Retraction

Retraction: Smart Chair System for Maintaining Health using Internet of Things (IOP Conf. Ser.: Mater. Sci. Eng. 1145 012048)

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This article (and all articles in the proceedings volume relating to the same conference) has been retracted by IOP Publishing following an extensive investigation in line with the COPE guidelines. This investigation has uncovered evidence of systematic manipulation of the publication process and considerable citation manipulation.

IOP Publishing respectfully requests that readers consider all work within this volume potentially unreliable, as the volume has not been through a credible peer review process.

IOP Publishing regrets that our usual quality checks did not identify these issues before publication, and have since put additional measures in place to try to prevent these issues from reoccurring. IOP Publishing wishes to credit anonymous whistleblowers and the Problematic Paper Screener [1] for bringing some of the above issues to our attention, prompting us to investigate further.

[1] Cabanac G, Labbé C and Magazinov A 2021 arXiv:2107.06751v1

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Smart Chair System for Maintaining Health using Internet of Things

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Abstract. Sitting is the most common behavior of the human in day today life. Also discovered that the ill-advised positions will prompt torments and also other ongoing intricacies for the individuals. To keep away from these impacts of helpless sitting stances, we had built up an exceptionally functional plan of a shrewd seat framework in our paper, that will actually want to screen the behavior of sitting stances of the human body precisely just as non-intrusively. A pressing factor examples of the normalized sitting places of human were gained and sent to the PC for the programmed sitting position acknowledgment with the utilization of the inserted framework. The exploratory outcomes additionally shown that it can perceive the places to sit for the human subjects with the highest exactness. The positions observing in a created savvy seat framework can help and elevate individuals to accomplish and keep up solid sitting stances, and furthermore forestall or decrease the constant illnesses brought about by helpless sitting stances. These promising outcomes recommended that the current framework is doable for sitting stances checking, which can discover applications in numerous regions including medical care administrations, human-PC communications and furthermore canny climate.

1. Introduction
As of late, different frameworks and applications using IoT advances has been created to help individuals in tending to issues that Occur in our regular daily existence [1]. By far most today experience an enormous for various purposes, for instance, considering, driving or working. Therefore, present day people are impacted with waist disorders, for instance, the lumbar circle, hip winding and scoliosis, where these diseases sometimes happened beforehand. Thusly, various crisis facilities which have pragmatic involvement with treating the spines have been set up nowadays. Additionally, this capacity can be utilized for various purposes, for instance, the clinical assessment, improvement of another clinical stuff or a seat, an office the board organizations, and besides adaptable games for the training that can be applied to the patients at the time of the recuperation [2]. The customers sit successfully with the affirmation of their current status by giving envisioned data in a ceaseless to the Smartphone Application. We can lessen the back similarly as the hip misery achieved by the sitting circumstances for a broad time frame through dissipating the pressure on the back similarly as hip by diminishing normally changing the sitting position of a person on the seat.

2. Related works
There are a couple prior works that joins a seat using the IoT advancement. The study of Smart Chair system that measures the customer's Pulse or Circulatory strain normally during sitting on a seat. In any case, our work shifts with those since we will most likely assistance customer by modifying their
position, not by heartbeat or circulatory strain. Likewise, past examinations can send and get the data just through a planned relationship with a singular device. Curiously, since the power usage is the primary issue in IoT systems now a days, our structure consumes low power, thereafter our smartphone application is good for getting the data from the different seats (for instance in working environments or clinical facilities) all the while [3]. Like this assessment, another investigation had analyzed the customer's sitting position using the Smart Chair. They endeavored to check the customer's sitting position or direct through an identifying development and state of a waist and a pelvis, anyway they didn't course of action for offering the additional kinds of help, for instance, changing the customer's position. The customers to sit precisely with affirmation of own current status by giving the natural and the imagined data in a consistent to the smartphone application.

SHESOP is a insightful prosperity system planned for screening illness of our customer. They give information from the data saved in structure [4]. It facilitates three Subsystems for instance, Web convenient and Wearable devices. The usage of framework had seat in the vehicle hopes to screen the beat and sensation of nervousness of the driver.

The empower specialists in looking at the situation with the heart, that the yield can be found as a reach and set aside into a high-level sound association [5]. The results of explored sounds from the heart picks state of the driver's heart success and vibes of disquiet utilizing HRV strategy.

3. Project Description
The couple prior work that combines seats advancement. Smart Chair structure that is used to measure the customer's pulse as well as heartbeat therefore while they sit on a seat [8 -10]. In any case, our work changes with those since we will presumably help customer by altering their position, not by heartbeat or circulatory strain. In addition, past examinations can convey and get data essentially through offset relationship with a single contraption. Figure 1 shows the sitting position. As opposed to that, since the force utilization is the main issue of the IoT frameworks, our framework utilizes a Node MCU and Bluetooth 4.0 for working at lower power, afterward our smartphone application is equipped for accepting the information from the various seat [6]. Like this assessment, another evaluation dismantled the client's sitting positions utilizing a Smart Chair. They attempted to check the client's sitting position or direct through a recognizing advancement and conditions of a waist in any case they didn't get ready for offering the extra kinds of help, modifying the client's lead. The Smart Chair using IOT which supplements those limitations makes the customers to sit in a correct circumstance with the affirmation of their current status by giving intuitive and imagined data persistently to the smartphone application. Figure 2 shows the Block Diagram of proposed method. Figure 3 shows the implementation.

![Figure 1. Sitting positions](image-url)
Block Diagram of proposed system

Figure 2. Block Diagram of proposed method

4. Implementation Details

Figure 3. Implementation
5. Result and Discussion

To affirm whether the executed contraption work properly. The screen captures of the application for each stance. During the portrayal, the red shaded circles that address the four customer's positions tended to by moving circumstance with the help of ADXL335 accelerometer sensor put in the real seat. The principal relevant examination, the Smart Chair using the IOT application imparts the customer's sitting circumstance as inclination and the squeezing factor successfully as we proposed [7]. It infers that the inclination are assessed accurately on a Smart Chair system. After that it has been invigorated specialist for the customers that will really need to check their own sitting behavior.

Also, this limit can be utilized for various purposes, for instance, the clinical examination, progression of another clinical stuff or a seat, office the heads organizations, and the versatile games for training that can be applied to patients during their reclamation. Figure 4 shows the outcome.

Figure 4. Outcome

6. Conclusion and Future work

Future degree proposition including the web camera is join more web cameras. With more assets it would be conceivable that each square of the control interface be its own web camera stream. This would assist with permitting the clients to take a gander at the "Regressive" control block and that the client would really have the option to see behind them as they go. we need to concoct the choice calculation that will be useful in controlling to drive the engines appropriately.

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