Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.
Prediction of The New Coronavirus Spread and Infected People Numbers Based on Embedded Wearable Devices and Seir Models

Jingzhe Li*
College of Nursing, Hebi Polytechnic, Hebi 458030, Henan, China
Email: yx900312@163.com

ABSTRACT

Covers are a well-known group of organisms infected with the disease caused by two people. A new type of COVID-19 is soon discovered in Wuhan, China. Even so, infections cause a pandemic, as indicated by the World Health Organization and are widespread throughout the world, as it can be slow. Also, these days, every country in the world is working hard to control COVID-19. There are many components to distinguish Covid, including pictures of clinical studies of chest CT and blood test results. Show patients confirmed to have a fever, stagnation, and dry COVID-19. In particular, several strategies can be used to distinguish the underlying squeal of infection, such as kits for clinical locations. Nevertheless, such gadgets have set aside some effort to introduce and use them, incurring huge costs. Another structure, COVID-19, for engineering and identification using mobile phone sensors along these lines of thought. This proposition can be easily placed because most radiologists only have various daily use needs for mobile phones. At the same standard, individuals will be able to use their mobile phones to infect the system for identification purposes. The phone is not reliable if the camera, receiver, temperature sensors, inertial sensors, gas-tight sensor, light-shielded sensor, existing computing rich processor, viscosity sensor and remote chipset/sensors, memory space, and huge sensors have a number. Planning Detection Combination Algorithm (DCA) structure carefully as expected of function, as a result of the infection, reads the mobile phone sensors' signs to estimate the severity of pneumonia.
Keywords: coronavirus outbreak, Embedded Wearable Devices, Internet of Things (IoT) has driven behavior-changing intervention, impaired behavioral pattern, radar-based on ultrasound, IoT has driven social engendering, Detection Combination Algorithm.
1. INTRODUCTION

Coronavirus undermining (COVID-19) polluting is a persuading issue that has spread worldwide, achieving a solid pandemic. Because of the reality of the situation, it's far from each other infection, and it requires some push to store an immunization rather than it. As much as that point, the best technique to thwart the short spread of the contamination is to engage a genuine social keeping segregated. Withdrawal or control to confine predicted patients. Since the debasing has since 14 days of the alarming time body. Its miles basic to see all the social affiliations all through this time and favor social segment for such confined patients. To accumulate the wearable sensor’s psychological structure, taking into account the network between the human and the sensor, to promote self-justification neglects human experience. Pleasant development, by creating a change in society, provides the people choices to the people by the notification and the visual sensors' effect for collecting data. It depends on ability. Model, there are two additional points of the boundary. When he laid his hands on the domain, people will work for the affected face's vibration and noise. This method is mixed with bright points of how to traverse the social and artificial psychological durability of construction and the socially beneficial position of society. An attempt to operate at understudies department of physics of Montenegro of the university began the well-planned (COVID-19) common scenario before.

Figure 1: Examples of impairing conditions.

Figure 1 shows as general of covid gave another clarification to them. The old cause, and presents a method to proceed with another inspiration, new information, can be applied to another particular situation or alternative views and responses to emerging social problems, the general function, please refer to them, for example, it gives to pass a lot of covid. It has become clear that the rise and social mediation is taking the basic core position to direct the proximity of change. A collection of limited family, to take the necessary measures to not touch the remote
office, on the face more, create a caring and respectful response created by the arbitration program for individual face-to-face, generation recognition Chip, standard underestudies. Goodness is a limit enlisted in the material prototype; that brilliant system is being carried out to give another inspiration to the Covid model, accumulated a few months before the pop-up. This additional inspiration, are reasonable sophistication of the model, understanding of the society despite the development of arbitration in the near-lead standard, can be condensed, for example, changing the focus conduction, mouth and nose has grown as trying not to touch them both. These tend to be lightly action. There is a reliable, used to protect the body structure from reaching out pain during this time. Additionally, the additional inspiration to the reshaping and remixing of satisfactorily created attempts that are familiar had been with extending and widen the obligation of understudies at the University during the general scene of Covid, while comparably making space for understudies to learn and consider new data concerning individuals as a rule and success emergencies compelled by an eject of COVID-19, and to encourage it with their current information.

2. LITERATURE SURVEY

Covid passed on for the most part with the guide of uncommon, extraordinary Respiratory Syndrome Coronavirus pollution. It has presented uncommon stretches for overall districts worldwide, with many occasions and inconveniences running in millions. As a general rule, even as virologists and specialists have spent fractious nights to set up a solid adjusting subject matter expert, the presence of the tasteful creation of association school, for example, administrative staffs, clinical sanatorium delegates, etc., has now not been any less tangled [1, 2].

The plague of Covid disorder 2019 (COVID-19) sets up a well-being-related calamity of normal dread with a massively extreme threat of spreading out and impacting the area's total. There is a reliable move inside India's disarray with 20,080 occasions on April 21, even after a cross-country lockdown. Lockdown and control variety fixes the contaminating piece of COVID-19 cases basically inside ten days of major spread [3]. Before the spring exhibition of 2020, China started to unfurl the fresh out of the box new 2019-Nov Covid, and the period agrees with the spring event. The possibility to save the presentation of distributing scourge after the festival has ended up being the point of convergence of consideration. Progressed assessing technique for resumption relying upon significant data and course gathering. This method
bundles the consistent energy usage instances of different enterprises, summarize the plague condition's traits and improve the sharp procedure [4].

Inside the huge proportion of records that might be managed with Neural Networks (NN), COVID-19 leaves us a flawless arrangement of realities. This is inclined to be taken care of and set styles concerning improving the disease inside the country. The contemporary canvases show the execution and the upgrade of a Long Short Time Memory (LSTM) Neural organization in two various reenactment circumstances, with a dataset determined to have the measure of debased people via COVID-19 in Peru, to smooth out the conjecture degree on the measure of polluted people on after days [5].

Epidemic visit and control model considering the plans perceived with COVID-19. Results show that development, convenience, and man or lady's disengagement emphatically reduce the number of defiled individuals and contain the effect of erupting inside a semi-shut atmosphere [6].

However, the scene of far-reaching wellbeing emergencies bargains individuals' presence security and has a movement of helper impacts. Considering vintage style powerful sickness rendition, Coronavirus epidemic adaptation is advanced by utilizing structure factors strategy. In mellow of various repression measures and assurance measures in different districts, the rendition reproduced to capably portray the change rule of scourge issue range with time [7, 8].

The current advancement has endless wearable responses to help the issues of disabled individuals. The affiliation brought here is for the prevented people and increment a wearable framework that uses introduced system advancement for measurements input functionalities in a hand glove based reassure [9].

An Internet of Things (IoT) level is applied to revive the continuous information to the cloud, which can be gotten from any place around the obliged region. A tractor is frightened using natural Light Emitting Diode (LED) for temperature basically as dampness taking a gander at while a ringer alert is made reachable to recognize the fuel level inside the mine. Correspondence is through the in-constructed Wi-Fi of the controller [10].

The arrangement and affirmation of a wearable machine for wholesome and genuine work noticing. This arrangement depends upon progressive advances in microelectronics and past models that have checked the structure thought [11, 12].
A common stochastic model for disease spread on the easygoing online organization. The adaptation considers the period re-login in Social Networking Service (SNS) business endeavor, the measure of customers in a solitary's buddy overview, and inducing gadget utilizes form, an infection model, eventually sets up the dynamic improvement conditions [13]. The net changes the procedure of human correspondence. Inhabitants can convey and get records at anything point and any zone, which creates productiveness and lift talk unfurl, and work dangers of online gossipy goodies [14].

Predictable time direct inoculation based control philosophy for a Susceptible Exposed Infectious Recovered (SEIR) (exposed correspondingly to also tainted to powerful comparatively to killed peoples) multiplication ailment rendition. The rendition considers the total people aggregates as a go without disease transmission on record that its development makes more noteworthy irksome contacts among helpless and sullied [15].

The confirmation that the presence of a dispersion allure has a very yet enormous effect at the presence of a growing aide. At the long extreme, these clinical features of the improvement target had appeared with the guide of numerical techniques. The embedded structure changes considering the money related catch. The private district must Liquidity remember for genuine advancement objectives [16].

Providing an additional particular and more skilled situating of affliction molds, the assessment brought to picture managing. As demonstrated by utilizing this form, the advanced assessment conveys particular endeavors: class and outline of a mix with remarkable procedures depicted. Suggestions for using division methodologies degree Field Programmable Gate Array (FPGA) and set up structure rendition. Improve assurance of animal tumor clinical tumor for helpful and a triumph treatment [17].
3. MATERIALS AND METHOD

COVID-19 is, broke out in India the severe acute respiratory syndrome coronavirus is a further new coronavirus or COVID-19 is an eruption of powerful and attractive viral respiratory diseases equivalent Prediction take Gander in India, meaning that believe that there is. In China, from the beginning of the scene, a life of solid number, R0. Five different regions. This plan's downside is that it did not use the laser. A laser works at the standard of recreated outflow and chips away at electroluminescence guidelines. Boundaries of dispersed mellow are chosen via the centralization of the residue. The one's boundaries additionally rely upon the width of the residue flotsam and jetsam. The more modest the molecule breadth, the more uniform the conveyance of ahead dispersed and in reverse dissipated, while bigger particles are particularly dispersed ahead. The profundity of dissipated light is corresponding to the attention of particles. To give better granularity of photon indicator and restrict the loss of dispersed light and along these lines, the information roughly the point of view of dissipating utilized a region of ultrasonic sensors. The design standard is delineated.

![Diagram](image)

**Figure 2:** Coronavirus Infected People Based On Embedded Wearable Detect Devices
Figure 2 shows the proposed system block diagram. Adriano's working trends, working voltage, pin setup and association of sensor HC-SR04 to the microcontroller board may be discovered in the element. A servo engine empowers the sensor's revolution to distinguish the shifting and find them inside one hundred eighty stages. It earrings while there may be a location. Those ultrasonic along the ringer decide the field where the thing is located (no matter whether or not it is near or some distance off). A stepper engine is a brushless Direct Current (DC) electric powered engine that isolates a full revolution into a few equivalent advances. It adjustments over teach of info beats into a characterized boom inside the shaft role. The electromagnets in the sync engine are managed with the aid of an outer driving force circuit. Customer's familiarity together with his/her acclimated face-contacting executed as follows. At the same time, the consumer's hand movements are closer to his/her face carefully. The radar depending on ultrasound, sends a humming clamor as a caution. Because of some specialized issues and asset barriers that might have empowered one to check diverse locations of the radar on % glasses, a few take a look at preserving still executable with the model on the versatile band and a few mechanical assist deliberate headset. A few radar pix demonstrating the acknowledgment of deterrents are regarded. The precision of sufficient stamped development closer to the face is assessed to be 70%. One fascinating idea of the airborne particulates estimations depends on the airborne laser innovation. This idea may be very testing mainly from the purpose of the expansion of the frequency which might be utilized by the airborne laser scanner from closer infrared (0.7 to 1.4 microns) to quick infrared (1.4 to a few microns) on account that the frequencies of the ones require extraordinary concept (as an example from the motive of water refraction and reflection).

Other progressive difficulties are beating reiteration, point analyzing, terrific photon finder and Data Quality Assessment (DQA). After laser innovation, an optionally available approach depends on the nice and cozy digital. The MQ2 a metallic oxide semiconductor type gas sensor. It can understand special gases, for example, Liquefied Petroleum Gas (LPG), butane, propane, methane, liquor, hydrogen and exhaust. This kind of sensor has an area with the gathering of sensors. This implies that the sensor's voltage yield is converting as in line with the distinction in its fabric's competition. The electrical obstruction of the material is based upon the compound shape of the gasoline with which the sensor follows.
The altered model, the essential model, is a compartmental model that separates the populace into uncovered, irresistible, and eliminated compartments one after the other. The eliminated bunch contains the two recuperations and passing through the infection. It doesn't consider new births or passing, or any applied control measures. Consequently, various changes have been made by adding greater cubicles, bringing approximately extra complex styles of the version, even though those complex models that take into account more natural variables are more affordable, off base due to the absence of sufficient information. As such, include a larger wide variety of obscure obstacles that must be assessed utilizing the limited reachable informational indexes, prompting a more distinguished vulnerability within the consequences. For extra insights concerning the willpower, highlights, operating standards, as an example, pin design, running voltage and adjustment, please allude to the sensor information sheet gave by using the manufacturer. This phase gives the muse and the nitty-gritty plan of creating a cellular phone primarily based shape, which includes mobile smartphone, calculations and inserted sensors.

### 3.1 DETECTION COMBINATION ALGORITHM

The detection combination algorithm looks for additional realities; Implications from everybody can be investigated for extra data. Implanted principally based information reserving, while at the same time storing up more records around the item, may help discover ways to deal with reduce the spread.

Stage 1: Ultrasound detector generates ultrasound signal.

Stage 2: corvids affected person nearly object reflected signal.

Stage 3: Reflected ultrasonic signal receiving ultrasonic sound sensor and MQ2 sensor.

Stage 4: The wearable instrument practice to social distance directors alter.

Stage 5: Embedded wearable gadgets should ensure people and caution in a social distance.

Stage 6: if there should be an occurrence of Covids acted man or controlling sprit, sensor stagger on and ready records.
Those, the structure endeavors to discover the degree of each indication based on the incorporated sensors estimations. Also, fixed sensors innovations. Its related calculations use cellphone sensors to analyze the fundamental results of the COVID-19 guess. Every one of those signs and indications has its stage, separated from various turmoil that incorporates vent signs and side effects, cold-signs and manifestations and roughage fever signs. Even though there are various methods to get the aftereffect of the problem to investigate, the proposition offers a low worth and neighborly answer.

4. RESULT AND DISCUSSION

The appropriate response might be used by radiologists or individuals who have cell phones at without fail, anyplace. Along these lines, such a system is needed valuable inside the crisis circumstances. First, the demonstrated COVID-19 influenced individuals' manifestations should be figured out to perceive the system's work process. The infection's celebrated indications are fever, exhaustion, cerebral pain, sickness, dry-hack, lung Computed Tomography (CT) imaging capacities, and windedness. Guy, the real potential typhoon way, including the United States, is a truth with the collection of numbers and weather theory from public and private regional organizations using reality management, from the point of view of "cone vulnerability" of visual authenticity. And weather bugs.
Figure 3 Embedded Wearable Devices

Figure 3 shows sensitive people who request songs with their emergency response main and ultimately affect the risk of disagreement emphasize the four principles messages, and check to show confidence in the vulnerability. The results showed a confusing visual connection between the cons and the status of many of its messages. Similarly, two illegal bright spots have emerged from the data to satisfy visual reliability. Distance visual or verbal language, base cover can change the way science is based. It is necessary to learn to walk an incredibly significant distance from science and visual symbolism. Given the visual research results, need to consider "possible distance" and public mindfulness.
Figure 4 Analysis of Accuracy based Coronavirus spread.

Figure 4 gives the Covid 19 Progress in World Wide analysis of accuracy based coronavirus spread worldwide. It is still high accuracy in other countries compared with India. For graphics, sound, or synthetic information, design plays an important role in clarifying the most disturbing highlights, but most of them are considered the highlights of interpretation. There are three advantages. If this idea is changed, the description associated with the distorted sound or composition message will lose its importance. It is not the image, so the visual observer sees the real thing and sound composition.
Table 1 Analysis Coronaviruses Prediction

| Main Source                  | Public Area (%) | Private Area (%) | Other Area (%) |
|------------------------------|-----------------|------------------|----------------|
| Usage Source                 | 5.2             | 2.9              | 1.4            |
| Total number of models       | 45.3            | 3.4              | 2.1            |
| Results of Negative and Positive Points | 15              | 24               | 60             |
| Members of Calculation       | 118             | 125              | 130            |

Table 1 shows as analysis, coronaviruses prediction dynamically reduces the drawing ideas and data and allows the architect to create a verification estimate for the caretaker's consideration. The chain of command has been designed in the planning components and other planning criteria.

Table 2: Calculation of Communication Based Data Management

| Key Source                  | None (%) | Suggestive Language (%) | Explicit (%) |
|------------------------------|----------|-------------------------|--------------|
| Message Dependency          | 120      | 1                       | 9            |
|                              | 41       | 5                       | 41           |

Table 2 shows as Correspondence information the board PC, contingent upon the advancement of the bunch scale, it very well may be dictated by the situation of the inconsistencies, shadows or visual components. Purchasers, standards, papers, magazines incorporate realistic media production, for example, design, book cover and site pennants. Make
area, scale, and segments and standards, for example, normal and mechanical development, design, distinction, and reformist framework.

**Figure 5: Circuit Diagram Of UltraSound Signal Receiving**

Figure 5 is acquired: development in the angle proportion of the two-dimensional visual parts relative regardless. For instance, it has two indistinguishable square scales yet various widths. This augmentation permits discuss the setting, print this approach to change the relationship. If it is determined to the organization. For reasons unknown, a few database, for example, windows or parts, which are partitioned into underlying or round edges, can be found in the climate and current plan. Fibonacci numbers are instances of a portion of the gold activities that Palladio is designing guidelines.
Figure 6: Comparison of Algorithms

Figure 6 the absolute size of the comparing measurement spoke to outwardly got in any event two fragments. These examinations are added and shape static pictures, including segments of the synthesis. Dimensional change between at any rate two pieces of a similar kind of hardware can cause unevenness. The scale is utilized to rank the chain. While investigating or circulation map, a guide, profiles or plans might correspond to the proportion.

5. CONCLUSION

Appraisal of disease rate is an immense bit of expecting and preventing the difficulty from opposing defilement in embedded sensor components. This proposition explored the use of a nonlinear observer inside the Susceptible Exposed Infectious Recovered (SEIR) plague factors rendition with a latent period, used nonlinear spectator to evaluate scourge commonness and illness rate coefficient and in some time affirmed the theoretical impacts through numerical simulations. Raise awareness of students accustomed to facing emotional behavior and improve their self-understanding to achieve successful vaccination. Of the coronavirus generation. This allows us to monitor the behavior and create a "social engineering" learning environment. As a radar for facial contact, the "smart stick" can also be seen as an example of a mixed reality human experiment. Contamination has experimentally created scenes. The coronavirus epidemic has taken unprecedented results in arranging the lives of many people.
REFERENCE

1. Lv Z, Qiao L. Deep belief network and linear perceptron based cognitive computing for collaborative robots. Applied Soft Computing. 2020 Apr 20:106300.

2. Lv Z, Kumar N. Software defined solutions for sensors in 6G/IoE. Computer Communications. 2020 Mar 1;153:42-47.

3. Zhang L, Shi H, Zeng X, et al. Theoretical and Experimental Study on the Transmission Loss of a Side Outlet Muffler[J]. Shock and Vibration, 2020, 2020.

4. Prakash, P. Sharma, I. K. Sinha and U. P. Singh, "Spread & Peak Prediction of Covid-19 using ANN and Regression (Workshop Paper)," 2020 IEEE Sixth International Conference on Multimedia Big Data (BigMM), New Delhi, India, 2020.

5. C. Sandeepa, C. Moremada, N. Dissanayaka, T. Gamage and M. Liyanage, "Social Interaction Tracking and Patient Prediction System for Potential COVID-19 Patients," 2020 IEEE 3rd 5G World Forum (5GWF), Bangalore, India, 2020.

6. A. Bhati and A. Jagetiya, "Prediction of COVID-19 Outbreak in India adopting Bhilwara Model of Containment," 2020 5th International Conference on Communication and Electronics Systems (ICCES), COIMBATORE, India, 2020.

7. Ying Tang, Mohamed Elhoseny, Computer network security evaluation simulation model based on neural network, Journal of Intelligent and Fuzzy Systems, May 2019 (DOI: 10.3233/JIFS-179121)

8. H. Li, X. Wang, X. Zhu, Z. Xu and Z. Yang, "Prediction of Resumed Production Trajectories in the Post-Epidemic Area Based on Big Power Data," 2020 IEEE International Conference on Information Technology, Big Data and Artificial Intelligence (ICIBA), Chongqing, 2020.

9. I. Cruz-Mendoza, J. Quevedo-Pulido and L. Adanaque-Infante, "LSTM performance analysis for predictive models based on Covid-19 dataset," 2020 IEEE XXVII International Conference on Electronics, Electrical Engineering and Computing (INTERCON), Lima, Peru, 2020.

10. Namasudra, S., and Roy, P. 2018. "Ppbac: Popularity Based Access Control Model for Cloud Computing," Journal of Organizational and End User Computing (30:4), pp. 14-31.

11. M. Shanaa and S. Abdallah, "Agent-based simulation for COVID-19 outbreak within a semi-closed environment," 2020 First International Conference of Smart Systems and Emerging Technologies (SMARTTECH), Riyadh, 2020.
12. S. Singh, P. Raj, R. Kumar and R. Chaujar, "Prediction and forecast for COVID-19 Outbreak in India based on Enhanced Epidemiological Models," 2020 Second International Conference on Inventive Research in Computing Applications (CIRCA), Coimbatore, India, 2020.

13. Tsai, S.B., Wu, W., Ma, S., Wu, C.H., Zhou, B. 2019. Benchmarking, knowledge inertia, and knowledge performance in different network structures. Enterprise Information Systems, 2019. https://doi.org/10.1080/17517575.2019.1698059

14. Y. Feng and X. Lu, "Simulation analysis of the coronavirus disease 2019(COVID-19) spread based on system dynamics model," 2020 IEEE International Conference on Systems, Man, and Cybernetics (SMC), Toronto, ON, 2020.

15. Suresh Kumar C and A. Julian, "Wearable messaging device for the visually impaired person," 2014 IEEE International Conference on Advanced Communications, Control and Computing Technologies, Ramanathapuram, 2014.

16. Lv, Zhihan, Alaa Halawani, Shengzhong Feng, Shafiq Ur Réhman, and Haibo Li. "Touchless interactive augmented reality game on vision-based wearable device." Personal and Ubiquitous Computing 19, no. 3-4 (2015): 551-567.

17. Mu Zhou, Yanmeng Wang, Zengshan Tian, Yinghui Lian, Yong Wang, and Bang Wang. Calibrated Data Simplification for Energy-efficient Location Sensing in Internet of Things. IEEE Internet of Things Journal. 2019, 6(4): 6125-6133.

18. M. Noorin and K. Suma, "IoT based wearable device using WSN technology for miners," 2018 3rd IEEE International Conference on Recent Trends in Electronics, Information & Communication Technology (RTEICT), Bangalore, India, 2018.

19. Hong Zhang et al., "The design and realization of a wearable embedded device for dietary and physical activity monitoring," 2013 3rd International Symposium on Systems and Control in Aeronautics and Astronautics, Harbin, 2013.

20. Wei Wei and Yongsheng Zhang, "Estimating method of disease incidence in the SEIR epidemic model," 2013 International Conference on Electric Information and Control Engineering, Wuhan, 2013.

21. C. Wang, K. Xu and G. Zhang, "An SEIR-based Model for Virus Propagation on SNS," 2013 Fourth International Conference on Emerging Intelligent Data and Web Technologies, Xi'an, 2013.
22. Kim, H. 2019. "Investigating the Mediating Role of Social Networking Service Usage on the Big Five Personality Traits and on the Job Satisfaction of Korean Workers," Journal of Organizational and End User Computing (31:1), pp. 110-123.

23. X. Lin and Y. Zhuang, "Research on online rumor based on the SEIR model with nonlinear incidence rates," 2015 15th International Conference on Control, Automation and Systems (ICCAS), Busan, 2015.

24. M. De la Sen and S. Alonso-Quesada, "A continuous-time vaccination rule for the SEIR epidemic model," 2016 IEEE Conference on Cybernetics and Intelligent Systems, Singapore, 2016.

25. Donghong Zhou, Xingzhong Zhang, Smart community management portable device design based on embedded wearable device technology, Microprocessors and Microsystems, Volume 81, 2021, 103687, ISSN 0141-9331.

26. Ahmed M. Eassa, Mohamed Elhoseny, Hazem M. El-Bakry, Ahmed S. Salama, NoSQL Injection Attack Detection in Web Applications Using RESTful Service, Programming and Computer Software, Volume 44, Issue 6, pp 435-444 (DOI: https://doi.org/10.1134/S036176881901002X)

27. Tengfei Wu, Zhiguang Yang, Animal Tumor Medical Image Analysis Based on Image Processing Techniques and Embedded System, Microprocessors and Microsystems, 2020, 103671, ISSN 0141-9331.

28. A. Francis Saviour Devaraj, Mohamed Elhoseny, S. Dhanasekaran, E. Laxmi Lydia, K. Shankar, Hybridization of firefly and Improved Multi-Objective Particle Swarm Optimization algorithm for energy efficient load balancing in Cloud Computing environments, Journal of Parallel and Distributed Computing, 2020, In Press (DOI: https://doi.org/10.1016/j.jpdc.2020.03.022)

29. Yanyu Chen, Wenzhe Zheng, Wenbo Li, Yimiao Huang. The Robustness and Sustainability of Port Logistics Systems for Emergency Supplies from Overseas. Journal of Advanced Transportation, Volume 2020, https://doi.org/10.1155/2020/8868533

30. Wang, B., Cheng, J., & Zhong, S. M. (2018). Bounded input bounded output stability for lurie system with time-varying delay. Advances in Difference Equations, 2018(1), 57.
Author Biography

Jingzhe Li, Nationality, was born in March 1969 in Sheqi, Henan Province. He graduated from Xinxiang Medical University with a bachelor’s degree in Medical Imaging in January 2007. He is currently the director of the Department of Nursing of Hebi Polytechnic in China. His research interests are medical imaging diagnosis and treatments.
Declaration of interests

☐ The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

☐ The authors declare the following financial interests/personal relationships which may be considered as potential competing interests:

The authors declare that there is no conflict of interests regarding the publication of this article.