# INTERNET OF THINGS

| CODE | TITLE | APPLICATION / DESCRIPTION |
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| VTIOT01 | IOT enhanced transport and monitoring of medicine using sensors, MQTT | **Description :** The leverages IoT-enhanced technologies, utilizing sensors to monitor environmental conditions, MQTT for efficient and real-time data transmission, and secure short message services to ensure timely and reliable communication, thereby enhancing the safety and integrity of medicine transportation |
| VTIOT02 | IOT-enabled advanced water quality monitoring system for pond management and environmental conservation | **Description:** The IoT-Enabled Advanced Water Quality Monitoring System uses sensors to track the health of pond water in real-time. This helps manage the pond and supports environmental conservation efforts. |
| VTIOT03 | IOT innovations in sustainable water and waste water management and water quality monitoring | **Description:** IoT Innovations in Sustainable Water and Wastewater Management and Water Quality Monitoring" uses smart sensors to monitor and manage water and wastewater efficiently. This helps maintain water quality and supports sustainable water use. |
| VTIOT04 | A smart bin with real-time monitoring and garbage level tracking using IOT | **Description**: This project uses sensors to check how full a garbage bin is and sends this information to a central system. This helps ensure bins are emptied on time, keeping areas cleaner and more efficient. |
| VTIOT05 | IOT enabled real-time traffic monitoring and control management for intelligent transportation systems | **Description:** Real-Time Traffic Monitoring and Control Management for Intelligent Transportation Systems uses sensors and smart technology to monitor and manage traffic flow in real-time, helping to reduce congestion and improve road safety. |
| VTIOT06 | IOT based intelligent systems for vehicle | **Description:** This project uses internet-connected devices to monitor and improve vehicle performance and safety. These systems provide real-time data and alerts to drivers, helping with maintenance and enhancing safety features. They make vehicles smarter and more efficient. |
| VTIOT07 | Internet of things for public safety | **Description:** This project uses connected devices to monitor and respond to emergencies. These systems provide real-time data to first responders, improving their efficiency and effectiveness. They help make communities safer by detecting hazards and coordinating timely responses. |
| VTIOT08 | Anti-poaching system for protecting forest and wildlife using IOT and ZigBee technology | **Description :** An anti-poaching system uses IoT and Zigbee technology to monitor and protect forests and wildlife. It detects illegal activities and alerts authorities in real-time, helping to prevent poaching and safeguard natural habitats. |
| VTIOT09 | Street light cum garbage system optimal design based on IOT | **Description:** This system combines street lighting and garbage management using IoT technology. It automatically adjusts street lights and monitors garbage levels, optimizing city resources and improving efficiency. |

**IEEE 2024 - INTERNET OF THINGS**

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|---|---|---|
| **VTIOT10** | IOT based smart waste management system with level indicators for effective garbage waste segregation | **Description :** This system uses IoT technology to manage waste by monitoring garbage levels and providing indicators for different waste types. It helps in efficient waste segregation and ensures timely collection, reducing overflow and improving recycling efforts. |
| **VTIOT11** | Implementation of sensor node and controller-based network in Black Soldier Fly (BSF) cultivation to support circular economy | **Description:** This system uses sensors and controllers in Black Soldier Fly (BSF) farming to monitor and optimize conditions. It supports a circular economy by improving waste management and resource efficiency in the cultivation process |
| **VTIOT12** | Implementation of Internet Of Things in building smart cities | **Description:** The implementation of the Internet of Things (IoT) in building smart cities connects devices and systems to collect and analyze data, improving urban services like traffic management, waste disposal, and energy efficiency for better city living. |
| **VTIOT13** | Smart energy meter for mobile-based power consumption monitoring and management | **Description**: This smart energy meter tracks power usage and allows you to manage it through a mobile app. It provides real-time consumption data and helps optimize energy use from your phone. |
| **VTIOT14** | Automating electric power consumption with a smart electricity meter | **Description:** A smart electricity meter automates the tracking and management of power usage. It provides real-time data and control over electricity consumption, helping to save energy and reduce costs. |
| **VTIOT15** | BLE based home automation | **Description:** BLE-based home automation uses Bluetooth Low Energy to control and monitor home devices. It enables efficient and easy management of lights, appliances, and other systems from a smartphone or tablet. |
| **VTIOT16** | IOT-based smart home automation system: ensuring safety for the elderly | **Description:** An IoT based smart home automation system for the elderly uses connected devices to monitor their safety. It can detect emergencies, control home functions, and send alerts to caregivers, ensuring a secure and comfortable environment |
| **VTIOT17** | Detection of pesticides in organic fruits and vegetables using IOT | **Description :** This system uses IoT technology to detect pesticide residues in organic fruits and vegetables. It provides real-time monitoring and alerts, ensuring that produce remains safe and meets organic standards. |
| **VTIOT18** | IOT based non-intrusive automated driver Drowsiness monitoring framework for logistics And public transport applications to Enhance road safety | **Description:** This IoT based system monitors driver drowsiness without interfering with their driving. It provides real-time alerts to enhance road safety in logistics and public transport by detecting signs of fatigue. |

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| VTIOT19 | Smart health monitoring and anomaly detection using Internet Of Things (IOT) | **Description:** Smart health monitoring and anomaly detection using the Internet of Things (IoT) involves using connected devices to continuously track health data, like heart rate or blood pressure, and detect unusual patterns or potential health issues in real-time for early intervention. |
| VTIOT20 | IOT based efficient storage system for sustainable agriculture | **Description:** This IoT-based storage system helps manage and monitor agricultural products efficiently. It ensures optimal conditions for storage, reducing waste and supporting sustainable farming practices. |
| VTIOT21 | Smart water flow and pipeline leakage detection using IOT | **Description:** This IoT-based system monitors water flow and detects pipeline leaks in real-time. It helps prevent water waste and reduces damage by providing early alerts for quick repairs. |
| VTIOT22 | IOT based theft detection development | **Description**: An IoT-based theft detection system uses smart sensors and connected devices to monitor and detect suspicious activity. It sends alerts in real-time if it senses unauthorized access or tampering. |
| VTIOT23 | Controller based adaptive parking system | **Description:** A controller-based adaptive parking system uses sensors and a central controller to manage parking spaces efficiently. It adjusts parking allocations dynamically based on real-time availability and demand. |
| VTIOT24 | IOT enabled medicine dispenser for pills and liquid medication | **Description:** An IoT enabled medicine dispenser ensures timely and accurate dosage of pills and liquid medications. It connects to a mobile app for easy monitoring and reminders. This smart device enhances medication adherence and improves patient care. |
| VTIOT25 | IOT based automatic breaking control system for EV vehicle and monitoring system | **Description:** An IoT-based automatic braking control system for electric vehicles enhances safety by detecting obstacles and applying brakes automatically. It includes a monitoring system that provides real-time data to the driver. This technology helps prevent accidents and ensures a smoother driving experience |
| VTIOT26 | Automatic fire extinguishing system using internet of things | **Description :** An automatic fire extinguishing system using IoT detects fires early and activates extinguishers automatically. It sends alerts to your smartphone for instant notification. This system enhances safety by quickly controlling fires and reducing damage |
| VTIOT27 | Cost-efficient smart home security system based on IOT | **Description:** This system provides reliable protection by monitoring your home with sensors. It sends alerts to your smartphone for real-time updates. This affordable solution enhances home security and peace of mind. |

**IEEE 2024 - INTERNET OF THINGS**

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|---|---|---|
| VTIOT28 | Mobility plus: voice-controlled wheelchair with health monitoring system and oxygen cylinder integration | **Description:** The system, Mobility Plus, introduces a voice-controlled wheelchair that integrates a comprehensive health monitoring system and an oxygen cylinder. This innovative solution allows users to control the wheelchair through voice commands, enhancing ease of use and independence |
| VTIOT29 | IOT enabled moving wheelchair with obstacle detection and continuous health monitoring | **Description:** The system features an IoT enabled moving wheelchair equipped with advanced obstacle detection and continuous health monitoring. This innovative wheelchair uses sensors and IoT technology to detect and navigate around obstacles, enhancing safety and ease of use. |
| VTIOT30 | IOT based coal mines safety monitoring and alerting system | **Description:** The IoT-based coal mines safety monitoring and alerting system utilizes a network of interconnected sensors to continuously monitor environmental conditions such as gas levels, temperature, humidity, and structural integrity. The system transmits real-time data to a central control unit and alerts miners and management to any hazardous conditions immediately. |
| VTIOT31 | Real-time smoke detection inside cars using internet of things | **Description**: Real-time smoke detection inside cars using IoT identifies smoke immediately and alerts the driver. It sends notifications to your smartphone for quick action. This system enhances safety by preventing potential fire hazards. |
| VTIOT32 | Real-time aquaculture monitoring system using IOT technology | **Description:** This system uses a network of interconnected sensors to continuously monitor critical water quality parameters and transmit data in real-time to a central platform. Users can access this data remotely via a mobile app or web interface, receiving instant alerts and notifications if any parameter deviates from the optimal range |
| VTIOT33 | Remote monitoring system using IOT for healthcare applications | **Description:** This system tracks patient health data in real-time. It sends information to doctors and caregivers via a mobile app. This system enhances patient care by enabling timely interventions and continuous monitoring. |
| VTIOT34 | IOT system for greenhouse monitoring | **Description:** The system for greenhouse monitoring utilizes interconnected sensors and real-time data analytics to continuously monitor environmental conditions. This system enables automated adjustments and remote access, ensuring optimal growing conditions and efficient resource management. |
| VTIOT35 | Patient surveillance system | **Description :** The system employs continuous, real-time monitoring using advanced sensors and data analytics, enabling immediate detection of health changes and timely intervention, thereby improving patient outcomes and reducing the burden on healthcare staff. |
| VTIOT36 | IOT based animal detection and alert system for farm fields | **Description:** The system monitors for animals entering the area. It sends real-time alerts to your smartphone if animals are detected. This system helps protect crops and livestock by providing early warnings. |

**IEEE 2024 - INTERNET OF THINGS**

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| VTIOT37 | Design of smart lighting and security system using intelligent controller | **Description:** The system automatically adjust lighting based on occupancy and ambient light levels, and to enhance security by integrating advanced sensors and real-time alert mechanisms, thereby improving energy efficiency and security responsiveness. |
| VTIOT38 | IOT based movable smart dustbin using IOT application | **Description:** An IoT based movable smart dustbin uses sensors to monitor and manage waste levels. It can be controlled remotely to move to different locations as needed. This system helps maintain cleanliness and efficient waste management |
| VTIOT39 | Solar panel maintenance using IOT | **Description:** IoT based solar panel maintenance monitors panel performance and detects issues in real-time. It sends alerts about maintenance needs or malfunctions to your smartphone. This system ensures your solar panels operate efficiently and reduces downtime |
| VTIOT40 | Smart street light with power saving function and fault detection | **Description**: The system incorporates power-saving functions and fault detection using advanced sensors and IoT technology. This system adjusts lighting based on real-time conditions and immediately identifies faults, significantly improving energy efficiency and reducing maintenance times |
| VTIOT41 | IOT based smart home and office fire notification alert system | **Description:** The system based smart home and office fire notification alert system leverages interconnected sensors and real-time data transmission to provide immediate alerts to occupants and emergency services, ensuring faster response times and enhanced safety. |
| VTIOT42 | Smart aquarium and water quality monitoring using IOT | **Description:** A smart aquarium with IoT technology tracks water quality and fish health continuously. It sends updates and alerts to your smart phone for easy monitoring. This system helps maintain a healthy environment for your aquatic life. |
| VTIOT43 | Revolutionizing water level monitoring with the Wi-Fi board | **Description:** Revolutionizing water level monitoring with a Wi-Fi board allows you to track water levels in real-time from anywhere. It sends updates directly to your smartphone. This system improves accuracy and convenience in managing water resources. |
| VTIOT44 | Development of an smart and safe outdoor plant watering system | **Description :** This system uses sensors to monitor soil moisture and automatically waters plants as needed. It can be controlled remotely via a smart phone app. This system ensures your plants receive the right amount of water and helps maintain a healthy garden. |
| VTIOT45 | Development of health monitoring wearable device using controller | **Description:** A health monitoring wearable device with a controller tracks vital signs like heart rate and steps. It sends health data to your smartphone for easy tracking. This device helps you keep an eye on your health and fitness levels. |

**IEEE 2024 – INTERNET OF THINGS**

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| VTIOT46 | Home automation using Wi-Fi: controller-based system for remote control and environmental monitoring | **Description:** This system allows you to remotely control and monitor various devices in your home. It manages lighting, temperature, and security through a smart phone app. This system enhances convenience and ensures a comfortable living environment |
| VTIOT47 | Mine detection rover with Wi-Fi control | **Description:** A mine detection rover with Wi-Fi control can detect and identify mines safely. It is operated remotely via a smart phone or computer. This rover helps in safely clearing areas by detecting dangerous mines. |
| VTIOT48 | Sewage water monitoring and filtering using Raspberry Pico | **Description:** This proposed tracks water quality and manages filtration. It uses sensors to detect contaminants and sends data to your smart phone. This system helps keep sewage systems clean and safe. |
| VTIOT49 | Traffic violation detection and control system using RFID and IOT system | **Description:** The control system using RFID and IoT identifies and monitors vehicles breaking traffic rules. It captures data through RFID tags and sensors, sending alerts and reports to authorities. This system improves road safety and enforcement efficiency |
| VTIOT50 | Autonomous agricultural robot based on IOT | **Description:** An IoT performs tasks like planting, watering, and monitoring crops on its own. It uses sensors and data to navigate and manage fields efficiently. This robot helps increase farm productivity and reduces manual labor. |
| VTIOT51 | IOT based poultry farm automation | **Description:** The system controls and monitors feeding, heating, and ventilation systems for poultry. It uses sensors to track conditions and send data to your smartphone. This system improves efficiency and ensures optimal conditions for poultry health |
| VTIOT52 | Advancing workplace safety with IOT enabled industrial monitoring | **Description:** IOT tracks equipment and environmental conditions in real-time. It sends alerts and data to your smart phone to detect potential hazards. This system helps prevent accidents and ensures a safer work environment. |
| VTIOT53 | Bluetooth controlled green sward cutter using IOT | **Description :** This innovative solution allows users to remotely operate and monitor the lawn cutter via a smartphone application. The integration of IoT enables real-time updates, automated scheduling, and enhanced precision in lawn maintenance, offering a more efficient, convenient, and user-friendly approach to lawn care. |
| VTIOT54 | IOT based smart poultry farm and fish farming system | **Description:** This system uses IoT technology to monitor and manage poultry and fish farms through interconnected sensors and devices. It collects real-time data to optimize conditions, improving farm efficiency and productivity. Automation reduces manual intervention and enhances sustainability. |

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| VTIOT55 | Design and implementation of a Smart Agricultural Robot Bulldog (SARDOG) | **Description:** The system integrates advanced robotics and AI to automate agricultural tasks, enhancing efficiency and precision in farming operations. Equipped with sensors and intelligent control systems, it performs tasks such as planting, monitoring, and maintenance. Its design aims to improve productivity and reduce labor costs in agriculture |
| VTIOT56 | Internet of things (IOT) in smart grids | **Description:** The use of Internet of Things (IoT) in smart grids involves integrating connected devices and sensors to monitor and manage electricity distribution, improve energy efficiency, and enable real-time data analysis for better decision-making and grid performance |
| VTIOT57 | Advance public bus transport management system: an innovative smart bus concept | **Description:** This proposed incorporating real-time tracking, dynamic route optimization, and enhanced communication capabilities. This system aims to improve the efficiency, reliability, and overall user experience of public bus transportation |
| VTIOT58 | Solar panel and battery maintenance using IOT | **Description**: This IoT based system monitors and manages solar panels and batteries by collecting real-time data on their performance and condition. It enables proactive maintenance through predictive analytics and alerts, ensuring optimal energy efficiency and longevity. |
| VTIOT59 | Real time performance monitoring of solar PV panel IOT system for energy optimization | **Description:** The proposed system integrates IoT technology to enable utilizing advanced sensors and cloud-based analytics to optimize energy production, predict maintenance needs, and immediately address inefficiencies, ensuring maximum energy output and system reliability |
| VTIOT60 | Monitoring and storage of health data in secured cloud environment | **Description:** Proposed system leverages a secured cloud environment for monitoring and storing health data, providing enhanced security features, scalability, and real-time accessibility, which ensures comprehensive and efficient healthcare management while maintaining patient data privacy and integrity. |
| VTIOT61 | Smart plant monitoring: an integrated IOT system for sustainable precision agriculture | **Description:** The system utilizing interconnected sensors and advanced analytics to provide real-time data on soil conditions, plant health, and environmental factors, enabling precise resource management and sustainable agricultural practices |
| VTIOT62 | Real time safety monitoring system in coal mines using IOT | **Description :** The system interconnected to Those sensors and transmit data wirelessly to a central monitoring platform, which provides real-time visualization, automated alerts, and emergency responses, thereby significantly enhancing safety and operational efficiency in coal mines. |
| VTIOT63 | Heart Disease Detection Using Feature Extraction | **Description:** This system detects to analyze medical data. It identifies patterns and anomalies indicative of heart conditions, enhancing diagnostic accuracy. The approach aids in early detection and personalized treatment, improving patient outcomes. |

**IEEE 2024 - INTERNET OF THINGS**

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|---|---|---|
| **VTIOT64** | IoT-Enabled Water Monitoring in Smart Cities with Retrofit and Solar-Based Energy Harvesting | **Description:** It provides real-time data on water quality and usage, enhancing urban water management. The system ensures sustainable energy use while improving monitoring and control capabilities |
| **VTIOT65** | Smart Wheelchair Controlled Through a Vision-Based Autonomous System | **Description:** This system, allowing for intuitive navigation and obstacle avoidance. It uses advanced image processing to interpret the environment and adjust movement accordingly. The system enhances mobility and independence for users with physical disabilities. |
| **VTIOT66** | Construction of smart classroom based on internet of things technology | **Description:** This system uses interconnected devices and sensors to enhance learning. These devices can include smart boards, automated lighting, temperature control, attendance tracking, and real-time data sharing between students and teachers. The goal is to improve the learning experience, increase efficiency, and create a more interactive and responsive environment |
| **VTIOT67** | Development of a web server for embedded monitoring systems with indication of dynamically changing data | **Description**: Systems involves creating a system that can display real-time data on a website. This server collects data from sensors or devices and updates the information automatically as it changes. The goal is to provide users with an easy way to monitor and track dynamic data remotely via a web browser |
| **VTIOT68** | Using real-time integrated computer vision and deep learning for advanced factory safety | **Description:** Using real-time integrated computer vision and deep learning for advanced factory safety involves using cameras and AI to monitor the factory floor. The system detects potential hazards, such as unsafe behaviors or objects, and instantly alerts workers or managers to prevent accidents, improving safety and efficiency. |
| **VTIOT69** | Vision-based integrated disposal system | **Description:** A vision-based integrated disposal system uses cameras and computer vision technology to identify and sort waste materials automatically. The system helps improve recycling efficiency by accurately separating different types of waste for proper disposal or recycling |
| **VTIOT70** | Parknest - the smart parking system using IoT | **Description:** To help drivers find available parking spaces in real-time. The system connects sensors and devices to monitor parking spots and provides users with updates through a mobile app, making parking more efficient and convenient. |

**IEEE 2024 - INTERNET OF THINGS**