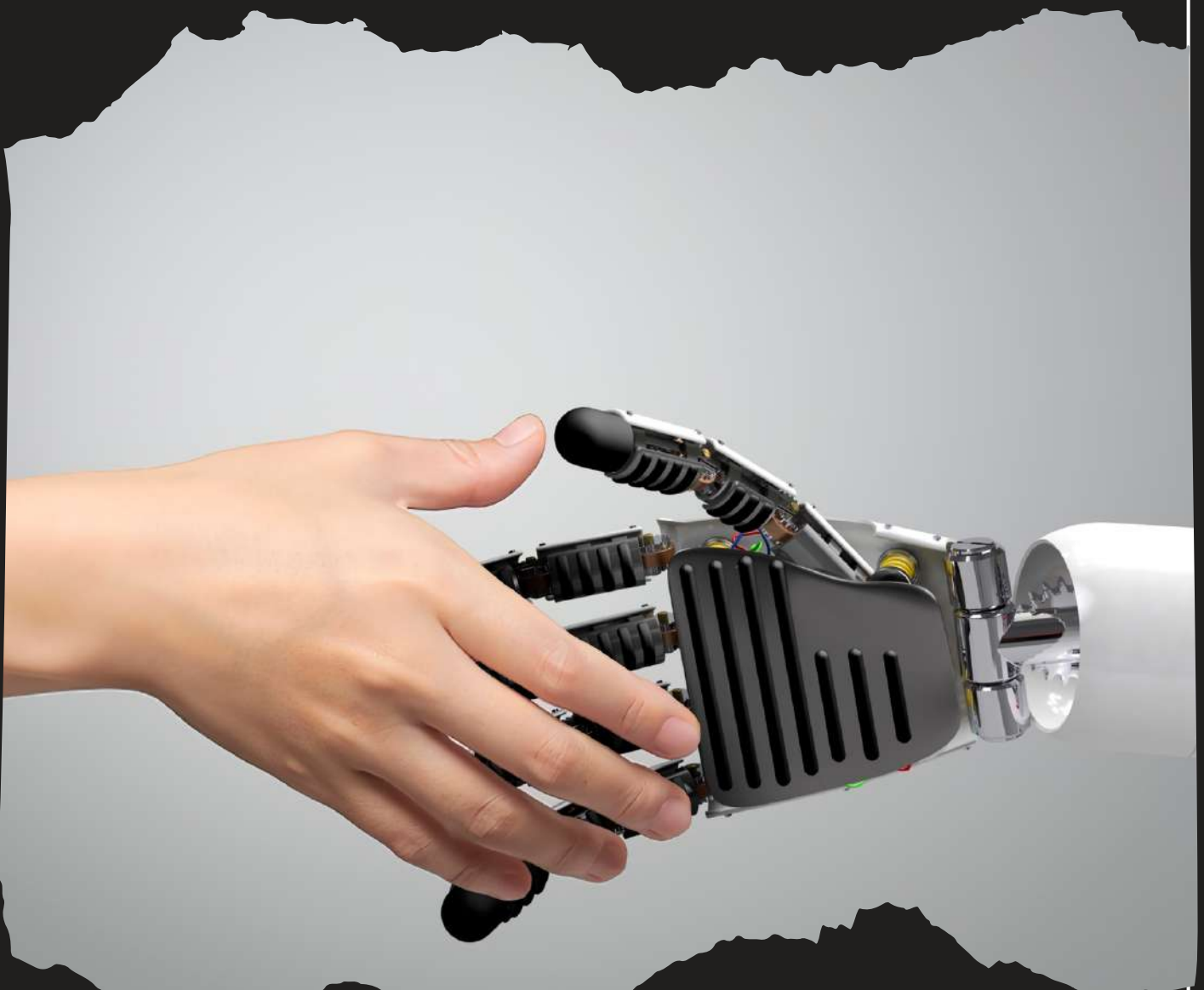


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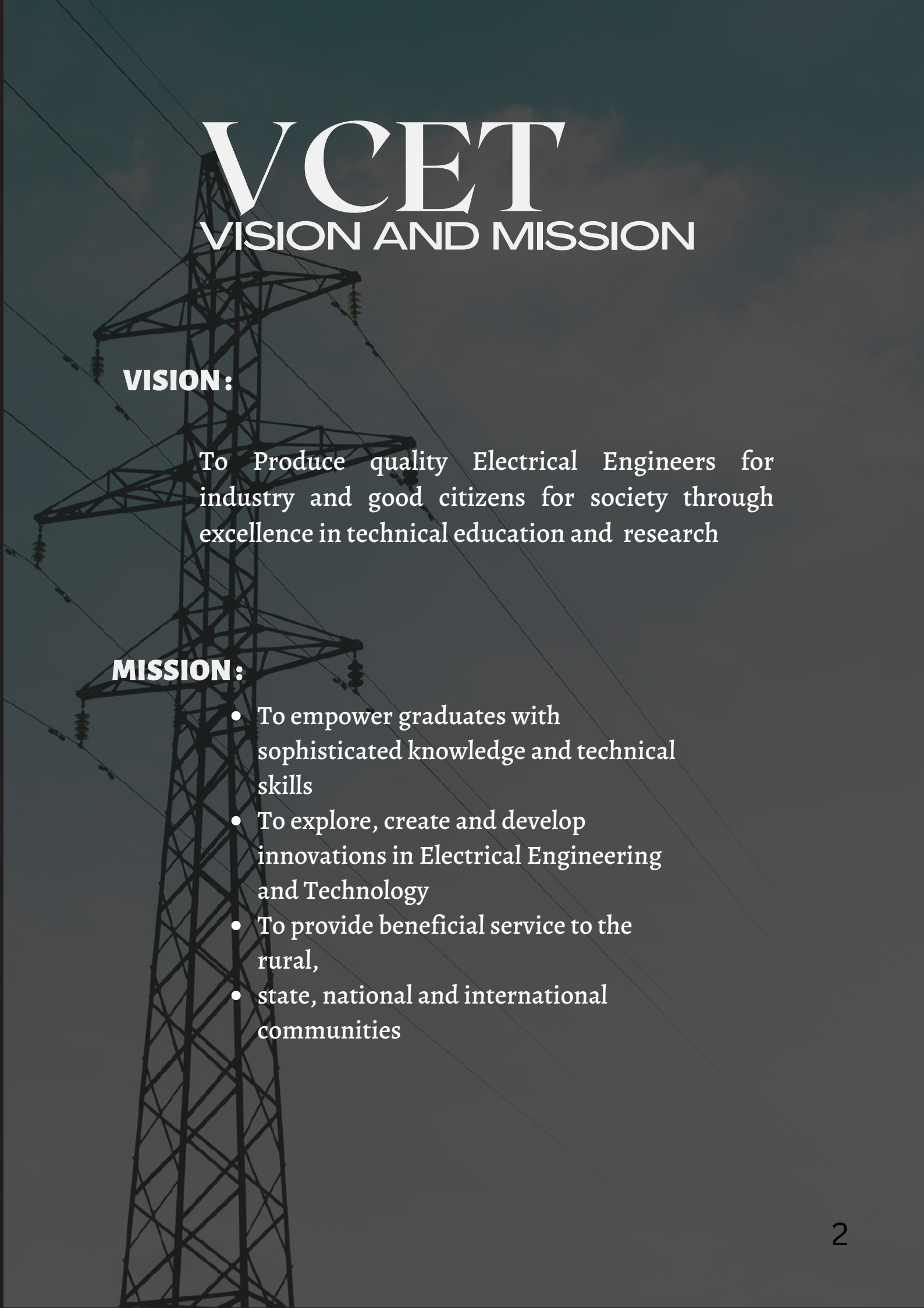


EEE MAGAZINE

JANUARY-JUNE 2025

PRESENTED BY

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING



VCET

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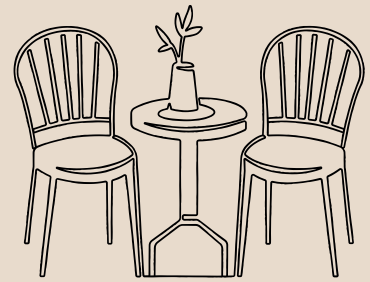


On behalf of the Velammal EEE department, We would like to wish all authors, patrons, and readers a wonderful and prosperous year ahead. When a thought that has been enduring in mind becomes true, it is truly an interesting and exciting experience. This new assignment of ours as editors is one such cherished work that we would fulfill to the best of our attributes. We need the support of all students and the faculty. So sit back and enjoy browsing through the magazine.

Happy reading folks!

BHARATH RANJAN R
III EEE

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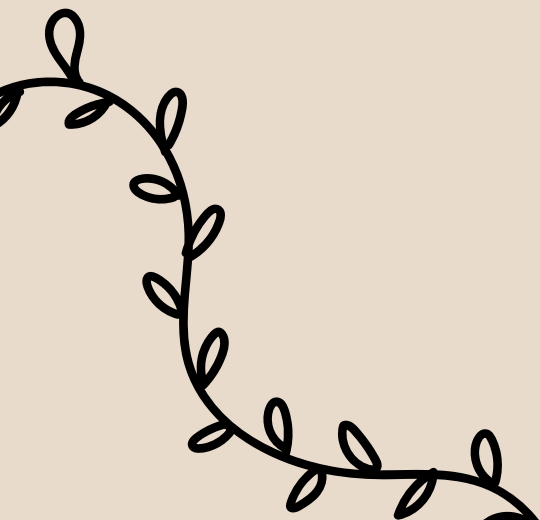
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IoT BASED CHILD ANTI KIDNAPPING SYSTEM

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, thereby 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

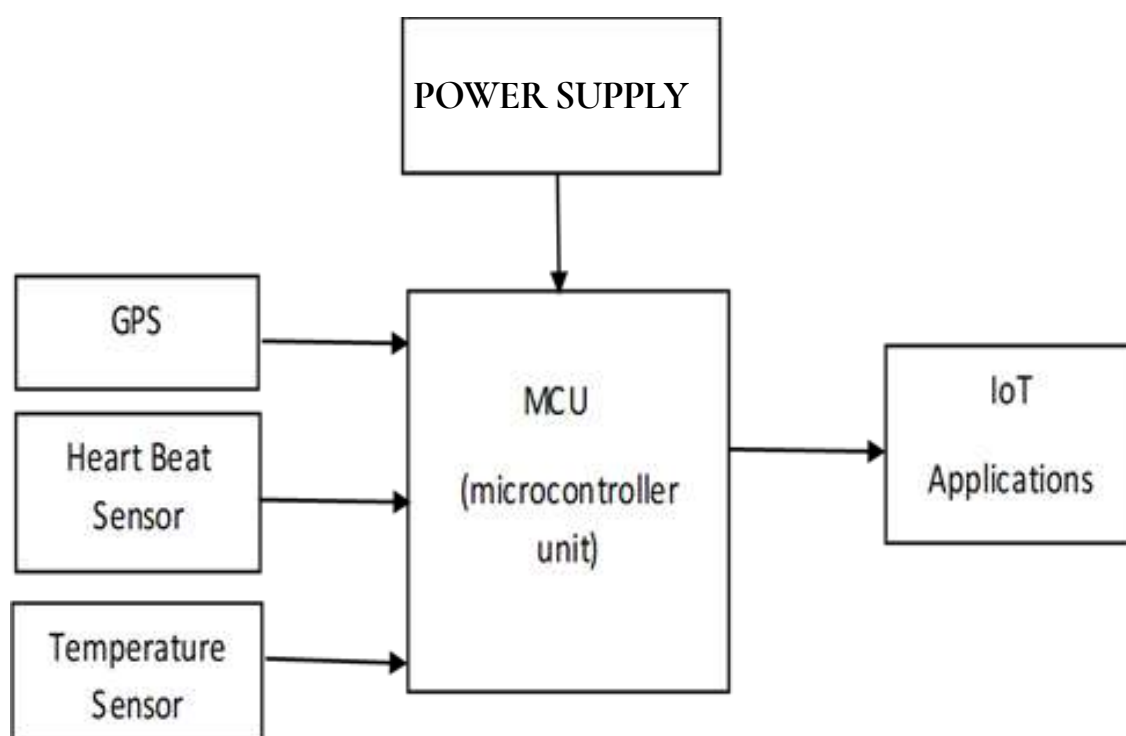
A new automatic IoT-based baby monitoring system is designed, allowing the parents to access an account to monitor the baby's condition anywhere and anytime. Due to increase in the number of current working mothers for many families baby care has become a challenging task. Babies are usually sent to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

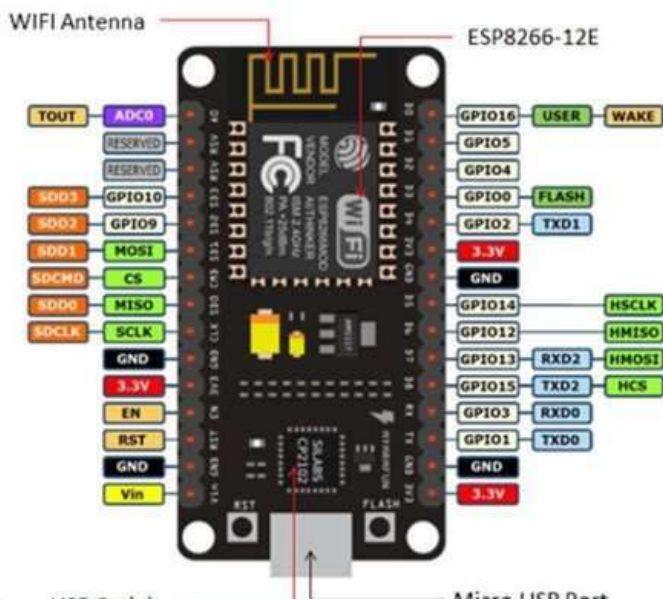
Block Diagram



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 clamoring 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 a Microcontroller, which makes it a very useful device for this project,

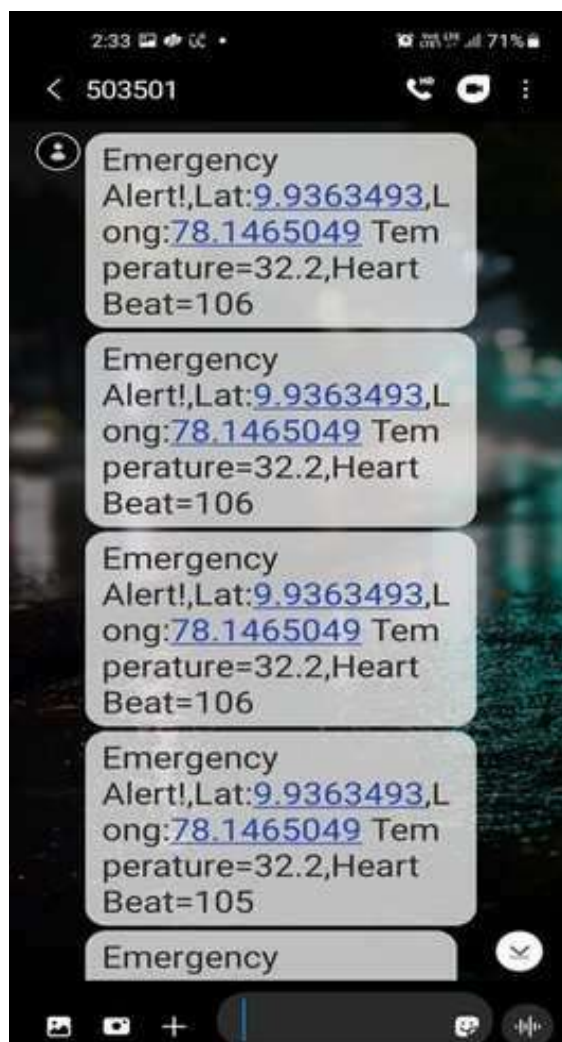
The NodeMCU_ESP8266 has 30 pins in total out of which there are 17 GPIO pins. GPIO stands for General Purpose Input Output. There are the 9 digital pins ranging from D0-D8 and there is only one analog pin A0, which is a 10 bit ADC. The D0 pin can only be used to read or write data and can't perform other 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.

2:31 • 72%

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BABY MONITORING USING IOT APPLICATION

ID.NO	Temperature	Heart Beat	Time	Date
1	32.3	101	11:23:13 AM	17/06/2022
2	32.3	103	11:23:14 AM	17/06/2022
3	32.2	104	11:23:15 AM	17/06/2022
4	32.2	107	11:23:19 AM	17/06/2022
5	32.2	107	11:23:21 AM	17/06/2022
6	32.2	103	11:23:23 AM	17/06/2022
7	32.2	103	11:23:25 AM	17/06/2022
8	32.2	106	11:23:26 AM	17/06/2022
9	32.3	98	11:23:28 AM	17/06/2022
10	32.3	101	11:23:30 AM	17/06/2022
11	32.2	106	11:23:36 AM	17/06/2022
12	32.3	101	11:23:42 AM	17/06/2022
13	32.3	105	11:23:44 AM	17/06/2022
14	32.3	98	11:23:46 AM	17/06/2022
15	32.3	99	11:23:48 AM	17/06/2022
16	32.4	101	11:23:54 AM	17/06/2022
17	32.3	103	11:23:56 AM	17/06/2022
18	32.3	107	11:23:58 AM	17/06/2022
19	32.4	98	11:24:00 AM	17/06/2022
20	32.3	105	11:24:02 AM	17/06/2022
21	32.3	99	11:24:04 AM	17/06/2022
22	32.3	100	11:24:07 AM	17/06/2022
23	32.3	98	11:24:09 AM	17/06/2022



- 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
- Along with this the automatic baby cradle monitor will allow the professional parent/guardian to perform household chores alongside supervising the infant/baby hand in hand

Ranjani P
IV EEE

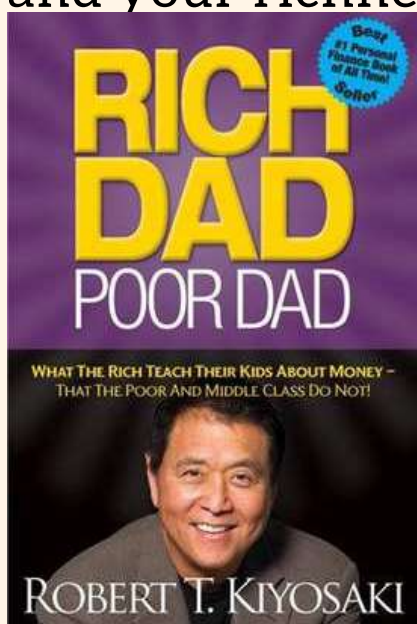
BOOK REVIEW: RICH DAD POOR DAD

BY : ROBERTTORUKIYOSAKI

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 try

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



Chantanaa Sri T S
IV EEE

1. Wholebagoftricks

Meaning :

Meanstrying all the clever means to achieve something

Example :

It was really difficult to find the information even after applying the whole bag of trick.

Origin:

In the fable of 'The Fox and the Cat,' as by the Brothers Grimm (and in a slightly different fashion by Aesop), the fox boasts that he is 'master of a hundred arts, and have into the bargain a sackful of cunning.' (In Aesop he says 'a hundred shifts,' meaning expedients.) They did not serve the fox well; when dogs chased the fox and cat, the cat reached safety by climbing a tree, but the fox was caught. 'Open your sack, Mr. Fox, open your sack,' the cat cried, but it was too late." From "The Dictionary of Clichés" by James Rogers (Wings Books, Originally New York: Facts on File Publications, 1985).

3. Think on your feet

Meaning :

Adjusting quickly to changes and making fast decisions

Example:

A good sales man must be able to think on his feet to close the deal

Origin:

This expression is thought to have originated in 16th century but it actually became popular and common in 18th century. It is observable that when you clump or tramp your foot on ground, it means to demand someone's attention. It also means to express a strong demand of something. The origins of this bizarre phrase are obscure, though it was first recorded in 1651 in the poet Henry Vaughan's collection *Olorlscanus*. Speculation as to its origins ranges from medieval superstition to Norse

By,

**Akila S
III EEE**

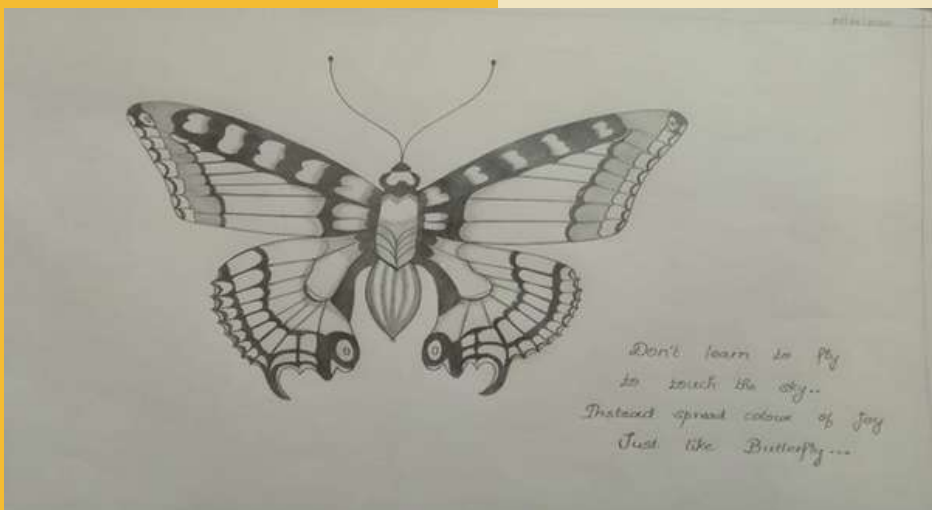


Techie's Ingenuity





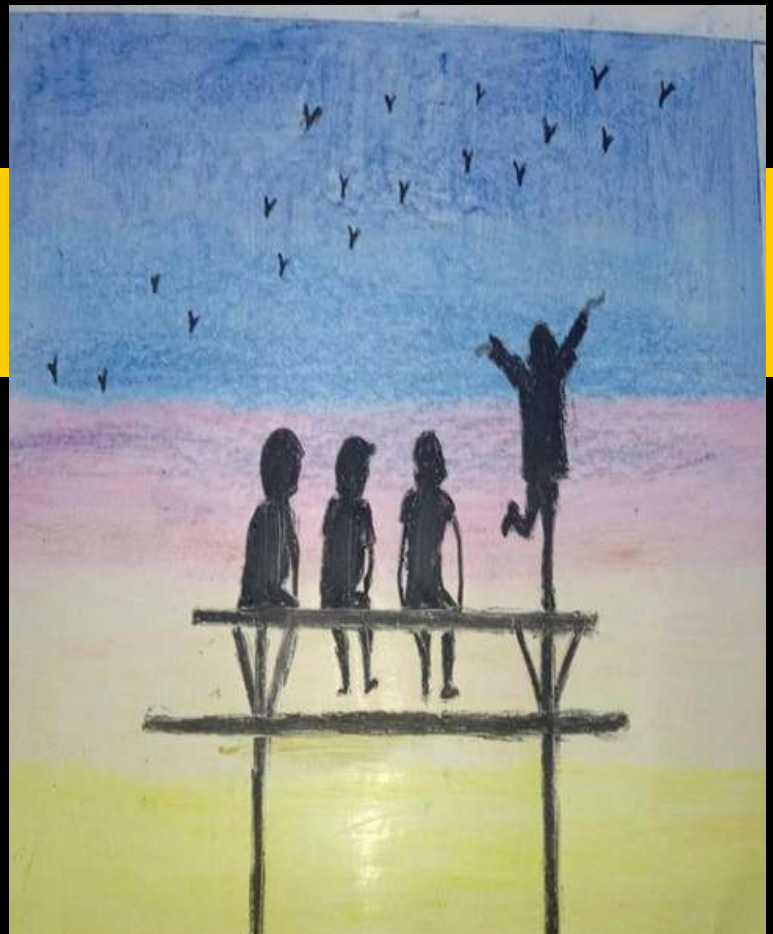
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