Asian Journal of Applied Science and Technology (AJAST)
Volume 1, Issue 1, Pages 4-8, February 2017

Animal De Capabilite and Well Being Intensive Care System

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Article Received: 03 February 2017 *Article Accepted: 15 February 2017* *Article Published: 19 February 2017*

ABSTRACT

Now a day's wild animals are becoming less in number because of industrialization and cutting of trees in the forest area. Hence it is significant to save life of wild animals in the sanctuary. One of the applications is tracking animal and keeps regular monitoring on them. This tracking system can inform you the location and route travelled by animal, and that information can be observed from any other distant location. If any accident happens to them in the forest, physical injury or any illness may cause even death of animals in the forest. In such situation we cannot find out precise location of animal in such a large area. To avoid such problems in the finding exact geographical location of animal in the jungle, national park or in wildlife treasury, animal de Capabilite system is used.

Keywords: Vibrator Sensor, GSM Modem and PIR Sensor.

1. INTRODUCTION

As human being battle or human civilization is growing, the wildlife animals or wild animals are in danger. But as per nature's rule, every living creature on this earth is important and has important role bionetwork. Also we get some medicines or useful drugs from some animals. We have already realize this, so in every country we see that there are flora and fauna animal reserves and national parks where these animals can live freely in forest or in a tropical forest however these are monitor by human beings.

Also now days these wildlife nationwide parks have become popular traveler places. Many rare species or uncommon species are available or potted here. For example white tiger, panda and many other animals. But these animals also undergo some disease or there can be some situations where human being notice is required for these animals like vaccination of these animals.

If they met with some accident or are harm then we have to cure their wound, in such cases we need to catch those animals and do the required treatment. Main problem in such situations is that in big wildlife sanctuaries these animals are really hard to locate.

Due to this many times we have to search the entire area. Since many years these wild animals are being track by using conventional method such as using wireless transmitter and receiver couple. Here wireless transmitter is kept in the lapel of animal and receiver is with forest officer. But when area of forest is large sufficient to not fall within the range of wireless transmitter-receiver, we can't locate animal. Usually area of sanctuaries is in the range of hundreds of kilometers in length. Here using PIR sensor to find the pressure group of the animal and also find the people group.

1.1 GSM Modem

GSM (Global System for Mobile communications: originally from compilation particular Mobile) is the most popular standard for mobile phones in the world. Its promoter, the GSM Association, estimate that 80% of the worldwide mobile marketplace uses the criterion. GSM is used by over 3 billion people across more than 212 countries and territories. Its ubiquity makes worldwide roaming very common between mobile phone operators, enable subscribers to use their phones in many parts of the world. GSM differs from its predecessor in that both signal and speech channels are digital, and thus is considered a second age group (2G) mobile phone system. This has also supposed that data message was easy to construct into the system.

Chip Silicon is continuously introducing cutting-edge technologies in its products to achieve lower costs, better excellence and spirited benefit. Chip Silicon is now offering GSM based hardware and software growth military. This comprise embedded GSM terminal, GSM modems, GSM module addition, GPRS communication addition, GSM based remote monitoring and management systems, GSM applications in Industrial control, GSM safety systems and more. In your company is exploring such addition with existing products or expansion of new goods you can get in touch with us at e-mail.

GSM (Global System for Mobile Communications) is world's most well-known Mobile stage. Mobile phones with SIM cards use GSM knowledge to help you communicate with your relations, associates and commerce associates. GSM technology is life form mostly used for talking to family, friends and business generation. We use communication characteristic of phone landlines for internet, e-mail, data connectivity, remote monitor, computer to computer

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communication, security systems. In the same way we can use GSM knowledge and benefit from its compensation.

Supply Chain Management**:** Today SCM require huge IT communications with leased lines, networking devices, data centre, workstations and still you have big downtimes and far above the ground costs.

You can do all this at a portion of the cost with GSM M2M knowledge. A central server in your head office with GSM capability is the answer; you can receive immediate deal data from all your branch offices, warehouse and business connections with nil downtime and low cost.

1.2 PIR Sensor

An person PIR sensor detects change in the amount of infrared emission impinge upon it, which vary depending on the temperature and surface individuality of the objects in front of the sensor.[2] When an object, such as a human, pass in front of the backdrop, such as a wall, the hotness at that point in the sensor's meadow of view will rise from room temperature to body temperature, and then back again.

The sensor converts the resultant change in the inward infrared radiation into a change in the output voltage, and this trigger the discovery. Objects of similar temperature but dissimilar surface individuality may also have a different infrared release prototype, and thus moving them with respect to the backdrop may activate the detector as well.

PIRs come in many configurations for a broad diversity of application.

The most common models have many Fresnel lenses or reflect segment, an effectual range of about ten meters (thirty feet), and a field of view less than 180 degrees. Models with wider fields of view, counting 360 degrees, are available characteristically designed to mount on a ceiling.

Some better PIRs are made with single section mirror and can sense change in infrared energy over one hundred feet away from the PIR. There are also PIRs intended with reversible compass reading mirrors which allow either broad coverage (110° wide) or very fine "curtain" coverage, or with by yourself selectable segment to "shape" the treatment.

1.3 RF Transmitter

1.4 RF Receiver

These modules function on 433.92MHz, similar as the standard TLP433 modules but they contain complete significant changes in the size of the unit. They are SAW base and present about 100 meters range in Line-of-Sight operating forms 2 - 12 volts.

The new account has a data rate of 4.8KB/s, over double the speed of the preceding version and still provide 16DBm of output power off under 20mA of current the size and ease of these units make them a professional and inexpensive solution for many wireless application.

Typical range of these manufactured goods is around 100 meters (300 feet) in an open area and 30 meters (100 feet) in a built up area when used with the corresponding RLP earpiece modules. The results may vary considerable depending on the surroundings, antenna and operating voltage of the aerial. We advise an aerial to be 1/4 wave and 17cm long designed from the speed of light / frequency / 4.

1.5 PIC 16F877A

This powerful (200 nanosecond teaching implementation) yet easy-to-program (only 35 single word instructions) CMOS FLASH-based 8-bit microcontroller pack Microchip's

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powerful PIC structural design into an 40- or 44-pin package and is upwards well-matched with the PIC16C5X, PIC12CXXX and PIC16C7X devices.

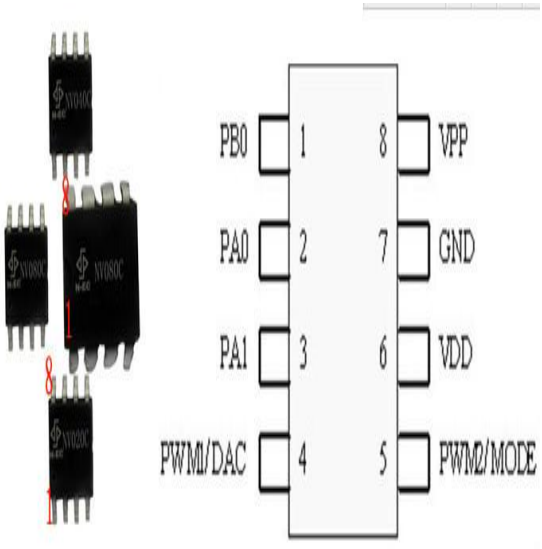
The PIC16F877A features 256 bytes of EEPROM information memory, personality programming, an ICD, 2 Comparators, 8 channels of 10-bit Analog-to-Digital (A/D) converter, 2 capture/compare/PWM functions, the synchronous serial port can be configured as moreover 3-wire Serial Peripheral border (SPI™) or the 2-wire Inter-Integrated Circuit (I²C™) bus and a Universal Asynchronous Receiver Transmitter (USART).

Every one of these skin make it ideal for more advanced level A/D application in automotive, manufacturing, appliance and customer application.

Features

1. 2 PWM 10-bit
2. 256 Bytes EEPROM data memory
3. ICD
4. 25mA sink/source per I/O
5. Self-Programming
6. Parallel Slave Port

1.6 APR Voice IC



The APR9600 device offers true single-chip voice recording, on-volatile storage, and playback ability for 40 to 60 seconds. The device supports both random and chronological access of multiple mails.

Sample rates are user-selectable, allowing designers to customize their design for unique quality and storage time needs. Integrated output amplifier, microphone loudspeaker, and AGC circuits greatly make simpler system design.

The device is ideal for use in portable voice recorders, toys, and many other customer and industrial applications. APLUS integrated achieves these high levels of storage capability by using its proprietary analog/multilevel storage technology implemented in an advanced Flash non-volatile memory process, where each memory cell can store 256 voltage levels.

This technology enables the APR9600 device to reproduce voice signals in their natural form. It eliminates the need for indoctrination and compression, which often bring in bend.

2. EXISTING SOLUTION FOR THIS WILDLIFE ANIMAL TRACKING

Discussion about existing technology in some countries, many animals have belt in their neck. This strap has a wireless transmitter. A wildlife take place have receiver in his/her hand and will look for location. However main disadvantage of this method is that range of wireless transmitter is less.

In some sensors it is 100 meters in a number of sensors it is in few kilometers but not more than that. But as we know that forest and wildlife national parks are hundreds of kilometers in length.

And in such situation these wireless transmitters are not much useful and they are time consuming. With the help PIR sensor we are accurately find the group of animal and their position.

3. PROPOSED SYSTEM

In proposed system we are using two dissimilar sensors. One sensor is PIR sensor is used to sense the group of the animal or other substance. They are commonly used in burglar alarms and mechanically activate enlightenment systems.

Another one is vibration sensor is second-hand to settle on the types of animal. And GSM modem is used to send the communication to the receiver. An RF module (radio frequency module) is a (usually) small electronic tool used to transmit and/or receive broadcasting signal flanked by two devices.

In an embedded system it is often desirable to communicate with one more devices wirelessly. This project is used to track the animal in any dangerous whether form. This wireless communication may be talented through optical communication or through radio frequency (RF) communication.

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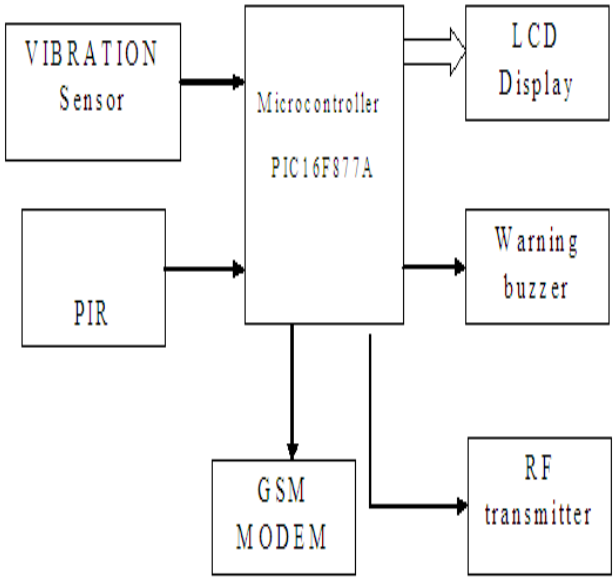
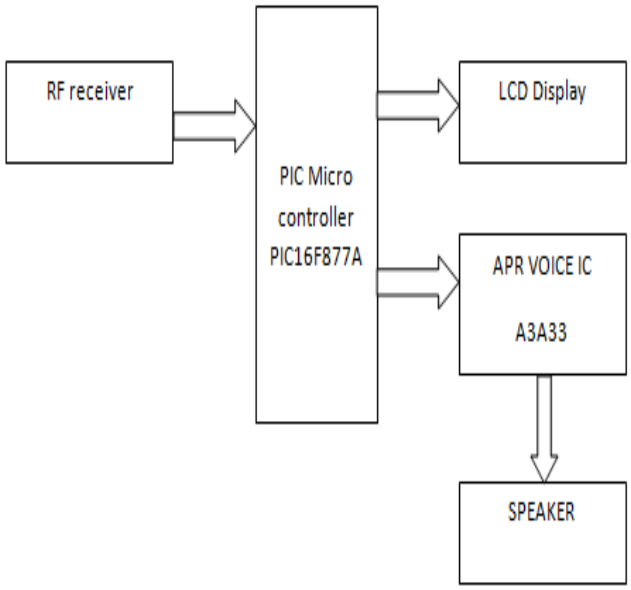
4. BLOCK DIAGRAM

4.1 Transmitter Section



4.2 Receiver Section



5. BLOCK DIAGRAM EXPLANATION

The vibration sensor is second-hand to sense the speed and dislocation of any object in the forest. And Send to the microcontroller correctly.

A PIR-based movement detector is used to sense group of people, animals, or other objects as well as send to the microcontroller and it to the buzzer.

This device was based lying on an electromechanical system which was indistinguishable to an electric signal without the metal gong (which makes the ringing noise) and it to the GSM modem.

Following receiving the SMS through the RF transmitter. An RF receiver component receives the modulate RF signal, and demodulates it. And send it to the microcontroller appropriately.

The APR9600 device offer true single-chip say footage, on-volatile storage, and playback ability for 40 to 60 second. The device supports both accidental and chronological access of multiple messages.

After receiving the message forest officer will approach to know the position of the animal.

6. CONCLUSION AND FUTURE DEVELOPMENTS

Tracking system is flattering more and more significant in large cities and it is more secured than other systems. It is totally included so that once it is implementing in all vehicles, after that it is likely to track anytime from wherever. It has real-time ability; emerge in order to make stronger the relations among people, vehicle and road by put modern in order technology together and able to forms a real-time precise, effective comprehensive transport system. This system has much compensation such as large aptitude, wide areas range, and low operation expenses, effectual, physically powerful.

We can add more sensors to monitor health parameters as a future enhancement.

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