IEEE IOT PROJECT LIST 2018 AND 2019

	2018 – 19 IEEE TRANSCATIONS ON IOT – INTERNET OF THINGS/ WIFI/ LIFI BASED PROJECT TITLES
TIT001	**TITLE**- DESIGN OF AUTOMATIC ACCIDENT DETECTION AND MANAGEMENT IN VEHICULAR ENVIRONMENT USING IOT **ABSTRACT -** Road accidents and traffic congestion are the major problems in urban areas. Currently there is no technology for accident detection. Also due to the delay in reaching of the ambulance to the accident location and the traffic congestion in between accident location and hospital increases the chances of the death of victim. There is a need of introducing a system to reduce the loss of life due to accidents and the time taken by the ambulance to reach the hospital. To overcome the drawback of existing system we will implement the new system in which there is an automatic detection of accident through sensors provided in the vehicle. A main server unit houses the database of all hospitals in the city. A GPS and GSM module in the concerned vehicle will send the location of the accident to the main server which will rush an ambulance from a nearest hospital to the accident spot. Along with this there would be control of traffic light signals in the path of the ambulance using RF communication. This will minimize the time of ambulance to reach the hospital. A patient monitoring system in the ambulance will send the vital parameters of the patient to the concerned hospital. This system is fully automated, thus it finds the accident spot and helping to reach the hospital in time

TIT002	**TITLE –** CONTINUOUS PATIENT MONITORING WITH A RELIABLE NEAR FIELD COMMUNICATION SYSTEM FOR ERROR-FREE TREATMENT **ABSTRACT –** Near Field Communication (NFC) is a short range, standard based wireless communication technology that allows two-way interaction between two NFC-enabled devices. This paper explains how the technology can be used to meet the challenges in the healthcare management. This technology is user-friendly and commercially viable and can be easily used by a NFC cards, tags, key chains. Each NFC tag has a unique number which can be used for identification of patients in a hospital. The NFC tag can be used as an electronic health record to store the patient's medical history, prescriptions and real-time sensor data. The current health monitoring methods to measure the various health parameters are tedious and time consuming. The use of NFC along with wireless sensors intends to help the hospital staff to quickly access and monitor the patient's health record and health status respectively. The NFC technology provides ways to speed up the processes in hospitals; the doctors equipped with NFC-enabled tablets, computers can view all the information about a patient within seconds, without any issue of data being mixed. NFC provides accuracy and efficiency in healthcare as well as it is economically feasible.
TIT003	**TITLE –** DEVELOPMENT OF SMART HELMET BASED ON IOT TECHNOLOGY FOR SAFETY AND ACCIDENT DETECTION **ABSTRACT -** The Internet of Things (IoT) is a new evolution in technological advancement taking place in the world today. This paradigm allows physical world objects in our surroundings to be connected to the Internet. This idea comes to life by utilizing two architecture; the Sensing Entity in the environment that collects data and connects itself to the cloud and the Cloud Service that hosts the data from the environment and controls the parameters. The combination of wireless sensor networks and cloud computing is becoming a popular strategy for the IoT era. IOT has enabled us to connect our day to day devices in a network for a sole purpose to exchange data. With the growing number of 2-wheel motor vehicles, frequency of accidents is on the rise. A major portion of the fatalities occur because the person was both not wearing a helmet, or his accident was not reported in time, and he could not be saved because he was riding while drunk. Today a number of countries has made it mandatory to wear helmet while riding. We propose mechanisms that can detect if one is wearing the helmet, detect accidents, and detect whether the person has over-consumed alcohol. These information is send to the concerned person about the accidents, and detect whether the person has over-consumed alcohol. These information is send to the concerned person about the status of the person who is accessing the vehicle.
TIT004	**TITLE –** CAR BLACK BOX SYSTEM FOR ACCIDENT PREDICTION AND CRASH RECOVERY USING IOT

	ABSTRACT - The main purpose of this paper is to develop a prototype of the Vehicle Black Box System VBBS that can be installed into any vehicle all over the world. This prototype can be designed with minimum number of circuits. The display unit will shows the results of the each sensor network by calculating the individual values from the sensors. The project deals with the accident avoidance and security providence for the both vehicle driver and vehicle. The VBBS can contribute to constructing safer vehicles, improving the treatment of crash victims, helping insurance companies with their vehicle crash investigations, and enhancing road status in order to decrease the death rate
TIT005	**TITLE -** DESIGN OF AUTOMATIC SPEEDBREAKER ON TIME DEMAND USING EMBEDDED SYSTEMS **ABSTRACT –** The concept of this project work is to have an automatic speed breaker on time demand according to the requirements. Means when there is no need of the speed breaker on the road, it disappears from the road and the road becomes flat and when there is a need then the speed breaker comes on the road from ground and it starts its working of slowing speed of the vehicles. In implementation of this concept, we use an iron made hemi-cylindrical speed breaker which is capable of rotating itself using control circuitry of embedded systems. So when needed, it comes on road by rotating itself from flat position and when, not needed, it rotates itself again and gets flat and combines with flat road. In the system, real time clock is used to maintain the required time for having the speed breaker on road. When time gets started, breaker comes on road and remains until the countdown gets zero. In the embedded system's clock any time and date can be stored on which the speed breaker is required on the road. So this type of speed breaker is useful before any building for which the time is specified for coming in the building and going out from it.
TIT006	**TITLE –** DESIGN AND IMPLEMENTATION OF AUTHENTICATION FOR SMART VEHICLE SYSTEM USING IOT **ABSTRACT -** In this current world where technology is growing up day by day and scientific researchers are presenting new era of discoveries, the need for security is also increasing in all areas. At present, the vehicle usage is basic necessity for everyone. Simultaneously, protecting the vehicle against theft is also very important. Traditional vehicle security system depends on many sensors and cost is also high. When the vehicle is stolen, no more response or alternative could be available to help the owner of the vehicle to find it back. The main goal of this paper is to protect the vehicle from any unauthorized access, using fast, easy-to-use, clear, reliable and economical Biometric scanner. This vehicle security system intimates the status of the vehicle to the authoritative person (owner) using Wi-Fi or Global System for Mobile (GSM) communication technology. If the person is certified, vehicle access is allowed. Else SMS will be sent to the owner and the engine will be immobilized. The prototype model for the security system is built on the embedded platform using Arduino Microcontroller which

	controls all the processes and cost is also very stumpy. On higher end theft attempts like cutting battery power supply, protection to the vehicle is provided by Engine Control Unit (ECU) embedded on microcontroller. By using GPS technology, vehicle can be identified very easily.

TIT007	**TITLE –** AUTOMATIC TOLL COLLECTION AND VEHICLE ACCIDENT DETECTION USING RFID AND PIEZO ELECTRIC SENSOR **ABSTRACT –** The project deals with the problems faced at toll plaza by introducing identification system for vehicle and piezo electric sensor is used for accident detection. The owner has to create an account through mobile application and register his RFID tag. When vehicle passes through Toll collection Unit (TCU) it is classified as passenger or goods carrying vehicle based on its Unique Identification Number (UIN). A goods vehicle is weighed at TCU and if it is overloaded, then it is charged with extra tax and information is send to the android app, UIN is passed to controller unit where the balance gets deducted from account. Once the balance is deducted, it will indicate TCS to open the barricade and vehicle is allowed to pass. The accident detection is done using Piezoelectric sensor.
TIT008	**TITLE –** AUTOMATIC DETECTION AND NOTIFICATION OF POTHOLES AND HUMPS ON ROADS TO AID DRIVERS **ABSTRACT -** Roads in India normally have speed breakers so that the vehicle's speed can be controlled to avoid accidents. However, these speed breakers are unevenly distributed with uneven and unscientific heights. Potholes, formed due to heavy rains and movement of heavy vehicles, also become a major reason for traumatic accidents and loss of human lives. To address the above mentioned problems, a cost effective solution is needed that collects the information about the severity of potholes and humps and also helps drivers to drive safely. With the proposed system an attempt has been made to endorse drivers to ward off the accidents caused due to potholes and raised humps.
TIT009	**TITLE -** AN INTERNET OF THINGS APPROACH FOR MOTION DETECTION USING RASPBERRY PI **ABSTRACT -** This paper proposes the Smart Surveillance System using Raspberry Pi and PIR sensor. This system will serve as smart security module for monitoring. Traditional surveillance systems only records the activities based on motion, but this system serves the purpose of facial recognition so as to reduce the error caused due to motion detection .Raspberry Pi camera module is used to capture images once the motion is detected by the PIR Sensor. This system will monitor when motion detected and checks for the faces in the image captured and with the help of face recognition alerts if the face detected is not stored in the database. Send through SMS to alert even if he/she has internet issues he

	will get to know about the intruder.
TIT010	**TITLE -** A LOW COST RECONFIGURABLE SMART WATER QUALITY MONITORING SYSTEM IN IOT ENVIRONMENT **ABSTRACT -** Nowadays Internet of Things (IoT) and Remote Sensing (RS) techniques are used in different area of research for monitoring, collecting and analysis data from remote locations. Due to the vast increase in global industrial output, rural to urban drift and the over-utilization of land and sea resources, the quality of water available to people has

	deteriorated greatly. The high use of fertilizers in farms and also other chemicals in sectors such as mining and construction have contributed immensely to the overall reduction of water quality globally. Water is an essential need for human survival and therefore there must be mechanisms put in place to vigorously test the quality of water that made available for drinking in town and city articulated supplies and as well as the rivers, creeks and shoreline that surround our towns and cities. The availability of good quality water is paramount in preventing outbreaks of water-borne diseases as well as improving the quality of life. The development of a surface water monitoring network is a critical element in the assessment and protection of water quality. We developed a prototype of easy to install technology by which the different surface water (e.g. rivers, lakes) quality indicators can be measured. This paper presents a smart water quality monitoring system.
TIT011	**TITLE -** DESIGN OF KNOWLEDGE BASED REAL TIME MONITORING SYSTEM FOR AQUACULTURE USING IOT **ABSTRACT -** Internet of things is one of the rapidly growing fields for delivering social and economic benefits for emerging and developing economy. The field of IOT is expanding its wings in all the domains like medical, industrial, transportation, education, mining etc. Nowadays with the advancement in integrated on chip computers like Arduino, Raspberry pi the technology is reaching the ground level with its application in agriculture and aquaculture. Water quality is a critical factor while culturing aquatic organisms. It mainly depends on several parameters like dissolved oxygen, ammonia, pH, temperature, salt, nitrates, carbonates and water level etc. The quality of water is monitored continuously with the help of sensors to ensure growth and survival of aquatic life. The sensed data is transferred to the aqua farmer mobile through cloud. As a result preventive measures can be taken in time to minimize the losses and increase the productivity.
TIT012	**TITLE –** DESIGN OF IOT BASED VEHICLE THEFT DETECTION SYSTEM **ABSTRACT –** Due to increasing usage of IoT in automotive Embedded systems. Smart Car application has gained enormous attention among the users. It's difficult to trace missing vehicles in metropolitan cities or any theft activities when the owner is not around the vehicle. This study presents a new design for an anti-theft protection system as an

	inexpensive solution to protect cars from theft and from non-authorized users by using a single board computer. This security system is implemented for anti-theft using an embedded system integrated with Global Positioning System (GPS) and Global System for Mobile Communication (GSM). This proposed work is an attempt to design and develop a smart anti-theft system that uses GPS and GSM system to prevent theft and to determine the exact location of vehicle. The preventive measures like engine ignition cutoff, VIN etched to the soc and steer locking systems are installed in the vehicle which is controlled using user or owner GSM mobile. The owner can lock or unlock his/her vehicle with the help of SMS. This complete system is designed taking in consideration the low range vehicles to provide them extreme security.
TIT013	**TITLE –** A PROPOSED ARCHITECTURE FOR AUTOMATING PUBLIC DISTRIBUTION SYSTEM **ABSTRACT –** RFID based automatic ration system is an approach in public distribution

	system useful for more efficient, accurate and automated technique of ration distribution. The conventional ration distribution system has drawbacks like inaccurate quantity of goods, low processing speed, large waiting time and material theft in ration shop. In this paper, we propose an automatic ration materials distribution based on GSM and RFID technology instead of ration cards. To get the materials in ration shops, one need to show the RFID tag into the RFID reader, then controller checks the customer codes and details of amounts in the card. After verification, these systems show the amount details. Then customer need to enter their required materials by using keyboard, after receiving materials controller sends the information to government office and customer through GSM technology.
TIT014	**TITLE –** AN INTELLIGENT SYSTEM FOR INFANT CRY DETECTION AND INFORMATION IN REAL TIME USING IOT **ABSTRACT –** Infants or a toddler needs parents' attention 24 hours a day and 7 days a week, which is practically impossible due to other priorities like house hold activities, official works and personal works. Baby care centre or nanny is the two options available which involves lot of passion. We live in a world where technologies are used all around us. The new generations of parents were raised with technology. There are many things these parents will buy to help them care for their baby. So, there is a need for safe and secure place to take good care of the children's need with minimum human intervention, which can be accomplished with the help of a "smart baby cradle". A "smart baby cradle" provides parents a smart automatic cradle system to help these parents monitor and comfort the baby. The smart baby cradle allows them to monitoring their babies, the cradle, play soothing music, even speak to the baby, observing the temperature of the infant, bed wet sensor which will caution the attendants for bunk wetting of the infant. The mother can keep an eye on baby through camera inserted in the cradle. All the fittings are done through Arduino and PIR sensor. Additionally, we provide a predefined nutrition food chart to help baby remain healthy.

TIT015	**TITLE –** DESIGN OF A SMART MONITORING SYSTEM FOR WASTE MANAGEMENT USING IOT **ABSTRACT –**In recent times, garbage disposal has become a huge cause for concern in the world. A voluminous amount of waste that is generated is disposed by means which have an adverse effect on the environment. The common method of disposal of the waste is by unplanned and uncontrolled open dumping at the landfill sites. This method is injurious to human health, plant and animal life. In India, rag pickers play an important role in the recycling of urban solid waste. The economic value of the waste generated is not realized unless it is recycled completely. We are implementing a smart dustbin which is a cheap, easy to use solution for a segregation system at households, so that it can be sent directly for processing. It is designed to sort the refuse into wet waste and dry waste. Also to inform the concerned person when the bins are full through IOT.
TIT016	**TITLE –** DESIGN OF IOT BASED ACCIDENT PRONE ZONE DETECTION USING ANDROID APPLICATION **ABSTRACT –** Road accidents is the major cause of deaths in india. India had been ranked

	number one in the number of deaths due to accidents. This is some serious matter at hands and measures need to be taken to save the lives of the victim. The victim's lives can be saved by taking preventive measures at the accident prone zone. Accident prone zone is the place where accidents frequently occur that is mainly in bi-direction road, at the curves of the road. A statistical measures are taken at that zones when two vehicles are coming in opposite direction. A prototype consists of four IR sensors, tilt sensor, Arduino, wifi module and android app is developed in a bi-directional road. Here four IR sensors are taken, two are placed at the starting of the road, two are placed at the ending of the road. So that it detects the vehicles and send the information through android app. This a chance to minimize the accidents, where the vehicles previously know whether any vehicle comes in his/her path.
TIT017	**TITLE –** INTELLIGENT PILLBOX: AUTOMATIC AND PROGRAMMABLE ASSISTIVE TECHNOLOGY DEVICE **ABSTRACT –** Assistive Technology (AT) maintains and improves the individual's functioning and independence, thereby promoting their well-being. But today's only 1 from each 10 people in need have access to AT due to high costs and a lack of awareness, availability, personal training, policy and financing. By 2050, more than 2 billion people will need at least 1 assistive product with many elderly needing 2 or more. Elderly make important contributions to the society. Though some people aged well, other become frail, with a high risk of disease. In this paper, we propose a first approach related to the design of AT device. This uses open source technologies and gives a new choice in taking medication dosages. "The intelligent PillBox" allows the organization of several
	medication schedules that health disorders presented in elderly need basically. ARM 7 was taken as the principal controller. This prototype contains: an automatic opening and closing system, a display system and a notification through GSM network. The development of this device is focused in the support of elderly people and other vulnerable groups that may need for an assisted care.
TIT018	**TITLE –** DESIGN OF A SMART CAR PARKING SYSTEM **ABSTRACT –** The main aim of this project is to reduce the traffic in the parking place. Normally we can see in the multiplexes, cinema halls, large industries, and function halls there is problem they have to go and search which line is empty and which line having place to park the vehicle, for parking then they need workers for parking in correct position it is the money consumed process. So to avoid this problem car parking system project is implemented.
TIT019	**TITLE –** IOT BASED ANTI-POACHING ALARM SYSTEM FOR TREES IN FOREST USING WSN **ABSTRACT -** For many days we are reading in the newspapers about smuggling of the trees like sandal, "Sagwan" etc. These trees are very costly as well as less available in the world. These are use in the medical sciences as well as cosmetics. Because of huge amount of money involved in selling of such tree woods lots of incidents are happening of cutting of trees and their smuggling. In India also in the jungles of Karnataka and Tamilnadu notorious Smuggler "Virrappan" did the smuggling of such trees for so many years. To restrict such smuggling and to save the forests around the globe some

	preventive measures need to be deployed. We are developing such a system which can be used to restrict this smuggling. Smuggling of sandalwood has created socio economic and law and order problems in areas bordering the state of Tamil Nadu and other regions in India. The purpose of this project is to save valuable trees which have high demand in market like teak, Sandalwood, etc. Here we have used GPS Technology i.e., Global Positioning System from which we can get the location of where the poaching is done. Monitor & control of parameters like Tilt of Tree, Cutting of Tree, burning of tree is done through the IOT and can be accessed on the Android app installed in android smart phone.
TIT020	**TITLE –** A METHOD OF WSN TO MONITOR AND CONTROL THE COLD CHAIN LOGISTICS AS PART OF THE IOT TECHNOLOGY **ABSTRACT -** The Internet of Things (IoT) is a new evolution in technological advancement taking place in the world today. This paradigm allows physical world objects in our surroundings to be connected to the Internet. This idea comes to life by utilizing two architecture; the Sensing Entity in the environment that collects data and connects itself to the cloud and the Cloud Service that hosts the data from the environment and controls the parameters. The combination of wireless sensor networks and cloud computing is

	becoming a popular strategy for the IoT era. The cold chain requires controlled environment for sensitive products in order for them to be fit for use. The monitoring process is the first assurance which tells if a certain process has been carried out successfully and the controlling mechanism is performed by the Relays. Taking advantage of IoT and its benefits to monitor and control the cold chain logistics will result in better management and product handling. This paper looks at a system comprising of MCU wireless sensor network and server which can be an ideal system to monitor temperature and humidity of cold chain logistics and control them to required values.
TIT021	**TITLE –** EVALUATION OF TYPICAL SPECTRAL INDICES FOR DROUGHT SURVEILLANCE SYSTEM FOR DROUGHT HIT AREAS **ABSTRACT-** The Internet of Things (IoT) is a new evolution in technological advancement taking place in the world today. This paradigm allows physical world objects in our surroundings to be connected to the Internet. This idea comes to life by utilizing two architecture; the Sensing Entity in the environment that collects data and connects itself to the cloud and the Cloud Service that hosts the data from the environment and controls the parameters. The combination of wireless sensor networks and cloud computing is becoming a popular strategy for the IoT era. In India, droughts are one of the problems for farmers economic losses. However, there has been no development in these field to restrict or erase these problems. But still the governments provides some help in terms of finance to those farmers who are suffering from the drought. In this paper a novel method has been proposed where the drought hit areas are monitored through a remote place and help is provided later. Some of the Wireless sensors are used for monitoring and these are fed to the Arduino which is the heart of this project. The values are accessed through android app.
TIT022	**TITLE –** DESIGN OF A SAFETY SYSTEM FOR ELDERLY WANDERING PERSON

	ABSTRACT - We have developed a new mobile phone-based safety support system for transmitting information of a wandering elderly person's location and the environmental sounds around that person. The system consists of a wearable sensor and a conventional desktop PC with Internet access acting as the server computer. The wearable sensor, which is attached behind the neck of the elderly person's shirt, is composed of GPS module. The wandering elderly person's location is identified within 100 m from the mobile phone company's antenna ID via the W-SIM. The caregiver sets the elderly person's movement area by specialized computer software. The GPS module sends the wandering elderly person's location to the server computer. The server computer informs automatically the caregiver by a message on the app installed on the android smart phone. The caregiver can monitor the sound and the map of the wandering person's location via Internet.
TIT023	**TITLE –** DESIGN OF AN INTELLIGENT MANAGEMENT SYSTEM FOR AGRICULTURAL

	GREENHOUSES BASED ON THE INTERNET OF THINGS **ABSTRACT -** The Internet of Things (IoT) is the most promising technology in recent years, which is used for network of physical objects or things embedded with software, electronics, sensors and network connectivity, which enables these objects to collect and exchange data. The IoT can be used in various fields like Home automation, Building automation, Industries and Hospitals. The proposed system is used for irrigational monitoring and controlling using wireless sensor networks. The data can be monitored and the output devices can be controlled using IOT. Different sensors are used for data acquisition. Sensed data's are delivered to an Android Application device where an Monitoring Application (MA) makes them easily accessible to monitor and analyze received data. Not only the concerned person can monitor these sensor values but to some extent he can control them with the help of output devices.
TIT024	**TITLE –** ADAPTIVE MODELLING INTRUSION DETECTION SYSTEM USING IOT BEHAVIOR BASED ANOMALY DETECTION **ABSTRACT -** Nowadays Technology keeps on upgrading. Home security is essential for occupant's convenience and protection. Security systems are being preferred over manual system. With the rapid increase in the number of users of internet over the past decade has made Internet a part and parcel of life, and IOTs is the latest and emerging internet technology. Home Appliances control of smart security system using IOTs uses computers or mobile devices to control basic home functions and features through internet from anywhere around the world. This security system differs from other system by allowing the user to operate the system from anywhere around the world through internet connection. With the help of Arduino microcontroller as an Embedded device, security system design was constructed with the help of many sensors like PIR sensor, Fire Sensor, Gas Sensors.
TIT025	**TITLE –** DESIGN OF IOT BASED INDUSTRIAL POLLUTION MONITORING SYSTEM **ABSTRACT -** Internet of Things (IoT) is rapidly increasing technology. IoT is the network of physical objects or things embedded with electronics, software, sensors, and network connectivity, which enables these objects to collect and exchange data. In this paper, we are developing a system which will automatically monitor the industrial applications and update the pollution information continually on cloud so one can monitor it from anywhere. Using concept of IoT. IoT has given us a promising way to build powerful industrial systems and applications by using wireless devices, P.C, and sensors. A main contribution of this review paper is that it summarizes uses of IoT in industries with Artificial Intelligence to monitor and control the Industry. Here in this project Arduino is used as the main controller and through wi-fi the data is send to the concerned person about the different parameters of the industry.

TIT026	**TITLE –** DESIGN OF INTELLIGENT STREET LIGHTING SYSTEM WITH SMART PARKING **ABSTRACT -** IOT deals with integrates multiple disperse components towards their synergetic use. In this paper a system of interconnected smart modules is developed where each and every parameter necessary for a parking and street light is monitored and updated to the cloud. Emphasis is given on how sensing and communication technologies of IOT can effectively be used in smart city monitoring. This paper also includes smart parking system with a smart street light system. Further this project also includes controlling of some parameters like light and also included the AI to calculate by its own according to the values.
TIT027	**TITLE –** POWER MONITORING AND BILLING SYSTEM USING IOT **ABSTRACT -** The Existing domestic Energy meter reading systems universally exist many problems, such as difficulty in construction, too narrow bandwidth, too low rate, poor real time, not two way communication quickly etc. To solve above problems, this paper uses the wireless technology for Automatic Meter Reading system. A proposed method provides the communication between the Electricity Board section and the consumer section using IOT for transmitting the customer's electricity consumption and bill information that is calculated using Arduino. The information regarding the bill amount and payment are communicated to the consumer via **Internet of things**
TIT028	**TITLE –** A MICRO-LOCATION BASED DYNAMIC DEVICE ORIENTED CONTROL SYSTEM FOR IOT APPLICATIONS **ABSTRACT -** Device-oriented control system is based on the devices to be controlled and the location they use devices, providing a control service system with dynamic operation interface: when detecting the approaching users, the system would automatically notify users the available devices and provide users with the control options for the devices. The system function would come along with the device to be controlled, and the user interface would change with user's location and devices in the location, reducing the complexity of operation and enabling users to focus on the present objects to be operated. This system can be combined with I/O or smart devices, providing users with location-based device-oriented control service, making the update and maintenance of IoT application control system easier.
TIT029	**TITLE-** DESIGN AND IMPLEMENTATION OF A CHILDREN SAFETY SYSTEM BASED ON IOT TECHNOLOGIES **ABSTRACT -** In this paper a system for increasing children's safety is proposed. The focus

	is on the daily route from home to school and vice versa, assuming the use of school buses. IoT paradigm is exploited together with different localization techniques i.e. RFID and GPS, in order to design a solution for parents willing to make certain of their child's following the main to school or home, i.e. taking the school bus and entering school or leaving school and entering the school bus. In this paper the applicability of RFID technology efficient tracking capabilities is tested in children's tracking and monitoring during their trip to and from school by school buses. The proposed solution is discussed in terms of technologies and architecture and the first prototype is presented.
TIT030	**TITLE –** DESIGN OF IOT BASED SMART AND ADAPTIVE STREET LIGHTING SYSTEM **ABSTRACT -** The system is mainly used for smart and weather adaptive lighting in street lights. The project is implemented with smart embedded system that controls the street light based on detection of sunlight. During the night time the street light gets automatically OFF. The ON/OFF can be accessed anywhere anytime through internet. A camera is placed on top of the street light to track the actions performed on the road where the footages are stored in a server. In addition to this, a panic button is placed on the pole, in-case of any emergency or danger, the person in danger can press this button which raises an alarm at the nearby police station. Whenever the panic button is pressed, the footage at that time recorded by the camera is sent directly to the cloud account. The access of the account is given to the particular police station by which they can view the incident's spot. Each area's street lights are connected to the particular area's police station and each of them has a cloud accessible account. The manual operation using GSM technology is completely eliminated. Thus the system is mainly designed to ensure safety and to prevent energy wastage.
TIT031	**TITLE –** SMART CITIES FOR FUTURE: DESIGN OF DATA ACQUISITION METHOD BASED ON BLYNK(IOT) **ABSTRACT -** The Internet of Things (IoT) is a new evolution in technological advancement taking place in the world today. This paradigm allows physical world objects in our surroundings to be connected to the Internet. This idea comes to life by utilizing two architecture; the Sensing Entity in the environment that collects data and connects itself to the cloud and the Cloud Service that hosts the data from the environment and controls the parameters. The combination of wireless sensor networks and cloud computing is becoming a popular strategy for the IoT era. IOT deals with intricate systems that integrates multiple disperse components towards their synergetic use. In this paper a system of interconnected smart modules is developed where each and every parameter necessary for a city is monitored and updated to the cloud. Emphasis is given on how sensing and communication technologies of IOT can effectively be used in smart city monitoring. This paper also includes smart parking system

	with garbage collection. Further this project also includes controlling of some parameters like water and light.
TIT032	**TITLE –** DESIGN OF IOT BASED SMART GARBAGE AND WASTE COLLECTION BIN **ABSTRACT -** Many times, in our city we see that the garbage bins or dustbins placed at public places are overloaded. It creates unhygienic conditions for people as well as ugliness to that place leaving bad smell. To avoid all such situations we are going to implement a project called IoT Based Smart Garbage and Waste Collection bins. These dustbins are interfaced with microcontroller based system having IR wireless systems along with central system showing current status of garbage, on mobile web browser with html page by Wi-Fi. Hence the status will be updated on to the html page. Major part of our project depends upon the working of the Arduino and sending data to the respective person essential for maintaining a proper environment. The main aim of this project is to reduce human resources and efforts along with the enhancement of a smart city vision.
TIT033	**TITLE –** STREMS: A SMART REAL- TIME SOLUTION TOWARD ENHANCING EMS PREHOSPITAL QUALITY **ABSTRACT -** The paper presents the design and implementation of an IOT-based health monitoring system for emergency medical services which can demonstrate collection, integration, and interoperation of IoT data flexibly which can provide support to emergency medical services like Intensive Care Units(ICU), using a **Blynk** application which normal people can easily install in their phones and get access. The proposed model enables users to improve health related risks and reduce healthcare costs by collecting, recording, analyzing and sharing large data streams in real time and efficiently. The idea of this project came so to reduce the headache of patient to visit to doctor every time he need to check his blood pressure, heart beat rate, temperature etc. With the help of this proposal the time of both patients and doctors are saved and doctors can also help in emergency scenario as much as possible. The proposed outcome of the project is to give proper and efficient medical services to patients by connecting and collecting data information through health status monitors which would include patient's heart rate, blood pressure and Temperature and sends an emergency alert to patient's doctor with his current status and full medical information.
TIT034	**TITLE –** IOT BASED TRANSMISSION LINE MULTIPLE FAULTS DETECTION AND INDICATION TO ELECTRICITY BOARD **ABSTRACT-** In this paper, a scheme for fault detection and identification of SIGNLE PHASE overhead transmission lines is proposed. Fault detection techniques based

	on mean square value of the difference between incoming and outgoing single phase currents of each section. These differences are compared against threshold setting values. Faulty phase identification is based on the analysis of single phase

	currents at one end of transmission line. The transient currents are processed by Discrete Wavelet Transform multi-resolution analysis. It is used as input to a rule-base system to identify the fault type. Many case studies are provided to validate the proposed algorithm.
TIT035	**TITLE –** DEVELOPING INTELLIGENT SOFTWARE INTERFACE FOR WIRELESS MONITORING OF VEHICLE SPEED AND MANAGEMENT OF ASSOCIATED DATA **ABSTRACT -** The aim of this work is to develop an intelligent wireless system for monitoring vehicle speed, identify speeding vehicles and imposing penalty for the speeding offenders. A prototype system has been developed in a laboratory environment to generate random speed data using a mechanical wheel (acts as a vehicle), measure the speed data with a Shimmer wireless sensor and transfer the data wirelessly to a server computer for further analysis. Software interface has been developed using Java based socket-programming to monitor the vehicle speed in a server computer and to send the data associated with a speeding vehicle to a remotely placed client computer. The functionality of the software has been tested by experimenting different traffic scenarios. If the vehicle speed is higher than the set speed limit for the road, the system automatically detects it and generates a report with the time of speeding, vehicle number, vehicle speed, etc. The report is saved in a central database (client computer) in order to take further necessary actions for the speeding offender. The experimental evaluation results show that the system can measure and monitor the vehicle speeds wirelessly and manage the speeding data automatically.
TIT036	**TITLE -** DESIGN AND IMPLEMENTATION OF IOT AGRIBOT **ABSTRACT -** This robotic vehicle is an agricultural machine of a considerable power and great soil clearing capacity. This multipurpose system gives an advance method to sow, plow, water and cut the crops with minimum man power and labor making it an efficient vehicle. The machine will cultivate the farm by considering particular rows and specific column at fixed distance depending on crop. Moreover the vehicle can be controlled through Internet medium using a Android smart phone. The whole process calculation, processing, monitoring are designed with motors & sensor interfaced with microcontroller. Using Internet of things the robot is controlled.
TIT037	**TITLE –**DESIGN AND IMPLEMENTATION OF AN CAMOUFLAGE ARMY ROBOT **ABSTRACT -** Nowadays, many expenses are made in the field of defense in adopting

	primitive security measures to protect the border from the trespassers. Some military organizations take the help of robot in the risk prone areas which are not that effective when done by army men. These Army robots are confining with the camera, sensors, metal detector and video screen. The main objective of our system is to get camouflaged including some additional parameters like IOT technology for sending data to remote place for real time data and sending processed data by the camera at the video screen and PIR sensor to trace the intruders. Thus the proposed system using IOT reduces errors at defense and keeps the nation secure from the foe.

TIT038

TITLE - LIFI COMMUNICATION OF TEXT, AUDIO AND IMAGE

ABSTRACT - Li-Fi technology consist of transmission of data using light. So the proposed system has LED's which is useful for data transmission and implement the basic concept of Li-Fi. It is divided into two modules Transmitter and Receiver. Li-Fi is the term some have used to label the fast and cheap wireless-communication system, which is the optical version of Wi-Fi.

ADVANTAGES OF LI-FI OVER WI-FI

- Li- Fi uses light rather than radio frequency signals so are intolerant to disturbances.
- VLC could be used safely in aircraft without affecting airlines signals.

TIT039

TITLE - LIFI BASED PAITENT MONITORING SYSTEM

ABSTRACT - Telemedicine is a rapidly developing application of clinic medicine where medical information is transferred through the phone or other networks for the purpose of consulting and performing remote medical procedures or examinations. Telemedicine can be applied to a greater extend in the field of cardiology where ECG serves as the major tool. This project elaborates the experience; a methodology adopted and highlights various design aspects to be considered for making telemedicine in patient monitoring system effective. In this method, the patient's vital signs like heart beating rate, temperature and glucose level are captured and the values are continually displayed on the doctor's phone using VLC system.