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IOT Based Paralysis Patient Health Care

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Abstract: ***Paralysis is the loss of muscle function in body components. It can affect any region of the body atany moment, and may not cause discomfort in the affected location. Technological and therapeutic breakthrough aim to enhance quality of life. Our goal is create a user-friendly and cost-effective technology that combines basic health monitoring with nursing care. Paralysis patients are unable to communicate their message and requirements.The IoT based Paralyzed patient health care system facilitates communication between patients, doctors, nurses, and loved ones. Ones sitting at home or in the office on the internet. The system uses microcontroller circuitry ot achieve it's functionality. The systemm utilizes a finger bending recognition system. Thecircuit detects the bending of fingers using a flex sensor am dthe microcontroller communicates the corresponding output or need of a patient to caretaker of the patient using GSM module.***
Keywords: Paralysis Patients, Nursing, Internet of things (IOT), SMS Notification.

I. INTRODUCTION

Patient suffering from paralysis are unable to move their muscles in order to function. This disorder can have a wide range of symptoms and causes, particularly in case of spinal cord injury that impact the neurological system. Certain systems are in currently in place for personal comfort. Nonetheless, this technology will support tracking the patientsoverall needs. Based on the input from the sensors, their messages will be shown. The goal I sto create an innovative tool that aids those disabilities. The lives of those who are Paralyzed might be improved by thus gadget in the future. While these are many cutting edge methods for treating paralysis, this technique will assist patients adapt by maximizing their level of independence. Thankfully, technological advancements over the past ten years show promise in addressing needs.

The system includes a hand motion recognition circuit and receiver/transmitter circuit.The hand motion circuit uses a flex sensor to detect handmovements and wirelesslytransmits the data to receiver system. The receiver system receives and processescommands,transmits data tonw mobile application. The WHO reports that the doctor-to-patient ratio in India is approximately 1:854. The ratio suggests that one doctor must visit almost 98%more than the average.The suggested study provides clinicians with an efficient and economical way to monitor the health condition of several individuals. Tracking a patient'svital signs on a regular basis is called patient monitoring. Sensor connection are usually required for patient monitoring.Wireless connectivity and sensors are among the components. Generally, communication device have shorter range. Typically, microcontroller units are used as auxiliary parts in monitoring systems.

II. LITERATURE SURVEY

Smart Healthcare is important for patients who need continuous monitoring that is not available outside of hospital. Additionally, it's critical in townlets or rural areas with nearby con entions to inform megacity hospitals about the health state of their patients. This study presents a smart health monitoring system that uses biological detectors to check a patient's condition and sends an online notification to the patient. An Arduino Uno regulator then reads the data from biological detectors andconnects it to LED display so that the occurrence may be seen.

While gathering vital signs from a bigger population of patients on a tight routine can be exciting and tiresome, on the risk of false positives grows with delicacy, Time pauses and instrumentation estimation. In order to solve this issue, we offer a real time, digitally calibrated vital dimension equipment that can function in real time, capture data an dsend it for expert consultation. In addition to increasing the effectiveness of health records, measurement generated data can also be used statistically. This gadget is aim to raisethe standard and effectiveness of medical care.

In order to visualize the data on a Smartphone, it uploaded to a webpage for storage and observing. To enable their caregivers and family members to view the case's details with ease, an android operation has been created.

To help the paralyzed patients the proposed project is introduced, it consists of sensors that monitor different vital information and also help the patient to convey their messages to the bystanders.

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III. METHODOLOGY

The sensor will be used to measure the patient's pressure and temperature. The physician is qualified to provide adequate medical advice. IoT devices that are regularly utilized by patients with disabilities require closer supervision. Monitoring strategies have been gathered with the aid of the sensors to make sure that patients who are recommended to the physicians are consistently moving items. As a result, the quality of care I raised. In the end, this leads to medical costs. Four flex sensors have been incorporated into the system and distinct messages have been planted into each one, the system is turned on, the patient can bend the finger in the direction of their want. These sensors are linked to an Arduino board, which enables it to read input leverages the internet of things. In thus case, a GSM module is used to send a message to the designated number. Other sensors include body fall detection, temperature and pulse, all of which aid in patient care. With this system, the requirements can beeasily communicated, continuous monitoring can be accomplished, and the output of the sensors is shown on a webpage. Because of this, caregiver needs to be aware of the patient's needs and adjust their assitance accordingly. This system includes different sensors. The sensors are designed to be used gloves or by individual special needs. If the person is fallen on the floor the systemwill send a message to caregiver or familymembers of patient, alerting the caregiver to the patient's severe condition. This inexpensive, easy-to-use device can help treat individuals who are paralyzed.

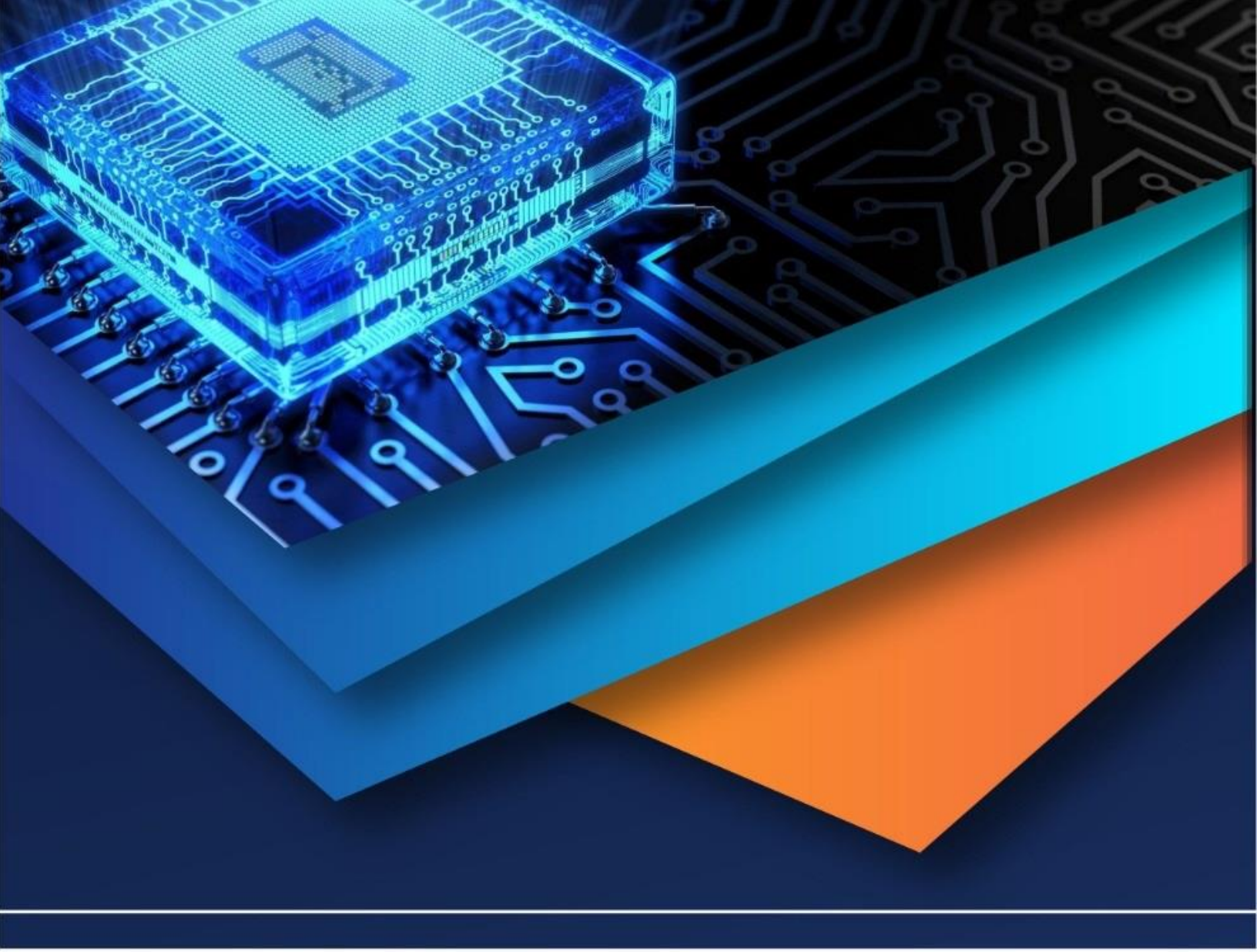
IV. CONCLUSION

This system is very beneficial for diable people. They can use muse movement detection to exist in this world just like everyone else, and they can make prearranged moves to seek for help. Due to its lightweight, dependability, and affordability,users can get this equipment for a low cost. This equipment will allow paralyzed patients to move around on their own. It doesn't make this duty any less important just because each person has a different kind and type of obligation. Therefore, a variety of strategies are required to support these people, and it is our duty as future engineers to develop cutting-edge technology to help paralyzed patients.

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