SMARTBRIDGE Let's Bridge the Gap	Latest IOT Projects			Contact: Mr. Srinath Rao Mobile: 7032326289		
S.no	**Title**	**Description**	**Hardware**	**Software**	**Category**	**Cost**
1	**Intelligent cargo management system using internet of things**	Supply Chain Management consists of a number of phases in which the transportation plays an important role. The problem that is addressed in this project deals with optimal delivery of the goods either to the subware house or to the shopping market. The lack of constant monitoring of the product during the freight contributes towards the food wastage during the transportation phase. The various factors that influence the freshness scale of the product which includes the natural and physical conditions are to be considered before the movement of the goods from the source to the destination. The collected data needs to be processed efficiently to make the right decisions.	Arduino+Bluetooth+Sensors	Arduino IDE+Android app	B	9000
2	**Smart baby monitoring system using mobile App**	this project helps us to monitor the babys movement .by sensing the movement we can tell weather baby is sleeping or not .if the baby is not sleeping then we can play the music through the player which is connected to cradle.we can even operate the toy movementwhich is connected to cradle through the mobile app .	Arduino+Bluetooth+Sensors	Arduino IDE+Android app	B	9000
3	**Device talks to cloud :Explore Aws IoT platform**	This project is developed on AWS IOT platform. we can send the sensor data to the cloud and store the data in the Dynamo DB.by hosting the web application in the elastic bean stalk we can control the required things like lights through this application if there are any threshold values.lambda functions are used to store and retrieve the data.	Node MCU+AWS+Sensors	Arduino IDE+AWS cloud	B	9000
4	**Smart medicine remainder for elderly people**	Sometimes elder people forget to take the medicine at the required time of medicines. And also forgets which medicine He/She have to take at required time. And it is difficult for Caretakers to monitor them around the clock. To avoid this problem, we have made this medicine reminder system.	Node MCU+Sensors	Arduino IDE+Android app	B	9000
5	**Cloud integrated smart attendance system**	In this project finger print based attendance system is proposed. Attendance in educational institutions, industries will require more paper work and time. To reduce this, automatic attendance system using finger print was developed. So whenever the person gives the fingerprint then it checks with the data in the database and if the fingerprint matches then his attendance is stored in the cloud. the web application is designed to monitor the attendance details .the attendance details can be sent through notifications or messages.	Arduino+Ethernet+Sensors	Arduino IDE+web App	I	12000
6	**Cloud integrated Sudden Infant Death Syndrome Monitoring**	Sudden Infant Death Syndrome (SIDS) is one of the major causes of death among infants during their sleep. The Wearable IoT Device is a wireless sensor node integrated in a Chest Belt, and it has the capacity to monitor different parameters.The parameters are sent to mobile App through Bluetooth. The values are then sent to the cloud .all the parameters can be retrieved to mobile app through which the doctors and caretakers can look after that parameters and can keep the track on baby health.	Arduino+Bluetooth+Sensors	Arduino IDE+Android app	I	12000
7	**Connected Agri Warehouses cloud enabled infrastructure**	The main objective of the project is to monitor the ambient atmospheric conditions for proper food grain storage. We have implemented a monitoring and controlling system that monitors weather parameters like temperature, Humidity, Light and poisonous gases. These parameters are sent to Cloud. A web page is designed for remote monitoring of weather parameters in food storage room. An app is also designed for controlling the appliances in the room for maintains optimal weather parameters. This system is applicable for single storage house.	Arduino+Ethernet+Sensors	Arduino IDE+Android app+web App	I	12000
8	**Drowsiness detection and alerting system**	Drowsiness and Fatigue of drivers are amongst the significant causes of road accidents.This system can be implemented in the field where we need to test the alertness of the person. Eye aspect ratio algorithm is used to detect whether the person is drowsy or not.There will be the video streaming and from that When we detect that the person is drowsy or sleeping we can alert him through some sound alerts.	Rpi+camera	Python IDE+Android studio	I	12000
9	**e-health monitoring system for remote patient health monitoring**	In this project, we have proposed an intelligent patients monitoring system to monitor the patient automatically with the help of IoT (more specifically connected sensors network) that collects the status information which include patient's ECG, body temperature, humidity unexpected body movement etc. and sends these data to the cloud. A web page as well as an Android is designed for this system for remote monitoring of patients health condition.	Arduino+Ethernet+Sensors	Arduino IDE+Android app+web App	I	12000

10	**Intelligent album creator with machine learning**	Generally after copying the images from the camera or some other device sometimes we need to separate those photos accordingly so that we can share our friends their pics. So this classifier helps us in separating those pics using KNN classifier. We can keep all the pics in one folder and by using this classifier we can separate and save the pics of different persons in different folders.	Rpi	Python IDE	B/I	10000
11	**Cloud integrated Intelligent Cargo management System**	The various factors that influence the freshness scale of the product which includes the natural and physical conditions are to be considered before the movement of the goods from the source to the destination. The collected data needs to be processed efficiently to make the right decisions.The sensors are deployed inside the truck to monitor the freshness of the product. Various parameters like temperature, humidity and the air quality inside the truck are monitored. An app is designed for receiving all the parameters through Bluetooth communication.	Arduino+Bluetooth+Sensors	Arduino IDE+Android app+Web App	I	12000
12	**Motion tracking intelligent camera**	By this project we can build a basic motion detection and tracking system for home surveillance using computer vision techniques. There are many ways to perform motion detection, tracking, and analysis in opencv.	Rpi	Python IDE	I	12000
13	**Smart Biometric Attendance System with Raspberry pi**	The proposed system uses an automatic attendance management technique that integrates fingerprint authentication into the process of attendance management. the fingerprint of the user is captured and are compared with all those that already exists to determine a match. If a match is found then attendance is recorded with user ID with date and time.	Rpi+Sensors	Python IDE+WebApp	A	16000
14	**Smart bus stop reminder with connected busstops**	Bus routes travel through a number of bus stops. Many times buses change routes and new bus stop names need to be configured in system. Many bus stops also change their names at times or sometimes new bus stops to are added into existing routes. So here we propose a speaking bus stop indicator system using raspberry pi. when the bus reaches the bustop it recieves the signals from device which is placed in Busstop and speaks out the busstop name.	Rpi+Sensors	Python IDE	B	10000
15	**Smart Conference Rooms Enabled With Beacons**	Instead, meetings should be an effective use of everyone's time, that one chance you have to push the agenda forward and make sure everyone has what they need to do their best work. Through this project we can easily share the meeting agenda and we can take the feedback and points from every member of the meeting by simply sharing one link.In the meeting room there will be a device which acts as beacon through which the manager can share the meeting agenda and also he can take the info from other members.	Esp32+Sensors	Arduino IDE+Android app	B/I	10000
16	**Smart Face Aligner with computer vision**	Face alignment, the process of: Identifying the geometric structure of faces in digital images, Attempting to obtain a canonical alignment of the face based on translation, scale, and rotation.The reason we perform this normalization is due to the fact that many facial recognition algorithms, including Eigen faces, lbps for face recognition, Fisher faces, and deep learning/metric methods can all benefit from applying facial alignment before trying to identify the face.	Rpi	Python IDE	B	9000
17	**Smart Home Assistant with cloud integration**	A home automation project can be made possible by giving voice commands through Alexa.Alexa is capable of voice interaction, music playback, making to-do lists, setting alarms, streaming podcasts, playing audio books, and providing weather, traffic, and other real time information. Alexa can also control several smart devices using itself as a home automation hub.	Rpi	Python IDE	I	12000
18	**Smart Offices with ibeacon Technology**	Beacon scanner will be installed in each location of office which will scan the mobile beacons associated with each employee.Based on number of people in each location controlling of lights and fans is performed.Scanner sends information to cloud so that admin can monitor the data.This data can also be useful in rescue times.	Esp32+Sensors	Arduino IDE+Android app	I	12000
19	**Smart pantry For Indian railways with WSN based Food ordering system**	The main aim of the project is to design a system for pantry update using wireless communication. We have implemented a Wireless communication system which enables passenger's ordered information to the pantry section. there is a device from which the user can view the menu card and can place the order from his compartment with his seat number and unique id.then this order is sent to the pantry section where there is a web app through which they can check the orders and change their menu when required.	Rpi+Xbee+Sensors	Python IDE+WebApp	A	15000

20	**smart vehicle health management system**	Vehicles needs repair after a certain interval of time and if are not repaired at fixed intervals it can lead to loss of life of the person driving the vehicle or travelling on it. We have proposed an intelligent monitoring system to monitor the vehicle health that collects engine RPM, Vehicle speed, coolant temp, fuel avg. an App is also designed to collect all the sensor data through Bluetooth communication.the web app is designed where the condition of different vehicles can be monitored so that the persons can take necessary actions.	OBD+Bluetooth	Android app+Web app	I	12000
21	**Smartcity waste Management System with connected trashcans**	Tracking of waste disposal in urban is becoming havoc. Management of waste produced in urban areas has to be managed properly .To manage waste like from monitoring the status of bin (whether is empty or filled) to disposal of waste, a system is developed. This system has a device which checks the bin status using sensors. Real time monitoring of bin status from any where through Webapp is possible.	Arduino+Gsm/Gprs+Sensors	Arduino IDE+web App	I	12000
22	**Soldier health & Position tracking System with LORA Communication**	The soldier Health and Position Tracking System allows military to track the current GPS position of soldier and also checks the health status of the soldier. A wearable is designed to measure body temperature and pulse rate. Along with health parameters latitude longitude coming from GPS shield is communicated to LORA gateway. This Lora gateway has Wi-Fi feature which will send the received parameters to cloud. A web page is designed where area wise tracking of soldiers is monitored.	Arduino+Lora+Sensors	Arduino IDE+web App	A	16000
23	**Whatsapp Based smart home assistant**	Home Assistant will track the state of all the devices in your home, so you don't have to. This allows you to control all your devices by simply chatting with your device through whatsapp. You can keep some sensors to track the different environment parameters and other things and you can get that parameters by chatting.	Rpi+Sensors	Python IDE	I	12000
24	**Automatic Vehicle Accident Alert System using AWS IoT**	Automatic Vehicle Accident Alert System, an alerting message which contains accident's time and location sent automatically by the particular device embedded in a vehicle to emergency and relief agencies. So, they can rush to theaccident and help the victim in time.The required parameters and the sensor values are sent to the Dynamo Dbthrough mobile application. the data is stored in the AWS platform.	Arduino+Bluetooth+Sensors	Arduino IDE+Android app	B	9000
25	**Fingerpint Based Attendance System**	In this project finger print based attendance system is proposed. Attendance in educational institutions, industries will require more paper work and time. To reduce this, automatic attendance system using finger print was developed. Fingerprints are a form of biometric identification which is unique and does not change in one's entire lifetime. This project presents the attendance management system using fingerprint technology.	Arduino+Ethernet+Sensors	Arduino IDE	B/I	10000
26	**Fingerprint Based Bank Locker Security System**	The main goal of this project is to design and implement a lockers security system based on Biometric technology. This can be organized in bank, offices and homes. In this system only the authorized person can recover the documents, money, and valuables from the lockers.	Arduino+Ethernet+Sensors	Arduino IDE	B/I	10000
27	**IoT based patient health Monitoring System**	through this system we can monitor different health parameters of the patient like temperature ,ecg.then these values are sent to the mobile application where the persons can monitor the conditions and if there is any case of emergency then a message is sent to the desired care takers through the mobile application.	Arduino+Bluetooth+Sensors	Arduino IDE+Android app	B	9000
28	**IoT based patient health monitoring system1**	In this project, we have proposed an intelligent patients monitoring system to monitor the patient automatically with the help of IoT (more specifically connected sensors network) that collects the status information which include patient's ECG, body temperature, humidity, unexpected body movement etc. and sends these data to the webpage which is stored in SD card.	Arduino+Ethernet+Sensors	Arduino IDE+web App	B	9000
29	**IoT based vehicle health monitoring**	we have proposed an intelligent patients monitoring system to monitor the vehicle health that collects the status information of which includes engine RPM, Vehicle speed, coolant temp, fuel avg. an App is also designed to collect all the sensor data through Bluetooth communication. In case of emergency if the vehicle condition is not stable, then a SMS alert is automatically generated through Mobile app.	OBD+Bluetooth	Android App	B	9000
30	**smart system for agriware house monitoring and controling system**	The main objective of the project is to monitor the ambient atmospheric conditions for proper food grain storage. We have implemented a monitoring and controlling system that monitors weather parameters like temperature, Humidity, Light and poisonous gases. These parameters are sent to the mobile app through Bluetooth communication. If the weather conditions are not in optimal degrees controlling action can be done through app.	Arduino+Bluetooth+Sensors	Arduino IDE+Android app	B	9000

31	**Smart Trash Can for Urban waste management**	This project aims to optimize waste collection. The main objective of the project is to check whether worker has attended the bin to dispose it once he gets notified about the status of bin (whether it is full). To check the status of the bin sensors are used. Once these measured values crosses a threshold an SMS is sent to supervisor and worker. After SMS generation worker has to attend the bin to collect the bin. After he arrived he has to flash his RFID card to the reader attached to the bin so that an SMS will be sent indicating worker has come to collect the bin.	Arduino+GSM/GPRS	Arduino IDE	B	9000
32	**Smart Wearable System for Sudden Infant Death Syndrome Monitoring**	The Wearable IoT Device is a wireless sensor node integrated in a Chest Belt, and it has the capacity to monitor different parameters.The parameters are sent to mobile App through Bluetooth. The values are then sent to the cloud .all the parameters can be retrieved to mobile app through which the doctors and caretakers can look after that parameters and can keep the track on baby health.	Arduino+Bluetooth+Sensors	Arduino IDE+Android app	B	9000
33	**Development of Agricultural IoT Gateway**	The main objective of the project is to develop a smart wireless sensor network (WSN) for an agricultural environment. Monitoring agricultural environment for various factors such as soil moisture, can be of significance. This project investigates a remote monitoring system using Zigbee.There are different nodes which sends data wirelessly to a central server, which collects the data, and sends it to the cloud, from where the data is analyzed and then displayed on an Mobile APP	Node MCU +Xbee+Sensors	Arduino IDE+Web App+Mobile App	I	12000
34	**Emergency Alert System for Physically Handicapped Cyclists**	People with disabilities can also drive safely by making modifications or adding adaptive equipment to their vehicles to meet specific needs. The main aim of this project is to make the vehicle smart enough for people having disabilities, such that it automatically triggers a message to the concerned people when something happens (accident). A system is designed which monitors the speed and position of the vehicle. An immediate alert is generated if there areany anomalies in monitored parameters.	Arduino+Bluetooth+Sensors	Arduino IDE+Android App	B	9000
35	**Gas Pipeline Monitoring System For hospitals**	The pipeline distribution system is an integral part of all medical Gas Management Systems. It serves to bring all required medical gases and vacuum to areas where they are needed. Without a properly designed, installed, and maintained distribution system, the security of the whole hospital can be at risk. Mishaps involving the malfunction or misuse of medical gas supply to operating theatres have cost many lives. Oxygen is one of the most widely used gases for life-support and respiratory therapy. In this project, we have implemented a system which monitors the storage of gas using pressure sensors and leakage of gas.	ESP32+Sensors	Arduino IDE+Android App	B	10000
36	**IOT based River Water quality monitoring System**	In today's world, Internet of Things (IoT) and Remote Sensing (RS) techniques are being used in different areas of research for monitoring, collecting and analyzing data from remote locations. River water which is used as drinking water is a very precious commodity for all human beings.The system consists of several sensors which are used for measuring physical and chemical parameters of water. The parameters such as temperature, pH, and dissolved oxygen of the water can be measured. Using this system a person can detect pollutants from a water body from anywhere in the world.	Arduino+GSM/GPRS+Sensors	Arduino IDE+Web App	B	10000
37	**Low Bandwidth Networks For IoT Devices Using SNMP**	In this project we are implementing this SNMP protocol on two esp826612E module which are connected with humidity and temperature sensors. The datafrom these two agents is used to update the information to Gateway through SNMP protocol. This gateway intern passes the information on to a web page.	Node MCU +Sensors	Arduino IDE+Web App	A	10000
38	**Remote monitoring of perishable goods Using IoT**	Improper temperature control is a key reason why medicines like vaccinations and other perishable cargo are wasted in the supply chain. Even the slight change in increase in temperature while handling the products can lead to deterioration, considerable loss in revenue. To avoid this a cold chain must be established and maintained to ensure goods have been properly refrigerated during every step of the process, making temperature monitoring a critical business function.	Arduino+GSM/GPRS+Xbee+Sensors	Arduino IDE+Web App	I	12000
39	**Self powered IOT based River water quality Monitoring System**	In today's world, Internet of Things (IoT) and Remote Sensing (RS) techniques are being used in different areas of research for monitoring, collecting and analyzing data from remote locations.The system consists of several sensors which are used for measuring physical and chemical parameters of water. The parameters such as temperature, pH, and dissolved oxygen of the water can be measured. Using this system a person can detect pollutants from a water body from anywhere in the world. The other important concept of this project is the Devices that we are using for sensing the parameters are powered by solar cells and batteries.	Arduino+Lora+Sensors	Arduino IDE+Python IDE+Web App	A	15000

40	**Smart connected Signs for Improved Road Safety**	In present Systems the road signs and the speed limits are Static. But the road signs can be changed in some cases. We can consider some cases when there are some road diversions due to heavy traffic or due to accidents then we can change the road signs accordingly if they are digitalized.	Node MCU +Sensors	Arduino IDE+Web App	I	10000
41	**Smart Vending Machines Using IOT**	Through this system we can monitor different parameters of vending machine like checking the level of the fluid in the vending machine so that if it is about to finish you can refill that machine with the required thing. You can check how frequently the machine is being used based on timings. If the person inserts the coin in the machine to buy coke then that coin insertion can be detected through IR sensor.	Node MCU +Sensors	Arduino IDE+Web App	I	10000
42	**Remote gas pipeline tunnel temperature monitoring system**	The leading engineering and system integration providers needed exactly the right solution for a challenging gas pipeline application. The system integrator realized that monitoring the temperature of a gas pipeline tunnel is crucial for safe operations. In the confined space of a tunnel, temperature rises easily, and the overheating could cause pipeline fractures that could lead to gas leaks or even explosions. This may cause loss of property and human loss, so in order to overcome that a remote monitoring system is designed which is used to monitor temperature levels, gas leakage and also pressure at the gas pipeline tunnel at various places.	Node MCU +Xbee+Sensors	Arduino IDE+Web App	I	10000
43	**Wireless Automated meter reading for power distribution networks**	In many countries, electric power is provided by a number of private power plants distributed over wide areas. Optimizing distribution and transmission to meet market demand is always a challenge, particularly since power suppliers need to monitor data usage and combine the data for power generation, distribution, and transmission. So in this system the energy meters are connected to Lora module and from that the required parameters are sent to the gateway. From this gateway the values are sent to the cloud and are retrieved to web application where data is visualized.	Arduino+Lora+Sensors	Arduino IDE+Web App	I	12000
44	**Home Assistant with Raspberry Pi**	Home Assistant is an open-source home automation platform running on Raspberry pi. Track and control all devices at home and automate control. it will track the state of all the devices in your home, so you don't have to. You can Control all your devices from a single, mobile-friendly, interface. Home Assistant allows you to control all your devices without storing any of your data in the cloud. We like to keep your privacy private. you can set up advanced rules to control devices and bring your home alive.	Rpi+Sensors	Python IDE	I	12000
45	**Internet of things platform on Raspberry Pi**	Internet of Things technologies connect "Things" and the things are getting smarter based on the connection. However there are still some barriers that each devices require its own application and/or services.Using IoT.js we can build an IOT platform with in the raspberry pi. IoT.js aims to provide inter-operable service platform in the world of IoT, based on web technology. The target of IoT.js is to run in resource constrained devices such as only few kilobytes of RAM available device.	Rpi	Python IDE	I	10000
46	**Cloud Connected Robot Using IBM cloud**	The cloud Connected Robots can be deployed anywhere and they can be controlled through an application from where ever you are. This will be very useful in many fields like monitoring different areas where there is a need.In this project we are connecting a Robo car to IBM Watson Services and from those services we can control the car. We can create a user interface in the Watson services and that application will be hosted on IBM cloud.	Node MCU +RC car	Arduino IDE+Web App	I	12000
47	**Dashboard for Raspberry pi car computer**	with this project we can create a car dashboard using raspberry pi. through this dashboard we can monitor the vehicle health like Vehicle Speed, RPM Fuel Consumption, Engine Coolant Temp. through all this parameters we can predict the vehicle health status.	RPI+OBD2+Touch Display	Python IDE	A	18000
48	**Mobile 2 TV - Raspberry pi based video caster**	Transform your Raspberry Pi into a streaming device. Cast videos from mobile devices or computers to your TV. you can see any videos in your mobile phone on your TV easily by casting your videos through this video caster using raspberry pi. you can even play the videos or movies from the browser by simply searching them from your mobile phone.	RPI	Python IDE	I	15000
49	**Project AICAM - Deep Learning Gateway on Raspberry Pi**	This project turns Raspberry Pi 3 into an intelligent gateway with deep learning running on it. No internet connection is required, everything is done locally on the Raspberry Pi 3 itself.One of the application of this intelligent gateway is to use the camera to monitor the place you care about. For example, you can view what's going in your home or office when you are not present at that place from the camera hosted in that place. The frames are captured by the IP camera and they are submitted into the AI engine. The output from the AI engine will be shown in the dashboard.	Rpi+Sensors	Python IDE+Node.Js	I	15000

50	**Raspberry Pi as a Configurable Wi-Fi router and Webserver**	Through this project we can turn the raspberry pi into wifi router. And we can make the pi as WebServer. If we want to store the data remotely without using any cloud platform then we can create a local database in the raspberry pi itself and store the data locally.by simply connecting the ethernet to the raspberry pi we can configure the pi in to Wifi Router.	Rpi	Python IDE	I	12000
51	**Raspberry Pi based Configurablae alarm & Notification System**	This project gives people the ability to build their own inexpensive, expandable and feature-rich alarm system. We tailored the system to run on the Raspberry Pi. With this project it's also possible to connect multiple systems via a network connection and have them work together.we can create a user interface where we can give all the required inputs and we can configure the setups and alarms .we can also view the history of alarms and other data like pictures and all.	Rpi+Sensors	Python IDE	I	12000
52	**Intelligent access control system for safety critical areas in industries**	In some industries it is necessary for the workers to wear safety helmets and shoes while working. So to check weather workers are taking safety precautions or not we are proposing this system. We can train our classifier to identify helmet and safety shoes with clarifai API. There will be video streaming near the entry of the industries where we can detect if person is wearing a helmet and shoes. If he is wearing them then the door will be open ,if he is not wearing then we can restrict his entry.	Rpi+Sensors	Python IDE	I	12000
53	**Intelligent Robotic floor cleaner**	In the modern era, the Automatic Floor Cleaner is required. Thus, the cleaner is designed in such a way that it is capable of cleaning the area reducing the human effort just by starting the cleaning unit. In this project, the main focus is to build and program it in such a way, that it can move around freely and clean a specific area. It uses Ultrasonic sensors to detect the obstacles.The cleaning mobs are attached to the cleaner in such a way that it can clean the whole surface while moving. The mobs are rotated with the help of servo motors. This cleaner can be controlled through the Web app.	Node MCU +Sensors+RC Car	Arduino IDE+Web App	I	12000
54	**IoT Enabled Smart Refrigerator**	Smart refrigeration module is designed to transfigure any existing refrigerator into a smart cost effective machine using sensors. This smart refrigerator can be controlled through mobile App. We can monitor the temperature of the refrigerator through the mobile phone. By keeping some sensors in refrigerator we can monitor temperature and current consumption. We can even predict the faults by analyzing the current values which are stored in the cloud.	Node MCU +Sensors	Arduino IDE+Android App	I	10000
55	**SQUID : Street Quality IDentification**	In an age of autonomous vehicle, cities and municipalities need digital tools to ensure that their streets are well maintained at at-cost.To this end, we created SQUID, a low cost data platform that integrates open source technologies to combine street imagery and ride quality data to provide a visual ground truth for all the city's streets.. In terms of implementation, the device is mounted to the back of a city vehicle with its camera facing downwards to the road. To detect the cracks and street quality we can train different classifiers using computer vision.	Rpi+Sensors	Python IDE+WebApp	I	10000
56	**IOTide Tide Prediction and Alerting System**	Over the past few years, the popularity of the Internet of Things has increased immensely along with the availability of low-cost connected hardware devices designed specifically for IoT applications. This project aims at creating a tide gauge that publishes tidal water levels to ThingSpeak and uses MATLAB for tide prediction, analysis, and alerts.Our tide gauge uses ultrasonic sensor to predict the level tide.	Arduino+Ethernet+Sensors	Arduino IDE+Web App	I	9000
57	**Intelligent visual recognition Engine with machine Learning**	The main aim of this project is to make use of Artificial intelligence to recognize the visual content. The Clarifai API offers image and video recognition as a service. This API is used to send the inputs like video and image to the service and returns the predictions. These predictions are based on the model we use to train the pictures. The other important feature is Intelligent Speech engine. For this speech engine vision Mycroft API is used. Mycroft API will give the information of the input you give to Clarifai API through voice. The prediction that we get through Clarifai is send to this Mycroft service to get the voice controlled vision recognition.	Rpi+Sensors	Python IDE	I	12000
58	**Object Recognition engine with Raspberry pi and clarifai**	Object detection is the process of finding instances of real-world objects such as faces, bicycles, and buildings in images or videos. In this system we use clarifai for object recognition. Our computer models are trained on a list of possible outputs (tags) to apply to any input (your content). Using machine learning, a process which enables a computer to learn from data and draw its own conclusions, our models are able to automatically identify the correct tags for any given image or video. These models are then made easily accessible through our simple API.	Rpi+Sensors	Python IDE	I	12000

59	**Virtual Librarian**	The Virtual Librarian provides reading suggestions based on the NY Times Bestsellers List. Users are able to get a description of each book on a list and find similar books by the author. Users can also look for books by author.By this project we can get lot of information about books like bestsellers and the reviews from different websites and by this data one can easily select the desired book. Bestseller results from the New York Times,User Reviews from Google Books,User Reviews from Goodread,List of books by author from Google Books.	Rpi+Sensors	Python IDE		12000
60	**Smart billing system for water suppliers**	Now a day's metropolitan cities operates water tanker service for delivery to residents needing drinking water from several fill stations across cities. Water tankers or private (lorry) operators gets registered with these filling stations for facilitating water distribution to citizens. once they get registered an card is issued for them which is used for payments. user have the facility to top-up their card through web application . Each fill station is equipped with one more hand-held devices (based on number of pumps in the fill station). Handheld device has facility to read/write into a RFID based smart card as well as WiFi modem to communicate with a central server.	Node MCU +Sensors	Arduino IDE+Web app	I	10000
61	**Community alerts with intelligent beacons**	CAIB is a cloud connected network of visual alert beacons which provides real time visualization of critical emergency alerts. The beacons are meant to provide an alternative way to receiving alerts. You no longer have to have a phone or computer to stay informed about potential hazards in your community. The main system consists of a head node beacon which displays details of the alert on a small touch screen. The Light Beacons are smaller, more compact cloud connected visual devices. These Light Beacons are meant to be placed around offices, rooms, or public places. In the event of an emergency situation, the beacons will flash appropriate color patters in relation to the event.	ESP32+Sensors	Arduino IDE+Android app	I	10000
62	**River Water quality monitoring System with Low power long range network**	In this project we intend to present the design and development of a low cost system for real monitoring of water quality in an IoT environment. The system consists of several sensors which are used for measuring physical and chemical parameters of water. The parameters such as temperature, pH, and dissolved oxygen of the water can be measured. Using this system a person can detect pollutants from a water body from anywhere in the world.We are implementing Lora communication for data transfer from node to gateway. Lora node is established near river which is connected with the sensors which will measure the quality. From Lora node the data is been transmitted to Lora gate way which is kilometers away from the node. This gateway will send the sensor data on to the cloud. A web app is designed to display the sensor data.	Arduino+Lora+Sensors	Arduino IDE+Web App	I	14000
63	**Entertainment industry-Beacons**	Beacons are a small, low-energy device that can be installed or positioned almost anywhere. Typically they are placed on walls, counters or ceilings, but they've shown up on restaurant tables, in classrooms and even in stadiums.Customers will probably be able to receive virtual rewards in games they play based on their activity within a shop.There will be a lot of partnerships between music companies, magazines and game publishers on one side and public and private transportation on the other. We will probably start receiving recommendations on what to play to pass the time when we board a train or before we board a plane.When passing by a cinema, receive vouchers or information with what's playing.At stadiums promote merchandise, find and / or upgrade your seats	ESP32	Arduino IDE+Android app+Web App	I	10000
64	**Tourism and tourist attractions-Beacons**	Beacons are a small, low-energy device that can be installed or positioned almost anywhere. Typically they are placed on walls, counters or ceilings, but they've shown up on restaurant tables, in classrooms and even in stadiums.Find points of interest and/or receive maps and info when walking into a museum,Use beacons to broadcast useful information about the venue or future events that will take place, On beaches show weather info and a map with important locations for tourists near the beach: lifeguard, police, doctor, drug store.can share the history of that particular place or monuments.	ESP32	Arduino IDE+Android app+Web App	I	10000
65	**Travel-Beacons**	Beacons are a small, low-energy device that can be installed or positioned almost anywhere. Typically they are placed on walls, counters or ceilings, but they've shown up on restaurant tables, in classrooms and even in stadiums.Install beacons in airports to offer information about their location and where the check-in gates are or the exits.Place beacons near the security check to find out if any of an airline's passengers are at risk of losing a flight.In train stations, passengers can receive information about any delays and what track they should be on.	ESP32	Arduino IDE+Android app+Web App	I	10000

66	**Advertising-Beacons**	Beacons are a small, low-energy device that can be installed or positioned almost anywhere. Typically they are placed on walls, counters or ceilings, but they've shown up on restaurant tables, in classrooms and even in stadiums.Advertising agencies will use beacons for more interactive ads and promotions, If any companies want to take surveys they can simply broadcast that link, online feedbacks can also be taken by the customers	ESP32	Arduino IDE+Android app+Web App	I	10000
67	**Automotive-Beacons**	Beacons are a small, low-energy device that can be installed or positioned almost anywhere. Typically they are placed on walls, counters or ceilings, but they've shown up on restaurant tables, in classrooms and even in stadiums.Better traffic estimation and forecasts using beacons , weather reports can be sent , even we can broadcast the news.	ESP32	Arduino IDE+Android app+Web App	I	10000
68	**Education Industry-Beacons**	Beacons are a small, low-energy device that can be installed or positioned almost anywhere. Typically they are placed on walls, counters or ceilings, but they've shown up on restaurant tables, in classrooms and even in stadiums.Use the beacons as digital bulletin boards for courses or buildings for students, See if your child is in class or if he is skipping, if he arrived late or not, Teachers can broadcast information about their classes or exams	ESP32	Arduino IDE+Android app+Web App	I	10000
69	**Healthcare industry-Beacons**	Beacons are a small, low-energy device that can be installed or positioned almost anywhere. Typically they are placed on walls, counters or ceilings, but they've shown up on restaurant tables, in classrooms and even in stadiums.Drug stores can promote free check-ups to bypassers,Hospitals can offer detailed maps with elevators and guides,Hospitals can promote any event taking place (for example open days for pregnant women),Ambulances (and other emergency vehicles) can send warnings to the vehicles in front of it.	ESP32	Arduino IDE+Android app+Web App	I	10000
70	**Hospitality-beacons**	Beacons are a small, low-energy device that can be installed or positioned almost anywhere. Typically they are placed on walls, counters or ceilings, but they've shown up on restaurant tables, in classrooms and even in stadiums.Offer information to passing clients about how full a venue is and/or how many free spaces are left.,Beacon that broadcasts do not disturb based on your settings or preferences in the app.,Deliver digital newspapers when they are in the venue while they are drinking their coffee or ordering,can order the food by viewing the menu through the application.	ESP32	Arduino IDE+Android app+Web App	I	10000
71	**Retail industry-Beacons**	Beacons are a small, low-energy device that can be installed or positioned almost anywhere. Typically they are placed on walls, counters or ceilings, but they've shown up on restaurant tables, in classrooms and even in stadiums.Send offers and discounts to a customer when near a product or a certain shelf, Offer coupons to customers after a purchase to share with their friends, thus encouraging others to visit during a sale or during a special event., Shoppers can upvote or downvote their experience in a shop or mall.	ESP32	Arduino IDE+Android app+Web App	I	10000
72	**Accelerometer based Alcohol Drinking Alert System**	we propose a highly efficient system aimed at early detection and alert of dangerous vehicle manoeuvres typically related to drunk driving. Through this device we can even prevent the sudden death of the people due to over consumption of alcohol. The entire solution requires only a device with accelerometer and Bluetooth which is integrated to the person's shoes. This device will be able to communicate with the user's mobile phone. In the mobile phone we can check the person's status which is based on accelerometer readings. We can tell whether the person is standing, walking or drunken based on this readings.	Arduino+Bluetooth+Sensors	Arduino IDE+Android app	I	9000
73	**Electro Magnetic Field Assessment in Smart city using IoT**	Despite the increasing presence of wireless communications in everyday life,there exist some voices raising concerns about their adverse effects. In this system we can track the EMF at different places by embedding some smart devices.This system consists of the smart device with a sensor which tells us about the EMF levels at that place. While deploying the devices we can set the locations manually. The sensor data is sent to the cloud and then data visualization is shown in the web Application.	Node MCU +Sensors	Arduino IDE+Web App	I	9000

74	**Electro Magnetic Field level Monitoring in Smart cities**	The presence of wireless cellular communications in everyday life is unquestionable. Furthermore, current forecasts predict this becoming even more relevant in the forthcoming years.In fact, all countries have some regulations that limit the EMF generated by wireless base stations. In order to monitor that these are respected, the most widespread methods use dedicated measuring devices, in order to assess whether the field caused by a base station is within the corresponding limits. In this system by using the RTL-SDR dongle we can get the radio frequencies spectrum and calculate the energy levels of the radiations. We can get the RSSI of the available Wi-Fi networks and also their energy level of radiations.	Rpi+RTL-SDR	Python IDE+Web App	I	15000
75	**Intelligent and Weather Adaptive Street Lighting system**	The electric power in most of the countries in the world is utilized in lighting the streets. However, the electrical energy consumed by street lights is not efficiently used because the need of street lamps is not essential in every street in all periods of time. In this project, we propose a system that switches off the light for the parts of the streets which are not in use and turns on the light for the parts of streets which are mostly used when it is dark. The smart street lighting also controls the luminosity of light and performs automatic light dimming which is an aspect that serves to reduce energy consumption. The intensity of light can be controlled based on illumination and the weather conditions.	Node MCU +NRF+Sensors	Arduino IDE+Web App	I	10000
76	**IoT based Civil Structural Health Monitoring System**	All structures, whether bridges, wind energy plants, water, gas and oil pipelines, tunnels, oil rigs, pavements, rails, but also ships, planes, trains or others are subject to various internal and external factors which may cause wear or malfunction. This can happen, for example due to deterioration, an incorrect construction process, lack of quality control or an extreme situation resulting from an accident or environmental load. To be able to observe these changes in the material and to react in a proper way before serious damage is caused, the implementation of a damage identification system is crucial.	Arduino +NRF+Sensors	Arduino IDE+Web App	I	10000
77	**IoT based Weather Adaptive Street lighting system**	The huge amount of electrical power of many countries is consumed in lighting the streets. However, the electrical energy consumed by street lights is not efficiently used because the need of street lamps is not essential in every street and every time. In this project, we propose a system that switches off the light for the parts of the streets which are not in use and turns on the light for the parts of streets which are mostly used when it is dark.	Node MCU +Xbee+Sensors	Arduino IDE+Web App	I	15000
78	**Noise Detection and Management for SmartCity using IoT**	Noise is an environmental effect which can cause annoyance and cansignificantly affect health. With ever increasing population densities of cities, the noise levels are increasing and a balance needs to be achieved between legitimate commercial activities and controlling potential adverse noise effects to reasonable levels. Smart cities should be planned in accordance with urban noise detection and management guidelines to achieve better level of control over noise. In this context, a framework for urban noise management is developed based on the IOT concepts.Using this system we can monitor the sound levels in the fixed areas by deploying some devices with the sensors.	Node MCU+Sensors	Arduino IDE+Web App	I	9000
79	**Public Crowd monitoring in market places**	All the authorities who are responsible for managing and controlling crowd in public places face an uphill task. While in most cases the crowd expands to a very large physical area which is very difficult to monitor with personnel on ground, the controlling part is even more challenging with multiple entry and exit points adding to the random movement of crowd.Through this project we can monitor the number of persons present in one particular area. We can monitor number of persons entering and exiting a particular place. By using this data the authorities can estimate the number of persons in that place in case of emergencies and can take necessary actions.	Rpi+Camera	Python IDE+Web App	I	12000
80	**Smart Market Analyst for Textile Business**	For retailers, shopping is the art of persuasion. Though there are many factors that influence how and what consumers buy. However, a great deal is decided by visual cues, the strongest and most persuasive being color. When marketing new products it is crucial to consider that consumers place visual appearance and color above other factors such as type, texture.So in-order to help the retailers in identifying and analyzing the information like which colors are used most, this system will be helpful. By using this system we can detect the persons from the live video streaming and capture the image of person and detect the dress color of the person.	Rpi+Camera	Python IDE+Web App	I	12000

81	**Zigbee Based Secure Wireless Communication Using AES**	The Zigbee based secured wireless communication using AES encryption allows us to communicate wirelessly with security feature. The data transfer during communication between two system is encrypted using AES encryption which is secure. The data can be decrypted with correct key only, otherwise it returns some garbage value. Here in this project we are using one dht sensor and sending that sensor values from one node to other node with encryption. So while retrieving the data we can decrypt that data and can get the actual sensor data.	Arduino+Xbee	Arduino IDE	B	9000
82	**An intelligent water utility monitoring and billing system**	Water scarcity and water stress issues pose a serious threat to the global population. The traditional way of manual meter reading is furthermore inconvenient and time consuming.A smart water-monitoring system will make users mindful of their water consumption and help them to reduce their water usage. At the same time, users will be alerted to abnormal water usage to reduce water loss.	Node MCU+Sensors	Arduino IDE+web App	B	9000
83	**Green House Monitoring And Control System With Added Intelligence**	In today's greenhouses, many parameter measurements are required to monitor and control for quality and productivity of plants. But to get the desired results there are some important factors which come into play like Temperature, Humidity, Light and Water, which are necessary for a better plant growth.Web app is used to control the actuators based on sensed parameters manually from anywhere in the world.	Node MCU+Sensors	Arduino IDE+web App	B	9000
84	**Intelligent illumination System with Integrated colour Psychology**	Smart lighting system is a simple way of energy saving in our home. It discusses the usage of energy efficient intelligent illumination where we can adjust the intensity of lights depending on surrounding environment and human psychology. And it can be operated with mobile app.you can set the colour of the RGB bulb based on your mood through mobile App.	Node MCU+Sensors	Arduino IDE+Android app	B	6000
85	**smart pill bottle using internet of things**	This project helps in monitoring the time patterns of the patient when he is taking the pills .this records helps the doctor in treatment .it helps in cheking the pill status in the bottle and notifies us to refill the bottle.	Node MCU+Sensors	Arduino IDE+web App	B	6000
86	**Child tracker with emergency notifier**	Geo-fencing/Virtual fencing is a feature in a software program that uses the global positioning system, more commonly referred to as GPS, to define geographical boundaries. Our device may help parents track their kid's activity. This device is the smart device This will allow you to get instant alerts on your phone if your Kid leaves your pre-set designated area.	Arduino+Gsm/Gprs	Arduino IDE+web App	B	9000
87	**Fleet tracking and management system**	Today, tracking and navigation systems for vehicles are extensively used all over the world by public transportation units, fleet owners as well as by individuals, and are an essential component of vehicle telematics systems. The system consists of a Device and remote web server application where the vehicle status and movement data can be viewed in an intuitive way on the map.	Arduino+Gsm/Gprs	Arduino IDE+web App	B	9000
88	**Smart Sprinkler System for Golf Course**	The main scope of this project is to create a personal weather station (PWS) in Wunder Ground which is a commercial weather service providing real-time weather information via the Internet. This PWS is used to forecast the weather details. the other aspect in this project is that sprinkler gets turned on and off based of moisture levels and weather parameters, also an alert is sent if there are extreme conditions.	Node MCU+Sensors	Arduino IDE+web App	B	7000
89	**Intelligent parking system for smart cities**	With the increase in vehicle production and world population, more and more parking spaces and facilities are required. In this project a new parking system called Smart Parking System (SPS) is proposed to assist drivers to find vacant spaces in a car park in a shorter time.The main scope of this project is to check whether there is an empty slot for a vehicle to park. A web page is designed which integrates with the cloud used to show the vacant slots.	Node MCU+Sensors	Arduino IDE+web App	B	7000
90	**Smart home Automation Hub with MQTT Protocol**	This project presents the overall design of Home Automation System (HAS) with low cost and wireless system . The smart home concept in the system improves the standard living at home. Home appliances are controlled through an android using Wi-Fi communication through MQTT protocol.we can even monitor the combustable gas leakage and we can open and close the door using App.	Node MCU+Sensors	Arduino IDE+Android app	B	7000
91	**Smart Health Monitoring System for elderly people**	Technology plays the major role in healthcare not only for sensory devices but also in communication, recording and display device. It is very important to monitor various medical parameters like pulse and temperature parameters . At the time of extremity situation alert message is sent to the desired people.	Arduino+Bluetooth+Sensors	Arduino IDE+Android app	B	9000

92	**Personal assistance for independent Senior Citizens**	There can be a lot of individuals out there who need constant help.Some people may forget to take the medicines at the correct time.The people are provided a wearable device on which there will be a display which notifies the people about the medicine.It comes with one more feature that when the person is feeling uneasy or in case of some emergency he can notify the people	Node MCU+Sensors	Arduino IDE+Android app	B	7000
93	**Optimized Energy Saving Solutions for Commercial Buildings**	The model demonstrates the energy consumption in Conventional Building using energy saving parameters such as Temperature, Humidity, lighting controls and some of the measures. The energy saving system consists of three modes i.e., Eco Mode, Away Mode, Proximity Mode which turns on/off the electrical appliances when required ,which saves the energy. Centralized monitoring of parameters locally and remotely is possible. The sensor data is send to Cloud for future needs.	Node MCU+Sensors	Arduino IDE+Android app	B	8000
94	**Geo Mapping Of resources for crisis management**	Crisis response and management is a critical duty of authorities worldwide to ensure the wellbeing and safety of their citizens and the sustenance and function of society. One of the core components of crisis response is the management of various resources that support the emergency response operations. In this project, the design of an emergency resource management system is presented, GPS location of important entities/ elements like ambulance, police vehicle, fire brigade, buses and other vehicles can be made available through a web app for coordinating agencies across several departments to address requisitioning needs during emergencies.	Arduino+GSM/GPRS+Sensors	Arduino IDE+Web app	B	10000
95	**Gesture controlled Robot for remote industrial operations**	Robots are playing an important role in automation across all the sectors like construction, military, medical, manufacturing, etc. After making some basic robots like line follower robot, computer controlled robot, etc, we have developed this accelerometer based gesture controlled robot by using arduino uno. In this project we have used hand motion to drive the robot.	Arduino+Nrf+Sensors	--	B	9000
96	**IOT based Driver Alertness and healthmonitoring System**	Fatal Road accidents can be easily avoided by understanding the psychological state of drivers. Majority of road accidents occur during night driving due to drowsiness state of vehicle drivers (Subject). This project provides Eye Blink Monitoring System (EBM) that alerts the subject during state of drowsiness. For Health Monitoring of driver we are making wearable device which will give the heart beat and body temperature of subject, so before boarding to vehicle admin should know the status of subject.	Rpi+Camera+Sensors	Arduino IDE+Web app	I	15000
97	**IoT based local weather station with climate predictions**	In this project MEMS sensors and hardware is used to get the local weather information and weather forecast is obtained from cloud platforms like wunderground using API calls . From there, we can analyze our collected data in real-time or historically. a realistic prediction of weather will be performed in this project using combination of hardware, software and networking is now being referred to as IoT (Internet of Things).	Node MCU+Sensors	Arduino IDE+Web app	B	9000
98	**Iot Enable Smart Poultry Farm**	This project proposes the new model by using advanced modern technology to make traditional chicken farming smarter. Smart farm gives the environmental parameter statistics like temperature, humidity, smoke, weather condition etc.The health of chicken depends on the environment in the poultry farm. If the environmental condition is not suitable then there may be problem with growth of the chicken and there health issues.we can remotely monitor environmental parameters in a poultry farm. we can monitor the water level in the tank. when ever there are extreme conditions This system will warn the person in-charge about the various environmental parameters like temperature, humidity, etc. by sending notifications. and then the person can take necessary actions	Node MCU+Sensors	Arduino IDE+Android app	I	9000
99	**IOT enabled Smart Animal Farm**	A smart system is needed to operate and monitor animal farm remotely. Animal farm are design in a such way that, environmental conditions can be altered by providing facilities like ventilation, cooling and lightening. we can remotely monitor environmental parameters in the farm. we can monitor the water level in the tank. when ever there are extreme conditions then notifications can be sent to person so that he can take necessary actions through app.	Arduino+Ethernet+Sensors	Arduino IDE+Android app	I	9000
100	**Smart allergen Notification System**	As per the recent study, most of the people are allergenic to common substances (allergens) like dust, hot air, cold waves, chemicals, smoke, Humidity etc. sometimes the cases may become worse.. This smart allergen notifier detects the allergens before the person subjected to allergy and notifies the person to take immediate action.	Arduino+Ble+Sensors	Arduino IDE+Android app	I	7000

101	**Smart Briefcase**	Smart briefcase is designed to solve a wide range of challenges that road warriors face, such as accessing a reliable power supply and keeping personal items secure. It has the special features like smart locking from anywhere in the world through an app using IOT. we can track this in the App and can charge the mobile phone.. If someone tries to open your briefcase it also gives notification to the user.	Arduino+GSM/GPRS+Sensors	Arduino IDE+Android app	B	10000
102	**Cloud connected Centralized street light management system**	Streetlights are among a city's strategic assets providing safe roads, inviting public areas, and enhanced security in homes, businesses, and city centers. Street Light Management lighting solution gives you the capability to monitor, and control street lights, remotely in a fail-proof way. Our device is integrated with cloud to visualize the sensor data and an app to control the streetlights remotely.	Node MCU+Sensors	Arduino IDE+Web app	B	9000
103	**Smart waste management system for metropolitan cities**	In many places, the Municipal garbage bins are overflowing and they are not cleaned at proper time. As a result of which the consequences are severe.. There needs to be system that gives prior information of the filling of the bin that alerts the municipality so that they can clean the bin on time.this will alarm and inform the authorized person when the garbage bin is about to fill.All the bins are monitored through the webpage along with location.	Arduino+GSM/GPRS+Sensors	Arduino IDE+Web app	I	9000
104	**plant with emotions:IoT enabled plant**	The main purpose of this project is to take care of the plants that we grow in our Houses.plant talks to us about its health status .Health Status is monitored through Some sensors.the ambient weather parameter that suits the plant health condition can be monitored and we can water the plant through mobile App.	Node MCU+Sensors	Arduino IDE+Android app	B	9000
105	**Cloud enabled Vehicle theft & accident Detection system**	In highly populated Countries just like India, in accidents, people lose their lives due to unavailability of proper medical facilities at the right time. This project senses any accident in the vehicle and intimates pre-programmed numbers	Arduino+GSM/GPRS+Sensors	Arduino IDE+Android app	I	9000
106	**Wireless sensor network based Smart irrigation System**	Irrigation is one of the most powerful sources in India but it is hard for an individual person to monitor continuously and regularly. In order to make this irrigation easier our system comprises some changes in the usual irrigation system. The project controls water supply manually in water crisis areas through moisture sensor.this Plays a major role in Environment monitoring system and eliminates unmanned irrigation.	NodeMCU+Xbee+Sensors	Arduino IDE+Android app	I	12000
107	**An IOT Based patient Monitoring System using Raspberrypi**	Among the panoply of applications enabled by the Internet of Things (IoT), smart and connected health care is a particularly important one. Different health parameters like pulse and temperature are obtained and when there is emergency the family members and doctors are notified.the data can be stored in cloud for future purpose.	Rpi+Sensors	Python IDE+Android app	I	12000
108	**Intelligent Water Distribution System**	The project Smart Water Supply Management, as the name says it all is about management of water supply throughout the scale, right from small societies, townships to entire urban infrastructure and also for irrigation water supply management.For Demonstration purpose we have restricted it to only House hold purpose (like for an apartment). Level of tank as well as flow of water at each house is continuously monitored using ultrasonic sensor and flow sensor. our device can also be used for controlling the valves(ON/OFF) of water pipe through web page, monitoring and analyzing the water usage across the nodes(houses), is possible with the help of Web app and cloud connectivity. Furthermore an alert is trigged if there is any leakage.	Arduino+Ethernet+Sensors	Arduino IDE+Web app	I	12000
109	**Multi protocol smart Home Gateway**	Multiprotocol gateway is designed to act as the bridge between wireless technologies- Bluetooth and Wi-Fi on one side and the IP based communication on another side. The devices of this network operate on different wireless protocols, in that case what if a person requires a single access point. Then integrating all these devices is nothing but a simple application that consumes the Multiprotocol gateway. We propose combining the capabilities of various wireless protocols (Wi-Fi, Bluetooth) which are different by design and are optimized for different applications. The key to success will be in deploying the right wireless technology for the requirements of the application and avoiding the temptation of trying to make one technology meet all needs.	Rpi+Sensors	Python IDE+Android app	I	12000
110	**Robo car with Live streaming for Inaccesable Area**	Surveillance is the process of monitoring a situation, an area or a person. This generally occurs in a scenario where surveillance is essential for safety.it is possible to remotely monitor areas of importance by using robots in place of humans.We have developed a robot which can be used for surveillance monitoring purpose and controlled through Web App. The control mechanism is provided along with video transmission facility.	Rpi+robo car+camera	Python IDE+Web app	I	12000

111	**Remote Substation Equipment Monitoring using Raspberrypi**	The purpose of this project is to acquire the remote electrical parameters like voltage, current and frequency and send these values over the cloud. This project is also designed to protect the electrical circuitry by monitoring the parameters and taking precautions when needed. By using the robo we will capture the image of the required parameter readings and from that image the parameters like voltage and current are aquired.the real time data (video) is transmitted to the ground station.	Rpi+robo car+camera	Python IDE+Web app	I	12000
112	**Intelligent camera for Traffic Density monitoring**	In recent years popularity of private cars is getting urban traffic more and more crowded. As result traffic is becoming one of important problems in big cities in all over the world. Some of the traffic concerns are congestions and accidents which have caused a huge waste of time, property damage and environmental pollution. This research paper presents a novel intelligent traffic administration system, based on Internet of Things, which is featured by low cost, high scalability, high compatibility, easy to upgrade, to replace traditional traffic management system and the proposed system can improve.	Rpi+Camera	Python IDE+Android App	I	10000
113	**INTELLIGENT RESTAURANT WITH SMART BEACONS**	Modern, Smartphone-toting humans spend most of their time indoors. But indoor spaces often block cell signals and also make it nearly impossible to locate devices via GPS. Beacons are a solution.Beacons are small, Bluetooth enabled devices that are attached to wall or counter top inside a store or an educational organisations, hotels etc. These are proximity based that is they send signals(like an url which has all the details of the restaurant)to a customer's smart phone once he/she is within the reach of device (Beacon).	ESP32	Arduino IDE+Android app+Web App	A	8000
114	**Smart Employee tracking system**	A method and system for tracking an employee at a job site. The employee is provided with a device which includes a unique identification number . When the employee arrives at, or leaves, the job site their presence can be noted in order to track the time that the person spends in particular location.In this project there are some devices which acts as scanners, so we can keep these scanners in the location where we want to track the employees. every employee is given a device which is used to track. whenever the person enter the region the scanner present in that region scans that device and store that data in the cloud along with the time.	ESP33	Arduino IDE+Android app+Web App	A	12000