

APPLICATIONS OF INTERNET OF MEDICAL THINGS (IOMT) IN TELEMEDICINE FOR MEDICAL AND HEALTH CARE SYSTEM

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ABSTRACT: IOMT is derived from IOT and applied to all fields of knowledge, Biomedical, Artificial Intelligence, especially medical science and medicine. This paper deals with three different areas in telemedicine effectively using IOT/ IOMT. We present analysis and technique to ensure security measures adopted in telemedicine system. This paper presents applications of IOT/IOMT in telemedicine in Smart-medicine to further enhance its reliability, effectiveness and accuracy to get insurrection and revolution for improvement of developing tools to offer instant cure to patients, observers and saves pathway of fitness record for fit individuals. We include effectively areas of different medical or psychological issues. In system, the risk assessment is addressed for identification of security threats and unauthentic access to the system. Using IOT/IOMT in telemedicine ensures organization safety, IOT interoperability, active loading capability, protected action of the structure and united access tools, which are salient features of the paper.

Keywords: IOT, IOMT, Telemedicine, Security threats

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INTRODUCTION

The analysis reveals what more is required in making the telemedicine applicable. The techniques of IOT can link each single nearby substance intended for numerous managements like safety, medicinal arenas, observing and further manufacturing solicitations. In this paper, the useful mechanisms are assured for safety purpose assembly, which confirm the administration of secrecy. The IOT can deliver a charge nominal health facilities to several individuals having different ages like old, young and children. There are numerous crucial matters that are essential to be talked. As the world has got development in every field of life in the meanwhile, Internet of Things (IOT) is an innovative knowledge for the current culture. Internet of things can link each single nearby substance intended for numerous managements like safety, medicinal arenas, observing and further manufacturing solicitations.

In this paper, working on the different techniques of telemedicine in the field of IOT are presented, where we cover the health based issues in monitoring of health care data, its security and safety issues and challenges in the field of IOT also working on different protocols for taking safety based decisions on the basis of particular protocols that will share the information of patients health on different IOT based devices. In view of these features and strategies the patient's will visit different devices that would be based on decisions of protocols used for patient's health. This

will provide the safety and security also the risk management and classification in the arena of Internet of things.

Safety persistence is to assemble including mechanisms, which compromises protected statement by means of different algorithms used for safety and protection. Meanwhile, these protected algorithms are substitutes to unrestricted strategies through hypothesis that these strategies remain reliable. The manufacturer encodes records with using different protocols or strategies that are going to be used for further precision and accuracy such as AES and the ABE structure that stays secure over different critical determinations.

The AES (Advanced Encryption Standard), works on the substitution network having several operations linked together to substitutes and replace inputs by particular outputs. AES is beneficial for possessing features such as being iterative, faster, design information, Symmetric key and allows 128, 192 and 256 bit Keys; which makes it distinct for this purpose. ABE (Attribute Based Encryption) is useful to encrypt value of short key. The joint application of AES and ABE enhances the efficiency.

The Internet of Medical Things (IOMT) is a grouping of medicinal strategies like Health are, Smart Glasses, Head Mounted Devices, Belt-Worn Clothes, Smart Watches, Embedded Clothes, Smart Wristbands and intelligent software applications and health monitoring systems that are connected with the networks through Wi-Fi, Bluetooth or internet. The IOMT

technologies extend, to diagnostic machines like ultrasound, MRI machines, infusion pumps, ventilators and x-ray machines in healthcare facility. These IOMT wearable devices can be used in different ages for monitoring health and these devices, easy to wear and use, comfortable, in most conditions. IOMT devices enable in different applications and software such as remote data insights, medicinal support, operations augmentation, medications supervision and account systems.

IOMT is a submarket of internet of things. The IOMT technologies virtually enable any medical device to analyse and collect data through mobile and web applications. Through IOMT devices patient can be remotely monitored at home known as telemedicine, which is very helpful for doctors that can monitor their

patients. According to (Mohamed and AbdelLatif 2019), about 40% (\$6.2 trillion) is the total globally approximated accounting worth of these technologies. According to (Qureshi and Krishnan 2018), 60 % special hospitals and healthcare organizations have already embraced with IOMT devices with our intelligent application system and this percentage has been increased 87% in the end 2019. Unfortunately, the systems need to be more reformed to be user friendly, efficient, reliable and secure. According to another study (Hatzivasilis *et al.* 2019) more than 370 organizations using these technologies for different proposes and in which 35% have suffered at cyber security breach. This is novelty in this area. According to Allied Market Research predicts, IOMT devices will reach US\$136.8B by 2021 worldwide.



Figure 1: Wearable medical things

According to (Jayswal *et al.* 2017), the success of IOMT devices in healthcare organizations depends on successful stages of implementations:

- Suitable user interfaces
- To analyze the data efficient algorithm
- Various types of data integration
- Use of sensor devices to monitor the health of the patients
- Effective and efficient health advice for patients

The Benefits of IOMT are well known. The IOMT medical devices that are technologically connected with applications, monitors and different parts of the

body of the patients, make the procedure easier to compute information for healthcare system and to prompt decisions. The benefits of IOMT devices are vast such as:

- Remote monitoring
- Automation
- Recording of local activity
- Adaptability Reporting of Objective
- Precision medicine
- In-Home Segment
- Wearable Segment on body

The medical applications and their uses in the field of internet of things are enormous. It is considered

that IOMT is an integration of health base approaches or the applications which are linked over with systems. Internet of Medical things has exciting powers, which allows countless procedures likewise distant health support, records visions, drugs supervision, process expansion, tracing patients, workforce, records and numerous others. Currently, many Internet of Things policies need to be established for medical caution. According to (Mohamed and AbdelLatif 2019) brief introduction of telemedicine platform between doctors and patients is highlighted. Telemedicine platform coupled with IOMT by enabling more than one medical sensor to connect with the Bluetooth, Internet, Wi-Fi or GSM technologies. Telemedicine is the brief abstract term used to explain medical or clinical services. With the advance growing inside the different areas or fields of expert-systems, picture processing, pattern recognition, and data mining, the motivation of these type technologies have been increased. Moreover, wearable and implanted electronics devices collect the data in information format through the different sensors and send them the usage of technology by using a Matlab, Arduino Board and C#. Telemedicine must be made a reliable and well balanced solution specifically because human beings are beginning to believe the usefulness of medical system.

A brief investigation described in (Qureshi and Krishnan 2018) is about wearable hardware devices and components that are recommended to be used in Internet of Medical Things. On a daily basis that is very imperative to achieve and observe the individuals health in hospitals, in some medical organizations and this is not possible with the current healthcare systems, so there is need to use wearable IOMT and wireless devices called biomedical devices. Our main recommended focus is on using of IOMT devices on daily basis in life due to expensive health care and similarly the analysis of the health care study. Its main aim is to focus on the undeveloped mechanisms which are going to be very essential and compulsory for any of the medical wearable devices and restrictions that will be based on the privacy and security.

According to discussion in (Hatzivasilis *et al.* 2019), it presents overview of main security and privacy controls. These controls must be deployed in IOMT devices and their settings because day by day in modern circular economy IOMT devices models grow up and IOMT devices enabler for this interplay of circular economy with health care. One major problem is that both health care staff and patients utilize personal devices like smart phones and tablets in order to access the process and deliver medical data.

A circuit has been proposed in (Jayswal *et al.* 2017), with its design to imbed an intelligent technique that can sense the heart-beat and high temperature of the patients and also discuss limits and implementation of

exceed set techniques then on important feature of alarm that would be raised over internet platform that is “IOT Geeko”. Important discussion about the IOT physical world and the real world because provide connectivity between them anywhere, any place and any time. IOT is network of sensors and physical objects.

Low-power wireless Personal Area Network is the Internet Protocol-based technology, which is usable in IOT Bluetooth or Zig’Bee. The 6LowPAN defines encapsulation and header compression mechanisms. An overview of protocols is presented in (Palve and Patel 2018) like 6LoWPAN, Intelligent nodes, nodes platform, privacy threads, security, M2M devices, authentication, Registration in Internet of Medical Things environment and establishment for communication of M2M devices in 6LoWPAN. The machine to machine (M2M) is straight forward direct communication between devices which may possess industrial instruments capable of enabling sensor. On the internet use of sensors, smart devices or phones and wireless technology has changed and improved the perspective of handling information and communication between IOMT devices. All IOMT devices connected with smart phones and high speed internet to monitor the health of patients. Tele-health and telemedicine systems must come out and use through the mobile applications and smart IOMT devices based on results to highlight the security, privacy techniques and communication.

An overview of Electro-cardiogram sensor has been presented in (Rahman *et al.* 2019), about heart beat sensor and blood pressure sensor. All of these sensors are very popular and important to manage and monitor the serious condition of the patients in health care organization. Currently, all of these wearable solutions and devices basically require high-power and heavy to wear; so explained the wearable wireless sensor node design information in this paper that can collect data and send them to application and smart phone or devices through the internet. It is proposed that smart phone and other devices act as an Internet of Medical Things gateway to the used cloud framework to store all processed data.

The medical devices or devices for computing with nodes have been reviewed in (Sadat, T. 2019) in real-time communications between nodes, privacy, security time and cost in different experimental schemes. Various types of divided graph arrangements, like loop, linear, star, and cross graph, well, these structures and graphs have established well-developed network called (PPIN) “Protein-Protein Interaction Network”.

A few other techniques of telemedicine in the field of IOT, according to (Pawar and Ghumbre 2016) are applicable to the health based issues in monitoring of health care data, its security and safety issues and challenges. While working on different protocols for taking safety based decisions on the basis of particular protocols that will share the information of patients health

on different IOT based devices. On behalf of these features and strategies the patients will visit different devices that would be based on decisions of protocols used for patient’s health. This will provide the safety, security, risk management and classification in the field of IOT.

The applications of medical or psychological issues have been reported in (Rachakonda *et al* 2018), they are co-related with the field of medical sciences and Internet of things. The field of IOMT deals with different proposed models (Rachakonda *et al* 2018), which are working on different strategies or applications. Different diseases are even being controlled using IOMT technologies, which combine both medical sciences and IOT to provide a better treatment for patients.

MATERIALS AND METHODS

In this paper, Psychological problems are going to be handled using different sensing devices. Psychologists say that psychological stress is due to the sensing of pressure on mind, which a person faces because of the mental stress up by the surrounding environment of persons or their behaviour. Therefore, the cure of that type of disease here proposed a novel based model or sensor device, which is going to monitor the stress level by calculating the motion of individuals, body

temperature or the rate of sweating over physical activities. In this paper the neural network techniques are used, based on the Mamdani fuzzy logic that was worked on 150 collection of datasets and then got the result. The resultant values and data further sent to the cloud, where everyone can access the data for monitoring the patient's health. This proposed system provides the accuracy approximately 97% that will reduce the risk management and consuming cost as well.

A Comprehensive Perception of Telemedicine: Telemedicine in the field of IOT is medication provided from a detachment (Al-Fuqaha *et al* 2015). An inhabitant of an aided caution living capability for instance, who has prolonged fitness caution harms, can be checked by doctor who is living far away without ignoring the facility of cure. Additionally, an employee who becomes ill or wounded on lubricant raised area that is far away from land-living is essential to be fluttered to seashore for health care by means of telemedicine, a doctor can make that choice distantly. A teenager who turn out to be sick at school disturbs the regular routine for employed parents, who are offerings the task of seeing doctor and may be it will take more days to skip the school, to avoid this they can have the Telemedicine based application. This fragment offers the impression and the resolutions of the Telemedicine in IOT.

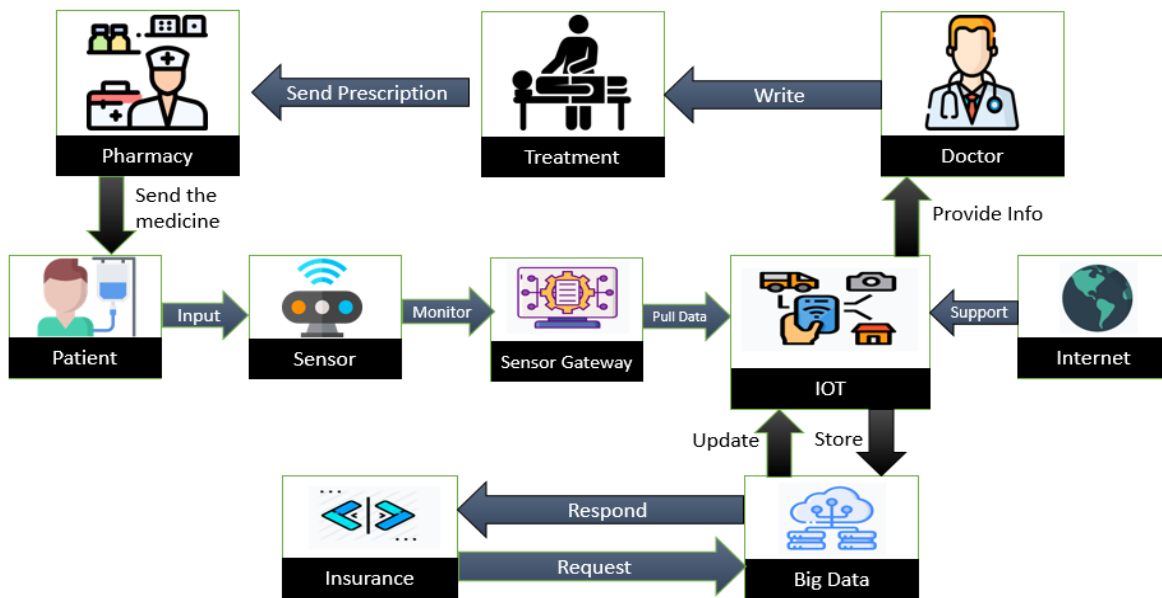


Figure 2: IOT based structure for Telemedicine

RESULTS AND DISCUSSION

An advanced impression of medicine in the field of IOT is presented in figure 2; where the enduring persons cooperate by means of the health policies

anytime and at anyplace. The specific campaigns build in with devices that are used to intellect and calculate the enduring person’s health data such as blood compression, level of individual’s heartbeat, high temperature of human body etc. At that point, the verified data acquires together in device access for instance mobile, tablet, or

uniform main frames. Main purpose is to get that access policies, since the authentic devices cannot interconnect using different protocol based procedures like TCP or IP protocols, these protocols purely interconnect through less authority procedures likewise, Bluetooth with the help of these procedures all of them are incapable to attach towards different networks (Pawar and Ghumbre 2016). Therefore, access devices show major parts towards development; these devices gather every type of enduring person's health related information after that impelled in the direction of IOT core structure.

Main IOT core architecture is classically a facility which is known as Demilitarized Zone (DMZ) facility (Westing, 2010), which we have used to refer and collect data toward the access points. In case of infirmaries (hospitals), device access will be considered as all the devices associated with the web, which will search for data. The IOT core-structure is a structure fragment which is going to be used for getting join on seaports based on several rules from several devices. Main goal is to offer the inter transportations coming through the initiative to the devices coming towards identical devices and send back the information to the main organization. As a consequence of bi-infrastructure that collects, stores, and analyses the data and the structure must have bi-direct limitations. Occasionally, doctors offer to activate some occurrence on screen for display patient's condition so that they do not need to stopover specific device. Consequently, the enduring person does not need to bother any action. The doctors have accomplished their duty by analytics of their patients and make their records on system after that conclude the results that is based on their information

coming from the different devices. Then after the result the doctor recommends the best prescription that is based on the reports and results. For further procedure he may refer that specific medicine to the nearby hospital's pharmacy by giving them invitation if it is desired. The pharmacist associates with the patient's belongings for the pickup of medicines concern (Hassanalieragh *et al.*, 2015). The most important part of this whole process is big data that display place facility. Main policy of big data is to gather information and activate numerous processes likewise data assimilation, factual time investigation, issuing etc. The most important part is data accessibility and association to a commentary structure in order for assurance or fitness maintenance corporations to monitor health of all the affiliates (Bonomi *et al.* 2012).

A Way Out with Telemedicine: Telemedicine through IOT offers direct and forthright, important health responses and explanations intended for monotonous diseases. Advances right to use the health caution and consequences because patients are perceived earlier somewhat in future (Atzori *al.* 2010). To demonstrate, an enduring person that may not be expressively healthy for several times. The enduring person selects that is the time to discover, what is right. In order to make a choice either to go to a doctor or *get along* to a severe condition, the enduring person will get the facility of Telemedicine requests likewise, go to the website or get the mobile platform to choose a certified doctor by seeing patient's condition. Throughout the call, doctor will investigate the enduring person's illness and response the enduring person's queries, if required.

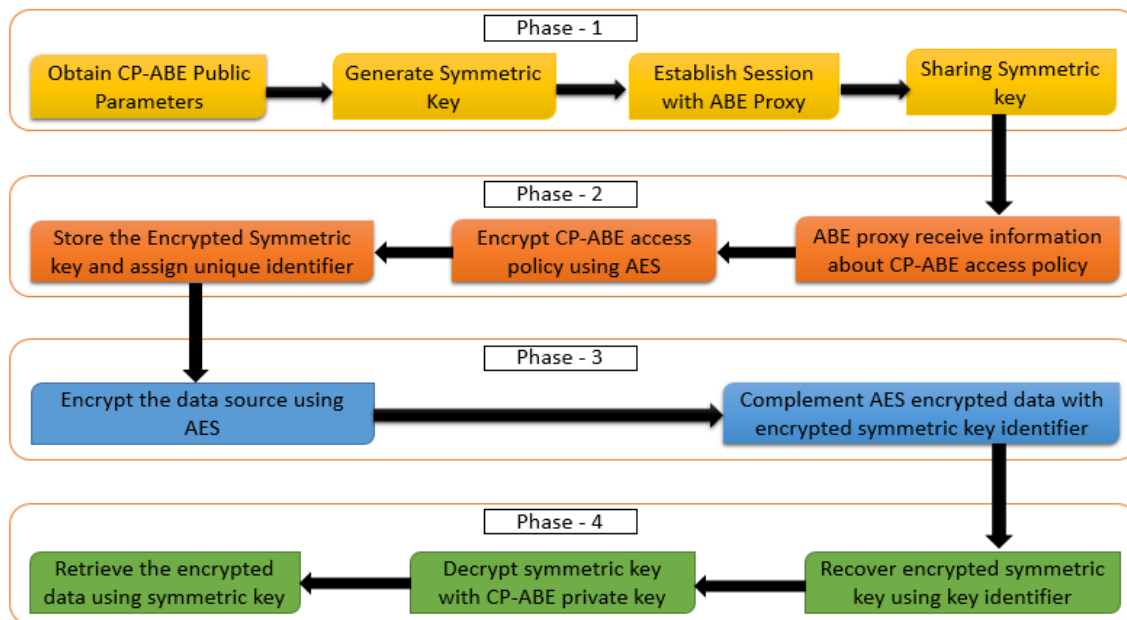


Figure 3: Plan of Safe Communication Process.

Fee cost has to be less because the health insurance is not going to be implemented in here, provides the routine health care services with low cost (Al-Fuqaha *et al* 2015). The enduring person must have less time consuming for waiting of a doctor in an emergency room or any medical clinic. Employees do not have any insurance or any deductible fee policy so that they can get the money back which is going to be lost from far away of their work or businesses (Hassanalieragh *et al.*, 2015). Progress in the health care policies particularly for underserved the enduring persons, which are living in specific isolated areas or warfare regions, where ever the enduring person's do not have any health facilities or else accommodations (Hassanalieragh *et al.*, 2015). As it is presented in Figure 3, review on the health uses in Internet of things is confidential into dual classes likewise facilities and applications used in the whole process (Islam *et al.* 2015).

Services/Facilities: The commonly used IOT amenities or facilities are characterised and presented Figure 3. The Ambient Aided Living (AAL) offers health aid designed for the self-governing based living persons of the ageing persons, disabled persons, and relatives. Additionally, the situation efforts to offer a support that will help for solving several issues. An IOT (Jara *et al.* 2011) related design has been offered for dealing with blood rate or glucose rate and insulin therapy procedure. For that purpose a recommended methodology examine the enduring persons by just visit their household and offer them a private fitness card which is created on the basis of RFID system and also provides web based diabetes organization gateway (Dohr *et al.* 2010). The radio-frequency identification (RFID) refers to a technology whereby digital data encoded in tags or smart labels are captured by a reader via radio waves.

Network of medical-health: Through controlling health strategies also the communication services, medical-health proposed the system which provides the medical facilities. Medical-IOT has been discussed with a technique for detecting the high blood glucose rate moreover accomplishes the results in the diverse atmosphere. In (Istepanaian and Zhang, 2012), a 4G health care system has been described, based on model, in which different experiments have been made for medical-health of patients.

Healthcare and Medical Strategies of Public: Observing public healthcare generates an Internet of things based setup everywhere in a limited private sector likewise domestic region, infirmary. Incorporation of numerous minor IOT system generate a supportive network organization. It is to be recommended (Yang *et al.*, 2014) that the Public Medical Network (PMN) is the best option intended for observing the medication and

healthcare structures. The recommended PMN has reduced the rate and complex time desired for detecting as well as handling viruses. By using different medical and health fitness statistics equipment, the healthcare records of the enduring persons stay going to be observed in (Istepanaian and Zhang, 2012).

Unintended Emergency Healthcare: In (Westing, 2010), a protected theory-based strategy is going to be used for health observing and also hazard assessment method has offered on behalf of observing the health behaviour and examine the hazards belongs to eastern residences. The system will be responsible for extremely precise outcomes on enduring person's health of the sole environmental aspect of earthen places. For that purpose a security system has been established known as Intellectual Community Security System (ICSS) (Istepanaian and Zhang, 2012).

EGC Medical service in IOMT: There is a medical facility which is known as 'Embedded Gateway Configuration' (EGC) which links as system based network and additional medical policies. As discussed in (Dohr *et al.* 2010) that the implanted facilities are demoralised for the healthcare systems in the field of IOMT. An exposed, safe, flexible and malleable IOT-based policy is suggested for the medical uses and healthcare systems.

The applications that are going to be used in the IOT are categorised into two categories like single state and grouped state. The following segments offer a short explanation on every single application.

Distinct state: This type of application is used for a particular disease. Identifying the Glucose rate using medical systems. If we talk about the diseases then Diabetes is a kind of health state where an individual has sophisticated glucose rate for an extensive period of time. In (Islam *et al.* 2015) it is to be discussed that there is a Cooperative mobile-Health System (CMHS) is recommended as a helpful communication among the diabetic enduring one's and Internet of things expertise for advanced level description of medical health system.

Observing the ECG: There is a medical technology which is called Electrocardiography (ECG) for investigating the electronic movement of the patient's heart rate. If we talk about the Internet of things centred ECG observing, the devices located in the spot that has been shown in Fig.3 be responsible for continuous record related to patient's heart ratio and pulses. An intellectual household platform is suggested for enlightening the linkage and interchangeability. Pulse rate shows the power which the heart utilizes on behalf of blood movement in the whole body and then shows on the screen as a pulse rate. It is discussed (Istepanaian and Zhang, 2012) that an agreeable Internet of things

methodology has proposed for checking or monitoring the enduring person sever health strategy, for example, Blood Pressure (BP) of patient, Hemoglobin (HB) rate in the body, glucose or irregular cell development. A clever health administration is recommended in (Istepanaian and Zhang, 2012) for checking the circulatory strain, diabetes, and stoutness. The grouped condition applications can handle various illnesses together.

Restoration framework: As the restoration framework upgrades the personal satisfaction, the IOT targets settling the issues identified with maturing populace what's more, inaccessibility of the well-known specialists. In (Yang *et al.*, 2014), the Bodily based Sensor Network has offered for improving restoration work out. A philosophy based approach which is Systematizing Design Approach (SDA) has proposed

(Sung and Chiang, 2014) for giving a practical recovery frameworks.

Required Medical Administration: Most concerns identified with the wasteful prescription procedure are tended by IOT. An inescapable and preventive prescription the board framework is proposed in (Yang *et al.*, 2014) for tending to the issues identified with the prescription administration.

An approach for Wheelchair administration: Wheelchair is a mechanized extraordinarily approach intended for the crippled people. The movements of the wheelchair are observed utilizing a mechanized framework. In (Pang *et al.*, 2014), there has been an approach working on Wireless Body Sensor based Network has proposed for observing remote pulse rate, ECG instruments, control actuators or working on analyse location.

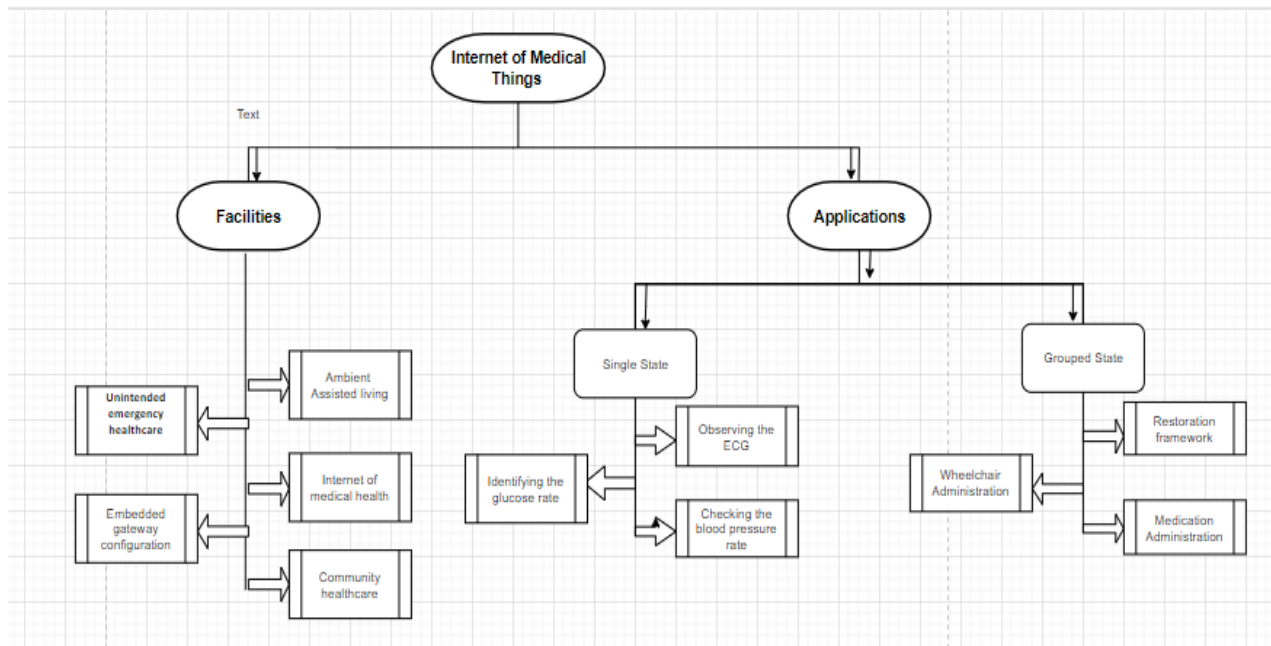


Figure.3. Structure of Internet of medical things

Table1: Assessment and Analysis of Health based Applications

Medical based Applications of IoT and IoMT		
Related Authors and References	Performances	Qualities and Drawbacks
(Mohamed and Abdel latif 2019)	Wearable and implanted electronics device sensors by using a Matlab, Arduino Board, and C#.	Working on developed sensor devices.
(Qureshi and Krishnan 2018)	Investigation of the wearable hardware devices and components that are used in Internet of Medical Things	Faster hardware based techniques used in IoMT
(Hatzivasilis <i>et al</i> 2019)	Design an intelligent technique that can sense the heart-beat and high temperature of the patients	Working on different sensors used for the health care of different patients

(Chiang and Sung 2012)	Working on an advanced approach which is called swarm optimization has been proposed for upgrading the multi-sensor information estimation	Improved data synthesis based working, Offered proper health care management
(Hassan alieragh, <i>et al</i> 2015)	Examined the difficulties of IoT in medicinal services checking	Less expenses, Development in social insurance
(Bhoomika and Muralidhara 2015)	Planned a MCP6004 centred heartbeat oximeter and DS1820B heat sensor for observing the pulse of the enduring person.	The planned framework was not progressed, The enduring persons observing framework was working nonstop.

Table2: Analysis of Health based Applications Safety Threats

Fears/ Harms	Related Authors and References	Performances	Qualities and Drawbacks
Privacy	(Kothmayr <i>et al.</i> 2015)	Working on the advancement of Transport Layer security which is properly known as DTLS Datagram Transport Layer Security and this convention has been proposed for the era of Internet of things	Short balancing, Better usage of information
Verification	(Park and Kang 2016)	A gadget confirmation and term key dissemination framework has recommended as giving intellectual peer-to-peer correspondence	Secure the repetition assaults, center line assaults, Advanced execution, and Assessed the term key in advance for the advancement in the technology.
Confidentiality Control	(Hatzivasilis <i>et al.</i> 2019)	Theses controls must be deployed in IoMT plans such as uses of smart phones and tabloids in order to access the process and deliver medical data	Advancement in control technologies
Access controller	(Mahalle, <i>et al.</i> 2012)	Worked on two different algorithms first one is Identity Establishment and Capability based Access control system convention in which most unique cryptography technique has been used known as Elliptic Curve Cryptography (ECC), these algorithms has been recommended for the safety features assaults.	Predicted assaults, for example, Centred based assault, repetition assault, or refusal of-administration assault, Capable for enormous balance in between gadgets
	(Liu, <i>et al.</i> 2012)	Measured the several verification and assess resistor approaches	Prohibited the following outbreaks, Snooping, Main access control assaults
	(Cao, <i>et al.</i> 2010)	Recommended a continuously, anonymizing spilling information by means of versatile clustering (stronghold) model for safeguarding the protection	Observes the delay of limitations, Have the capability to holder ℓ -diversity, Resourceful
Confidentiality	(Yang and Fang 2011)	Investigated the contrast between optional access and constrained access	Secure the confidentiality risks, Secure the cloning of delicate records
	(Bao and Chen 2012)	A unique trust the board convention was proposed for taking care of the disturbed hubs	Best than non-trust-based facility configuration
Attribute based Encryption	(Wang <i>et al.</i> 2014)	Observed the working of different algorithms that are based on the encryption of data transmission likewise Attribute-Based Encryption (ABE), Key-Policy Attribute based Encryption (KP-ABE), and	The estimation effects verified that the ABE was best for the IoT

		the other one is Cipher-Text Policy Attribute based Encryption (CP-ABE) and so on.	
	Mahajan and Sachdeva 2013)	Observed advance level encryption techniques likewise AES, DES, and RSA algorithms	Quicker encryption techniques, Quicker decryption techniques, Recommended advanced safety Recipient and sender based algorithm, Enough speed rate for encryption method
Data Encryption Algorithm	(Mahajan and Sachdeva 2013)	Examining and working on three different types of algorithms likewise AES, DES, and RSA are one of these.	
	(Hussain, 2015)	Proposed restructured or improved algorithms for giving the approval of improvement in safety of RSA algorithm	Presented the application for the improvement in the safety of the RSA algorithm which is K-Nearest Neighbour, on the other hand, the developed safety rate had not acceptable.
Rivest-Shamir-Adleman Algorithm	(Mahajan and Sachdeva 2013)	Presented different cryptographic based algorithms likewise AES, DES, and RSA	<ul style="list-style-type: none"> ○ Single sided based algorithm ○ Less rate of encryption and decryption methods

This paper contemplates the use of IoT in the ground of telemedicine. Internet of things in Smart-Medicine is going to get the revolution for further proceeds and the improvements of developing tools to offer instant cure providing to persistent ones or patients as well as observers and saves pathway of fitness record for fit individuals. We are also working on different medical or psychological issues that are co-related with the field of medical sciences and Internet of things as well. Therefore, in the field of IOMT there are different proposed models which are working on different strategies or applications.

Different diseases are even controlled using IOMT technologies, which combine both medical sciences and IoT to provide a better treatment for patients. IoT formerly accomplishes difficult calculations on these composed facts and figures that can offer fitness associated guidance. However IoT can deliver nominal health facilities to several individuals having different ages like old, young, child's etc. There are numerous crucial matters that are essential to be talked. Organization safety, IoT interoperability, active loading capability and united access tools are particular of the countless essential concerns linked with Internet of things. This research paper recommends a scheme rate policy explanation for the safety and elasticity characteristics of IoT. In this paper, the useful mechanisms are assured in safety purpose assembly, which confirms the administration of secrecy and protected action of the structure.

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