# **Impact of Sensor Technology Enhancing Corona Disease**

Md. Rahimullah Miah<sup>1,\*</sup>, AAM Shazzadur Rahman<sup>2</sup>, Md. Shahariar Khan<sup>3</sup>, Alamgir Adil Samdany<sup>4</sup>, Mohammad Abdul Hannan<sup>5</sup>, Shahriar Hussain Chowdhury<sup>6</sup>, Alexander Kiew Sayok<sup>7</sup>

<sup>1</sup>Head, Department of Information and Technology in Health and Research Associate, Northeast Medical College & Hospital Pvt. Limited, Sylhet, Bangladesh

<sup>2</sup>Associate Professor, Department of Medicine, Northeast Medical College & Hospital, Sylhet, Bangladesh

<sup>3</sup>Assistant Professor, Department of Paediatrics, Northeast Medical College & Hospital, Sylhet, Bangladesh

<sup>4</sup>Professor and Head, Department of Orthopedics, Northeast Medical College & Hospital, Sylhet, Bangladesh

<sup>5</sup>Assistant Professor, Department of Endocrinology, Northeast Medical College & Hospital, Sylhet, Bangladesh

<sup>6</sup>Professor and Head, Department of Dermatology, Northeast Medical College & Hospital, Sylhet, Bangladesh

<sup>7</sup>Associate Professor and Associate Researcher, IBEC, Universiti Malaysia Sarawak (UNIMAS), Sarawak, Malaysia

**Abstract** An explorative field observation to determine the impact of sensor networks in different parts of the human body surrounded by body boundary areas. This study was conducted in general, overweight and thin individuals with the positions of global positioning systems and processed frequencies from sensor technology. Everyone uses mobile phones for advanced communication, but none can aware of its security systems due to cutting-edge-technology. The fieldwork details the principles, recognizing the impact of radio frequency with individual's suffering from corona disease around the world. Quantitative and qualitative related sensor data were obtained from ISNAH experiment while secondary data were collected from diverse sources. The research highlights the impact of sensor networks with variable and processed radio frequencies among individual's body mass indices facilitating the light and dark environment. The study represents the obese patients suffer from corona disease dies within 7 minutes in dark environment, but 12 minutes in the light condition. These results reflect the importance of human health security that the State provides. A proposed corona control model was developed on the priority of research findings. Lastly, the study recommends future research trajectories of a new collaborative alternative approach to drive the methodological agenda and to make the sound health systems on ways to further incorporate the demanding secured sensor networks for health management.

**Keywords** Sensor networks, Body boundary, Body mass, Environment, Corona

### **1. Introduction**

Advancements of sensor technology have unlocked up new scenarios in healthcare systems [1]. This technology is actually valuable in some healthcare applications, which can be inserted into human body for treatment services [2]; [3]; [4]. Now different aging society implicates extensive medical resources, which have triggered a collective capacity of scarcities. Sensor networks are planned to fulfill the scarcities like measurement, tracking, detection and data classification, particularly the field of healthcare. A synchronized amount of medical technologies has been arranged for patients who suffer from severe disease or have urgent prerequisites. Current and customary medical methods cannot meet the requirements of patient needs in a

rahinemc@yahoo.com (Md. Rahimullah Miah)

Published online at http://journal.sapub.org/ajbe

timely fashion. Flexible and wearable health-monitoring provides a revolutionary sensor technology, which serves as an alternative to traditional diagnostic methods, putting health care data on a path that is more remote, portable, and timely [5]; [6]; [7]; [8]. These healthcare data can be used by a physician and health researcher to evaluate body conditions with a sensor technology like internet of things, artificial intelligence (AI) deep-learning algorithm [9]; [10]; [11]. Moreover, sensor technology has a great advantage on non-communicable diseases to identify the classical symptoms like corona.

The effects of the corona disease have spread rapidly in the human body as a wide-reaching, which has not increased this much in the history of the world in any other decade. The main reason is the misuse of sensor technology with global positioning systems and global navigation satellite systems through identified coordinates. The effect of which may enhance corona disease. This effect disseminates from smart mobile phone, where two thirds of the global populations are unique digital phone subscribers [12]. The sensor mobile phone is intimately kept with the body indicating variable frequency surrounding the body boundary. The corona is a

<sup>\*</sup> Corresponding author:

Copyright © 2020 The Author(s). Published by Scientific & Academic Publishing This work is licensed under the Creative Commons Attribution International License (CC BY). http://creativecommons.org/licenses/by/4.0/

sensor-technological disease. The symptoms of corona disease are cough-cold, fever, breathing problems, yawning, hiccup, sneezing, dizziness and hypnosis. In humans, several SARS group viruses are known to cause respiratory infections ranging from the common cold to more severe diseases, such as Middle East Respiratory Syndrome (MERS), and Severe Acute Respiratory Syndrome (SARS) and Ebola. The most recently discovered corona virus causes a disease is known as COVID-19 pandemic, which began as a cluster of reported cases of acute respiratory illness [37] as a new virus and disease were unknown before the outbreak began in Wuhan, China in December 2019. By the time it was characterized as a global pandemic on March 11, 2020 [38]. Till to date total confirmed cases 8385440 and total deaths 450686 [13]. Most of countries in the world are particularly susceptible to such outbreaks due to the presence of globally interconnected markets; complex emergencies in more than half of the countries; religious mass gatherings, variation in emergency care systems capacity and health systems performance within and between countries [39]; [37].

Wireless sensor networks are a huge endeavor of digital health technology, including technology dependence, which has led to frustration due to lack of proper security. Smartphones can do a lot of lucrative things at least 12 functions with a digital health sensor system [14]. The upcoming generations can do any good or harm to any human in the world through wave technology. The whole world is being unjustly abused sensor technology from cyber hackers, one after another. The heartbreaking phenomena of this frustration are the major effect of today's global corona virus in the human body.

The research is to observe the health status through the impact of radio frequency towards individuals. The aim of the study is to find out the newest innovations with interdisciplinary approaches to solve the core challenges in health sector, enhancing the corona disease spreading at national and global perspectives. It focuses on the analysis and review of the present tools to enhance disease control model in order to provide justifiable policy options by the use of sensor technology.

# 2. Research Methods

This research method was connected with the whole research procedure, including primary and secondary data collection on the priority of qualitative and quantitative data [15] at the Universiti Malaysia Sarawak (UNIMAS), Malaysia as PhD research work from October 2014 to October 2017. The method was connected with different parameters to enhance ISNAH Experiment, data collection, compilation and interpretation.

#### 2.1. Animals Selection and Study Design

All specimens were housed in a room with controlled temperature 36.4°C in cat and 36.7°C in dog with breathing rates, respiration, blood pressure and feline body mass index [16]. The experimental design was randomly divided into three experimental groups with Body Mass Index: obese, normal and thin and observed the impact of wireless sensor networks towards tracheas among them in the light and dark environments. The test samples in my study were dogs and cats. The study design was linked with different parameters, such as: field work, specimen's selection, Impact of Sensor Networks towards Animals and Human beings (ISNAH) experiment, data collection and compilation, data analysis and interpretations which listed successively as below.

#### 2.2. Field Work

The study necessitates an integration of methods used in wireless sensor networks towards animals' body and identified its implication. This envisaged the research taking in matter-of-fact, research elements to investigate the issue hoisted in the study, primarily targeted at SMART devices like telematics' users towards specimens. Telematics is a smart device, consists of scanner, recognizer, detector, global positioning systems (GPS) and global navigation satellite systems (GNSS). The fieldwork conducted in the studied area within January, 2015 to January, 2017.

#### 2.3. ISNAH Experiment

ISNAH Experiment is the novel and uniqueness experiment which includes the Impact of Sensor Networks towards Animals and Human beings. This is a multi-diversified experiment in connection with sensor technology to augment non-communicable diseases among animals and human body [17]. The study examined into two specimens, one of them is dog and another one is cat among 14 individuals for identification of this misuse application. These animals are available in the study area and suitable for the experiment. The study selected sound health two species with Feline Body Mass Index (FBMI) and other following parameters [18] as shown in Table 1.

Table 1. Two selected animals' specimens with Feline Body Mass Index (FBMI)

| Specimen | Body Temperature | Breathing Rate | Respiration (per minute) | Blood Pressure (mmHg) | FBMI |
|----------|------------------|----------------|--------------------------|-----------------------|------|
| Cat      | 36.4°C           | 210bpm         | 23                       | 121/175               | 24.2 |
| Dog      | 36.7°C           | 192bpm         | 25                       | 122/180               | 24.7 |

The experiment took at dark and light conditions. The specimens stayed in a specific geographic location and put the individual inside the iron case (size: 3.5'x 2'x2.5'). Then the measurement of individual's coordinate's location includes longitude, latitude and ellipsoid height with GPS and GNSS identifiers. From the field observation, the Automated Radio Telemetry System is more effective in darker than light environment. For this purpose, the study was examined the system with on smart cell phone, telematics device, iron cage and individual species separately Figure 1. The experiment continued at five locations with GPS position including longitude, latitude and ellipsoid height, viz. (i) Location A with light environments but no WiFi, (ii) Location B with dark and light environments including WiFi, (iii) Location C with dark and light environments including WiFi, (iv) Location D with light environments but no WiFi, (v) Location E dark and light environments including WiFi. Every experiment maintained in 5 metre and 10 metre in radius with separate GPS position. The locations of specimens were identified from sensor technology in different ways including plain, undulated, upper, lower and bottom places.

These experiments continued to identify the reflection of Automated Radio Telemetry System (ARTS) from the Telematics device via cell phone towards animals at 09:00 p.m. to 6:00 a.m. from 1 January 2017 to 28 January 2017. The location of experiment settled the specimens with the temporal coordinates through global positioning systems. Although many important moments in animal's life are difficult to study because they are rare, cryptic or occur over large spatial or temporal scales [17]. For the study of FBMI calculation, the study was used web calculator through using the rib case circumference and length of the lower back leg from the knee to the ankle.

#### 2.4. Specimens Tracking Process

The ISNAH experiment interlinked with tracking process. This process included several steps which enhanced to fulfill the censored observation. The study was observed the physical conditions including non-communicable diseases of animals like corona, diabetes, angina, heart attack, stroke, tracheal disease etc. affected by the telematics device through fluctuated radio frequency to disseminate with sensor node and distributed networks. Different stages of Tracking Process of Radio Frequency towards animals are listed (Figure 2): (i) Selective communication devices, (ii) Searching object and scanning of individual body organ, (iii) Identify body organ and light and dark environment, (iv) Censored the specimens with high, normal, low, processed and homogenous radio frequency, (v) Observed and compared the specimen status, (vi) Feedback meeting and illustrated the consequences at result and discussion.

#### 2.5. Data Analysis and Interpretation

Quantitative and qualitative related bio-sensor data were obtained through ISNAH experiment while secondary data were obtained from diverse sources. All general information regarding the occurrence of specimens, status and affected condition was checked for accuracy of the different sources and sources of information were also verified. The compiled and processed data were involved in the preparation of data master sheet and assimilated into suitable systems used in the results and other segments consecutively. The data were compiled and analyzed for presentation and interpretation using standard data analysis software like MS Office Suite 2016 and SPSS version 26.

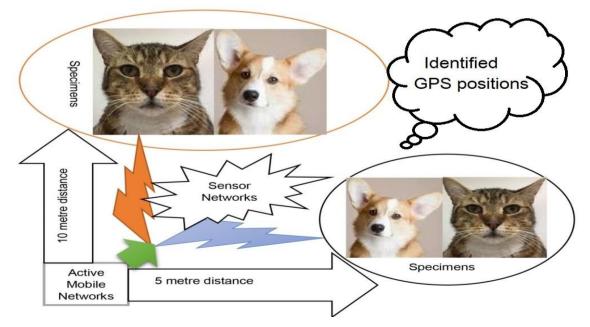


Figure 1. ISNAH experiment replicated towards animals

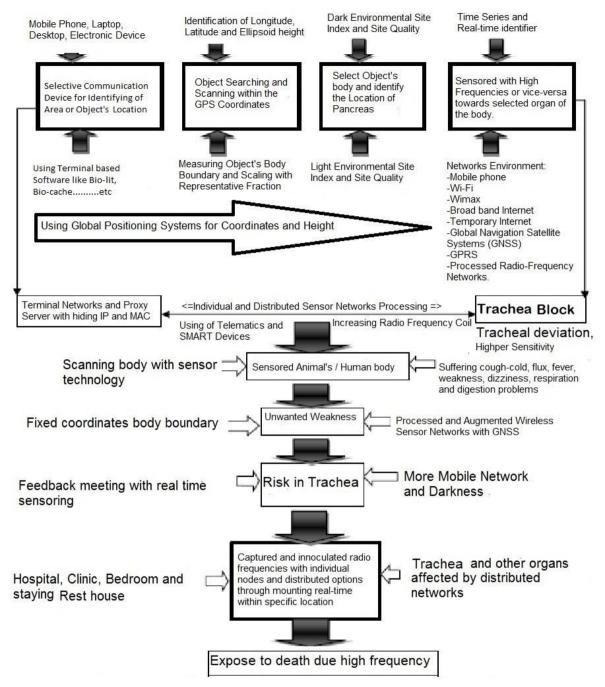


Figure 2. ISNAH process on trachea

# 3. Results

### 3.1. Tracking Time at Environment

From the study of the misuse of telematics, it was observed that the examined species cat and dog were feeling uneasy within average 10 minutes both in light and dark environment. After average 10 minutes, the obese individuals are sensored, they were felt yawning, hiccups, nausea, sneezing. They were detected laryngitis with fever in the body, breathing difficulties and tracheal infection. Normal individuals were also felt yawning, hiccups and nausea. After average 15 minutes they were felt asleep and suddenly being hypnosis. Less weighted individuals were also felt weak, vomit and sleepy after 25 minutes in light environment and 15 minutes at dark environment, which as shown in Table 2. Immediately smart phone removed and disconnected the wireless sensor network from the body area and changed the existing GPS position. If the sensored time was continued long time with high, homogenous and fluctuated radio frequencies with the sensor technology, the individuals were exposed to die. During medication time, the study was also observed that both patients are weak and felt pain at the trachea. The study identified that the patients were suffering from tracheal infection at trachea and fluctuated body temperature due to sensored frequency from telematics. The radio frequency is also affected on track effective time to individual's active body organ owing to processed and high radio frequency.

The use of unplanned wireless sensor frequencies in the tested animals resulted in the dying of the obese and elderly animals in a dark environment within 7 minutes. If the sensors had been sensed longer with the required frequency, the animals could have died instantly in the absence of adequate oxygen/electron. The dying obese suffers from breathing difficulties and tracheal problems, which are similar to the symptoms of corona disease within the stipulated times 7 minutes in dark and 12 minutes in the light environment, as shown in Figure 3. Within a certain distance, the processed radio frequency interferes with the movement of oxygen or electron to active the experimented body, especially in the throat or trachea impede the movement of electron through airway.

### 3.2. Trachea Attack with Sensor Technology

Corona is a wireless-sensing technological virus that block electron movement at the trachea. These block activities were occurring in different steps from smart devices like mobile phones, remote mobile phones, telematics or satellite phones with disseminating of fluctuated or same characteristic frequencies to infect individual's organ at GPS positions including longitude, latitude and ellipsoid height. It obstructs the movement of oxygen / carbon dioxide in various parts of the body. especially in the throat or trachea, impedes the movement of electrons in the body, and it also hampers the flow of blood in the aorta. The patients were felt yawning, hiccups, hypnosis and other respiratory difficulties within specific GPS positions. Thus, individuals were infected with different diseases, like breathing problems, laryngitis, fever, cough-cold, flux, dizziness, tracheal deviation, tracheal cancer and lung difficulties due to homogenous and fluctuated frequencies, which as shown in Figure 4. Due to lung difficulties, the patients have been suffered in respiratory distress at dark and light environment through sensor technology. In this way, the patients fall ill; eventually expose to die due to swayed frequencies. The patient's condition of corona disease are similar to my tested patients through ISNAH experiment.

Table 2. Tracking Effective Time to Trachea

| Succimons           | Light Environment |            | Dark Environment |            | Immost                     |  |
|---------------------|-------------------|------------|------------------|------------|----------------------------|--|
| Specimens           | Status            | Time       | Status           | Time       | Impact                     |  |
| Less weighted body  | More time         | 25 minutes | Less time        | 15 minutes | Weakness, vomit and sleepy |  |
| Normal body         | Average time      | 18 minutes | Affected time    | 11 minutes | Feelings uneasy            |  |
| Heavy weighted body | Less time         | 12 minutes | Less time        | 7 minutes  | Tracheal infection         |  |

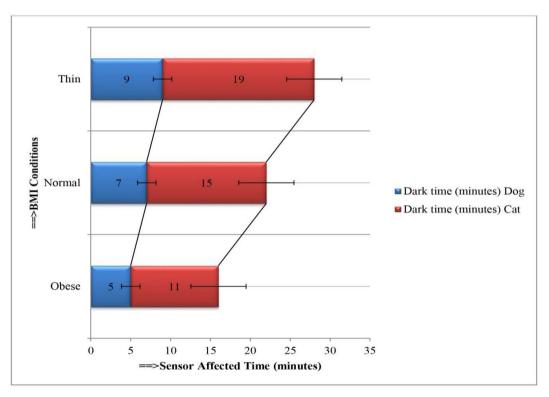


Figure 3. Sensor affected time

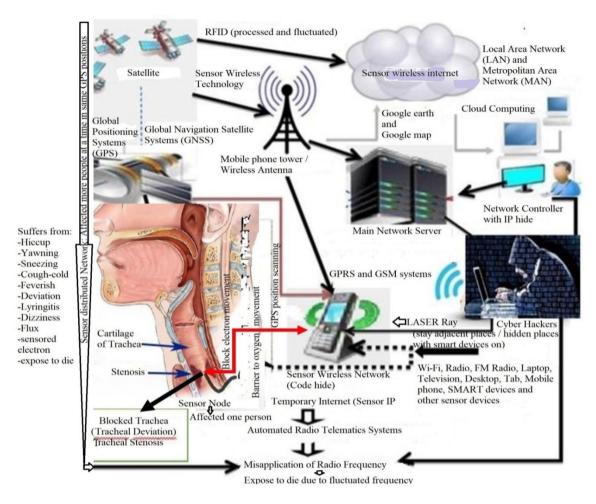


Figure 4. Corona attack with sensor technology due to fluctuated frequencies

From the findings of ISNAH experiment, I created a formula, termed as 'ISNAH Effect'. The ISNAH Effect as: "Due to active sensor technology, every human, animal or object is affected by the frequency of its movement through electromagnetic transmission within the boundaries of the body located in the GPS position, and this effect is proportional to its weight and disproportionate to its GPS position. As a result, the person, animal or object is damaged by the changing frequencies". That is, the ISNAH effect is the weight/position of the GPS of the object. Meanwhile, the application of sensor technology is augmented speedy but State policy is traditional, i.e. the applicability of sensor technology  $\infty$  1 / conventional policy. Therefore, misuse of sensor technology increases due to lack of update policy.

# 4. Discussion

The discussion on analysis of research findings on the impact of sensor technology towards human being evaluates for disseminating corona disease due to high, homogenous and fluctuated frequencies along with light and dark environment. The result of this study clearly demonstrates that the impact of sensor technology is more effective in a dark environment with infection due to misuse of wireless sensor networks for enhancing corona disease.

The study demonstrated the signs of augmenting causes of corona disease in the dark and light environment within BMI status. In the dark environment, the obesed people are more vulnerable than normal and thin individuals and vice versa in the light environment. The study illustrates to test the radio frequency of patients' coordinates by RFID detectors with GPS locations, whether the actual radio frequency pressure was abnormal in the body of those suffering from diabetes due to abuse of radio frequency. This is known through the radio frequency detector with the application of GPS towards trachea. The findings reflect the importance in corona disease through prevention and treatment that the physicians provide, which fails to recover due to access abusing sensor network security. The findings of the security of the existing sensor technology are inadequate to sustain human beings at national, regional and global perspectives, where there are some security gaps related to advanced technology.

Cyber hackers can then censor specific parts of your body to make you sick according to the distance of the frequency or to stop you from breathing through sensor technology. And if you stop breathing, your death is certain. In this way a person can be sick or killed by misusing the node frequency and by misusing the distributed frequency all the people, animals, cows, goats, poultry, birds, fish or other animals in a certain place can be sick or killed together. Cyber hackers use telematics devices to block the movement of electrons between humans, animals and objects. The advantage of using decision support interlinks with wireless sensor network [19]. Recent progress in the use of biometric identifiers and simplified electronic medical record systems will mean that this is possible [20]. Processed sensors affect the trachea, which causes abnormal, sick through cell phone sensors. Wherever individuals sleep or stay in the dark and light, whether they have a mobile phone with them or not, whether it is retina scanning, finger or voice coding, every part of the body can be detected and recorded on a sensor satellite camera. Then cyber hackers around individuals can easily get sick with various diseases.

If individuals are in an existing GPS position or bed, talk or gossip, sneeze, cough, yawning, hiccup, feeling vomit, eye problems or hard of hearing etc., they must change their existing GPS positions. All activities can never be done in the same positions or in one's own position or in bed. Otherwise the person concerned suffers from corona through misusing of wireless sensor technology. Mobile phones should never be used on the dining table, reading table, computer table or chat table in case of effective security. Everyone must use an anti-radiation device or network Jammer control unit at a specific GPS position in your location for your proper security. In this case, the cooperation of the expert office or security force of the concerned office, institution or religious institution can be taken. Otherwise cyber hackers in GPS positions will make you sick by tracking different parts of your body. The GPS devices recognize the body boundary of patients, beside the mobile phone in them. If the patients need to check radio frequency within 6 feet, the lab technicians /specialists should never allow mobile phone, Wi-Fi, wireless device or even internet connection or any relevant sensor devices. The RFID test can compare to the radio frequency of adjacent space. If the relative frequency of censored body fluctuates, then the concerned person is suffering from corona by abusing of sensor technology, otherwise, the patient is normal either urban or rural hospitals, clinics or dwelling places. The study also found the urban hospitals are in risks due to insecure sensor technology than that of rural due to most mobile phones and SMART device users.

#### 4.1. Treatment

Emergency care is a crucial part of the health treatment system and aids at the first point of huge contact around the world [40]. Corona is a novel disease that no-one can treat easily one's at a time. There are several options for corona treatment, such as: psychological treatment, medical treatment, technological treatment, herbal treatment, environmental treatment, ethical treatment, nutritional treatment and administrative treatment. The physicians assist the patients with corona treatment options that are appropriate for individuals. The patients may also need other health care professionals in his/her treatment team, including medicine doctor, nutritionist and cancer specialist etc. The improvement of corona

control team management has been still sluggish; observed in different health care facilities. Meanwhile, various performances are below par. For this purpose, scientific, healthcare sensor knowledge is indispensable for treatment with modern technological arena, but such knowledge is poorly identified. The input uniqueness of research findings of health care services should influence the impact of sensor networks within body boundaries used to deal with them. If the assessment of corona control services is allowed without due to reflection of technological information implicated, there is a huge jeopardy of distinctive sensor network only in significant impacts near to the pulverized usefulness. Designing of efficient bio-sensors for sensitive and selective measurement of specific biomarkers, is a significant step for the primary disease diagnosis, treatment, and management [21]. The psychologists give pleasure the patients uplift on 80% psychological and 20% medical treatment, which enhance corona recovery. The physicians treat the corona patients, according to the diagnosis and chief complaints with peripheral medical supplements. The patients use mobile technology to treat corona disease on the restricted extreme radio frequency. In general treatment, the patient takes a mixture of a teaspoon of lemon juice, a paracetamol (600 mg) and a glass of oral saline together. Also, he/she can eat regular amounts of garlic, black cumin, azadirach (neem) leaf powder and honey together. Sometimes the patient's bed must be changed from time to time without smartphone for good health. However, the COVID-19 pandemic signifies a stress test of global health security system [37]. The policy-makers and physicians develop the update national health policy and application of sensor technology in connection with Sustainable Development Goals 2030. However, intensive monitoring can facilitate future research to make better treatment decision-making in the creation of environmentally fundamental and innovative instruments.

#### 4.2. Treatment of corona without medication

If an individual suffers from corona, he/she should immediately change his/her existing place or change it with someone else, but no person will have any kind of mobile phone or Wi-Fi, and no talk or completely be silent during changing location. He/she must stay 2-6 feet away in each case for at least 2 to 6 minutes from a mobile phone or smart device. The network control unit or jammer machine or mobile signal isolator must be set up where the sick person stays. Whenever a person feels voice box or tracheal problems, his/her current GPS position must change in isolation immediately. The sick person should wear sunglasses over his/her eyes due to avoiding sensor LASER rays. The patients never sleep or stand lonely in the dark (slightly light) environment and he /she takes lemon-ginger tea regularly. It is important to use anti-radiation beds and mosquito nets for patients' sensor treatment.

#### 4.3. Corona Control Model

Corona is a novel disease, which is very tough to control through an individual's treatment. For dynamic treatment, the integrated control model is necessary for the present and upcoming generations. Controlling seven places for sustainable non-communicable disease management, this is to prevent the state-of-the-art of various aspects of wireless body area sensor network [22]. A good model can be very practical and provide important guidelines for treatment, clinical use and research directions. Jargon-filled and esoteric theoretical models that are not easily understood by most health care professionals will do little to advance the field of disease care [23]. In contrast, a good and practical model of corona management and education that is relevant to the above issues should satisfy some or all of the following criteria. Many models already exist for this type of distributed care where people use telemedicine for Frontline care and triage and facility-based care when it is needed [24]. The corona control scientific model enhances the awareness of free corona effect. This model shares different parameters with technological, psychological, maintenance, administrative and alternative options (Figure 5), which are interlinked with the emergency management cycle indicating prevention, preparedness, readiness, response and comprehensive recovery [42].

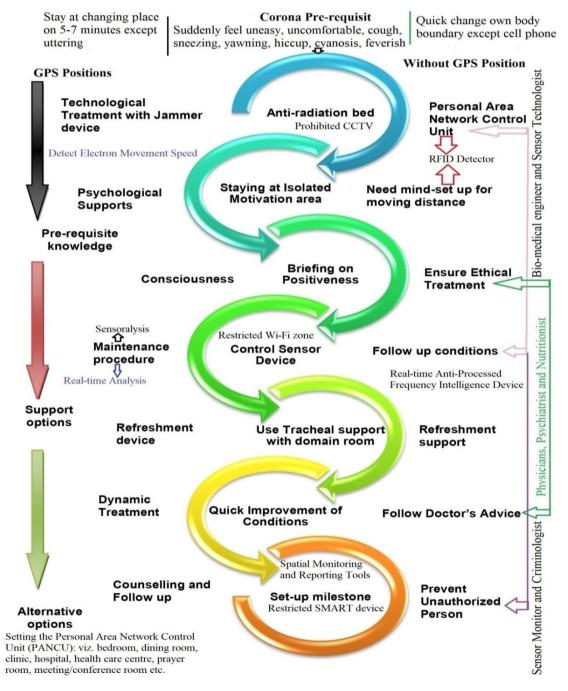


Figure 5. Corona control model

#### 4.4. Challenges for Effective Corona Treatment

Violence against health care providers has increased worldwide in the context of COVID-19 for challenging treatment [41]. But there is a huge misuse of sensor technology and cost of update technology in health management [25]. The research organization develops a set of recommendations for all countries to recover [26] corona with its challenges. The use of low-cost digital sensor devices can measure vital signs in risks [27]. At present, few low-income countries have reliable sensor data despite substantial investments in health information systems [28]; [29] but sensor security system is weak. The crowdsourcing data about providers, facilities, and health systems is likely to grow as more people with sensor in risks [30]. Artificial intelligence can be used for better individual care and diagnosis, but this is expensive and cutting-edge for developing countries [31]. For effective collaboration, the government has been working with funders and consultants to develop a digital health strategy [32] with health security system. Internet of Things, artificial intelligence, including satellite systems on a global scale are advancing. People are both using and abusing it and engaging in various misdeeds, including digital killing, digital theft, kidnapping, trafficking, electronic knives and burning objects, etc. Unauthorized fingerprint and retina scanning misuse by cyber hackers due to advance sensor technology. It is very difficult to fulfill the targets of Sustainable Development Goals 2030 within the stipulated time due to corona situations in Bangladesh.

### 4.5. Security

Sensor Network Security (SNS) is a prime concern, according to global disease threats [33]. Infrastructure-less architecture and integral desires of SNS might pretense some weak points that fascinate diverse stakeholders. Consequently, sensor security is a big apprehension when SNS are arrayed for special requirements at health care. Owing to their unique characteristics, traditional security methods of computer networks would be useless for SNS. Hence, lack of security mechanisms would cause intrusions towards those networks. These intrusions need to be detected and mitigation methods should be applied. A team of cyber hackers has created the world's most widespread corona virus with misusing of sensor technology. The ISNAH effct has shown the GPS position of human beings can be determined by coding the retina light rays of their eyes. Digital poisoning at this position interferes with the movement of electrons in the body of humans to flow oxygen through the trachea. Cyber hackers create this barrier with processed sensor networks in the trachea. This position more interested readers would refer to Butun et al.'s paper [34], regarding intrusion detection systems devised for SNS. Furthermore the aggregators can introduce false data into the summative and show the improper situational agreement with false data. Thus, while data aggregation improves energy efficiency of a network, it complicates the existing health security challenges [35]. Some areas of uncertainty

and controversy remain and further research is needed to resolve the health complications [36] with dynamic sensor network security. In this case, with the direct cooperation of the mobile phone companies and government, this will be more viable and significant. The study should demonstrate in harmony with suitable technology and health policy with Sustainable Development Goals 2030 for reconciliation between different cell phone companies and departmental agencies.

As a final point, the study advocates future corona research trajectories of a new common alternative approach to effort the methodological agenda and approvals on ways to further incorporate the challenging emergencies disease control instruments from advanced sensor technology.

### 5. Conclusions

The study has assessed the impact of wireless sensor networks towards individuals in enhancing corona worldwide. The obese patients are affected quickly in breathing difficulties at the dark environment than the bright light conditions. These breathing difficulties are to similar with the symptoms of corona disease. Based on this study, human body is not secured due to misuse of wireless sensor networks with body boundary GPS positions in the existing environment. However, the research has attempted to develop a complete scenario of the augmenting causes of corona due to reflect the high, processed and homogenous radio frequencies. The findings of this research clearly indicate that insecure telematics and excessive misuse of smart devices among rationalized generations, and traditional health policy in connection with national and global perspectives are important sources for the symptoms of non-communicable diseases. Moreover, everyone uses mobile phones for advanced communication, but none can aware of its security systems. The research has also illustrated the dynamic tools that strengthen the potentialities of sensor technology to integrate mobile phone users in decision-making and promote medical jurisprudence. Finally, the impact of radio frequency on the human body should be publicized through social media, print media, electronic media and others to extend consciousness. So as long as the cyber hacker is not caught, corona disease will not be released effectively. So, policy-makers and sensor health experts in the world must seize the opportunity to identify gaps in public health emergencies in the future.

### 6. Declarations

#### Funding

This research work is a part of PhD Thesis, which was funded by the Zamalah Postgraduate Scholarship of Universiti Malaysia Sarawak (UNIMAS), Kota Samarahan, Sarawak, Malaysia and also sponsored by the Information and Communication Technology Division (ICTD), Dhaka, Ministry of Posts, Telecommunication and Information Technology, Government of People's Republic of Bangladesh. The funders had no role in the design of the research, in data collection, analyses or final interpretation of data, in the writings of the manuscript, or in the decision to publish the findings.

### Data Availability

The data are being used to support the findings of this research work are available from the corresponding author upon request.

### **Competing Interests**

The authors declare no potential conflict of interests in this research work.

# ACKNOWLEDGEMENTS

The authors acknowledged the authority of Universiti of Malaysia Sarawak (UNIMAS), Sarawak, Malaysia for providing the Zamalah Postgraduate Scholarship for the completion of the PhD degree. The authors are also grateful to the authority of the Information and Communication Technology Division (ICTD), Ministry of Posts, Telecommunication and Information Technology, Government of People's Republic of Bangladesh, for a PhD Fellowship during the higher study in Malaysia. The authors acknowledged the authority of Northeast Medical College & Hospital (NEMCH) Pvt. Limited, Sylhet, Bangladesh for kind supports.

# REFERENCES

- Priya, S.P., Chowdary, V.A. and Dinesh, V.S. (2013). Wireless sensor networks to monitor Glucose level in blood. *International Journal of Advancements in Research & Technology*, 2(4): 322–326.
- [2] Chaudhary, D. and Waghmare, L.M. (2014). Design Challenges of Wireless Sensor Networks and Impact on Healthcare Applications. *International Journal of Latest Research in Science and Technology*, 3(2): 110–114.
- [3] Abidi, B., Jilbab, A., and Haziti, M.E.L. (2016). Wireless Sensor Networks in biomedical: wireless body area networks. In: Proceedings of the Europe, Middle East and North Africa Conference on Technology and Security to support Learning. EMENA-TSSL, SaidaOujda, Morocco, 3–5.
- [4] Wu, F., Xu, L., and Kumari, S. (2017). An Improved and Anonymous two factor authentication protocol for healthcare applications with wireless medical sensor networks. *MultimedSyst*, 23 (2), 195–205.
- [5] Kim D H, Lu N, Ma R, Kim Y S, Kim R H, Wang S, Wu J, Won S M, Tao H, Islam A, Yu K J, Kim T I, Chowdhury R, Ying M, Xu L, Li M, Chung H J, Keum H, McCormick M, Liu P, Zhang Y W, Omenetto F G, Huang Y, Coleman T, Rogers J A. (2011). Epidermal electronics. *Science*, 333(6044): 838–843. DOI:10.1126/science.1206157.
- [6] Gao W, Emaminejad S, Nyein H Y Y, Challa S, Chen K, Peck A, Fahad H M, Ota H, Shiraki H, Kiriya D, Lien D H, Brooks

G A, Davis R W, Javey A. (2016). Fully integrated wearable sensor arrays for multiplexed *in situ* perspiration analysis. *Nature*, *529*(7587): 509–514. DOI:10.1038/nature16521.

- [7] Wang X W, Gu Y, Xiong Z P, Cui Z, Zhang T. (2014). Electronic skin: silk-molded flexible, ultrasensitive, and highly stable electronic skin for monitoring human physiological signals. *Advanced Materials*, 26(9): 1309. DOI:10.1002/adma.201470054.
- [8] Sheridan C. (2014). Apple moves on health, drug developers shift into smart gear. *Nature Biotechnology*, 32(10): 965–966. DOI:10.1038/nbt1014-965a.
- [9] Zang Y P, Zhang F J, Di C A and Zhu D B. (2015). Advances of flexible pressure sensors toward artificial intelligence and health care applications. *Materials Horizons*, 2(2): 140–156. DOI:10.1039/c4mh00147h.
- Zhao W X, Bhushan A, Santamaria A, Simon M and Davis C.
  (2008). Machine learning: A crucial tool for sensor design. *Algorithms*, 1(2): 130–152. DOI:10.3390/a1020130.
- [11] Vu C. and Kim J. (2018). Human motion recognition by textile sensors based on machine learning algorithms. *Sensors*, *18*(9): 3109. DOI:10.3390/s18093109.
- [12] Pouschter, J. and Stewart, R. (2016). Smartphone ownership and Internet usage continues to climb in emerging economies but advanced economies still have higher rates of technology use. Pew Research Center. url: http://www.pewglobal.org/20 16/02/22/smartphone-ownership-and-internet-usage-continu es-to-climb-in-emerging-economies/, (accessed 2020, June 19).
- [13] WHO. (2020). Corona disease (COVID-19). Situation Report -151 (June19, 2020). World Health Organization, 1-17. url: www.who.org (Accessed time: June 20, 2020 at 10:00 am national time).
- [14] Labrique, A.B., Vasudevan, L., Kochi, E., Fabricant, R and Mehl, G. (2013). MHealth innovations as health system strengthening tools: 12 common applications and a visual framework. *Global Health: Sci Pract*, 1(2): 160–71. doi:10.9745/ghsp-d-13-00031.
- [15] Kothari, C.R. (Ed.). (2004). Research Methodology: Methods and Techniques (2<sup>nd</sup> ed.), New Age International Publishers, 95–111.
- [16] Sha, H., Zeng, H., Zhao, J., & Jin, H. (2019). Mangiferin ameliorates gestational diabetes mellitus-induced placental oxidative stress, inflammation and endoplasmic reticulum stress and improves fetal outcomes in mice. *European Journal of Pharmacology*, 859: 172522. DOI:10.1016/j.ejphar.2019.172522.
- [17] Kays, R., Tilak, S., Crofoot, M., Fountain, T., Obando, D., Ortega, A., Kuemmeth, F., Mandel, J., Swenson, G., Lambert, T., Hirsch, B. & Wikelski, M. (2011). Tracking Animal Location and Activity with an Automated Radio Telemetry System in a Tropical Rainforest. Published by Oxford University Press on behalf of the British Computer Society. *The Computer Journal*, 1(1): 1–18, doi: 10.1093/comjnl/bxr072.
- [18] Waltham. (2017). Feline Body Mass Index (FBMI). Waltham FBMI Calculator. 1–2. url: https://jscalc.z6\_io/calc/hORP8x 2bWjQU7qxq.
- [19] Mitchell, M., Hedt-Gauthier, B.L., Msellemu, D., Nkaka, M.

and Lesh, N. (2013). Using electronic technology to improve clinical care – results from a before-after cluster trial to evaluate assessment and classification of sick children according to Integrated Management of Childhood Illness (IMCI) protocol in Tanzania. *BMC Med Inform Decis Mak*, *13*(1): 95. doi:10.1186/1472-6947-13-9.

- [20] Zuniga, A.E., Win, K.T., Susilo, W. (2010). Biometrics for electronic health records. J. Med Syst, 34(5): 975–83. doi:10.1007/s10916-009-9313-6.
- [21] Babamiri, B., Bahari, D., Salimi, A. (2019). Highly sensitive bioaffinityelectrochemiluminescence sensors: Recent advances and future directions. *Biosensors and Bioelectronics*, 111530. DOI: https://doi.org/10.1016/j.bios.2 019.111530.
- [22] Khan, R.I. and Pathan, A.S. (2018). The state-of-the-art wireless body area sensor networks: A survey. *International Journal of Distributed Sensor Networks*, 14(4): 1–16. DOI: 10.1177/1550147718768994.
- [23] Glasgow, R.E. (1995). A Practical Model of Diabetes Management and Education. *Diabetes Care*, 18(1): 117–126.
- [24] Bashshur, R.L. Howell, J.D., Krupinski, E.A., Harms, K.M., Bashshur, N., Doarn, C.R. (2016). The empirical foundations of telemedicine interventions in primary care. *Telemedicine E-Health*, 22(5): 342–75. doi:10.1089/tmj.2016.0045.
- [25] Mitchell, M. and Kan, L. (2019). Digital Technology and the future of Health Systems. Health Systems & Reform, 5(2), 11-120, DOI: 10.1080/23288604.2019.1583040.
- [26] WHO. (2019). WHO developing guidelines for recommendations on digital health interventions for RMNCAH and health systems strengthening. url: https://who.int/reproductivehealth/topics/mhealth/digital-hea lth-interventions/en/? [accessed 2019 Jan 19].
- [27] Dias, D and Cunha, J.P. (2018). Wearable health devices vital sign monitoring, systems and technologies. *Sensors*, 18(8): 2414. doi:10.3390/s18082414.
- [28] Wyber, R., Vaillancourt, S., Perry, W., Mannava, P., Folaranmi, T., Celi, L.A. (2015). Big data in global health: improving health in lowand middle-income countries. WHO. url: https://www.who.int/bulletin/volumes/93/3/14-139022/e n/. [accessed 2019 Jan 19].
- [29] Bram, J.T., Warwick-Clark, B., Obeysekar, E., Mehta, K. (2015). Utilization and monetization of healthcare data in developing countries. *Big Data*, 3(2): 59–66. doi:10.1089/big.2014.0053.
- [30] Baker, W.E. (2009). Evaluation of physician competency and clinical performance in emergency medicine. *Emerg Med Clin North Am*, 27(4): 615–26. doi:10.1016/j.emc.2009.07.010.
- [31] Ross MK, Wei W, Ohno-Machado L. (2014) Big data and the electronic health record. *Yearb Med Inform*, 9:97–104. doi:10.15265/IY-2014-0003.
- [32] WHO. (2016). Global observatory for eHealth. Geneva

(Switzerland): Malawi. World Health Organization. url: https://www.who.int/goe/policies/countries/mwi/en/ [accessed 2019 Jan 19].

- [33] Agarwal, N. and Hussain, S.Z. (2018). A Closer Look at Intrusion Detection System for Web Applications. *Security* and Communication Networks, 1–28. DOI: https://doi.org/10.1155/2018/96013.
- [34] Butun I., Morgera S., Sankar R. (2014). A survey of intrusion detection systems in wireless sensor networks. *IEEE Commun. Surv. Tutor*, 16: 266–282.
   DOI: 10.1109/SURV.2013.050113.00191.
- [35] Butun I., Ra I.H., Sankar R. (2015). PCAC: Power-and Connectivity-Aware Clustering for Wireless Sensor Networks. *EURASIP J. Wirel. Commun. Netw.*, 1:1–15. DOI: 10.1186/s13638-015-0321-6.
- [36] Forouzanfar M.H., Alexander, L., Anderson, H.R., Bachman, V.F., Biryukov, S., Brauer, M., Burnett, R., Casey, D., Coates, M.M., Cohen, A., Delwiche, K., Estep, K., Frostad, J.J., Astha, K.C., Kyu, H.H., Moradi-Lakeh, M., Ng, M.... *et al.*, (2015). Global, regional, and national comparative risk assessment of 79 behavioural, environmental and occupational, and metabolic risks or clusters of risks in 188 countries, 1990-2013: a systematic analysis for the Global Burden of Disease Study 2013. *Lancet*, 386(10010): 2287-323. DOI: 10.1016/S0140-6736(15)00128-2.
- [37] Mowafi, H; Sakr, H; Ravaghi, H; Elmahal, O; Slama, S; Samhouri, D. and Relan, P. (2020). Leveraging the COVID-19 response to improve emergency care systems in the Eastern Mediterranean Region. East Mediterr Health J. 2020; 26(6): 626-629. https://doi.org/10.26719/2020.26.6.62 6.
- [38] WHO (World Health Organization). (2020). Media Briefing. WHO Director-General's opening remarks at the media briefing on COVID-19. Geneva: World Health Organization; 11 March 2020. (https://www.who.int/dg/speeches/detail/wh o-director-general-s-opening-remarks-at-themedia-briefing-o n-covid-19---11-march-2020, accessed 26 March 2020).
- [39] WHO (World Health Organization). (2005). WHO Eastern Mediterranean Region: Joint External Evaluation Mission Reports. Geneva: World Health Organization; 2005.
- [40] WHO (World Health Organization). (2018). Emergency Care System Framework. Geneva: World Health Organization; 2018.(https://www.who.int/publications-detail-redirect/whoemergency-care-system-framework, accessed 17 June 2020).
- [41] McKay, D., Heisler, M., Mishori, R., Catton, H., Kloiber, O. (2020). Attacks against health-care personnel must stop, especially as the world fights COVID-19. *Lancet*, 395(10239): 1743-5.
- [42] WHO (World Health Organization). (2020). Investing in and building longer-term health emergency preparedness during the COVID-19 pandemic: Interim Guidance for WHO Member States, July 2020. Geneva: World Health Organization; 2020 (WHO/2019-nCoV/Emergency\_Prepare dness/Long\_term/2020.1). Licence: CCBY-NC-SA 3.0 IGO.