CODE	TITLE	APPLICATION / DESCRIPTION
VTIOT01	Internet of Thing based Electrical Device Surveillance and Management Apparatus	**Application:** Wireless automation **Description :** Electrical devices surveillance and management system is the proposed solution for most of the electric power consumption problems. We have focused on appliances Bulb, Fan. And to manage with wireless module.
VTIOT02	IoT Based Automatic Saline Monitoring System using Node MCU	**Application:** Bio-medical **Description:** The Proposed system describes about the saline level monitoring & automatic alert system .It helps to easily detect the levels of saline water and the LED lights of the IR sensor glows accurately at each level of the saline bottle.
VTIOT03	IoT-Based Distribution Transformer Health Monitoring System using Node-MCU & Blynk	**Application:** Bio-medical **Description:** The main objective of the real time monitoring of the health conditions of the distribution transformer using IOT technology. The parameters such as temperature, voltage and current of a transformer are monitored, processed and recorded in servers
VTIOT04	IoT Based Air Quality System	**Application:** Green House **Description**: In this system the hardware kit can measure the different gas sensor values in the multiple areas. The IOT will connect to the IOT modem will act as a receiver. After receiving the sensors abnormal status then, All the status will be displayed by the LCD.
VTIOT05	SICU Ambience and Patient Health Monitoring System with IOT principles	**Application:** Bio-medical **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.
VTIOT06	Solar Cell Based Integrated Sensor System Monitoring on Smart IoT	**Application:** Automation **Description:** In this system monitoring tool garden light solar cell that can be accessed through the website. Namely by facilitating the monitor process and automatic battery power check. monitoring tool designed garden light solar cell-based website using a micro-controller connected IoT so that it is able to display voltage and current data on photovoltaic,
VTIOT07	IoT based smart waste management system	**Application:** Green House **Description:** The system is implemented using two ultrasonic sensors which is being controlled by Node MCU. One of the ultrasonic sensor detects the level of the waste in the bin and other detects the person approaching the bin to dispose the waste. This detection helps in automatic opening and closing of the lid. Servo motor is connected to the lid which serves the action of closing and opening of the lid. In this system, level of waste in the bin will be sent to concerned authorities.
VTIOT08	IoT Based Temperature Control System of Home by using an Android Device	**Application:** Home automation **Description :** This project is primarily based on controlling the voltage of AC-supported equipment and developing an automatic temperature ventilation system that can make a space fully temperate. Additionally, this will protect our appliances from overheating. Using the widely used Node MCU micro-controller and IP networking for remote access and control.
VTIOT09	IoT Based Air Quality Monitoring System with Email Notification	**Application:** Green house **Description:** AQM is located in the most prominent location with the increasing pollution rate. Air Quality Index is a factor that has been used to quantify the level of pollutants. AQM collected both harmful and harmless data, which will be displayed in a large LCD screen in both digital and graphical form. It will be more helpful to know about the concentration of harmful gases

CODE	TITLE	APPLICATION / DESCRIPTION
VTIOT10	IoT Based Health Monitoring System	**Application:** Bio-medical **Description :** The proposed system helps in the monitoring of health parameters. Here, a fingertip heartbeat sensor to calculate the pulse rate along with DHT11 sensor to calculate the temperature and humidity of the patient's body is used. Also, Node MCU as a micro-controller is employed, is used to convert serial data to parallel data for LCD screen
VTIOT11	IoT enabled Smart home and health monitoring System	**Application:** Bio-medical, Home Automation **Description:** In this paper, a portable framework is displayed which constantly check patient's heartbeat, temperature and some parameters of the room with the help of Wi-Fi module. A IOT enabled smart home and health monitoring system is proposed where the authorized personal data can be accessed using any IOT platform.
VTIOT12	IoT Based Agriculture Monitoring and Controlling System	**Application:** Irrigation Automation **Description:** When the system is implemented then it will receive the data from the different sensors and this data will be send to the mobile phone and it will alert the user through the IoT. This data will be displayed in LCD about the temperature and soil moisture level, Humidity, water quality. Temperature is often a specific level; it's supported the sort crops cultivated.
VTIOT13	IoT- Based Smart Metering Mirror System for Monitoring Electric Bills During Pandemic	**Application:** Automation **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.
VTIOT14	A Review on Internet of Things Based Door Security	**Application:** Security **Description:** When a stranger comes at the door, he/she has to pass three security levels for unlocking the solenoid locks present at the door and if he fails to do so, the door will remain locked. These three levels are of three extraordinary security features as one of them is using Fingerprint sensor, second is using a knocking pattern, and the last lock is unlocked by the preset pin/pattern entered by the user.
VTIOT15	Development of Security Starting System for Vehicles Based on IoT	**Application:** Automobiles security **Description:** The system also employs a password through keypad (with maximum 3 chances) which controls the opening of a safety locker door as well as wearing of a seat belt. If there is a window intruder, the IR module/sensor detects the intruder, or any obstacle and it sends a signal to the micro controller.
VTIOT16	IoT Based Smart Greenhouse for Future using Node MCU	**Application:** Green House **Description:** In this system all the outputs of soil, temperature, DHT11 ,PIR sensors are sent to the controller which here used is a Node MCU, and based on that certain loads are activated through relay driver. Here IOT is used such that the values of certain parameters are made to display in LCD . By doing so in case of any malfunctioning of the greenhouse automatic circuitry part, we can control and
VTIOT17	IoT Based Smart Vehicle Parking System Using RFID	**Application:** Automation **Description :** The proposed system incorporated an infrared sensor in each slot for getting information about the vacancy position of the parking slot. The user book-parking slot well in advance, all the necessary information is available on the server. Every user has an exclusive username and password. In case any misuse happened then the system will alert the responsible person.
VTIOT18	Design and Development for Smart Home via IoT Technology	**Application:** Home Automation **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.

CODE	TITLE	APPLICATION / DESCRIPTION
VTIOT19	Home Automation using Smart Devices and IoT	**Application:** Home automation **Description**: Home automation system is highly increasing to provide comfort in life and improving the quality of life. This system is based on a web portal which controlled by an Wi-Fi module. Also, a custom-made private home web server is developed for maintaining the current states of home appliances.
VTIOT20	Wireless Home Automation System for Multifunctional Devices Incorporating Internet of Things (IoT)	**Application:** Home automation **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.
VTIOT21	IoT based Smart Greenhouse Disease Prediction	**Application:** Green House **Description:** The current article proposes and shows a full IOT -based Smart Greenhouse system that combines monitoring, alerting, cloud storage, automation, and disease prediction into a single, easily deployed package. It constantly monitors environmental variables like as temperature, humidity, and soil moisture to guarantee a better crop production and quick correction in the event of aberrant circumstances
VTIOT22	A Framework for the Emerging Smart Infrastructure in the IoT Era	**Application:** Automation **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.
VTIOT23	The use of Bluetooth Mesh Networking in IoT-aware Applications	**Application:** Automation **Description :** Bluetooth Low Energy (BLE) mesh networking is an emerging technology domain that promises an important role in the IOT. Significant market opportunities for BLE mesh networking have motivated the recent development of two different BLE mesh networking standards: Bluetooth Mesh and 6BLEMesh, produced by the Bluetooth SIG and the IETF, respectively.
VTIOT24	A Cost-Effective IoT Based Smart Home Application	**Application:** Home Automation **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	IoT based Smart Baby Monitoring	**Application:** Safety **Description :** To recognize each and every movement of Baby, various Sensors are connected to the Cradle: Gas & Temperature Sensing Module for discovery of wetness of the cradle. A Camera is fitted in the top Cradle for live video film & sound sensor to break down Cry Patterns. All the information which is being taken from the sensors will be put away in information base & recognized at normal stretches. Using all those data and images, parents can be sure about the safety and well being of their babies at any time in any given place.
VTIOT26	A Framework for IoT Based Appliance Recognition in Smart Homes	**Application:** Home Automation **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.
VTIOT27	The IoT and Cloud Based Smart Home Automation for a Better Energy Efficiency	**Application:** Home automation **Description:** This system proposes a prototype of an improved smart home automation system, with the integration of IOT, cloud technologies, and intelligence embedding. The automation and the ability for users to control their home appliances remotely are enabled with the use of IOT.

CODE	TITLE	APPLICATION / DESCRIPTION
VTIOT28	IoT Based Smart Wheelchair for Disabled People	**Application:** Safety purpose **Description**: This system proposes will make the Smart Wheelchair affordable to a wide range of disabled people and will be based on Arduino IoT module to give Wi-Fi access, MPU6050 to detect fall with Voice message notification obstacle detection with buzzer and LED to work as hazards, voice recognition system, and joysticks to control the wheelchair.
VTIOT29	Power Analysis of Household Appliances using IoT	**Application:** Home automation **Description:** The proposed system consists of three main phases. They are Frontend, Cloud API and Dashboard display. The Front end also Request the device logging information from the cloud API which is then parsed and displayed in dashboard for power optimization.
VTIOT30	IoT Based Surveillance and Health Monitoring System for Elderly and Physically Challenged People	**Application:** Bio-medical **Description:** In this proposed system robust health monitoring system that is smart enough to watch the patient automatically using IOT that gathers the information status through these systems which would comprise patient's heart rate, blood pressure, and ECG and sends an urgent situation alert to patient's physician with his recent status and full medical information.
VTIOT31	Design of an occupancy simulation system in Smart homes based on IoT	**Application:** Home automation **Description:** The proposed IOT system is based on a motion sensor, actuators as relays and lights, Arduino platform to control system. The results demonstrate that security system create an environment occupied by owners without to be inside home, through sensors and actuators.
VTIOT32	IoT Based Low-Cost Smart Home Automation System	**Application:** Home Automation **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.
VTIOT33	Customization In Home Automation Using IoT	**Application:** Home automation **Description:** Home automation is used to help maintain pleasant living conditions inside the home. In this regard, we will briefly introduce the IOT for home automation and to gain new experience in home appliances control. The control and monitoring of the home appliances involves user interaction in this part the customization is introduced to minimize the effort of the user.
VTIOT34	A Smart Polluted Water Overload Drainage Detection and Alert System: Based on IoT	**Application: Automation** **Description :** This system designed an advanced and automated device that can identify overloaded polluted drainage, which is responsible for water-borne disease and unexpected floods. We are using a smart ultrasonic sensor with an Ethernet shield integrated Arduino UNO.
VTIOT35	A Wireless Continuous Patient Health Monitoring System Using IoT	**Application:** Bio-Medical **Description:** In this proposed model using IOT (internet of things) health monitoring system of the patient were builted in this model and that have sensors like temperature, Heartbeat, MEMS, vibration, ECG, Wi-Fi module and GSM. It's like wireless sensor model (WSN).
VTIOT36	Automatic Irrigation System: Design and Implementation	**Application:** Irrigation Automation **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.

CODE	TITLE	APPLICATION / DESCRIPTION
VTIOT37	Embedded IoT Car Parking and Billing System	**Application:** Automation **Description**: In this system the advanced sensors network are used to find the free slot and display the data in the LCD and also send to Mobile application through IOT.
VTIOT38	Intelligent Water Distribution and Monitoring System	**Application:** Automation **Description:** The proposed system detects the leakage in the water distribution system at the earliest. It makes use of water flow sensors to detect the leakage. A solenoid valve is provided in the system in order to cut down the water supply by closing the valve in case of heavy leakage, thereby saving the water. Hence, maintenance of the water distribution system is made easy for the authority.
VTIOT39	IoT based Remote Patient Health Monitoring system	**Application:** Bio-medical **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.
VTIOT40	IoT Enabled Smart Farming and Irrigation System	**Application:** Irrigation automation **Description:** In the proposed system, the watering process is automated which reduces manual work. Various parameters of the plants and soil such as temperature, moisture and humidity are sensed with the help of different sensors.
VTIOT41	Rain Water Harvesting for Smart Water Management Using IoT	**Application:** Automation **Description :** The proposed system performs rain water harvesting for water management in smarter way. This system incorporates the Arduino water level sensor for measuring the water level of container that is stored underground, ultrasonic sensor for measuring the distance, water pump for pumping of water, pump sensor to check the rate of pressure
VTIOT42	Smart Agriculture Based on IoT	**Application:** Agriculture Automation **Description:** It aims to propose a ubiquitous IoT solution to monitor the farm remotely by the farmers.
VTIOT43	Waste contamination in Water – A Real-time Water Quality Monitoring System using IoT	**Application:** Automation **Description :** It proposes an IOT based water quality monitoring system and alerts the concerned authorities if the consumed groundwater is polluted. The proposed system uses various sensors, Node MCU and is integrated with cloud infrastructure for database storage and for real-time dashboard maintenance of the measured parameters.
VTIOT44	Fuzzy Logic and IoT for Smart City Lighting Maintenance Management	**Application: Automation** **Description:** In this project, we are controlling the street lights automatically without help of humans. Based on the light intensity falling on the LDR. The exact intensity from LDR are read by the controller which controls the relay circuit connected to street light.
VTIOT45	IoT Enabled Real-Time Remote Health Monitoring System	**Application:** Bio-Medical **Description:** In the proposed remote health care monitoring system is structured by considering diverse human services parameters. Proposed framework model is presented with Sensors.

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VTIOT46	Monitoring Air Quality using IoT: Effects of COVID-19	**Application:** Bio-Medical **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
VTIOT47	Smart Shopping Application using IoT and Recommendation System	**Application:** Automation **Description:** In this system automatic billing system provided by the application only deals with the automatic creation and updation of the records of commodities brought by the customer rather than the integration of payment gateways within the application itself. RFID readers are used for scanning the products.
VTIOT48	IoT Based Synergistic Approach for Poultry Management System	**Application:** Automation **Description:** The system was designed with wireless and autonomous sensor nodes to monitor temperature, humidity, air quality, water level and feed availability in interested poultry space, and communicate the processed data via their transceiver to the accessed node
VTIOT49	IoT-Based Data Logger for Weather Monitoring Using Arduino-Based Wireless Sensor Networks with Remote Graphical Application and Alerts	**Application:** Green House **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.
VTIOT50	An IoT Design Approach to Residential Energy Metering, Billing and protection	**Application:** Home security automation **Description :** In this project an electric energy metering with high accuracy, which can calculate instantaneous active power and average active power of electrical equipment. The IR sensor interfacing with energy meter and it calculate the number of consuming units. This status update to IoT. Alert through Buzzer and status display on LCD.
VTIOT51	Smart Street Light Management System with Automatic Brightness Adjustment	**Application:** Automation **Description:** This system presents a street lamp control system based on the Bolt IoT platform. The aim of this project is conservation of energy by reducing electricity wastage and to minimize the manpower. The scheme utilizes Light Emitting Diodes (LED) that doesn't take huge amount of power and being directional light sources, it can radiate light in specific direction thereby improving the efficiency of the street lamps
VTIOT52	Intruder Detection and Adaptive Irrigation System Using IOT	**Application:** Irrigation Automation **Description :** It proposes to irrigate fields only when there is a need of water and to provide information about detection of any intrusion in agricultural fields. The information is sent to the farmers by using cloud application. The performance of our system is measured in terms of intrusion detection and moisture of soil for irrigation
VTIOT53	Low Power IoT Based Implementation ECG & Health Monitoring System	**Application:** Bio-Medical **Description:** In this paper, the IoT assisted electrocardiogram (ECG) monitoring framework with secure data transmission has been proposed for continuous cardiovascular health monitoring. The ECG Signal Strength Analysis has been proposed for automatic classification and realtime implementation, using ECG sensors, Arduino, Android phones, Bluetooth and cloud servers with the proposed IoT-assisted ECG monitoring system.
VTIOT54	IoT-based Automated Pond Water Quality Monitoring System for Aquaculture Farms	**Application:** Aquaculture **Description:** The designed system allows farmers to monitor in real time the most important physico-chemical variables of the pond water. Especially, this work introduces a simple and effective approach for automatic cleaning sensor probes that helps improve sensor reading's reliability and reduce and maintenance costs

CODE	TITLE	APPLICATION / DESCRIPTION
VTIOT55	A Feasible IoT-Based System for Precision Agriculture	**Application:** Agriculture Automation **Description**: This paper presents a feasible and a low-cost IoT based monitoring system for precision agriculture, with emphasis to viticulture. A field/crop data are acquired by self-powered measuring station and sent to remote collector, located in the home or office
VTIOT56	A support system for children using Internet of Things technology	**Application:** Automation **Description:** This paper introduces a prototype system of an IoT-based support system for ASD children. The system guides and monitors ASD children using a set of sensors linked to a modern Wi-Fi, which also uses the Blynk platform to control and monitor the system sensors from the mobile device and communicate with parents or supervisors
VTIOT57	Application of MQ-Sensors to Indoor Air Quality Monitoring in Lab based on IoT	**Application:** Green House **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
VTIOT58	IoT based Water Pollution Reporting System: An IoT based system for controlling pollution in water	**Application:** Green House **Description:** In this system by measuring turbidity and using the pH range, we can estimate the quality of water and its health. Thus, would help the remote regions to test the water source prior to consumption. Constant monitoring of these water parameters at the source would also help keeping the pollution, would facilitate clean water availability and regulates irrigation practices.
VTIOT59	Real Time Water Treatment Plant Monitoring System using IOT	**Application:** Green House **Description :** In this system water treatment plant that measures quality of water utilizing various parameters like temperature, pH, turbidity and TDS. In this several sensors that measure distinctive parameters like pH value, turbidity in water, level of the water within the tank, temperature and humidity of the surrounding atmosphere are interfaced with Arduino micro-controller unit.
VTIOT60	Intelligent Garbage Monitoring System Using IoT	**Application:** Green House **Description:** The system we built will apprise individuals or organisations about the amount of waste in their bins and also alert them when the bin is filled to the brim. Our system also analyses the waste products to ensure the proper segregation of the wastes into biodegradable, non-biodegradable and recyclable wastes.
VTIOT61	A Zigbee based IoT enabled Trash Bin Level Monitoring System	**Application:** Green House **Description :** The proposed system would be able to automate the solid waste monitoring process and management of the overall collection process using IOT. whenever the waste bin gets lied this is acknowledged by Placing GPS at the waste bin, which transmits it to the receiver at the desired place in the area or spot, then received signal indicates the waste bin status at the Monitoring and controlling system
VTIOT62	Automobiles Based Black-Box System Using IoT	**Application:** Automation **Description:** The Vehicle black box receives the information from various sensors like the breath analyser, acceleration and the distance of surrounding vehicles along with push and panic button. When the driver alcohol consumption reaches maximum limit, the messages are sent to emergency contacts. If the accident occurs, by using GSM and GPS the vehicle location is traced and the information is sent to local hospital and police.
VTIOT63	Driving Behavior Analysis of City Buses Based on Real-Time GNSS Traces and Road Information	**Application:** Automation **Description:** This paper develops a platform with vehicle-mounted terminals using differential global navigation satellite system (DGNSS) modules for driver behavior analysis. The DGNSS traces were used to derive the vehicle trajectories, which were then linked to road information to produce speed and acceleration matrices.

CODE	TITLE	APPLICATION / DESCRIPTION
VTIOT64	IoT based Automated Health Care Monitoring System for Smart City	**Application:** Bio-Medical **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.
VTIOT65	An Energy Efficient Smart Metering System using Edge Computing in Zigbee Network	**Application:** Automation **Description:** This paper provides a comprehensive review of the smart grid systems, based on IoT and EC. The development in the rising technologies, the framework for EC-IoT-based SG, and requirements to implement the EC-IoT-based SG system
VTIOT66	Securing IoT for Smart Home System	**Application:** Home Security Automation **Description:** In this paper, we investigate security attacks in smart home and evaluate their impact on the overall system security. We identified security requirements and solutions in the smart home environment. Based on several scenarios, we suggest to set security goals for the smart home environment.
VTIOT67	Women Security System	**Application:** Security **Description:** The proposed work aims at designing an IoT based safety device that relies on providing security to women by fingerprint-based method of connectivity to the device and alerting nearby people and police when a women is not safe. An unsafe situation is sensed by fingerprint verification for a minute then it will automatically alert nearby people and police if the device senses no signal.
VTIOT68	An IoT-Based Healthcare Platform for Patients in ICU Beds During the COVID-19 Outbreak	**Application:** Bio-Medical **Description :** This system an IoT-based healthcare platform to provide remote monitoring for patients in a critical situation .It aims to extend the platform by integrating wearable and unobtrusive sensors to monitor patients with coronavirus disease.
VTIOT69	IoT-Based Data Logger for Weather Monitoring Using Arduino-Based Wireless Sensor Networks with Remote Graphical Application and Alerts	**Application:** Green House **Description:** It proposes an automatic weather monitoring system that allows having dynamic and real-time climate data of a given area. The system also includes electronic devices, sensors, and wireless technology. The main objective of this system is sensing the climate parameters, such as temperature, humidity, and existence of some gases, based on the sensors. The captured values can then be sent to remote applications or databases.
VTIOT70	Vehicle Accident Detection System using Internet of Things (VADS – IoT)	**Application:** Automation **Description :** The accident is detected by the vibration and gyroscope sensors and immediately a message is sent to the emergency contact numbers using GSM module along with the location identified by the GPS module. If the vehicle gets any head-on collision the vibrations are produced.