Smart Watch System

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Abstract: Wearable technology used in daily life is the smartwatch (SW). It has features akin to those of a smartphone and is comparable to a traditional wristwatch. Access to the internet, calling, weather updates, text or video communications, GPS navigation, health and fitness data, etc. are some of these functions. The market for wearable technology and SWs is expanding daily. Smartwatches have a variety of advantages and disadvantages in medical settings. Reviewing the literature on smart watch applications in the biomedical field is the goal of this essay. This document gathers all the data about SW technology in the biomedical industry, as well as relevant journal papers, conference proceedings, web materials, market survey reports, and historical information, in one location. The analysis demonstrates that India has lower SW demand than other nations. Although it is growing over time, the total rate of demand is not what was anticipated. depending on the user's preference. The index keywords and the crucial author keyword have already been supplied. Vosviewer 1.6.16 software is also used to examine the terms in the abstract and title. The characteristics/criteria related to SWs are also included, which aids in the purchase of them. The essay also discusses the issues and flaws that need to be fixed in the current circumstance and various potential solutions for future research projects.

Keywords: GUI; IOT; GPS; FM RADIO;

1. INTRODUCTION

A portable device called a smartwatch is made to be sported on the wrist. Smartwatches feature touchscreens, have apps, and frequently record your heart rate and other vital indications, just like smartphones. Although there have been digital watches for years, some

of which had calculators and unit converters, only in the 2010s did tech companies start to release watches with smartphone-like features. On the consumer market, Apple, Samsung, Sony, and other major firms sell smartwatches, although the modern smartwatch was popularised by a small startup. Pebble raised a record amount of money on Kickstarter when it unveiled its first smartwatch in 2013 and went on to sell more than 1 million of them. To notify you of significant events or activities, smartphones display notifications. Different gadgets connected to a smartphone may only mirror certain types of notifications.

What is smart watch?
Modern smartwatches have a local touchscreen interface for everyday usage and an attached smartphone app for management and telemetry. long-term biomonitoring). Early models of smartwatches were capable of simple tasks like math calculations, telling the time digitally, translating, and playing games. However, since their release in 2015, smartwatches have advanced functionality more akin to smartphones, including mobile apps, a mobile operating system, and WiFi/Bluetooth connectivity. With FM radio and Bluetooth headset playback of digital audio and video files, several smartwatches double as portable media players. Some devices, referred to as watch phones (or vice versa), have mobile cellular features like call making.

1.1 Wearing Smart Watches in Daily Life
The Android Wear army, the most recent Pebble watches, and the Apple Watch are just a few of the fantastic smart devices available today. These smart watches allow us to
- Find apps in android watch
- Install apps
- Launching   from watches
- Launching from mobile phones
- Watch navigation
- Setting up notifications can be done in the

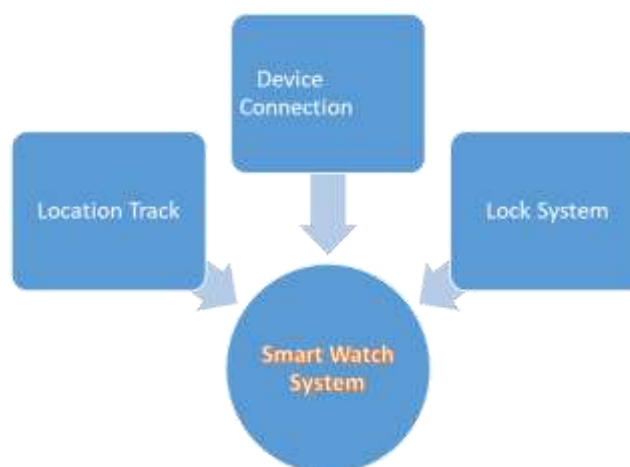**Block Diagram for Smart Watch System**

Fig. 1- Block Diagram for Smart Watch Syste

1.2 Proposed System
Lock System
The monitoring system, a GUI application created in MFC, is used to track employee behaviour. Client side and server side components make up this system. A Bluetooth module connects the client side to the embedded system.

The server side programme receives the valid and delivers the data to it.is situated in the PC for the security staff. To keep track of information about persons, All of this data is kept in a database that was created. Using this database The application allows for simple modification. The application's client side includes all required features, including network and Serial Communication choices idle processing, and personnel data options. The entirety of employee activity by Pavel Stogu (2015).

Fingerprint System

Fig. 2 Fingerprint System

Face Lock System

Fig. 3 Face Lock System

Pattern System

Fig. 4 Pattern System

Device Connection

The proposal must enable web applications to control the Wi-Fi and Bluetooth-enabled devices' communication components. These communication components interact with other networks or devices using a variety of actions, including scanning the network, connecting to a device, delivering data, receiving data, and other operations. Web applications must therefore employ precise terminology to describe the required action, which will be carried out by the device's communication components. A web browser that has been particularly modified to be able to identify the communication actions that the web application provides is required for the proposed system. The actions must be processed by the web browser and sent to the device's communication components.

Fig.5 Device Connection

Location Track
1.3 Trough Mobile Number
The numerous mobile numbers are examined to determine the location using Google Maps and Mobile number Track.

Fig.6 Location Track

Additional Features
Alerts and notifications:
By far, the most often used function of smartwatches is alerts and notifications. On its capacity to provide consumers with necessary notifications, many other services rely. These notifications may come from applications or other connected devices, and they may include social media channel notifications or communications with a commercial theme. Smartwatches can receive one of two types of notifications: notifications that are designed exclusively for the smartwatch or notifications that are identical to alerts on a linked device. The wristwatch is typically a standalone device with cellular connectivity via a SIM in order to get the latter.

Features relating to time:
Because of their features, smartwatches are more commonly referred to as smart devices than These gadgets are still fundamentally timepieces, though. Smartwatches provide extra time-related capabilities, such as stopwatches and alarm clocks, in addition to telling the time. Alarm clocks, stopwatches, and timers are very useful for smartwatch users who use their watches for physical activity. But it's vital to remember that many smartwatches lack speakers. In these situations, they depend on vibrations to notify users when predetermined time periods have passed.

Featured in health & wellness

Another popular set of capabilities that many smartwatch users use is the health and wellness-related functionality. Many smartwatches have fitness tracking features. They have characteristics like:

- heart rate gauges
- Pedometers
- monitors for physical activity (for running, swimming, cycling, etc.)
- a blood pressure cuff
- sleep loggers

Call/Messaging Features:

New generation smartwatches allow users to make and receive phone This can be done in two ways — using the smartwatch as a proxy to answer a call and then speaking through a smartphone, or making the call directly from the smartwatch if the smartwatch comes with cellular connection capabilities. This feature is very popular among users as it allows them maintain connectivity in the event they are physically far from their phones.

2. CONCLUSION

This concludes a series of blogs that tries to provide you with some information on the potential of the smartwatch. We described the state of the smartwatch market, as seen by analyst Gartner, in the first blog. We collected insightful data on user experience after conducting a brief poll among 20 smartwatch users nearby. We compiled those observations into a rosy summary and a list of urgently required improvements. This smartwatch series is intended to shed some light on how we and certain consumers currently perceive the possibilities of smartwatches. In this final section, we provide our own viewpoint on the smartwatch's future.

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