

HUMAN NETWORK COMMUNICATION

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Abstract

Today we have even realized the potential for microchip implants to be embedded inside the body of humans for the purpose of acting as unique universal Identification (UUI). Radio Frequency Identification is a wireless data collection technology use to identify human or unique entities. Radio Frequency Identification is a wireless data collection technology, which, through the RF portion of the electromagnetic spectrum. Human Area Network – the last meter Transmits data utilizing body's electric field.

Keyword-- Human Transmission mechanism Implants, Radio-Frequency Identification (RFID), RedTacton, GPS.

I. INTRODUCTION

Integration with a location-based surveyor (LBS) has also grown the application porter, particularity in the emergent sector. Other mobile commercial applications where Transmission mechanism could be applied are in e-security, e banking, and e-health A chip smaller in size than a grain of rice could provide the ultimate ID for citizenship. You have to inject in a given part of the body like the hand or head and present in the individual's sub dermal layer of the skin. Chips in human body in order to "explore the relationship between identity and technology"

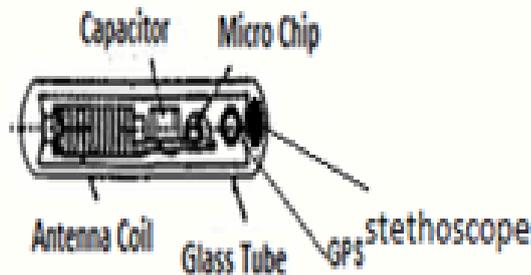


Figure 1: micro chip

II. EXISTING SYSTEM

Transmission mechanism:

The Transmission mechanism is the actual chip implant. It is a passive transponder, meaning it contains energy of its own or no battery.

In comparison, an active transponder would provide its own energy source, normally a small battery. Because the passive chip contains no battery, it has use life long, up to several (70) years, and no maintenance. Being passive, it's inactive until the reader activates it by sending it a low-power electrical charge. The reader "reads" or "scans from the chip. The communication between chip and reader is via low-frequency radio waver.

The Reader:

The reader consists of an "excitant" coil which creates an electromagnetic field that, via radio signals, provides the necessary energy (less than 1/1000 of a watt) to "excitant" or "activate" the implanted chip. The reader also carries a receiving coil that receives the transmitted code or ID number sent back from the "activated" implanted chip. This communication is very fast, in milliseconds. The reader also contains the software and components to decode the received code and display the result in an LCD display. The reader can include a RS-232 port to attach a computer for collect the information.

Design Part

A radio-frequency identification system uses tagging or labels attached to the objects to be identified.

Two-way radio transmitter-receivers called interrupt or readers send a signal to the tag and read its response. The readers generally transmit their observations to a computer system running RFID software or RFID middleware.

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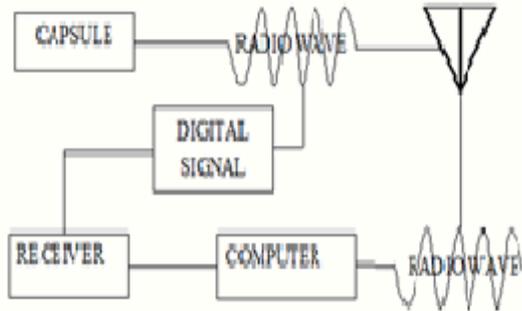


Figure 2: block diagram of radio wave communication

The tag's information is stored electronically in a non-volatile memory. The RFID tag includes a small RF transmitter and receiver. An RFID reader transmits an encoded radio signal to interrogate the tag. The tag receives the message and responds with its identification information. This may be only a unique tag serial number, or may be product-related information such as a stock number, lot or batch number, production date, or other specific information.

An Electronic Product Code (EPC) is one common type of data stored in a tag. When written into the tag by an RFID printer, the tag contains a 96-bit string of data. The first eight bits are a header which identifies the version of the protocol. The next 28 bits identify the organization that manages the data for this tag; the organization number is assigned by the EPCGlobal consortium. The next 24 bits are an object class, identifying the kind of product; the last 36 bits are a unique serial number for a particular tag. These last two fields are set by the organization that issued the tag. Rather like a URL, the total electronic product code number can be used as a key into a global database to uniquely identify a particular product. 1.

III. PROPOSED SYSTEM

We use the GPS system for Position and coordinate systems. It also refer us the distance and direction between any two way life or a position and a way life. When we are travel it shows Travel progress reports and accurate time measurement. That means real time satellite tracking. It's defined by a set of Bring (UUI) into proper or desirable coordination. It shows only an approximation of the receiver's present perfects location. A position is not static, it will be dynamic. It changes constantly as the GPS receiver moves otherwise it sows error. Thereceiver in 2D or 3D position.

Away life is based on common action, movement entered into a GPS receiver's memory. It can be either a saved position fix, or user entered Bring into common action, movement, or condition. It can be created for any remote point on earthman's receiver design unique universal Identification (UUI) code. Onceit is entered and saved, a way liferemains unchanged in the receiver's memory until edited or deleted or became error.

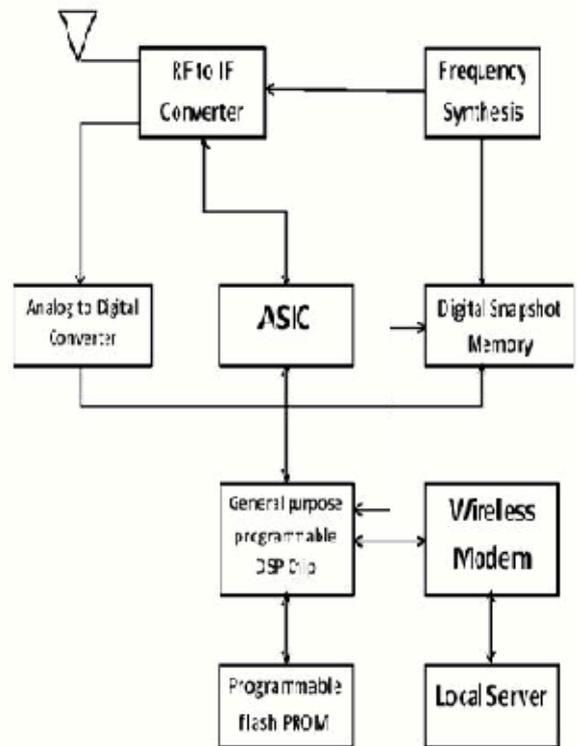


Figure 3: GPS block diagram

RED TACTON meaning:

Tacton: touch-act-on, that means action performs by touching. Human area networks Communication between two devices on human body and outside environment critical-so human area networking. It is safe, high speed network transmission path electric field emitted on the surface of the human body for the data transfer possible through any part of the body in which we need. Both transmitter and a receiver done by electro-optic crystal and laser light. You decide what data to share with whom and what devices you communicate with two end point.

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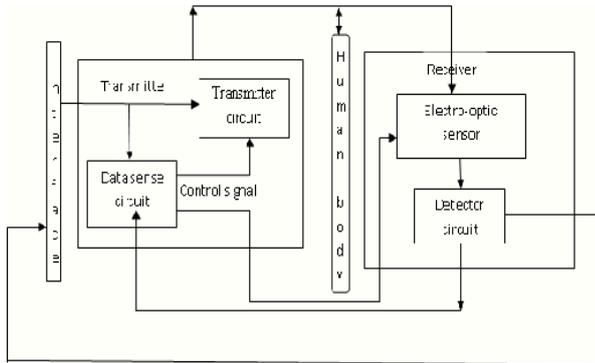


Figure 4: block diagram of RedTacton

A. Unique universal Identification (UUI):

Human centric RFID in the current state of development involves control over personal identification, Similar to an ID card, driver's license or passport, ration card, pan card, debit or credit card. The RFID transponder contains information identifying the owner.

B. Monitoring Devices:

It used to monitoring purpose for everyone. The RDID Transmission mechanisms provide perfect location or area, in the specific man done his job in particular time. The third person monitoring performance of other performer's or employee people.

C. Banking:

The human centric RFID reduce the queue at a bank. Unique universal Identification number RedTacton is used identity, marketing, withdraw or other banking transaction. It also used in ATM transaction using tacton receiver and transmitters.

D. Medical:

In the storage database of medical record in each human used in emergency purpose. It will be stored previous medical record so in emergency doctor find the person who suffers in illness.

IV. DISADVANTAGE OF EXISTING SYSTEM

- 1 The transponders in the microchips are the cause of these tumors and cancers because of not perfect operation.
- 2 Sum time unable to scan or Reademicrochip.
- 3 All analog signalsnot converting in digital format.
- 4 In the security issue chips could be easily removed, making theft easier.

- 5 Total cost of the project is too expensive.
- 6 The numbers of tags are being read in the same field signals from two readers overlap.

V. OVERCOME TO THE ABOVE DISADVANTAGE

- 1 We used in chip throw the injection or modern medical technology is used to perform Success fully operation and the capsule make by one type of polymer which is not effect in human body.
- 2 Now microchip connect too strong network so no problem to scan or read.
- 3 All analog signals is convert by separate digital signal so reader can read all data.
- 4 Each chip provide its own particular number and the chip will be accept the hart bit from the hart. If hart bit stop in several time so oneself destroy program, Will be run and stop the chip working principal.

VI. FUTURE WORKS

The chip is used to check the human body every day also alert the human through the system message, that means check the Heart rate, blood circulation, sugar level, oxygen consume the rate of the blood, cont. The blood red cells, it's also check the entire body. It will be message some particular diseases attack to our body.

Future we using audio and video calls, video conference in global, communication between each human through the chip. Also the secret data transfer using the chip, the most probability feature read the mind and also read the thought in every human being. It will be communicated physical world to digital world. The human can find the way in dream world.

VII. CONCLUSION

This chip both small and great, for rich and poor, free and bond person. Human physical to digital world produce the many problems but chip explore the digital world for easy data transfer in human to human or computer to human. It is milestone of human and technology in the world, now a day's many inventions are there. But, the discover the chip is the miles stone of technology because user friendly with the human and environment. If we use the chip that will be the human-technology world, we think those willcome soon.

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REFERENCES

- [1] K. Finkenzeller, RFID Handbook: Radio-Frequency Identification Fundamentals and Applications, West Sussex: John Wiley & Sons, 1999.
- [2] R. Ames, Perspectives on Radio Frequency Identification: What is it, Where is it Going, Should I be Involved? New York: Van Nostrand Reinhold, 1990.
- [3] J.D. Gerdeman, RF/ID: A Guide to Understanding and Using Radio Frequency Identification, North Carolina: Research Triangle Consultants, Inc., 1995.
- [4] E. Lambooi, Automatic Electronic Identification Systems for Farm Animals, Brussels: Unipub, 1991.
- [5] R. Geers et al., Electronic Identification, Monitoring and Tracking of Animals, New York: CABI, 1997.
- [6] M. Mechanic, "Beastly Implants", MetroActive, 1996, [<http://www.metroactive.com/papers/metro/12.12.96/implants-9650.html>, Last Accessed: December 14, 1998].
- [7] P.F. Hewkin, "Future Automatic Identification Technologies", Colloquium on the Use of Electronic Transponders, 1989, pp. 6/1-6/10.
- [8] P.L. Harrison, "The Body Binary", Popular Science, October 1994, [<http://www.newciv.org/nanomius/tech/implants>, Last Accessed: November 29, 2001].
- [9] J. Scheeres, "New Body Art: Chip Implants", Wired News Lycos Inc. March 11, 2002, [<http://www.wired.com/news/culture/0,1284,50769,00.html>, Last Accessed: April 3, 2003].
- [10] J. Wakefield, "Chips to Fight Kidnapping", BBC News Online, March 24, 2002, [<http://news.bbc.co.uk/1/hi/sci/tech/1869457.stm>, Last Available: April 19, 2003].
- [11] K. Michael, The Auto-ID Trajectory, PhD Thesis, University of Wollongong, 2003.
- [12] K. Michael, "The Automatic Identification Trajectory: from the ENIAC to Chip Implants", in E. Lawrence et al.,