

New Countermeasures against COVID-19 with the 4th Industrial Revolution Technologies

Byungwan JO*, Junho JO, Junghoon K and Jaehuck L

Department of Civil, Hanyang University, Seoul, Korea

***Corresponding author:** Byungwan JO, Department of Civil, Hanyang University, Seoul, Korea. Tel: +82-2-2220-0327; E-mail: bwcho@hanyang.ac.kr

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[Prologue]

We are under threat : The threat of global warming, extreme weather, and changes in ecosystems. The seriousness of the threat, however, ebbs in the face of illusive convenience that modern people are accustomed to. Alarmed scientists devising countermeasures are almost invisible to the public, who are oblivious of prediction and methods of scientific response to various global emergencies such as the COVID 19 epidemic.

The public perception exemplifies the current status of amazing science, such as quantum field theory and law of relativity with Industry 4.0 revolution technologies . However, in the face of the global turmoil, severe global warming and catastrophic pandemic infection, no use could be derived from unmanned driving vehicles, flying taxi, artificial intelligence , robot , genetic engineering for the human life expectancy of 500 years all wasted imaginations. Sodom and Gomorrah in the Bible forgot God's gift an admonition is blaring to mankind, submerged in hedonism and comfort. And the longing for pleasure blinds mankind from seeing the quantum energy fields as the origin of the universe and the grand transition of the micro virus ecosystems, napping in the face of the catastrophe of energy fields on the earth.

The lens to global warming shall expand to include the micro virus ecosystem according al warming shall expand to include the micro virus ecosystem according to the changes in energy fields beyond temperature increase and abnormal weather. to the changes in energy fields beyond temperature increase and abnormal weather. The frenzy of COVID--19 shall not call for the myopic solution, vaccine.19 shall not call for the myopic solution, vaccine. Devising quantum biology-based and fundamental actions and fundamental actions with with industry industry 4.0 revolution 4.0 revolution technologies technologies shall start today, at this moment. Shall start today, at this moment. The admonition and tour de force tour de force of of medical doctors and nurses medical doctors and nurses shall be rewarded. shall be rewarded. This report is report is a part of the effort to countermeasure global pandemic infection beyond a part of the effort to countermeasure global pandemic infection beyond the the development of Vaccine, or treatment development of Vaccine, or treatment, and to donate the solution of exit, and to donate the solution of exit-economy economy amid COVID-19.

The suggestion made here is to establish the Industry 4.0 Pan-

demie Platform for the Platform for the next e next generation with current possible ICT technologies.

And this report solemnly seeks your participation and collaboration solemnly seeks your participation and collaboration together together to stop the to stop the spread of COVID spread of COVID-19 and possible next pandemic and possible next pandemic. The Industry. The Industry 4.0 Pandemic Platform is a globalis a global--scale collective intelscale collective intelligent platform capable of auto ligitent platform capable of autonomous response and response and disaster prediction via artificial intelligence based on the disaster prediction via artificial intelligence based on the forth industrial revolution trial revolution technologies.

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New Countermeasures against COVID-19 with the 4th Industrial Revolution Technologies Global Status of COVID-19 Infectious Diseases In 2020:

The first case of COVID-19 was reported on November 17 as a case of a 55-year-old man in Wuhan, China. After some period of seemingly stabilizing number of cases, it spiked again. As of the end of June 2020, there were about 90,000 confirmed cases in China and about 5,000 death.

The contributing factors were rigorous yet unreliable measures implemented by each region, such as the blockade of Wuhan and stay-home orders. However, as the number of confirmed persons worldwide exploded to over 20 million with climbing deaths to about 800,000 and beyond as of August, 2020, it has established itself as an unprecedented global catastrophe.

The affright fact is the presence of millions of more confirmed cases and deaths worldwide that are not reported due to fallible national statistics. What we know would be a small fraction of the total number of victims. Furthermore, the number of asymptomatic cases is unknown, barricading any ease on the dire circumstances.

By developing a test method to ascertain an antibody, the number of people who have been or are infected with COVID-19 can be identified. Only then, the potency of COVID-19 will be fully understood.

World War II was the second World War that lasted from 1939 to 1945. Initiated with three countries, WWII became the worst war in the history of humanity as the Allied Forces fought against the three countries. It had the highest number of catastrophes to date. More than 70 million people, including civilians and soldiers, died, and the center of world hegemony was transferred from Western Europe to the U.S. and Soviet Union. The history witnessed dozens of events that would be directly linked to WWII, such as the Korean War and the Cuban missile crisis. Although the Cold War has ended, the nuclear weapons of the great powers are maintained at tens of thousands of missiles. As such, the specter of power and economic confrontations around the world persist everywhere, reeking their sanguinary past. And with the emergence of a new genetically modified, COVID-19, the globe is reminiscent of the war similar to the WWII against the nature, involving global-wide prohibition on travel. The coronavirus, of which official name is Sars-CoV-2, is known to have caused a mass infection in the animal market of Wuhan and is closely related to the virus that infects bats. However, it is reported that the virus has passed via other animals such as snakes and saccharomyces before it spreads to humans from bats.

The type of a viral vector animal or environmental conditions triggering genetic mutations is unbeknownst. There is a possibility of the second wave of the pandemic.

Thus, as important as developing a vaccine, the true enemy is in the micro natural ecosystem change due to global warming. We must fundamentally prepare for the cause and spread of the new virus, identification of the infection path, and the establishment of the AC (Autonomous Collaboration) Prevention Platform at the city, national, and global levels based on advanced science & technology, such as Einstein's law of relativity, quantum field theory and the 4th industrial revolution technologies.

Identification Of The Cause Of The Pandemic Infectious Diseases, Future Predictions, And Prevention Global cases of pandemic infectious diseases:

Pandemic is a spread of contagious or infectious diseases. These diseases spread across continents, even globally. However, the widespread onset disease recognized by many people, such as colds, is not a pandemic disease but an endemic. Also, seasonal flu among influenza is not categorized as a pandemic. Historic massive pandemics include smallpox and tuberculosis. Recent pandemic epidemics were the Human Immune Deficiency Virus (HIV), 2009 influenza, and COVID-19 pandemic. One prominent example is the plague pandemic that swept the Byzantine Empire, the Sasanian Empire, and the Mediterranean coast from 541 to 542 AD (the second outbreak continued until 750 AD). It was one of the most horrific plague pandemics of all time, taking the lives of between 25 and 50 million people. Justinian himself was said to have survived after being infected. The total number of deaths in Black Death Pandemic of Europe (Second Pest Pandemic) was estimated at 75 million. It was the first plague in Europe since the last outbreak A.D.800. The disease started in Asia then infected a third of all Europeans, 2-30 million people, for six years in the Mediterranean and Western Europe in 1348, and half of the urban areas were impacted. This became a pandemic cycle of European epidemics until the 18th century. For instance, in the U.K., the plague returned with a two- to five-year cycle from 1361 to 1940. In 1370 the population of England was reduced by 50%, and the Great Plague of London from 1665 to 1666 was the last secondary pest pandemic. Diseases sacrificed 100,000 people in London, killing 25% of its population. The Third Pest Pandemic began in China in the mid-19th century, spreading across the continent before killing over 10 million people in India.

Identification & Future Prediction Of Pandemic Infectious Disease

As global warming proceeds three times faster, macroscopic and microscopic scientific responses to severe climate and ecosystem changes are urgently required. So far, numerous scientists and policymakers have strived considerably on green energy and environmental infrastructure policies of the future at city levels to reduce greenhouse gas and carbon dioxide emissions to prevent global warming. Medical experts have also contributed to human health by sparing no effort to cure and develop vaccines. However, the recent COVID-19 pandemic panic seems to enlighten humanity about the earth and human civilization at an unprecedented dimension of global catastrophe. We believe that our green planet is the only planet where the human ecosystem exists among hundreds of billions of planets. Still, we are indiscriminately developing underground resources without appreciating the natural ecological environment, damaging the tropical forests of Amazon and Africa,

destroying and the underground ecosystem by extensive underground nuclear tests. Instead, we are leisurely enjoying the advanced information and communication civilizations connected with smart phones.

However, the recent COVID-19 pandemic exposes the vulnerability of human civilizations that have fallen into a pride with urban and national blockades and stay-home orders. It unveils that human civilization can not spare a proper response. Indeed, unmanned autonomous vehicles, flying cars, drones, AI robots, and space travel are of no use, which mirrors the reality of humanity whose eyes are blinded by the convenience of modern times.

Before pursuing our happiness and convenience with the Fourth Industrial Revolution and the Fifth Industrial Revolution, we must rehabilitate our body—the natural health of the earth by the accumulated advanced science, technology, and industrial capacities, which has fallen seriously ill, contaminated and aged. More fundamental and invisible micro and nanovirus ecosystem alterations are preparing for a precursor to the fall of mankind as a counterattack of Mother Nature via pandemic infectious diseases. These are not traditional visible ecosystem changes such as cold and heat wave, a rise of sea level, frenzy of grasshoppers, and climate and ecosystem changes of global warming due to greenhouse effect.

Accordingly, the collective intelligence platform—collective intelligence platform of a global-scale is urgently required that accurately identifies environmental conditions, genetic variations, and infectious pandemics such as COVID-19, MERS, SARS, EVOLA, and Hong Kong Flu with artificial intelligence, machine learning, and deep learning platform. In doing so, humanity will seek scientific causes in Einstein's theory of relativity and the equivalent laws of earth's mass and energy to examine the rapidly changing green earth's creation and movement. In the Quantum Field Theory, a state-of-the-art science of the 21st century, nano-sized viruses are assumed to consist of (u, d) quarks and electron energy fields according to 17 quantum standard models. Because the viruses also appear and disappear from quantum zero-point with the energy = mass, $E = mc^2$ according to the environmental fields, the gene mutation process can be analyzed in quantum mechanical energy wave principles. This development of AI analysis platform in the concept of 4th industrial revolution is necessary as it will uncover the cause of new virus pandemics and anti-virus countermeasures, which we shall do as the latest scientific avenue.

Global Pandemic Infectious Disease Prevention & Disinfection Method

Thankfully, the global screening and treatment cases of pandemic infectious diseases for the past 30 years have been well preserved as digital data in modern hospitals. Thus, C.T imaging images, medical treatments, prescriptions, response situations, changes in the environmental status of the first origin and patients (temperature, humidity, carbon dioxide concentration, P.H., regimen), and the genetic variation conditions shall be synthesized comprehensively. By doing so, the discovery of the cause of genetic mutations in the infectious and quantum dimensions along with artificial intelligence and super (or quantum) computers, and prediction and prevention of next pandemic infectious disease can be achieved. In the case of COVID-19 universally experienced worldwide, the whole world, country, and city are utilizing the quarantine method such as state blockade, city blockade, home isolation, mask-

wearing, keeping 1.5m distance, drive-through, which are ironically showing compelling results in the cutting edge of the Fourth Industrial Revolution. Urban health and infection policymakers have always been sparing no effort to develop vaccines and treat patients. Still, it should be reflected that the urban infrastructure has wholly failed to incorporate city-wide disease prevention and disinfection, even in the era of the Fourth Industrial Revolution.

Since most pandemic infectious diseases influx from overseas, the first step for prediction, prevention, response, and recovery shall be based on automatically quarantine passengers in the area at airports or ports based on the Internet of Things (virtual sensors, thermal image sensors) or smartphone apps. These are the core of urban disaster prevention. An artificial intelligence platform can be developed to recognize the situation as an automatic information platform (Web 2.0) according to the information on the outbreak of overseas infectious disease. In the next step, suspected or confirmed patients are automatically transferred to a nearby treatment hospital by a smart infectious disease ambulance from the airport and marine port. The location tracking function will be powered with the app. In economically wealthy cities, artificial intelligence autonomous robot-based unmanned hospitals, digital screening doctors, nurses, unmanned vehicles, goods, and drug delivery infrastructures can be incorporated.

At the city level, AI CCTVs of people's gatherings and public facilities should be linked to thermal cameras. At schools, public institutions, corporations, restaurants, and shopping, the platform infrastructure, it will automatically determine access by checking the fever, I.D., and visits to infected areas with artificial intelligence. This prevents the spread of urban infection, promptly alerting or sharing information on infection and prevention in connection with beacons. At this time, citizens' cooperation is absolutely necessary to prevent and disinfect the spread of urban infections by complying with 1.5m social distance and wearing a mask regulations. And a real chain-based urban prevention platform is required to improve the problems of blockchain to encourage voluntary participation, sacrifice and service. This is also to repay gratitude.

A platform, which is called a real chain that amalgamates the Internet of Things (IoT), Virtual & Reality System (CPS), Blockchain, and artificial intelligence (Machine Learning) technology is needed to cope with urban pandemic infectious diseases of smart city in the era of the Fourth Industrial Revolution.

Measures For An Emergency Response To Pandemic Infectious Diseases

In the early periods of pandemic infectious diseases, comprehensive measures and responses at the local government level are as follows.

Step 1: Investigate the current status of infection disease, capacity of quarantine & treatment resources, treatment beds, ICU, ventilators

Inform the Response Guideline to Airport, Hospital, Public & Private Organizations, Business sector, Sports sector.

Check the # of doctors & nurses, ambulances per patients, then propose the alternative solutions from retired doctors, nurses or military.

Prepare as many as possible Diagnostic Corona virus Kit , KF94 mask, Protecting medical gown & goggle, Disinfectants. Global network may provide million # of masks & Kit,

Quick change of normal hospital to ICU negative pressure hospital using simple units,

To secure the hospital ICU bed of Corona patients, normal chronically ill long-stayed patients in the Corona hospital moved to Temporary Medical Center, which was changed from social Training Center, Dormitory, Hotel...

Step 2 : After shut down the city & island, close all business shops, churches, temples, schools,

Provide the Drive-thru & Walking-thru quick temporary window for local restaurants food, drug, water, bread, fruits, daily supplies and diagnostic clinics for infection test.

Declare & Certify the Clean Activity Zone without infection by Local Government

to boost Local Economy with perfect Disinfection & Social Isolation 1.5 m.

Step 3: Investigate the Corona App in the city, Android & iOS, with tracking, medical consulting, requesting the delivery of daily supplies in disinfected condition.

Step 4: Develop the Industry 4.0 ICBM Pandemic Platform with IoT connection of infection facilities, AI prediction, decision-making algorithm, Blockchain voluntary service

Smart AI Robot System of Unmanned Doctors & Nurses, Delivery of Medicine, Food, Daily Supply to Infected. Drone-based disinfection & checking social isolation & curfew

Step 5: Economy Promotion based on Industry 4.0 CPS Untact Economy & Reduction of Government Debt due to Stimulus Payment

ECU (Environmental Containment Unit) Hospital For Pandemic Infectious Disease

Patients transportation equipment, negative pressure equipment, and HEPA filters are vital to prevent the spread of infectious diseases in the hospital. However, due to the usual demand and economic barriers, even large hospitals maintain a small number of intensive care (ICU) wards and an ECU (Environmental Containment Unit). Thus, having not enough wards to treat large-scale infectious patients is a common reality. General patients in large hospitals are forced to move to local hospitals and community centers and maximize the efficiency of ICU temporarily with negative pressure devices. Or, the government even temporarily change public or private accommodation facilities in the area to ICU negative pressure wards to secure necessary hospital beds. 'ECU (Environmental Containment Unit) is essential for treatment of Corona virus, consisting of one negative pressure device (a fan) equipped with a HEPA filter and a 'tent barrier'.

This is relatively simple to switch existing general hospital rooms to negative pressure rooms within a short period of time. Normally, related equipment can be stored in the warehouse and installed in such a situation.

Unlike conventional facilities w/ negative pressure for a single bed, this equipment can be installed in the entrance or hallway to keep the ward or the entire floor at negative pressure. The medical center said after installation that the differential pressure level is -6.2pa (pascal) to meet the general minimum standard of -2.5pa for installing negative-pressure rooms. To secure the hospital beds of Corona patients, normal chronically ill long-stayed patients in the Corona hospital moved to Temporary Medical Center, which was changed from social Training Center, Dormitory, vacant motels. In order to secure an emergency room, a tent and a container-based negative pressure wards ICU are considered on large public lands. A hospital

ship or cruise ship can be used as ICU wards in a coastal city. In addition, a city can build an unmanned telemedicine booth infrastructure to receive screenings, treatments, and health advice with artificial intelligence virtual doctors.

These can be operated as a one-person lounge, music room, and health counseling room as a café during regular times.

Test Kit For Pandemic Infectious Disease:

Test methods for diagnosing pandemic infectious diseases feature gene amplification and rapid diagnosis using blood. Generally, the technique is used in places with a good medical environment as a diagnosis of the infection by amplifying the genetic material (ribonucleic acid and RNA) of COVID-19 from the patient sample by performing real-time gene amplification test (RT-PCR).

In underdeveloped countries where large amounts of genetic testing are difficult due to issues of workforce and cost, IgG/IgM antibodies that occur naturally in the body are tested in response to COVID-19 antigens. The advanced lab-on-a-chip platform that integrates semiconductor design technology (MEMS) into bio is a rapid and accurate diagnosis. In preparation for the next pandemic, an Internet-of-Things-based inspection kit can be developed. The kit is easy to use at home by the general public, of which results are automatically inputted to the pandemic platform of the CDC based on interactive communication, allowing the hospital to concentrate on precise diagnosis and treatment.

The test kit for identifying patients in a pandemic infectious disease situation is so crucial that it shall be prepared at the national level. The existing test kits used secretion, body fluid, blood gene amplification, or antibody diagnosis. However, with the advent of asymptomatic coronavirus patients, we can consider the energy wave and spectral concept sensing method of quantum biology and artificial intelligence based virtual sensor method as a more fundamental approach.

Investigation And Cure For COVID-19

The 2019-nCoV coronavirus ("COVID-19") is a non-segmented positive-sense RNA virus with an outer cover. COVID-19 is capable of rapid mutation and gene recombination because it an error-prone RNA-dependent RNA polymerase. As of the end of July 2020, there are about 17 million confirmed cases and about 800,000 deaths. Given the statistical uncertainty of some countries, however, the damage will likely increase exponentially. Adding to the fear is the outlook that experts provide: after the second pandemic in the winter of 2020, it will persist for many years. Neither specific antiviral agent that can suppress COVID-19 nor treatment for COVID-19 exists. A remedial agent, before a vaccine, is necessary given the speed of the spread, while several countries are actively developing candidate vaccines.

The primary treatment for COVID-19 infection is supportive treatment. Upon hospitalization, strict isolation and preventive measures are implemented. Remdesivir, the treatment of Ebola virus infection, lopinavir/ritonavir, the treatment for HIV infection, and beta-interferon, the antiviral agent, were active in vitro and in mice models with MERS-CoV. Their clinical use, however, is extremely restricted. The World Health Organization (WHO) led a clinical trial named "Recovery" with a team of Oxford University researchers in the U.K. in June 2020, in the midst of COVID-19 raging around the world. The research found that the use of dexamethasone, a basic steroid formula-

tion for inflammation, on patients with a serious case of COVID-19 infection was somewhat effective. Particularly, “it became the only drug that has reduced the mortality rate so far because it saved eight lives at a low price of 50 pounds (about 60 US\$),” the researchers reported, adding, “The mortality rate was also significantly down, marking a great breakthrough.” Given the characteristics of COVID-19, developing a perfect vaccine and treatment agent is expected to be delayed, especially after the greatest damages would have already been suffered. Indeed, different strains of COVID-19 are springing up in the U.S. and Europe. As such, the most evident vaccine and treatment would be the [citizen participation] vaccine-self-isolation as the most effective measure against droplet and respiratory system infection and spread, wearing masks, and social distance. These Social Vaccines are necessary, in addition to Eco-Vaccine, that is, fundamentally preventing virus outbreaks with a clean ecological environment as anti-global warming. Next, more urgently needed is the development of the Digital Vaccine that prevent urban spread and infection of the virus with a non-face-to-face economic and social infrastructure vaccine. To note, the author is not an expert in the medical field. As such, I would like to propose a collective intelligence collaboration among experts in this field to treat the sugar, base, phosphoric acid, and Oxalic Acid (OH.) characteristics of COVID-19 RNA in the concept of fundamental quantum mechanical energy wave field along with plasma therapy.

Introduction Of Patents For The Prevention Of Pandemic Infectious Diseases In Cities Device and Composition of the Internet-of-Things based Detection, Prediction, and Response Platform against New Infectious Disease

Name of the Invention

IoT-based Platform Devices and Composition for New Infectious Disease Prediction and Response

[Patent Holder] Professor Byung Wan Jo,

Department of Civil and Environmental Engineering, Hanyang University.

[Patent Registration] Registration No. 10-1648625: August 9, 2016

[Technology Field]

This is about the method and device of predicting, detecting, and responding to a new infectious disease like MERS, SARS, swine flu, and COVID-19.

Background of Invention Technology: In the case of new infectious diseases, such as MERS and SARS, frequently occurring domestically and internationally, about 5 to 6 hours are required to detect infection via RNA gene testing of blood or body fluid. However, such a medical examination method is used for the determination of confirmed patients. Thus, in public facilities, such as hospitals and subway stations, the infectious disease response network platform in which the smart sensor, beacon, and tag are linked for the real-time infectious disease monitoring is explained, and the apparatus necessary for the prediction and prevention of infectious diseases is described.

Summary of Invention: In order to measure the infectious pathogens in real-time, when a new infectious disease occurs domestically or internationally, the related antibodies are injected into the sensor filter module. When the pathogen virus is collected inside the corresponding antibody cell, the increase and decrease of the transmitted

charge particles (Ca⁺⁺, Cl⁻, Mg⁺) are measured by the strength of the light source or changes in the wavelength thereof.

This enables monitoring of infectious disease, pathogen virus, and virus in closed spaces such as subway stations, aircraft, or hospitals. The Invention is about the establishment of an infectious disease platform that can predict, prevent and respond to the outbreak through networking with infectious disease-related facilities, devices, and medical personnel with the use of Internet-of-Things.

Claim 1: The Invention relates to a real-time monitoring infectious disease detection sensor method and apparatus based on an Internet-of-Things. The Invention injects an antibody of a contagious pathogen virus into a sensor module with a detachable filter and includes a light intensity and wavelength of a special light source, a color measuring device module, a CPU module with an address tag consisting of six independent numbers, a Bluetooth and LTE communication module, an antenna, a battery, and a power connection unit.

Claim 2: A command center module platform configuration and networking method consisting of the sensor under Claim 1, health keyword search on the internet server, social network health, disease-related tweet trend, risk index of smartphone self-diagnosis app for patient information, IoT-based platform that integrates the status of infectious disease diagnosis and treatment by region and hospital, DB registration/storage part (cloud), analysis/algorithm part, response/control part, and external sharing/communication (communication) part.

Claim 3: The method and algorithms related to recognizing the location of the self-diagnosed person who is classified as the suspected patient from the antenna and chip of the electronic tag in the city public facility, transferring the information of appearance or approach of the suspected patient on the smartphones of the general public in the surrounding areas, sending messages for preventing entrance to the smartphone of the self-diagnosed patient from the local server under Claim 1, and the methods of evacuation and prevention thereof.

Claim 4: A pathogen virus detection device including an address system tag composed of six varying numbers, Bluetooth, LTE communication module, high-magnification and high-resolution pathogen virus detection molecule scan sensor module, for public places and hospitals and to be used on the facility or equipment.

Claim 5: A device and algorithm that enables Claim 4's detection device to pop up pathogen virus and visualized infection information (interest, significance, risk, seriousness, etc.) indexes, which are investigated on the smartphone of Claim 4's detection device investigator, in conjunction with the Cloud D/B under Claim 2.

Flying Sensor Robot Platform Configuration And Apparatus For Infectious Pathogens And Hazardous Chemical Response

Name of the Invention: Flying Sensor Robot Platform Device and Methods

Patent Holder: Professor Byung Wan Jo, Department of Civil and Environmental Engineering, Hanyang University, Seoul, Korea

Patent Registration: Registration No. 10-1648625: August 9, 2016

Technology Field: The Invention involves a platform device and method of a flight sensor robot platform. More specifically, the Invention relates to a flying sensor robot platform device

and methods thereof capable of moving in the same direction along with a target of measurement that has mobility.

Background of Invention Technology: Various air pollutants such as sulfur oxides and fine dusts that harm the human body are discharged due to volcanic eruptions and forest fires. Moreover, several air pollutants such as sulfur oxides, nitrogen oxides, carbon monoxides, hydrocarbons, and heavy metals are discharged by human activities such as industrial activities, power generation, transportation, and activities at home.

The air pollutants and pathogens directly affect the human body and the environment, or physical and chemical reactions are made in the atmosphere, causing air pollution phenomena such as fine dust, ozone, and acid rain, thereby affecting the human health and environment (such as damage to animals and plants, destruction of the ecosystem, and corrosion of buildings).

Summary of Invention: The technical objective of the Invention is to provide a flying sensor robot platform device and methods thereof capable of measuring according to a real-time moving position of the measurement target that moves by comprising a sensor, flight driving unit, navigation unit, altitude and speed control unit, and speaker module in a small smart sensor.

Also, the technical objective is to provide a flying sensor robot platform device and methods thereof, which move in the same direction as a harmful material and a pollutant having mobility and can monitor the same in real-time by photographing and measuring the thereof, thereby quickly responding appropriately to the harmful material or pollutant.

Claim 1: In the case of the flying sensor robot platform device, it is composed of: a flight body with an external frame which is flown by a power source that generates a propulsion force; a position information detection part which confirms the position of the flight unit; a detection sensor which senses a measurement target on the move; a control unit which detects the moving direction of the measurement target with the detection sensor and moves the flight body in the same direction as the measurement target; a communication unit transmitting to a main server of the flying sensor robot.

Claim 2: In Claim 1, the measurement target is one among harmful chemical, pathogen virus, fine dust, radioactivity, or physical change of a structure, and the above measurement sensor is characterized in that the measurement target is measured by at least one or more of the physical, chemical, and physiological methods to convert the change amount or situation into an electrical signal.

Claim 3: In Claim 2, the flying sensor robot platform device is characterized by further including flight information unit in the flying unit, the flight information unit controls flight speed and altitude and checks the flight state.

Claim 4: In Claim 2, the above communication unit includes a digital interface that receives information or commands by being connected to a mobile device or a computer, and the above digital interface includes receiving information or commands from an external mobile device or computer to input the information or commands to the control unit.

Claim 5: In Claim 2, the flying sensor robot platform device further includes a camera for photographing the measurement target by having the camera installed in the flying unit.

Claim 6: In Claim 2, the flying sensor robot platform device is characterized by its capability to predict the moving direction of a measurement target by reflecting the direction and speed

of the wind and to measure the movement according to the real-time moving position while moving in the same direction along the measurement target having mobility.

Claim 7: In Claim 2, a flying sensor robot platform device that is characterized by flying and measuring geographical information position coordinate inputted to a predetermined position or range when a requirement for around-the-clock measuring of the measurement target is not established economically or geographically.

Claim 8: In Claim 2, a flying sensor robot platform device further comprising a speaker module configured in the flying unit for broadcasting voice information inputted by a remote and external microphone.

Claim 9: A flying sensor robot platform method comprised of the steps of generating a driving force with a power source to fly; sensing a moving measurement target with a detection sensor; detecting a moving direction of the measurement target and moving in the same direction as the measurement target; measuring the measurement target by using the measurement sensor; and transmitting the measurement result, position, and time to a central external server.

Claim 10: In relation to Claim 9, a flying sensor robot that is characterized by the measurement target is included in any of the physical changes of the harmful chemicals, pathogen viruses, fine dust, radioactivity, and structure, and the measurement sensor is characterized in that the measurement target is measured by at least one of the physical, chemical, and physiological methods to convert the measurement target into an electrical signal.

Claim 11: In relation to Claim 9, the step of confirming the normal flight condition as well as controlling the flight speed and altitude.

Claim 12: Concerning Claim 9, the flying sensor robot platform method that receives information or commands from the above main server or receiving information or commands from an external mobile device or computer; and transmitting the information or commands to a control unit to reflect the data or commands in operation or measurement by further including the step of receiving information or commands from an external mobile device or computer.

Claim 13: In relation to Claim 9, a method for a flying sensor robot platform that further comprises the steps of photographing the measurement target on the move by using a camera.

Claim 14: In relation to Claim 9, a method for a flying sensor robot platform, which comprises a step of detecting a moving direction of the measurement target to move in the same direction based on a step of predicting a moving direction of the measurement target by reflecting the wind direction and the wind speed then measuring the moving direction of the measurement target while moving in the same direction along the measurement target having mobility.

Claim 15: In relation to Claim 9, a flying sensor robot platform device that is characterized by flying and measuring geographical information position coordinate inputted to a predetermined position or range when a requirement for around-the-clock measuring of the measurement target is not established economically or geographically.

Claim 16: In relation to Claim 9, a flying sensor robot platform device further comprising a speaker module configured in the flying unit for broadcasting voice information inputted by a remote and external microphone.

Disinfection, Quarantine Infrastructure for Zero Pandemic Infectious Disease in the Smart City

Unlike the increase in the interest in health and welfare contributing the quality of life of urban residents with the expansion of urban society and economy, COVID-19 in Wuhan, China in 2019 spread around the world, leading to the World Health Organization (WHO) to declare pandemic and the postponement of the 2020 Tokyo Olympics. As such, the adopted measures are uncivilized and primitive, restricting all activities related to city transportation, economy, schools, and religions. The scale thereof is foreshadowing the Great Depression.

World health organizations and medical professionals are devoted to developing vaccines in relation to the infectious diseases that repeatedly occur every few years around the world. However, new viruses caused by the microscopic natural counterattack due to global warming caused by human activities metamorphosis into variant viruses. Some become increasingly toxic, causing severe livestock diseases such as avian influenza and swine fever, further exacerbating the zero-sum games of the humanity's grand contagion caused by swine flu, SARS, and MERS and COVID-19 every 2 to 3 years.

The problem lies in the dire need to provide an artificial intelligence app for the smart city health infrastructure that detects, disinfects, and cures based on the IoT and location-based beacon for the human-to-human and human-to-object contacts that cause social contagion, in addition to a social response that eradicates the root of the berthing space for the fatal virus within the city that causes rampant transmission of infectious diseases.

As a major infrastructure thereof, an artificial intelligence robot-based urban citizen health and infectious disease response platform must be designed, especially in the developed countries. It will provide support in the case of overseas infectious diseases, sharing of inflow information in real-time, responding based on the IoT-based advanced airports, intelligent quarantine of ports, self-diagnosis based on anti-virus systems and smartphone applications, self-isolation, and prescription by AI virtual doctors and nurses. It will also support balancing demand for medical resources in response to infectious diseases, including processing the deceased, location tracking, and other response resources.

According to the infection diffusion simulation by each city, sharing and gig economic convergence platform for securing the specialist doctor and nurse as well as the necessary social prevention goods supply system including mask, disinfectant, medical gown, goggle, and the number of negative pressure wards for the infected, respirators, negative pressure ambulance is designed. When a pandemic infectious disease breaks out, there is a need for urban network infrastructure for untact(not contact) screening and treatment based on IoT, AI, robots, CPS, blockchain-based self-diagnosis, house diagnosis, unmanned remote clinic diagnosis, and drive-in & walk-through diagnosis, while letting hospitals to focus on patients who are infected (and in serious condition) as much as possible.

In addition, smartphone app-based urban health infrastructure that can prevent illnesses when a person is healthy in smart cities without infectious diseases is necessary wherever, whenever. The aim can be achieved by the urban health infrastructure that teaches tailored GP, GP-nurses, regimen, and exercise. In particular, each workplace and large facility shall have ICBM Health Booth & CPS Nursing for Telemedicine plat-

forms for remote health and disease prevention. For the elderly living alone, elderly, people with disabilities, underprivileged, medical facilities and happiness visiting-based care networks should be established. In order to escape ghost economy of cities caused by the spread of pandemic infectious diseases, blockade of cities, self-isolation, and prohibition of business, a shopping and delivery network of consumer connections (unmanned) are built by industry and neighborhood on smartphone apps according to the concept of Cyber-Physical System (CPS) of the Fourth Industrial Revolution.

The most imperative is for the establishment is to comply with government guidelines and manuals on pandemic infectious diseases. By sharing facility closures, self-isolation, and movement lines at the city level by infectious disease apps, second or third infections must be prevented, which must be preceded by self-isolation when there are suspected signs. A blockchain compensation platform must be established for punitive social responsibility, sacrifice, and service according to the degree of violation.

The 4th Industrial Revolution Healthcare Infrastructure For Infectious Disease

[Easy Access to Customized (AI) Hospital, Doctor, Nurse with CPS AC(Autonomous Collaboration) HDN network (With Telemedicine -Diagnostic Booth, Quick UGV & UAV Ambulance). Designing hospital auto-accessibility platform city infrastructure, infectious disease attending physician, attending nurse, remote examination booth for protecting health when people are healthy and in preparation for infectious disease spread in the future [AC Home, Office, School, Aged Home... Care, Prison Facilities ICBM Health Booth & CPS Nursing]. Disabled people, nursing homes, prisons, elderly living alone, medical facilities for the underprivileged, and infectious diseases visit care platform design.

Smart Quarantine Or Quarantine Infrastructure: CCTV & Thermal Camera Infrastructure for preventing and predicting public diseases, infectious diseases, and promoting citizen health, App-based location tracking, AI robot, drone-based quarantine self-quarantine subjects and delivery of household goods, quarantine facilities, equipment, and beacon warning infrastructure. Clean environment Smart city ICBM infrastructure for Prevention of infectious diseases] Clean water, clean air, zero garbage, citizens' autonomous participation intelligence platform Smart WAW (Water, Air, Waste) Grid, Industry 4.0 ICBM facilities and equipment. [Urban health promotion, quantum mechanical Feng Shui geographic energy (chi) circulation urban space arrangement] Park with a mountain on the back and stream in the front, sun, wind, river (Artificial canal, lake, rainwater reservoir), Transportation (road, railway, subway), buildings (city hall, residential, government offices, commercial), disinfection prevention infrastructure non-contact, untact-based urban health healing, exercise, relaxation, regimen infrastructure energy(Chi) Flag, fitness gymnastics, healthy diet restaurant, sports, exercise, climbing Cycling, religion, participation in meditation, guidance social ABC programm Industry 4.0 Smart Medical Industrial Complex. Advanced quantum mechanics energy wave based ICBM Infection screening, treatment SW + HW. Genetic engineering, stem cells, chromosomal scissors, artificial organs, robot industry Futuristic healthy organic diet, immune food industry (vegetable protein, insect, traditional food).

Education & Job Infrastructure Of The Fourth Industrial Revolution City With Pandemic Infectious Diseases

The spread of pandemic infectious diseases has led to the closure of the entire city around the world, paralyzing the public education system. CPS(Cyber-Physical System), the leading technology of the Fourth Industrial Revolution era, is mostly insufficient, and cyber online classes are conducted even in places where communication network is well established, numerous difficulties are experienced due to communication failure and server congestion.

In order to prevent the spread of infection, untact method-based classes can only be conducted online. Still, in some developed countries, the formulaic 6, 3, 3, 4-year public education system is unable to educate the creativity and talents of students who must face the competition with artificial intelligence robots in the future.

Thus, at the Minerva University and Alt School of the U.S., students have been educated according to their talents based on online contents and 1:1 tailored education programs. A crisis is an opportunity. In the era of the COVID-19 pandemic that may never end or will reoccur, we must build a national ICBM (Internet of Things, Cyber Physical System, Beacon & Blockchain, Machine Learning, Artificial Intelligence) A.C. (Autonomous Collaboration) untact education infrastructure based on the Fourth Industrial Revolution.

IBM AI Watson, Google's artificial intelligence platform AlphaGo, and quantum computers exposed the limits of traditional education systems and jobs. Artificial intelligence platforms have already declared "Go to Work" and occupied all posts in the industry with smarter intelligence than humans. Thus, future students are concerned about their future livelihood, not even predicting the future of the Fifth Industrial Revolution, which students, parents, and companies cannot imagine in the age of loss of human value in competition with artificial intelligence robots. In the era of the collapse of education infrastructure due to infectious diseases around the world, students must relinquish traditional education methods of simple memorization to artificial intelligence robots. Instead, they should learn creativity, personality, and multi-cooperation methodology in the CPS education infrastructure suitable for the Fourth Industrial Revolution era of super-connection, super-fusion, and super-intelligence. To this end, the real-time innovative expertise knowledge sharing, transfer urban infrastructure, and educational system CPS transition are required following the era in which educator teachers and professors transform themselves and can transfer various knowledge via the development of quantum brain science.

In the age of pandemic infectious disease, untact economy, the sharing economy for sharing various high-tech industries, technologies, and business ideas of the Fourth Industrial Revolution, the real-time CPS enterprise education, training, consulting, makers lab (Fab Lab) based on the gig economy shall be established for small and medium-sized enterprises in difficulty with the change of public education system. Smart Education Grid, Smart Job Grid, Smart Technology Grid, infrastructure, and platforms must be designed accordingly. These are for the jobless, silver and unemployed workforce at home, in addition to corporation-interconnected cooperation and start-up systems. For reference, the contents of interactive education, jobs, and welfare infrastructure in the untact economy age after COVID-19 are as follows.

Smart Welfare Grid

Real time Web 2.0 Smart Match with Volunteers, Donors
Social Wealth Certificate of the Good Virtue, Sacrifice, Volunteer

Smart Job Grid

Real time Web 2.0 Smart Job-matching between job provider & seeker

If necessary, Train Job Seekers for job Knowledge & Quick match

Smart Education Grid

CPS Web 2.0 Learning & Training Platform with

Professional Experience & Experience Seeking

Customizing Learning with Open-MooC & TED, Udacity

Smart Business Grid

Industry 4.0 CPS Market, School & Care center

Voluntary Sharing Economy, Knowledge & Jobs

Voluntary Donation & Distribution, Delivery Platform

ABC Participation Registering & Certificate, Rewards (Cryptocurrency)

COVID-19 Exit Economy Strategy (Untact Economy After COVID-19)

In the past, the pandemic declaration of WHO (global pandemic) shows that the global infections lasted sporadically and locally for one to two years in the cases of the Asian flu (1957) and Hong Kong flu (1968). The Asian flu was first discovered in Guizhou, China at the end of February 1957, spreading to the U.S. in June 1957. The pandemic resulted in 70,000 deaths, and by 1958 it continued, killing at least 1 million and estimated over 2 million people worldwide.

The Asian flu was an epidemic of the subtype H2N2 of the influenza A virus. The virus strain was a new virus stemmed from the recombination of avian influenza (presumed to be a goose or wild duck) and human influenza virus, and many died due to the failure of immunization. At that time, the economy of the country showed a slowed growth due to continued outbreaks with time gaps in between.

However, the damage to the global economy evoked by the spread of COVID-19 in 2020 is expected to be worse than that of past pandemic cases. In the past, outbreaks occurred not consecutively in major countries, and the shocks thereof were dispersed because of the smaller global transportation networks such as airplanes and ships also contributed to the shock to a lesser extent.

On the contrary, today, the global economy has collapsed due to the simultaneous spread of infections with 1-day global air travel and globalized trade, advancement in informatization, and strengthened interconnection between global production, manufacturing, and consumption, in addition to long-term self-isolation orders.

The collapse of international trade and workforce markets will increase the prices of various raw materials and reduce export demand, leading to a negative impact on national income. Notably, countries with a large dependence on international trade, such as Korea, will be hit even harder by the collapse of trade. An unprecedented impact on the global economy is due in various industries, including energy, food, manufacturing, transportation network, education, and capital market. Consumers are simultaneously stopping their buying behavior, causing a collapse not of a specific industry but of the whole industrial sectors.

Accordingly, all of these phenomena have desperately request-

ed the strong revival of national economy, which is totally different from that of past business.

The visible impact of COVID-19 spread is expected in major countries (U.S., China, EU, India, etc.) which account for a large chunk of the global economy, and the impact on the worldwide economy may be amplified as global trade shrinks due to the economic contraction of these countries.

Also, political circles are being exposed to the risk of a serious default of the national economy due to debt by paying disaster and living subsidies as a political stunt to everyone, instead of low-income families and SMEs in dire need.

The more serious issue is that medical experts struggle to develop the vaccine and drugs due to the volatility in the RNA gene, warning the COVID-19 proliferating again in the winter of 2020 without an end in sight.

The current global citizenship blockades its entry and exit to their own countries, monopolizes items for quarantine, disinfection, and treatment, or shows extortion similar to terrorism. Even if the vaccine is developed, the 12 major countries that produce the vaccine are likely to prevent the outflow of vaccines produced to meet their demands first. Unfortunately, the present generation must accept the age of untact, the untact economy, and culture, living with COVID-19 worldwide to avoid invisible viruses until a perfect vaccine is developed and supplied.

Definition Of Untact Economy:

Some advanced countries mention untact economy as an exit strategy for the global COVID-19 pandemic. Untact means there is no(un) + contact. It means social distance, non-face-to-face, non-contact economic activity to prevent infection with human hosts (infected) who do not know who is to prevent the spread of COVID-19. Online shopping, online education, working from home, online video conference, unmanned pickup box, self-kitchen, self-restaurant, self-bar, information sharing Kiosk, check bot, chatbot, artificial intelligence, drones are applied in diverse ways. That's why we put more emphasis on the technology of CPS (Cyber-Physical System) in the superconnection of Industry 4.0 revolution. In the era of COVID-19-induced crisis economies, creative ideas and business strategies required for future innovation companies in the global market, such as Apple, Google, Amazon, and Tesla in the U.S. This is the Fourth Industrial Revolution era. The core technology and creative business strategy for Untact economy are as follows.

Core Technology & Business Strategy For Untact Economy: Technologies of the Fourth Industrial Revolution to materialize untact economy include artificial intelligence, robots, social networks, Internet of Things, virtual reality, augmented reality, blockchain, and CPS. By applying super connection—an implementation method of the Fourth Industrial Revolution—to untact economy, producers, consumers, and customers—the main players of untact economy—are interlinked via the Cyber-Physical System (CPS). CPS means synchronizing virtual space composed of computers and the Internet with real space in actual cities. In the past, the business of linking spaces of online and offline was called the O2O economy. But there is a big difference in that it can control the two spaces by synchronizing them with wired and wireless networks as well as with computers, the internet, and smartphones. Real physical space includes stores, restaurants, academies, theaters, fitness, beauty salons, hotels, shopping centers, department stores, medical institutions, public institutions, factories, logis-

tics, and distribution spaces of companies as the main agents of service and production. These are the places of business in a city where economic activities happen. Virtual space is a space that can store, analyze, learn, predict, and decide data on computers and the Internet, and exists mostly on (cloud) servers. The Web 2.0 platform, where producers, consumers, and customers communicate in an interactive untact way, can be built by industry and service with different characteristics. One of the successful service models is delivery applications such as Uber Eats, which can be tailored for individual sectors. Other examples are shared kitchen, shared manufacturing, and shared office.

At this time, companies with a financial buffer can build, rent, and share production, manufacturing, and cooking facilities based on the Internet of Things, artificial intelligence robots, like smart factories of the Fourth Industrial Revolution by untact.

In particular, Industry 4.0 Pandemic Platform is critically in need, which automatically connects to the untact-based Internet unmanned fusion products and CDC, as well as related equipment and facilities (negative pressure hospitals, ICU, oxygen respirator, screening kit, checkup stations, robot doctors, robot nurses, unmanned delivery robots, drones, etc.) for pandemic infectious diseases that may occur next time and COVID-19, which may never be eradicated.

As we have experienced in the case of COVID-19, many victims sprung out due to the failure of quarantine and prevention of the low-income and disabled population, as well as nursing welfare facilities, correctional facilities in the severe state of urban blockade and self-isolation.

The protection of the concept of the Fourth Industrial Revolution for the underprivileged exposed to infection, support apps and platforms shall be constructed as the Internet of Things, telemedicine, and artificial intelligence robot concepts to minimize the damage.

The Fourth Industrial Revolution aims at the harmonious happiness of individuals and society. After all, various ideas are waiting for your attempts, from the idea of allowing people to safely reach their destinations with sensor-based artificial intelligence, such as unmanned autonomous vehicles, and the development of Industrial 4.0 Pandemic Platform that integrates all medical professionals and citizens related to infectious diseases, hospital spaces and screening centers, urban spaces and facilities, equipment, sales spaces, production spaces, and natural spaces into the superconnected of the Fourth Industrial Revolution.

To this end, governments shall establish a shared economy that enables sharing and implementing various high-tech industries, technologies, and business ideas of the Fourth Industrial Revolution, real-time CPS corporate education, training, consulting, and makers' lab (Fab Lab) based on the gig economy. Also, the gig economy shall be established for small and medium-sized enterprises in difficulty with the change of the public education system. Smart Education Grid, Smart Job Grid, Smart Technology Grid, infrastructure, and platforms must be designed accordingly for the silver and unemployed workforce at home, in addition to corporation-interconnected cooperation and start-up systems.

Immune-Antibody Economy amid COVID-19: Medical experts are foreshadowing the global COVID-19 secondary pandemic to persist until this winter. Yet, if the pandemic per-

sists for a long time until the COVID-19 vaccine is developed and until everyone can obtain the vaccine at a low price, there is a possibility that various discriminations in our society may occur between people with and without immune antibodies. People who fortunately gained immune antibodies may have the privilege of moving from COVID-19 coexistence society to conduct economic activities and employment with the guarantee by a government, freely moving around without restrictions. "This will be a fearful split," said David Navarro, a special envoy for COVID-19 at the World Health Organization, adding that anyone with an antibody can travel and work, while the rest will be discriminated against.

Thus, the government must investigate the presence of antibodies according to the needs of citizens, certify the possession of antibodies by smart method according to the results, and devise a way to establish urban infrastructure converged with smart infectious disease-free antibody I.D.s, face recognition, NFC, beacons, and Q.R.s that allows one to freely enter and travel by major facilities in the city.

In this way, if COVID-19 pandemic continues and re-proliferate for an extended period of time, we can consider the system of issuing 'immunity pass' based on the real chain that solves the problem of blockchain to a person with an antibody after testing the new COVID-19 infection antibody to prevent the economic breakdown more frightening than the virus itself.

In particular, in order to secure the re-opening and activation of large-scale events such as sports events, schools, religious activities, and economic activities, individual antibody immunological certificates, smart authentication activities, and methods may be required based on social consensus.

The immunity confirmation procedure is similar to the heat-sensing procedure being implemented at the entrances to various public places in cities. If a person with an antibody is issued a smart electronic tag immunity certificate to his or her smartphone app by the government health authorities and is registered in the Industry 4.0 Pandemic Platform.

Afterward, a pandemic infectious disease security economy can be materialized for people having an immune antibody by performing a temperature check with a thermal image having an immune antibody by performing a temperature check with a thermal image camera and an immune certificate Q.R. code installed on a smartphone with a face camera and an immune certificate Q.R. code installed on a smartphone with a face recognition camera upon entering a public place, a store, or a sports game.

However, some people may desire to participate in economic activity to earn income by trying to form immune antibodies with uncertainty through voluntary infections among themselves, which should be cautiously considered as it can be a pathway to another spread of infections. Other issues to consider are social opportunity inequality and excessive national budget deficit.

Urgent Research Of The Infectious Disease COVID-19

Urgent Investigation Amid COVID-19 Pandemic

1) The devastation of World War II about 70 years ago has been regarded as a historical fact that is not related to individuals rather than seriousness because people indirectly experienced through stories, T.V., and movies.

But in every neighboring country in the world, COVID-19 pandemic has exposed the dark reality where the terrible reality constraints on economic and social activities.

This was caused by the collapse of medical systems stemming from massive confirmed patients and deaths that have not even experienced the U.S., Italy, Britain, France, Spain, and Japan, which prided on being developed countries. Nobody believes this dark news, which global super powers also failed seriously. But Korea had experienced the loss of 38 precious lives in 2015 when MERS broke out, and before that, we were periodically experiencing infectious diseases such as SARS, EBOLA, and Hong Kong Flu. However, we were focused on the development of therapeutic vaccines as a short-term solution, while the world being indifferent to the fundamental response to prevent next outbreaks.

What we were taught in school was that everything consists of molecules and atoms, and we studied about 118 different Periodic Table of the Elements.

However, quantum mechanics, which mesmerized the Nobel Prize in physics in the mid to late 20th century, uncovered the origin of all things by identifying 17 standard models such as quarks, leptons, hicks, and bosons that make up all things by further dividing atomic particles.

From the standpoint of the author ignorant in medicine, the genetic mutation process of COVID-19 seems to be doing its best to respond to the development of a vaccine based on the analysis of atomic unit genes in the atomic periodic table over 50 years ago.

COVID-19 is said to be frightfully spreading as humanity has no immune ability to animal-derived COVID-19. This because it has never been infected to humans until this time because of genetic mutations such as SARS and MERS.

Indeed, COVID-19 has genetic information in the form of unsteady single helix RNA, not double helix DNA. DNA and RNA commonly have sugar, base, and phosphoric acid, but have different types of sugars and bases. DNA has the deoxyribose, and RNA has the ribose. Deoxyribose has hydrogen (H) attached to carbon number 2, but ribose has a hydroxyl group (O.H.) attached to carbon number 2. The bases that compose RNA consist of adenine (A, Adenine), guanine (G, Guanine), cytosine (C, Cytosine), and uracil (U, Uracil). The author sincerely asks for experts' opinions whether it is possible to approach the concept of quantum biological energy wave and gene editing of vaccines and therapeutic agents that can extinguish the energy proliferation conditions of sugar, ribose base, and hydroxyl group (O.H.) attached to carbon 2 for the eradication of the virus.

The most respected scientific community discovered in 2012 the Gods' particle Higgs, quarks, and leptons, which collide the atoms of all things at the speed of phenomenal light in a 27-kilometer-long steel particle accelerator (CERN, LHC).

By doing so, it was uncovered that those who are the sources of all things are composed of energy fields of waves, not particles, and energy is the equivalent of the energy-mass of the theory of relativity.

The law of the equivalent explains the permanent quantum field of eternal immortality where the particles of the Dirac equation, the particles of the antiparticles are twin-generated and twin-extinct.

The human genes, as part of the DNA that constitutes chromosomes in the nucleus of cells, are not atoms, but are super-connected in multidimensional spaces with vibrating upquarks,

downquarks, and electrons' energy waves (Fields) according to quantum field theory.

If the virus of COVID-19 or its host, human cells or genes, consists of a field of energy waves in quantum mechanics, it can be confirmed that the temperature rise of global warming affecting the energy field has a significant effect on their nanoscale micro-ecosystem, while energy is correlated with their mass by $mass = time = E = mc^2$ according to the theory of relativity.

Of course, the quantum field theory has sustained rapid progress, but 95% of dark matter and dark energy are yet to be revealed. It became the party of their own knowledge league, failing to be reflected in other industries and academic fields whatsoever.

In the end, the terrible reality of COVID-19 unveils that global warming is emerging here as a phenomenon that alters the microvirus ecosystem, attacking human hosts. This has never been imagined. Thus, there is a pressing need to study the causes of global warming that altered the ecosystem change of COVID-19, leading to a global disaster. Adding the collaboration to the studies on simple greenhouse effect, temperature rise = energy rise = mass change = relativity of time and space change, quantum field theory, latest space astronomy, geophysics, advanced quantum biology is also critical. Above all, a joint effort with the medical community suffering from COVID-19 will determine life-and-death.

What We Must Do For Next Pandemic Disease: The next pandemic disease shall be predicted via the feedback of the process of cessation of COVID-19. Minimizing loss of lives and economic damage shall be achieved by preemptive, swift, and accurate diagnosis, prevention, treatment, and recovery led by the 4th Industrial Revolution-based hyperconnectivity, hyperconversion, and hyper intelligence.

1. Pandemic Response System : Preemptive Prompt Precise for Quarantine, Economy, Damage Evaluation
2. Public Quarantine Model : Autonomous Virus Testing IoT Tracing Infection (Confirmed, Suspicious) AC Treatment, AC Citizen Participation for Industry 4.0 Pandemic ICBM Platform
3. Social Quarantine Cooperation : Self-Diagnosis in App & Auto. Tracking Check the Infection Possibility of Cautious Meeting & Inform (Temp. Coughing & Pain), Get Rewards Social Distancing, Stay at Home, Close the Business & Institute and Untact Business & Education Promotion Wear a Mask. Spray disinfectant(UGV, Drone) App Diagnosis & Tracking Drive Thru & Walking Thru Testing

4. Hospital & Government Cooperation : Quick Testing, Supply of Resources & Beds Quick Quarantine, Disinfection & Diagnosis Quick Shutdown (City, Business, Movement)
5. Enterprise & Government Cooperation : Emergency Manufacturing & Delivery Untact (Not Contact) Marketing & Business, Drive-thru Lower the Rent fee, Tax & More Incentive Development of Kit, App, Vaccine, Beds
6. International Cooperation : (Transparent), (democratic), (Innovative), (Sharing) (Friendship), (Donation), (Network), (Participation) Why, How this & previous Pandemic disease occurred ? When, Where next Pandemic disease occurs ? AI will do it with medical experts to find the cause of epicenter. Lessons from COVID-19 teach us ONE-Earth, which is Opportunity for New coronavirus Eradication over Global Warming, Hegemony, Economy Supremacy. Answer is Industry 4.0 Pandemic & Economy Platform.

Industry 4.0 Iot, CPS, Blockchain & Machine Learning (ICBM) Pandemic Platform:

Next, the composition of the quarantine, disinfection, treatment, recovery, and control platform is as follows that predicts and prevents the outbreak of pandemic and that uses the fourth industrial revolution-based IoT, virtual physics system, blockchain, and artificial intelligence when there is an outbreak or spread.

- 1) Alert & response to world-wide outbreak of infectious diseases, then automatic quarantine check in airport
- 2) After predicting the speed of spread by simulation, prepare the quarantine resources, shutdown businesses
- 3) Automatically count the number of confirmed or suspicious cases with IoT connection among diagnostic kits, applications, and hospitals
- 4) Automatic tracking of confirmed cases, investigate infected people in the routine, securing them in quarantined areas
- 5) Advise application uses for self-diagnosis, transportation, isolation, food supply, treatment & 1:1 matching with doctors
- 6) Encourage voluntary quarantine & response participation of citizens for infection-free using blockchain
- 7) Connect businesses in the shutdown area (local shop owners), waste disposal, conducting funerals, participating in worship via the application or the Internet
- 8) Smart AI robot system for unmanned medical services connecting patients with doctors and nurses, delivery of medicine, food, daily supply to the infected.
- 9) Drone-based disinfection & checking social isolation & enforcing curfew