

CODE	TITLE	APPLICATION / DESCRIPTION
VTIOT01	A Cost-Efficient Hybrid UHF RFID and Odometry-Based Mobile Robot Self-Localization Technique	Description : This paper presents an indoor localization approach that determines the absolute position of a mobile robot platform with centimeter precision by fusing RFID localization results based on cost-effective, standard passive UHF RFID technology with the robot's odometry data
VTIOT02	A Low-Power Passive UHF Tag with High-Precision Temperature Sensor for Human Body Application	Description: This topic aims to study the key technologies of ultra-high frequency (UHF) RFID tags and high-precision temperature sensors, and how to reduce the power consumption of the temperature sensor and the overall circuits while maintaining minimal loss of performance.
VTIOT03	An End-to-End Smart IoT Driven Navigation for Social Distancing Enforcement	Description: This paper proposes an end-to-end smart navigation framework that uses Social IoT (SIoT) and Artificial Intelligence (AI) techniques to ensure pedestrians' navigation safety through a given geographical area
VTIOT04	Application of Internet of Things in the Health Sector: Toward Minimizing Energy Consumption	Description: In this paper, we have proposed a new solution to the application of IoT in the medical field, which consists of three stages.
VTIOT05	CRADLE: Combined RF/Acoustic Detection and Localization of Passive Tags	Description: We introduce CRADLE, or combined RF/acoustic detection and localization, for the remote parametric ranging of passive tags. In this approach, a tag consists of an RF antenna connected to an ultrasonic transducer via a passive electrical network
VTIOT06	Design of a Novel Frequency-Coded Chipless RFID Tag	Description: Chipless radio frequency identification (RFID) is a low-cost RFID solution that has the potential to replace traditional barcodes in short-range applications. In this paper, a novel frequency coded chipless RFID tag is designed at Ku-band
VTIOT07	Distributed Target Tracking in Sensor Networks by Semantic Moving Computing of Internet of Things	Description: This study aims to solve the problems of global consistency of node information and significant errors in forecasting fast-moving targets' trajectories through traditional distributed tracking methods in sensor networks.
VTIOT08	Electricity Theft Detection in Smart Grids	Description : This paper introduces the theft detection method which uses comprehensive features in time and frequency domains in a deep neural network-based classification approach
VTIOT10	Height Estimation at Entrance with Passive RFIDs	Description: This paper explores the possibility, design and implementation of estimating the entrant's height with low-cost passive RFID tags deployed in the entrance zone (e.g. the doorway).

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VTIOT11	IBGS: A Wearable Smart System to Assist Visually Challenged	Description : In order to better realize the function of speech recognition, this paper proposes a Conv-Transformer Transducer (ConvT-T) speech recognition framework based on Weak-Attention Suppression (WAS), which improves the efficiency of multi-head attention through WAS
VTIOT12	Integration of IoT and Fog Computing in Healthcare Based the Smart Intensive Units	Description: In this study, we proposed a smart IoT-based ICU patient monitoring system to help doctors and hospitals to monitor the patients continuously and in making quick decisions
VTIOT13	Internet of Things based Wearable Smart Gadget for COVID-19 Patients Monitoring	Description: This IoT wearable monitoring gadget is developed to measure the indicators of COVID-19. A wearable sensor is affixed to the body and connected to an edge node in the IoT cloud where the data is processed and analyzed in order to monitor health
VTIOT14	Long-range communication Based Metrics Evaluation for Real-Time Landslide Monitoring on IoT Platform	Description: We designed a customized sensor node and gateway node to monitor the changes periodically with low energy power consumption. Long-range communication provided comprehensive spectrum communication protocol and low power consumption with fewer data rates
VTIOT15	Low-Power Wide-Area Networks	Description: LPWAN technologies complement and outperform short-range and traditional cellular wireless technologies in a variety of applications, including smart city development, machine-to-machine (M2M) communications, healthcare, intelligent transportation, industrial applications, climate-smart agriculture, and asset tracking.
VTIOT16	MSE-RPL: Mobility Support Enhancement in RPL for IoT Mobile Applications	Description: This article proposes a mobility support method called MSE as an extension of RPL. The MSE supports mobility of all nodes except the root node, and it provides a seamless connection during the mobility. It also manages a situation when a physical obstacle settles between two paired nodes in a dynamic environment
VTIOT17	Radio Frequency Fingerprint Identification	Description: We propose an RFF identification scheme based on logarithmic power cosine spectrum for transient signals.
VTIOT18	SAW RFID Tag Spatial Division Multiple Access	Description : Identification and localization of multiple SAW RFID tags are addressed in this work under this challenging effect, known as collision, with a multi-antenna mobile robot-based synthetic aperture approach
VTIOT19	SICU Ambience and Patient Health Monitoring System with IOT principles	Description: In this proposed system heart beat rate and Temperature are sensed by using corresponding sensor and sensors output are given to comparator as analog values continuously. Whenever the heart beat rate or Temperature are in the abnormal level, comparator output will be varied. Micro-controller sends the message using IoT

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VTIOT20	IoT- Based Smart Metering Mirror System for Monitoring Electric Bills During Pandemic	Description: Internet of Things (IOT) present an efficient and co-effective to transfer the information of energy consumer wirelessly as well as it provides to detect the usage of the electricity the main intention of this project is measure electricity consumption in home appliances and generate it's bill automatically using IOT.
VTIOT21	Design and Development for Smart Home via IoT Technology	Description: The proposed smart auto gate system is designed to be controlled by a mobile application via a wireless connection. This project aims to develop a minimal priced, and extensible wireless smart home auto gate system using IOT which then employs the combination of mobile application, and a cloud server.
VTIOT22	Wireless Home Automation System for Multifunctional Devices Incorporating Internet of Things (IoT)	Description: Home automation system, in the form of an experimental prototype is presented, focused in wireless communication and IOT. The result of the work developed was a capable prototype, adaptable to conventional electrical installations, with smart management capabilities regarding actuators of electric loads and sensor information utilization
VTIOT23	A Framework for the Emerging Smart Infrastructure in the IoT Era	Description: The primary goal of this project is to design and build Internet of things based Smart infrastructure for homes. We implement and design a low cost, flexible, wireless solution to the buildings. The benefit of this system includes energy savings, home safety, and user convenience
VTIOT24	A Cost-Effective IoT Based Smart Home Application	Description: In smart living, it consists of remote controlling appliances that are used to switch ON/OFF any device remotely and saves energy. Weather is used for displaying weather conditions such as temperature, humidity, rain levels, speed of the wind
VTIOT25	A Framework for IoT Based Appliance Recognition in Smart Homes	Description: This work proposes an easy-to-use framework for appliance recognition based on distributed sensing techniques. The proposed appliance recognition system belongs to the application layer of the IOT architecture. The framework adds a graphical interface that significantly accelerates and facilitates its use.
VTIOT26	IoT Based Low-Cost Smart Home Automation System	Description: In this system, a cost effective and user-friendly IOT based smart home model is presented with implementation by using Arduino micro controller and different sensors. It focuses that the system is reliable, affordable and fulfill the needs of home user
VTIOT27	Automatic Irrigation System: Design and Implementation	Description : The Proposed system comprises Arduino model, Moisture sensor and temperature sensor to monitor the soil moisture and temperature of the soil. Bluetooth module (HC-05) module to send data to the mobile app. The data has been collecting from the sensor and transfers microprocessor. The microprocessor often tests and compares the parameters' values with boundaries and triggers them
VTIOT28	IoT based Remote Patient Health Monitoring system	Description: In this system to develop a basic health monitoring system that can be used in homes or wherever possible with primary health parameters. IOT module, which monitors the patient health condition and updates to cloud at continuous time period.

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VTIOT29	Monitoring Air Quality using IoT: Effects of COVID-19	Description: In this system Arduino based Node MCU and the sensors are to detect substantive conditions of gases. ESP-32 WiFi module is used to send the data to the server so that it can be accessed from anywhere. The data is taken before and during COVID-19 period with the developed IoT platform
VTIOT30	IoT-Based Data Logger for Weather Monitoring Using ESP32 Based Wireless Sensor Networks with Remote Graphical Application and Alerts	Description: The proposed system used several electronic sensors for sensing the air conditions including hydrocarbons, Sulphur-dioxide, nitrogen oxides, and so on. In case of reception of the dangerous gas values, the system activated the warning alarm. Furthermore, it can communicate a Short Message System (SMS) message to final user.
VTIOT31	Application of MQ-Sensors to Indoor Air Quality Monitoring in Lab based on IoT	Description: The project was established to keep track of air quality metrics in the lab environment like carbon dioxide, carbon monoxide, alcohol, phenol, toluene, LPG, benzene, ammonia, and methane, if not properly maintained, this can have an impact on the inhabitants' comfort, health, and indoor working conditions
VTIOT32	IoT based Automated Health Care Monitoring System for Smart City	Description: The objective of the proposed system is to provide excellent patient support even in remote areas, which could be smart enough to analyze the data collected by wearable IoT sensors and would be able to provide a recommendation for a check-up.
VTIOT33	IOT based Smart Agriculture Monitoring Using ESP32 AND BLYNK App	Description: Automation has to be carried out in the farming field in order to solve the issues. A computerized farming gadget which can save time, money as well as farmer strength.
VTIOT34	An Internet of Things System for Environmental Monitoring Based on ESP32 and Blynk	Description: The proposed solution utilizes inexpensive and widely available hardware and software components making it suitable for both personal and commercial use. The hardware of the sensor node is based on an ESP32 microcontroller equipped with sensors for environmental monitoring
VTIOT35	IOT Based Farm Protection System from Animals and Humans Theft using ESP32	Description: It presents a system that identifies the animals and humans' movement in the farm and notifies the farm owner through an IOT application. Prototype of this project is prepared by using Arduino IDE for writing code, ESP 32 module is used as a microcontroller and Blynk application is used for transmission of messages
VTIOT36	Monitoring Photovoltaic Panels Using the ESP32 via low-power Bluetooth Communication	Description : This research mainly consists in integrating and taking full advantage of the ESP32 as well as the current sensor and a Bluetooth module. We will create and initialize a low-consumption Bluetooth communication link to transmit the main parameters of a photovoltaic panel to a paired smartphone device via this Bluetooth link.
VTIOT37	Mudslide Disaster Monitoring and Early Warning System Based on ESP32	Description: In order to reduce the damage caused by natural disasters to human society, this paper designs a mudflow disaster monitoring and early warning system based on ESP32 module. The system uses rainfall sensor, soil moisture content sensor and infrasound sensor to obtain corresponding data

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VTIOT38	Implementation of Greenhouse Control and Monitoring System Using ESP32	Description: Plants in greenhouses are monitored regularly to make sure they are getting enough light and water. They also protect plants or crops from a variety of diseases caused by nutritional deficiencies in the soil.
VTIOT39	Design of Indoor Disinfecting Intelligent Robot Based on ESP32 Chip	Description: This paper designs an indoor disinfecting intelligent robot that can realize large-scale combined disinfection of disinfectant and ultraviolet. The whole system comprises of five main parts: control center, running control module, disinfection module, information processing module, and power module
VTIOT40	IoT based Healthcare Monitoring and Tracking System for Soldiers using ESP32	Description: For continuous remote monitoring of troops' health, M-health technologies such as mobile computers, medical sensors, and communication technologies are employed. Smart sensors such as heart rate sensor, temperature sensor are attached along with bomb detector and panic button to the suggested system in which the complete mobility is to be implemented via a personal server.
VTIOT41	IoT based Smart Irrigation System using ESP32	Description: The main concept of this working model is to provide a smart irrigation system using the electronic sensors that are incorporated into the agricultural field based on the value detected from the sensor the response could be obtained for the field and the crops.
VTIOT42	Development of Blood Oxygen Level, Heart Rate and Temperature Monitoring System by Using ESP32	Description: This paper aims to develop a prototype of a health monitoring device that can be put at a patient home to replace traditional physical checkups at the hospital by using MAX30102 PPG module and Infrared temperature sensor with the objective to derive PPG signal into basic health parameters such as heart rate and oxygen saturation from the patient through MAX30102 and to test the accuracy of those parameters with hospital patient monitor.
VTIOT43	IoT Enabled Power Theft Detection System	Description: Stealing Electrical power is a serious problem in power system networks around the world, and it is unlawful and should be outlawed completely. Because meters can't handle high currents, current transformers are used to detect them.
VTIOT44	IOT Based Hazardous Gas Detection & Control	Description: The objective of our system is to detect if the hazardous gases (i.e) LPG gas is within the range 200 to 10,000 ppm and CO is within the range 200 to 1000 ppm. The micro controller ESP32 is also programmed to automatically shut down the source if the gas leakage exceeds their respective ranges without any manual help.
VTIOT45	An alert system to maintain social distancing while collecting waste from quarantined zones - COVID'19	Description : This paper proposes an Alert system for sanitary workers to maintain social distancing while collecting waste from quarantine zones. Also, the collected waste can be video streamed by a mobile-enabled ESP32 device to verify whether the waste has been segregated at the source.
VTIOT46	Automatic Irrigation System with Water-Level Indicator and IOT Enabled Humidity Logger	Description: The project utilizes an ESP 32 wireless fidelity module that links the system to the internet. This module regulates a submersible mini water pump to supply water to the field on the basis of data obtained from DHT-11 temperature humidity sensor

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VTIOT47	Efficient IoT based Smart Home Assistance System with Electrical Control Unit	Description: This system mainly focuses on the scalability over already existing system using ESP32s and allowing the user to make their existing system smarter and also allows the user to make a routine or scheduled tasks via smart assistants, other than controlling the appliances over Manual Switches
VTIOT48	Vehicle Speed Monitoring and Auto Light Adjust System with ESP32	Description: Using this Project, we are tracking the vehicle and monitoring the speed of the vehicles. here we can set the speed limit of the vehicles. If we get into an accident our project will send the passenger details and the location of the place to the police, hospital, and family members
VTIOT49	Implementation of IoT based Smart Remote for Disabled people	Description: The main objective of this research work is to use Wi-Fi to operate IR-based devices. This is a smart IR device that can control a variety of applications including TVs, setup boxes, air conditioners, DVD players, and home theatre systems.
VTIOT50	IoT-GSM Based Controlling and Monitoring System to Prevent Water Wastage, Water Leakage, and Pollution in the Water Supply	Description: The proposed water quality checking system can notify the user through the mobile app. Moreover, the proposed system lets the user switch off the water supply remotely. It can also help people to reduce water wastage through the detection of leakage on the supply line
VTIOT51	Energy Metering and Controlling using Android and IoT based Smart System	Description: An IoT enabled smart energy metering system is proposed in this paper. This system runs on Arduino uno and ESP32 controllers that are communicating with each other and receiving inputs from voltage and current sensors along with an analog energy meter
VTIOT52	Internet of Things based Smart Energy Meter with Fault Detection Feature and Theft Detection	Description: This paper discusses an Internet of Things (IoT) based smart meter with fault detection and theft detection. Even the present conventional meters can be converted to smart energy meters with a simple change in circuit. It mainly consists of ESP32, AC712 current sensors, etc
VTIOT53	Development of an IoT based Water Temperature Control and Monitoring System for Hydroponics	Description: This project concentrates on the development of an IoT-based water temperature control and monitoring system meant for a hydroponic system. Water temperature is a crucial element in hydroponics and indeed must be kept at a certain temperature range between 19 to 27 degrees Celsius.
VTIOT54	Smart IoT based Human Well-being Monitoring in Health Care System	Description : A patient's health and room conditions may be monitored in real-time using an IoT-based smart healthcare system. ESP32 is fitted with a variety of biosensors that assess heart rate, body oxygen level, and temperature
VTIOT55	IoT based Voice Assistant for Home Automation	Description: The goal of this paper is to create a Voice/Text controlled Home Application that allows users to operate their home appliances from afar. Users can simply send voice commands or text messages to turn appliances ON or OFF based on their needs.

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VTIOT56	IoT based Vehicle Surveillance and Crash Detection System	Description: The goal of this study is to enhance the emergency response department's reaction time to car accidents and an attempt to find solutions for quick accident notification. The project uses a “smart unit” implanted in the car to record the vehicle's data and send them to the vehicle owner or a third party at regular intervals
VTIOT57	IoT Based Solar System Monitoring and Load Management for Small Farm	Description: This paper represents the application of IOT in small scale business (poultry-farm) monitoring the renewable solar energy and controlling the power consumption associated with grid and renewable energy source.
VTIOT58	Environmental Monitoring and Control System for Greenhouse with ESP32 and GSM Using IoT Devices	Description: The research work is to develop a brilliant nursery plant growth-boosting by maintaining the climate, humidity, moisture, and light control to develop plants. The plan proposes observing by soil dampness sensor, LDR sensor, temperature, and stickiness sensor; this large number of sensors gathered the information and given to the ESP32 module