

In 2017, Musk founded The Boring Company to construct tunnels. Musk revealed plans for specialized high occupancy vehicles that could travel up to 150 miles per hour, circumventing above-ground traffic in major cities.

In 2013, Musk announced plans for a version of a vactrain —a vacuum tube train—and assigned a dozen engineers from SpaceX and Tesla to establish the conceptual foundations and create initial designs.Later that year, Musk unveiled the concept, which he dubbed the hyperloop. The alpha design for the system .

The document scoped out the technology and outlined a notional route where such atransport system could be built between the Greater Los Angeles Area and the San Francisco Bay Area at an estimated cost of $6 billion. The proposal, if technologically feasible at the costs he has cited, would make Hyperloop travel cheaper than any other mode of transport for such long distances. Subsequently, Musk biographer Ashlee Vance has claimed that the original purpose of Musk's Hyperloop proposal was "to nix a high-speed rail project in California."

In 2015, Musk announced a design competition for students and others to build Hyperloop pods to operate on a SpaceX-sponsored mile-long track in a 2015–2017 Hyperloop pod competition. The track was used in January 2017, and Musk also announced that the company started a tunnel project.

In 2015, Musk announced Hawthorne airport as its destination.In July 2017, Musk claimed that he had received "verbal government approval" to build a hyperloop from New York City to Washington, D.C., stopping in both Philadelphia and Baltimore.Mention of the project for the DC to Baltimore part was removed from the Boring Company website in 2021.

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RUBIKSHA S
IV EEE A

DESIGN OF PORTABLE SALT WATER LAMP

Global warming and the destruction of the environment are two major problems related to the use and extraction of fossil fuels. Other issues include sustainability, economic, political and social problems. This has motivated the use of alternative sources of energy, as well as the search for techniques and technologies to make a more efficient use of it (Fisher & Knutti, 2015 & Renewables Global Status Report, 2016). One of the alternatives to fossil fuels is nuclear energy, which is not without drawbacks. These include safety, waste disposal and weapon proliferation issues.

Renewable energy is a term used to describe a group of energy generation technology derives from natural resources that cannot be depleted and can be replenished in a short period of time. In the World Energy Issues Monitor Report 2017 (World Energy Issues Monitor, 2017), a report that provides snapshot of the world energy agenda from 90 countries, renewable energy has always been one of the critical issues that have an impact on the energy sector.

Currently, very limited research has been carried out in Malaysia in terms of harnessing sustainable energy from salt water (Aminuddin et al., 2014 & Liu et al., 2016) and the findings were not well documented. The principle of saltwater energy has been around for centuries. However, the technical issues related to saltwater energy are rarely discussed, as the technology is not fully developed for mass consumption. As saltwater energy comprises of electrodes and salt water, it is important to determine the effect of electrode's combinations, number of cells, durability of the electrodes and salinity of salt water. In light of this issue, National Hydraulic Research Institute of Malaysia (NAHRIM) has collaborated with UTM researchers to explore the potential of salt water as energy source.

The main objective of this research project is to produce a cost- effective new illumination technology powered by salt water for rural and remote communities in Malaysia as well as worldwide. Furthermore, this new technology will also function as a power bank
especially in times of flooding which is a common problem in Malaysia during the monsoon seasons.

Existing System

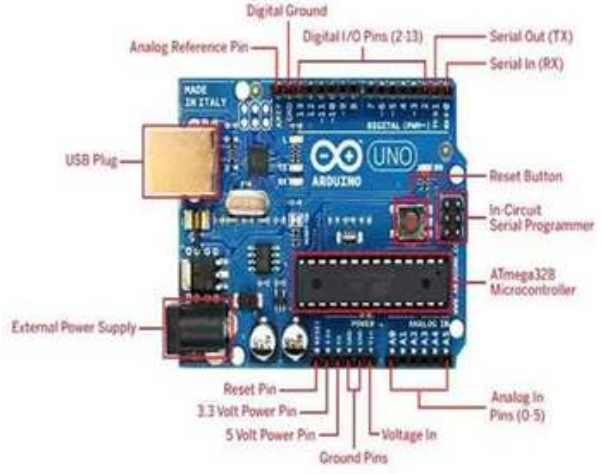
The existing system is design, testing, and construction of a new energy source derived from the ionized solution and electrodes. The design focused on the optimal salt-liquid mixture as an electrolyte and the type of electrodes used to produce better energy output. Included the design is the number of cells and the packaging set-up of the power source device. It tested different liquids as electrolyte, including tap water, rainwater, cooking oil, and human urine with NaCl as well as Coca Cola and Vinegar. Results showed that the energy produced from different liquid-salt ratio and the size of the electrodes used varied slightly.

With the consideration of the device functionality, manageability, total cost, and general appearance, a ten- cell zinc-cupper electrolytic cell battery using salt-water- electrolyte produced 7.5 volts for 17 hours which can be extended by replacing electrolyte. The prototype device can light an LED lamp or charge a mobile phone.

Proposed System:

The project will be based on an experimental study of what liquid-salt mixture, size of copper and zinc and the fuel cell design which will produced the needed output power to light a LED lamp and charge a device.

In order to understand this concept, first you need to know about free hardware and free software concepts. Free hardware is devices whose specifications and diagrams are publicly accessible, so anyone can replicate them. This means that Arduino offers the base so that any other person or company can create their own boards, being able to be different from each other but equally functional when starting from the same base.

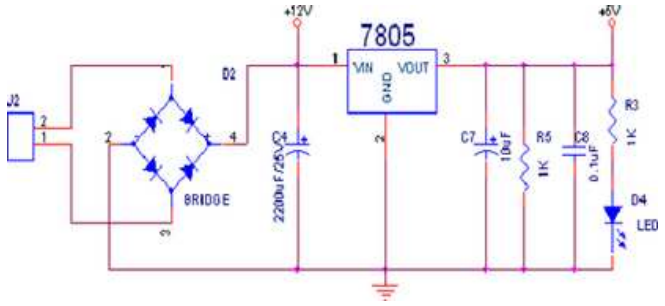


The potential transformer will step down the power supply voltage (0-230) level. Then the secondary of the potential transformer will be connected to the precision rectifier, which is constructed with the help of op- amp. The advantages of using precision rectifier are it will give peak voltage output as dc, rest of the circuit will give only RMS output

Bridge rectifier

When four diodes are connected as shown in fig. The circuit is called as bridge rectifier. The input to the circuit applied to the diagonal opposite corners of the network, and the output is taken from the remaining two corners.

In this project, a review of the desalination system (renewable energy) is presented together by comparing the existing desalination system. The selection of the appropriate desalination technology depends on a number of factors. These include, plant size, feed water salinity, remoteness, availability of grid electricity, technical infrastructure and the type and potential of the local renewable energy resource.



However, their applicability strongly depends on the local availability of renewable energy resources and the quality of water to be desalinated. In addition to that, some combinations are better suited for large size plants, whereas some others are better suited for small scale applications. Thus we conclude that the most popular combination of technologies is usage of thermal collectors along with evaporation and condensation processes.

Vaishnavi
IV YEAR EEE A

AIR QUALITY MONITORING AND FILTERING SYSTEM USING IoT:

It is the most important element for living. The air we breathe today is a mixture of harmful pollutants in high concentration. Pollution is rising with the growing development. Due to the increase in air pollution life is becoming imperil to us and other living things. People are surrounded by the contaminated objects and affecting their health. This poses a threat to the future generation.

Sampling air quality is an important but difficult task. Hence, we wanted to raise this system to check pollution levels and to take necessary precautions and measures to reduce this for better future and cleaner air. Air contamination is a significant issue and a reason for significant worry in this day and age. A report distributed in 2014 by the World Health Organization (WHO) expresses that 7 million people are died roughly in 2012 because of air contamination.

Air contamination existed much before people, as volcanic emissions and woodland fires. Nonetheless, it turned out to be substantially more common after the Industrial Revolution.

Most fire accidents are caused because of a poor-quality rubber tube or the regulator is not turned off when not in use. Nowadays we are facing so many LPG gas explosion incidents and so that many people lost their life. In Nov, 2020 Three people, including an eight-year-old boy and his mother, were killed and four injured when a wall collapsed after a domestic LPG cylinder exploded. It is triggered by a gas leak at a house in nearby Arani in Tamil Nādu. In industries and residential areas near by industries the atmospheric air is polluted by industries releasing smoke. Under such scenario there is a high possibility for increase in carbon-di-oxide, nitrogen oxide like gases. It will induce the deadly causing disease to the people around the area. Therefore, developing the gas leakage alerting and filtering system is very essential. This project also aims to detect and alert gas leakage and to filter polluted contaminants in the air.

EXISTING SYSTEM:

Now this system has more than 30 stations. As the importance of measuring quality increased, the number of stations increased worldwide and they monitor the airy quality on a regular basis. However, these stations use expensive sensors to calculate air quality and has a high maintenance cost. Hence it is important to make a low-cost efficient system to calculate the air quality.

Now the existing system used LCD display to display the value. However, this was not necessary. Adding an LCD screen increases the

cost and power consumption. This might also result in incorrect power supply for the sensor. Instead, in the proposed system a web interface is added so that people from anywhere around the world can read the values for a particular location easily.

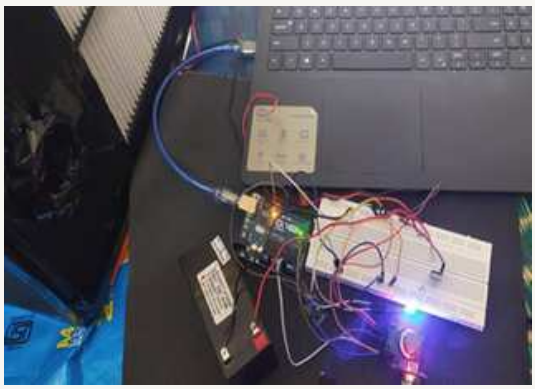
In the proposed system the MQ135 Gas Sensor is used, along with the Wi-Fi module ESP8266 that helps to send the data to the Thingspeak API. Web Interface gives the information of the city and its quality measure where the system was

implemented.

WORKING:

The MQ135 Gas Sensor detects ammonia, alcohol, benzene, CO2 and other gases. MQ6 Gas Sensor detects LPG, iso-butane, propane, LNG, The data received From the Gas Sensor (in AQI) is monitored, if it crosses greater than 1000PPM, the buzzer will ring, LED will be on and motor will run to such the air. The motor will be switched on by switch MOSFET. The speed of voltage of motor is controlled MOSFET. Filter material is connected with Motor. With the help of motor and material, contaminated particles in air is filtered through filter layers inside filter tube. API. This Web Interface shows air quality level in PPM, is air good or not, graph.Air Filtering is being activated till high ppm level is reduced to normal ppm level The Thingspeak API cloud stores all the data that is received from the microcontroller through the Wi-Fi module. Data is transferred into the Web Interface through Thing speak cloud

Hardware module for air quality monitoring is developed. In this system the MQ135 Gas sensor , MQ6 Gas sensor, ESP8266 Wi-Fi module and buzzer is connected to the Arduino. Air filter motor is also connected to Arduino through MOSFET to filter the air pollutants. Then, the code written in Arduino IDE is verified and it is uploaded to the Arduino. While uploading the code, the Arduino blinks. Arduino is connected to thingspeak cloud through Wi-Fi module. Sensor data are transferred to Arduino. In Thingspeak cloud platform, the channel and the field was created and the data can be upload from wi-fi module.



In Thingspeak cloud platform the channel and the field was created and the data can be upload from wi-fi module.

ADVANTAGES:

(i) It is innovative because it provides easy access to the public to monitor real time air quality in their area

(ii) This is used to filter polluted contaminants of the air automatically when the air gets polluted.
(iii) It doesn't need human interaction since the proposed system is fully automated.

(iv) It uses low cost and readily available devices such as MQ-135 and MQ6 Gas sensors.
(iv) Air quality monitoring and filtering system helps monitor the presence of pollutants, resulting in better environmental conditions for humans to reside.

(vi)This system impacts their health and reduces the chances of occurring any health issues by maintaining a moderate ambiance or as required.

DHARSHANA.M
III YEAR EEE B

ARDUINO BASED SPEAKING PLANT

Relationality, Knowledge and Practices" briefly makes a case for the ethnography of the human-plant interface by referring to three interrelated aspects that emerge from the set of papers that follow. These aspects involve the radical interconnectedness of humans, plants and things; the need to consider the agentivity of plants; and challenges to methodological orthodoxies. This task calls up key theoretical orientations that seek to include plants in research, description and theorisation.

In conclusion, we emphasize the need for more research and empirical
data to appraise the role of home gardens in crisis and post-crisis situations, as well as assessing their economic value and their impacts on food security, nutrition, economic growth, and gender issues.

EXISTING SYSTEM:

Arduino boards are easily programmable microcontrollers capable of supporting a variety of input and output peripherals, both analog and digital, for projects of many shapes and sizes. There are many versions available, with the most famous being the Arduino Uno. This board can have its external capabilities enhanced with the use of shields for things like motor control, Bluetooth, and Wi-Fi. With this controller board and the right combination of external peripherals, projects like an automated watering system can be had at little cost.

PROBLEM IDENTIFICATION:

Now a day's watering and take caring of plants get reduced due to our busy schedule we are not considering them. It has now become mandatory to take care of plants which are going exist for long years.

Because of these reasons more number of plants is getting to extinction state.

1. Lack of planting water

Plants require varying amounts of supplemental water, depending on the type of plant, growing conditions and amount of rainfall. Young plants need more irrigation than older plants that have developed an established root system. Monitoring the rainfall and amount of water you supply through irrigation helps determine if the plant's water needs are met. Plants also provide physical signs if they are running low on water.

2. No maintenance work in the plantation

There is no proper maintenance in the gardening were the plants gets dried by not watering it properly plant must be watered properly in proper time intervals. Due to this lack of maintenance most of the plants get died to overcome this, our miniproject plays a major role.

3. Excess of Watering to the plant

Overwatering is one of the more common causes of plant problem. Heavy and poorly drained soils are susceptible to becoming waterlogged. Roots growing in waterlogged soil may die because they cannot absorb the oxygen needed to function normally. The longer the air is cut off, the greater the root damage.

4. Lack of innovation in horticulture

Horticultural crops require more direct attention and monitoring per plant than arable crops, to ensure any emerging pests and diseases are limited to an acceptable threshold. operations that were previously performed manually, introducing more precision and reliability

PROPOSED SYSTEM

Arduino based speaking plant. Our project helps in the interfacing of humans with plant which brings a new innovation in the field of horticulture.

First of all, the moisture sensor which is placed inside the soil sense the water content and sends the signal to the microcontroller. If the moisture level present in the soil is below 950 the plant will say "Have a nice day" or else the moisture level is above 950 the plant will say "Hi can you, please feed me".

The main aim of our miniproject- "the speaking plant" is achieved by the voice module APR33A3 where we can record 8 different voice quote and store them. The stored voice quote can be accessed by the Arduino based on our requirements.

Finally, the speaker is connected to the voice module which produce the output of our miniproject by enabling the voice quote.

WORKING

Arduino based speaking plant. Our project helps in the interfacing of humans with plant which brings a new innovation in the field of horticulture

First of all, the moisture sensor which is placed inside the soil sense the water content and sends the signal to the microcontroller. If the moisture level present in the soil is below 950 the plant will say "Have a nice day" or else the moisture level is above 950 the plant will say "Hi can you, please feed me".

Main features:

1. Arduino UNO is a microcontroller board based on the ATmega328P.

2.It has 14 digital input/output pins (of which 6 can be used as PWM outputs), 6 analog inputs, a 16 MHz ceramic resonator, a USB connection, a power jack, an ICSP header and a reset button.

3.It contains everything needed to support the microcontroller; simply connect it to a computer with a USB cable or power it with a AC-to-DC adapter or battery to get started.

4. A hardware stack for storing return addresses

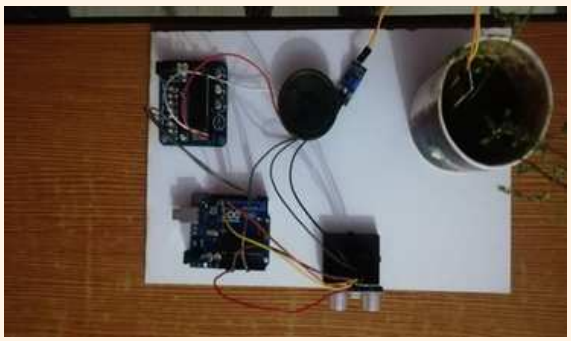
5.A fairly small amount of addressable data space (typically 256 bytes), extended through banking

6.You can tinker with your UNO without worrying too much about doing something wrong, worst case scenario you can replace the chip for a few dollars and start over again.

Performance:

These speakers work very well for adding sound to a project. They are not hi-fi quality but work fine for basic sound reproduction.

There are several code examples built into the Arduino IDE for playing basic notes on a speaker. One 'toneMeloday' is shown below. Remember to connect a series cap between the output pin and the buzzer to avoid possible damage to the Arduino or use an amplifier of some type.



RESULTS:

Completed successfully and the output results are verified. The results are in line with the expected output. The project has been checked with both software and hardware testing tools. In this work "Speaker, Microcontroller, Voice module, Moisture sensor, Ultrasonic sensor" are chosen are proved to be more appropriatee for the intended application.

SRIDHAR.M.S
II YEAR EEE

Accident detection and alert system:

In present days the rate of accidents are increasing rapidly. Due to employment the usage of vehicles like cars, bikes increased.Because of this reason the accidents can be happened due to over speed.

People are going under risk because of their over speed. Due to unavailability of advance techniques, the rate of accidentsbe decreased.

To reduce the accident rate in the country this project introduces an optimum solution.

Vehicle tracking system main aim is to give security to all vehicles. Accident alert system main aim is to rescuing people in accidents. This improved security system for vehicles.

The main objective is to control the accidents by sending a message to the registered mobile or to the emergency services using wireless communication techniques.
When an accident occurs at a city, the message is sent to the registered mobile through NODE MCU ESP8266-12E. This will help in finding the location of accident spot.
The proposed system will check whether an accident has occurred and notifies to registered mobile numbers about the place of accident using NODE MCU ESP8266-12E.

The accident can be detected by an accident sensor which is used as major module in the system.

METHODOLOGY:

A microcontroller contains one or more CPUs (processor cores) along with memory and programmable input/output peripherals.

They are used to automate automobile engine control, implantable medical devices, remote controls, office machines, appliances, power tools, toys etc.

THE IMPORTANCE OF NODE MCU:

MCU stands for MicroController Unit - which really means a computer

78XX series are three terminal positive fixed voltage regulators. There are seven output voltage options available such as 5, 6, 8,12,15,18 and 24V in 78XX the two numbers (XX) indicate the output voltage.

The connection of a 7805-voltage regulator is show infix. The AC line voltage is stepped down a cross each half of the center tapped transformers.

If full wane rectifier and capacitors filter then provides an unregulated DC voltage with AC ripple of a few volts as a input to the voltage regulator.

RECTIFIER:

LCDs with a small number of segments, such as those used in digital watches and pocket calculators, have individual electrical contacts for each segment.

An external dedicated circuit supplies an electric charge to control each segment. This display structure is unwieldy for more than a few display elements.

High-resolution color displays such as modern LCD computer monitors and televisions use an active matrix structure.

A matrix of thin-film transistors (TFTs) is added to the polarizing

LCD DISPLAY:

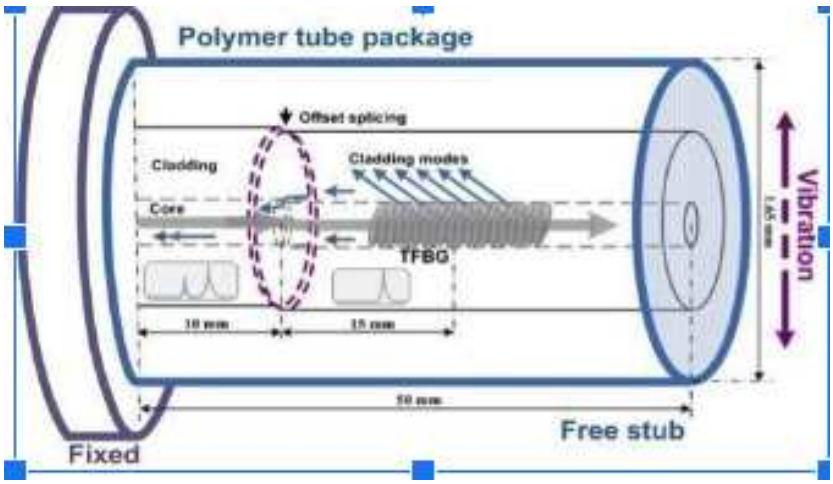
An LCD is a small low cost display. It is easy to interface with a micro-controller

When a row line is activated, all of the column lines are connected to a row of pixels and the correct voltage is driven onto all of the column lines.

VIBRATION SENSOR:

Vibration sensors are sensors for measuring, displaying, and analyzing linear velocity, displacement and proximity, or acceleration.

Therefore, vibration analysis is used as a tool to determine equipment condition as well as the



POWER SUPPLY:

Power supply is a reference to a source of electrical power. A device or system that supplies electrical or other types of energy to an output load or group of loads is called a power supply unit or PSU.

The term is most commonly applied to electrical energy supplies, less often to mechanical ones, and rarely to others.

Power supplies for electronic devices can be broadly divided into linear and switching power supplies.

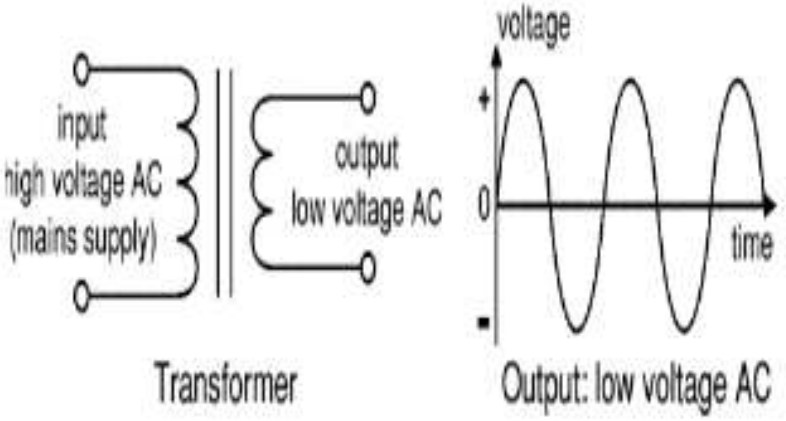
TRANSFORMER:

Transformers convert AC electricity from one voltage to another with little loss of power. Transformers work only with AC and this is one of the reasons why mains electricity is AC.

The ratio of the number of turns on each coil, called the turn's ratio, determines the ratio of the voltages.

A step-down transformer has a large number of turns on its primary (input) coil which is connected to the high voltage mains supply, and a small number of turns on its secondary (output) coil to give a low output voltage.

Turns ratio=Vp/Vs=Nn/Ns and Power out=Power in
Vs*Is=Vp * Ip
Vp = primary (input) voltage Np =
number of turns on primary coil Ip = primary
Vs = secondary (output) voltage Ns = number of turns on
secondary coil
Is = secondary (output) current



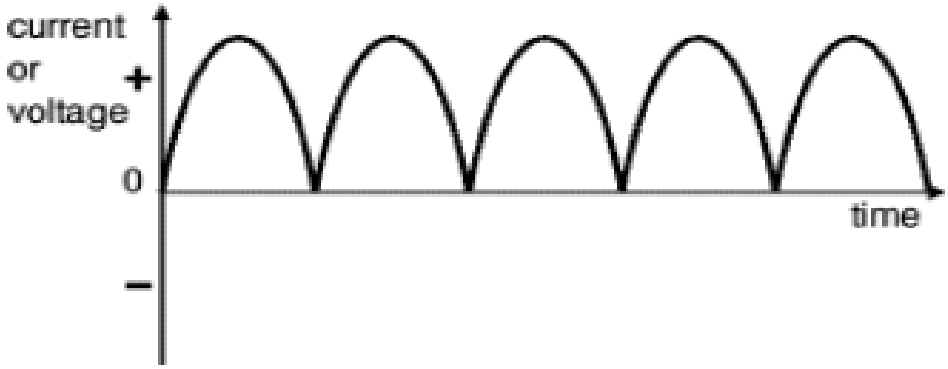
Transformer Output: low voltage AC

BRIDGE RECTIFIER:

A bridge rectifier can be made using four individual diodes, but it is also available in special packages containing the four

OUTPUT:

full-wave varying DC: (using the entire AC wave):



SINGLE DIODE RECTIFIER:

A single diode can be used as a rectifier but this produces half- wave varying DC which has gaps when the AC is negative.

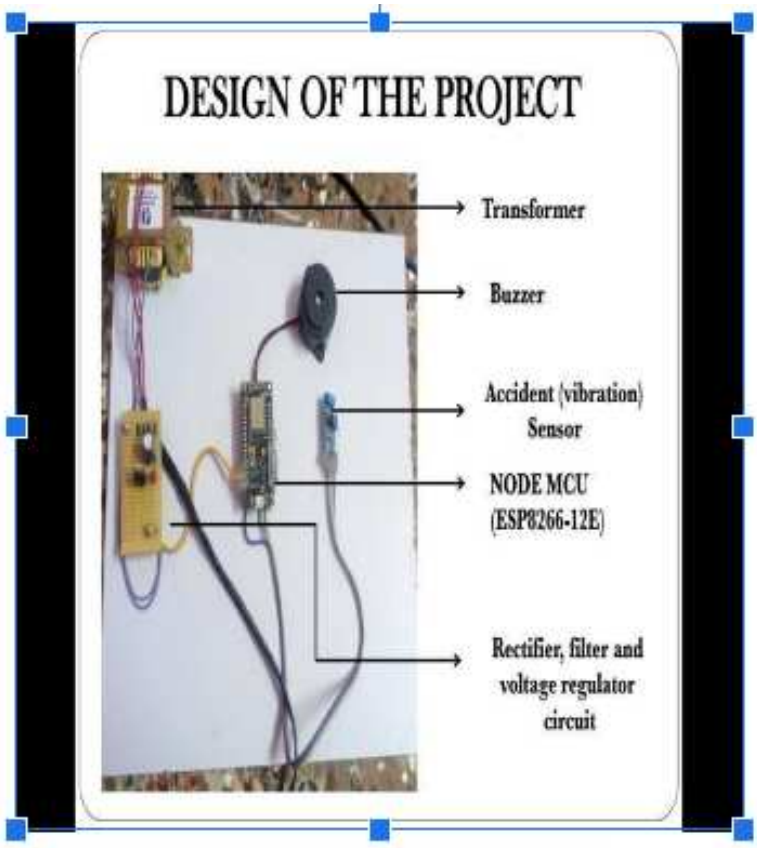
It is hard to smooth this sufficiently well to supply electronic circuits unless they require a very small current so the smoothing capacitor does not significantly discharge during the gaps.

OUTPUT:

half-wave varying DC (using only half the AC wave):

VIBRATION SENSOR:

This sensor buffers a piezoelectric transducer. As the transducer is displaced from the mechanical neutral axis, bending creates strain within the piezoelectric element and generates voltages.



BUZZER:

A buzzer or beeper is a signaling device, usually electronic, typically used in automobiles, household appliances such as a microwave oven, or game shows.

Thus, this helps in providing the post accidental medical care faster. This will aid in saving lives

-Rokesh
II year- EEE

Iot BASED CHILD ANTI KIDNAPPING SYSTEM

At present, female participation in the work force in the industrialized nations has greatly increased, thereby affecting infant care in many families. Both parents are required to work due to the high cost of living.

However, they still need to look after their babies, there by increasing workload and stress, especially of the mother. Working parents cannot always care for their babies. They either send their babies to their parents or hire a baby caregiver while they are working.

Some parents worry about the safety of their babies in the care of others. Thus, they go home to check on their babies during their free time, such as lunch or tea break.

Internet of Things (IoT) simply refers to a network of objects that are connected to the internet. It provides devices with the ability to transfer sensor data on the Internet without requiring intervention. The IoT encompasses many devices and is growing at a rapid rate, because it is such a broad category. A forecast states that in 2019, approximately 26.66 billion IoT devices will be active; by 2025, 75 Billion IoT devices worldwide will be available and wirelessly connected to the Internet. Among these connected devices, millions of wearable sensors are widely used in healthcare applications. The total global spending on the IoT in 2016 was 737 billion dollars and was projected to reach 1.29 trillion dollars in 2020. IoT is a prominent field that will increase and grow exponentially.

In this study, IoT is integrated into our baby monitoring system to achieve a rapid response time and to provide a greater sense of security for parents. Node Micro-Controller Unit (NodeMCU) Wi-Fi-Based Controller Board is an open source platform for IoT applications and is used as the main micro-controller in this project. NodeMCU consists of physical programmable circuit board similar to that of any other development boards, such as Arduino board and Raspberry Pi. The programming of the NodeMCU can be performed using Arduino software, which is an Integrated Development Environment (IDE), where the code of instructions is written and the microcontroller is uploaded.

OBJECTIVE OF PROJECT

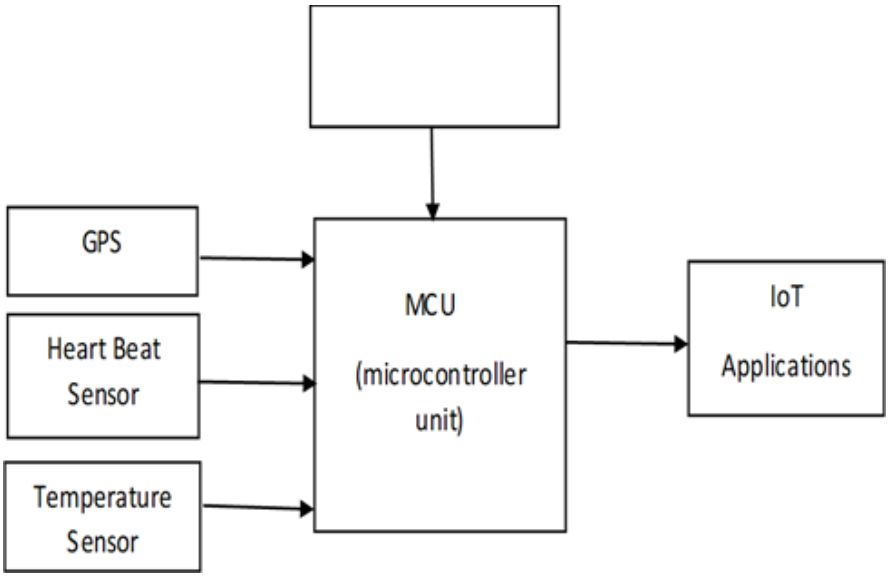
A new automatic IoT-based baby monitoring system is designed, allowing the parents to access an account to monitor the baby's condition anywhere and anytime.
Due to increase in the number of current working mothers for many families baby care has become a challenging task. Babies are usually sent to grandparent's home or some baby caring centres.

The proposed method is built using node MCU with other sensors and GPS to meet its application. A prototype of the proposed system is designed and tested for effective monitoring of the baby surroundings as well as baby conditions in real time, which has proven to be successful as expected for the applications it is designed.

Proposed System :

- In this proposed system, both sensors and forecasting cloud is used, so that resulting data having high accuracy about the children condition.
- We are using IOT of the children using from a Wide Area Network (WAN) which can be viewed in the Web Application and also can control the situation from a remote area anywhere from the world.
- In this project, we created an IP address. When the parent search the IP address location of the kid is displayed on the webpage.

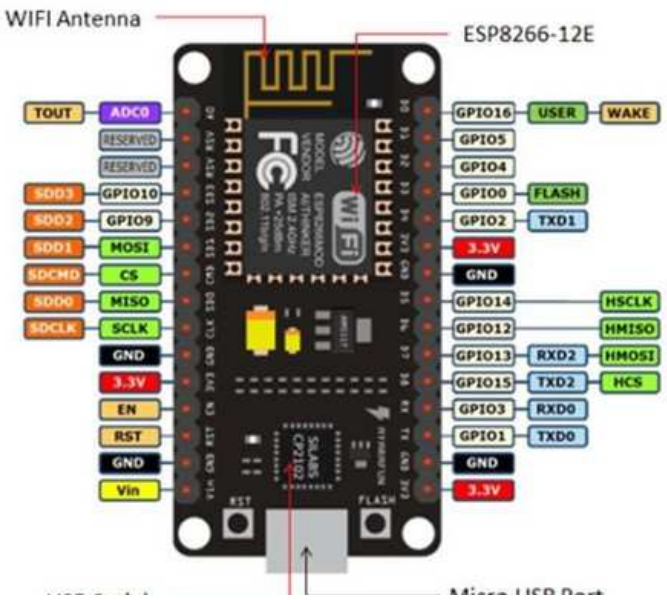
Block Diagram



Current Status of IoT

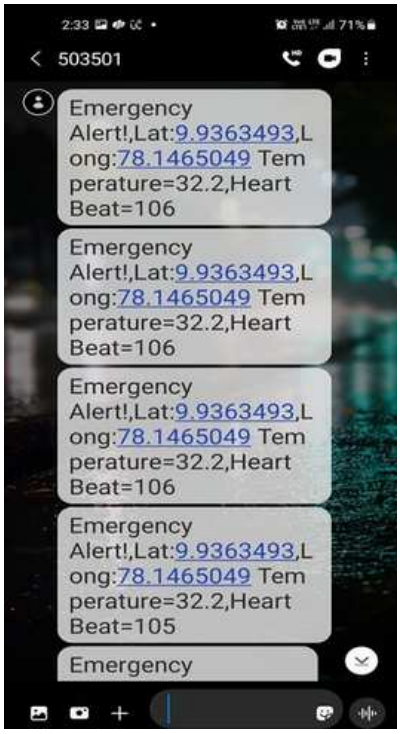
IoT has already bypassed the peak of the hype cycle, which Gartner describes as happening in late 2014.
Since then, popular interest in IoT has been steadily decreasing. Essentially, the buzz is diminishing while the rollout of real, practical IoT devices is increasing.
Now, in late 2018, many IoT applications are hitting maturity, most famously Amazon Echo and Google Home. By one estimation, there are currently over 7 Billion IoT devices, including IoT lighting, security cameras, and home and bike locks.
As consumer IoT devices become increasingly common, mapping and indoor positioning are two of the first novel applications being tackled. Additionally, tech giants like Microsoft, Amazon, Google, and Apple are all clambering to provide services for the growing IoT industry.
The ESP8266 is, the name of a microcontroller designed by Espressif Systems. It is a self-contained WiFi networking solution offering as a bridge from the existing microcontroller to WiFi and is also capable of running self-contained applications. For less than $3, it can monitor and control things from anywhere in the world – perfect for just about any IoT project

Pinout and description



The NodeMCU_ESP8266 is basically a WIFI module integrated with aMicrocontroller, which makes it a very useful device for this project,

he NodeMCU_ESP8266 has 30 pins in total out of which there are 17 GPIO pins. GPIO stands for General Purpose Input Output. There are the 9 digital pins ranging from D0-D8 and there is only one analog pin A0, which is a 10 bit ADC. The D0 pin can only be used to read or write data and can't perform other options. The ESP8266 chip is enabled when the EN pin is pulled HIGH. When pulled LOW the chip works at minimum power. The board has a 2.4 GHz antenna for a long-range of network and the CP2102 is the USB to TTL converter. The development board equips the ESP-12E module containing ESP8266 chip having Tensilica Xtensa® 32-bit LX106 RISC microprocessor which operates at 80 to 160 MHz adjustable clock frequency and supports RTOS.



- The estimated cost of our project is around Rs.2700

This baby monitoring system is cost effective and indulges in higher security along with different aspects. The health of the infant is the highest priority of the parents always. Hence this baby monitoring cradle system is designed with the intention of a healthy and secure infant/baby.

Al ong with this the automatic baby cradle monitor will allow the professionalparent/guardian to perform household chores alongside supervising the infant/baby hand in hand

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BOOK REVIEW: RICH DAD POOR DAD

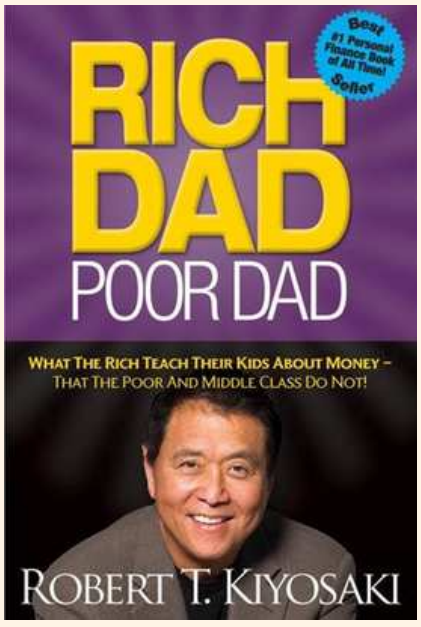
BY : ROBERT TORU KIYOSAKI

ABOUT THE BOOK –

eat myself?" The main reason why people struggle with financial problems is because they spend several years in school but learn nothing about money and investments
. The result is that people learn to work at the service of money... but never learn to put money to work for them. "Rich Dad, Poor Dad" is the story of two fathers; one has a collection of degrees and diplomas and the other is a high school drop-out. When the overqualified father dies, he will leave next to nothing behind, and even a few unpaid bills here and there.

The school drop-out father will become one of the richest men in Hawaii and will pass on an empire to his son. Throughout his life, the former would say things like "I can't afford to treat myself to this or that", while the latter would say: "How can I tr

The rich father in this book teaches two small boys some invaluable lessons about money through their own experiences. The most important one is undoubtedly to understand on how to best use your mind and your time to create your own wealth through business and investments. Get out of the rat race. Learn how to seize opportunities, find solutions, take care of your business and investments and most especially, learn how to make money work for you and not be its slave!NB: the expressions “poor” and “rich” are used by Kiyosaki in order to explain what type of behavior is preferable in order to have financial freedom. It is not about judging yourself on the current state of your finances and your richness.



. The educational system, such as it is built today.It does not allow this gap to be reduced. Its primary objective is to teach you to enter the working world as it already exists, and therefore, to allow you to become a very good employee.Not a very good employer

ABOUT THE AUTHOR :

Robert Toru Kiyosaki (born April 8, 1947) is an American businessman and author.[1] Kiyosaki is the founder of Rich Global LLC and the Rich Dad Company, a private financial education company that provides personal finance and business education to people through books and video. He is also the creator of the Cashflow board and software games to educate adults and children about business and financial concepts

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Idioms and Phrases

1. Play it by ear

Meaning :

Playing something by ear means that rather than sticking to a defined plan, you will see how things go and decide on a course of action as you go along.

Example :

“What time shall we go shopping?” “Let’s see how the weather looks and play it by ear.”

Origin:

This saying has its origins in music, as “playing something by ear” means to play music without reference to the notes on a page. This sense of the phrase dates back to the 16th century, but the present use only came into being in mid-20th century America, primarily referring to sports. These days, the expression has lost this focus on sports and can be used in any context.

2. Raining cats and dogs

Meaning:

We Brits are known for our obsession with the weather, so we couldn't omit a rain-related idiom from this list. It's "raining cats and dogs" when it's raining particularly heavily.

Example :

"Listen to that rain!" "It's raining cats and dogs!"

Origin:

The origins of this bizarre phrase are obscure, though it was first recorded in 1651 in the poet Henry Vaughan's collection Olor Iscanus. Speculation as to its origins ranges from medieval superstition to Norse mythology, but it may even be a reference to dead animals being washed through the streets by floods.

3. Can't do something to save my life

Meaning :

"Can't do something to save your life" is a hyperbolic way of saying that you're completely inept at something. It's typically used in a self-deprecating manner or to indicate reluctance to carry out a task requested of one.

Example:

"Don't pick me – I can't draw to save my life."

Origin:

Anthony Trollope first used this expression, in 1848 in Kellys and O'Kellys, writing, "If it was to save my life and theirs, I can't get up small talk for the rector and his curate."

4. Turn a blind eye

Meaning:

To “turn a blind eye” to something means to pretend not to have noticed it.

Example:

“She took one of the cookies, but I turned a blind eye.”

Origin:

Interestingly, this expression is said to have arisen as a result of the famous English naval hero Admiral Horatio Nelson, who, during the Battle of Copenhagen in 1801, is alleged to have deliberately raised his telescope to his blind eye, thus ensuring that he would not see any signal from his superior giving him discretion to withdraw from the battle.

5. Fat chance

Meaning:

We use the expression “fat chance” to refer to something that is incredibly unlikely. Bizarrely, and contrary to what one might expect, the related expression “slim chance” means the same thing.

Example :

“We might win the Lottery.” “Fat chance.”

Origin :

The origins of this expression are unclear, but the use of the word “fat” is likely to be a sarcastic version of saying “slim chance”. A similar expression is “Chance would be a fine thing”, which refers to something that one would like to happen, but that is very unlikely.

by,

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POEM

Everything's gonna be Alright!

We've all been through thick
We've all been through thin
We've all been to the light.
And back to the dark again.

Everyday is a struggle
Everyday may be a new fight
Everyday may be a game
And Everyday may leave a new scar.

But Never forget that everyday is new.
Everyday is an adventure waiting for you!

May be not today or tomorrow, or even
-in a year.
But eventually things turn up, you will
-turn up.
You will get better and be able to look back,
And say with relief :
"I made it!"

- Naganath.P
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Techie's Ingenuity

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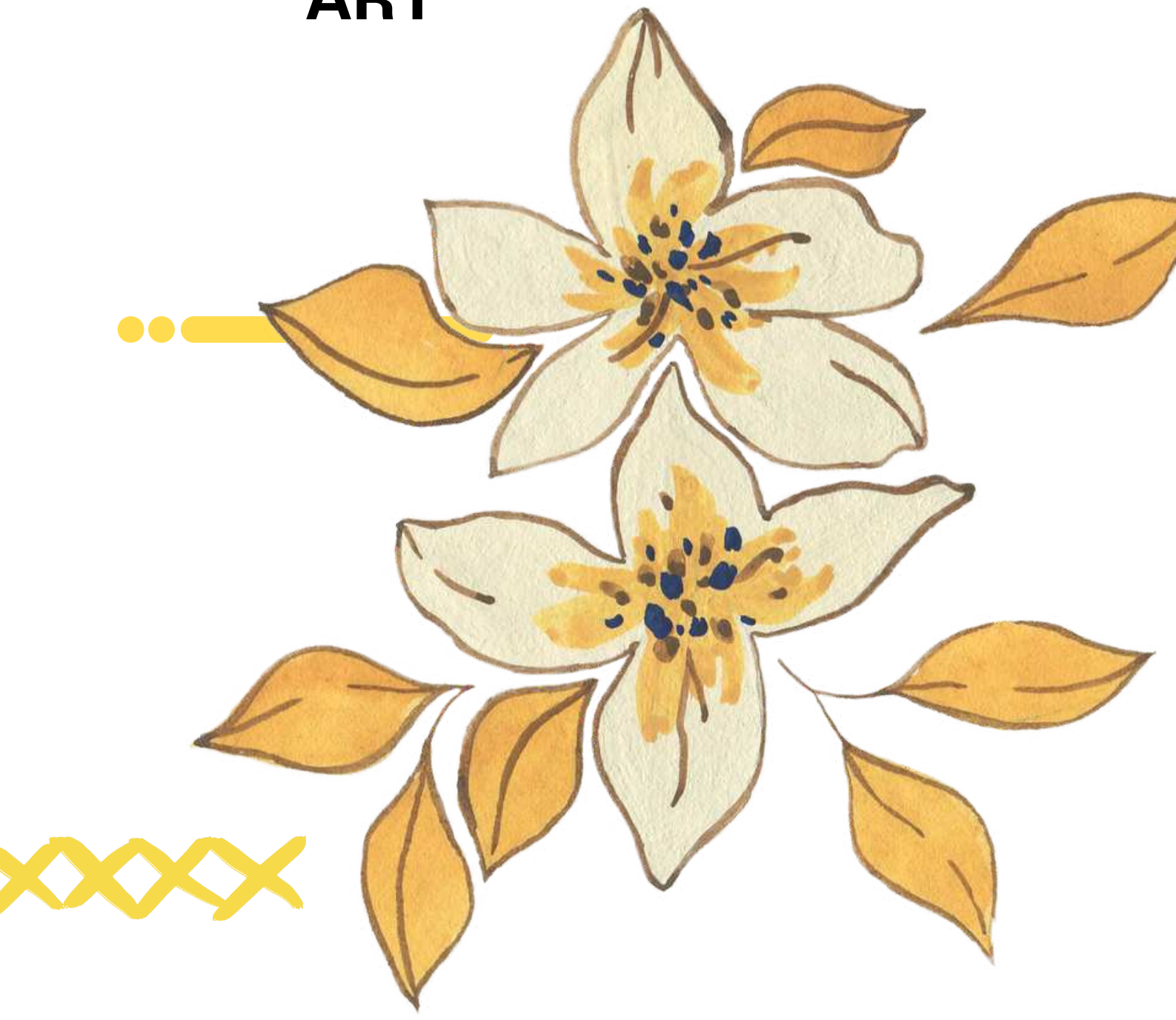

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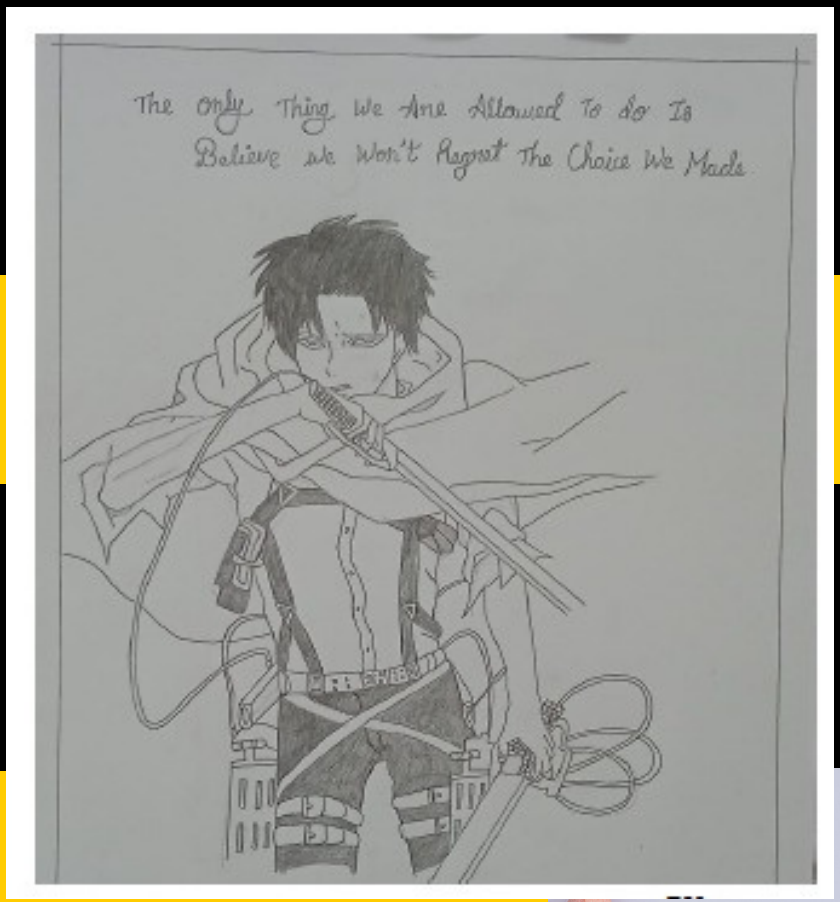

JAYSHREE

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Inspiration is like a spark. It can light the whole city. One frail lady with strong conviction has motivated thousands of others to have good education and be proud citizens. One Velammal has kindled the spirit of Thousands of Velammalians.

VELAMMAL COLLEGE OF ENGINEERING AND TECHNOLOGY
DEPARTMENT OF EEE