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A Survey Paper on Patient Health and Saline Level Monitoring System using IoT

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ABSTRACT

A popular board game Hanabi is a combination of cooperative gameplay with imperfect information. Partial observability makes the game, a challenging domain for AI research. Especially, when AI should cooperate with a human player. Imperfect information game is nontrivial due to complicated interplay of policies. The combination of cooperation, imperfect information, and limited communication make Hanabi an ideal challenge in both self-play and ad-hoc team settings. Ad-hoc team settings, where partners and strategies are not known in advance. In this paper, we are trying to review all such type of games, which is evaluated with the help of Artificial Intelligence and machine technique. We expect this article will help unify and motivate future research to take advantage of the abundant literature that exists to promote fruitful research in the multiagent community.

Keywords—Ad-Hoc Team, Communication, Cooperative, Imperfect Information

I. INTRODUCTION

The world's population is increasing, and as it does, the demand for medical treatment is that. There have been great advancements in the field of sensors, microcontrollers, and computers in recent years, which has caused improvements in health care. As a result, there are a lot of explanations, including the conjunction of the two critical fields of medicine and engineering. This paper details the development of an automated saline monitoring device that utilises a locally developed sensor at a very low cost coupled with a GSM (global mobile communication) modem. This also enables the academic advisor or nurse to keep a careful eye on the saline flow rate from afar.

The 8051 microcontroller is used to make sure all tasks proceed at the same time. The neck of the saline bottle is outfitted with an infrared sensor that measures the flow rate of the liquid. Saline drop rate is accurate. The data from the sensor is analysed to determine the flow rate, which is slow, medium, or high. This is done in order to send this information through GSM technology to a cell phone at a remote location for later use.

II. LITERATURE SURVEY

Utilisation of IoT technology in healthcare can provide benefits to doctors and managers who have access to a wide range of data sources, as well as new difficulties in accessing diverse IoT data, particularly in the mobile environment where the use of real-time IoT application system IoT applications The IoT devices themselves gather massive amounts of data, creating the issue for the data interests with regards to IoT data. [1]

A final goal of the evaluation is to provide a visualisation of current technologies in location-based healthcare systems, and to make use of this technology for the advancement of potential discoveries. The study also enabled us to better understand the many health innovations that are already thriving and existing, such as electrocardiogram (ECG) monitoring using apps made for Android, using various protocols to transmit data like MQTT, TCP / UDP, and OCN-authenticated technologies, and WLAN. [2] The focus of this article is to explore the wireless health monitoring system of human temperature and heartbeat patients by looking at ZigBee, GSM, and SMS technologies. Any irregularities in health conditions are identified by sending a text message to the number indicated to your mobile phone via the GSM network. The hardware is already in place and the output is already studied.

Health care approaches that have been used for years are rapidly becoming outdated due to the growth of the population. The current healthcare system needs a great deal of manual work and is time-consuming because of that. Widespread use of innovative health monitoring technologies, with less human interference, is required [3]. This will be available at an affordable price in rural and urban areas. With these new engineering developments and with the medical field's cooperation, we are on our way to solving this issue. Also, in order to take advantage of newer and more advanced monitoring systems, low-cost and highly adaptable electronic components such as sensors, PLCs, microcontrollers, and the like are needed. The primary emphasis of this article is on providing advanced saline level control systems. [4] The world's population is increasing, and as it does, the demand for medical treatment is that. Health care developments in the field of sensors, microcontrollers, and computers have helped to dramatically increase the progress that has been made in recent years. This is one of the primary causes, due to the inclusion of two important areas of study: medicine and engineering. This paper explains the design and development of an automated saline monitoring device using an indigenous designed low-cost sensor and GSM (global mobile communication) modem. This also enables the attending physician or nurse to keep a careful eye on the saline flow rate from afar. The 8051 microcontroller is used to make sure all tasks proceed at the same time. The neck of the saline bottle is outfitted with an infrared sensor that measures the flow rate of the liquid. It is very easy to verify the level of saline drop rate. The data from the sensor is analysed to determine the flow rate, which is slow, medium, or high. This is done in order to send this information through GSM technology to a cell phone at a remote location for later use to significantly expand [5].

III. EXISTING SYSTEM

Although in modern health care standards, nursing practitioners are responsible for overseeing,

tracking, and delivering care to the patient receiving saline, nursing administrative assistants take care of these duties. The roller clamp is usually used to manually monitor the saline infusion rate in hospitals. In the case of the roller clamp rotating one way, it compresses the intravenous tube further, which makes the tube narrower and allows saline fluid to flow in at a slower rate. You should roll it in the opposite direction if you want the tubing to loosen and release saline fluid, which makes the tubing thinner and allows saline fluid to flow at a faster rate. While some progress has been made in developing systems to track patients without alerting them that they are being watched, to date, these systems do not provide a solution that decreases the patient's reliance on the nursing staff, the physicians, and also helps to minimise the number of times that nurses must go to each patient's bedside to check their saline levels. In order to track the salinity of saline solutions, a salt level monitoring system using IoT must be created.

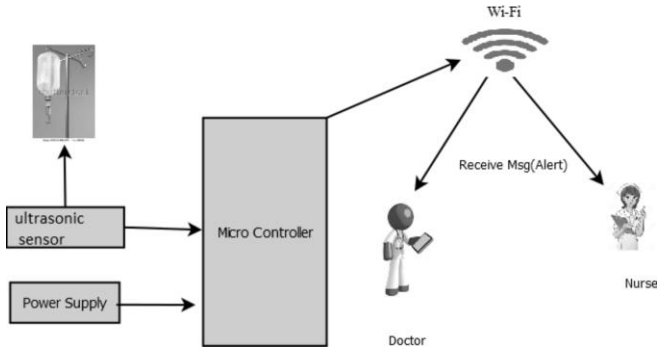

Fig. 1 System Architecture for Existing System [4]

IV. CONCLUSION

Several patients can be monitored at the same time by the anaesthesiologist. To the extent that any inaccurate calculated data is detected, the doctor will be notified by a warning that is sent to the Android app. With this proposed method, it is able to automatically track the salt flow rate to use the microcontroller. It is capable of wirelessly sending data to nurses and physicians, as well as of displaying results such as the rate of saline droplets, which are used to calculate how many came from the saline bottle. The device is efficient, economical, and convenient for patients and for controlling the salinity of the saline.

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