HEALTH VITA

THE ULTIMATE HEALTHCARE MONITORING ECOSYSTEM

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Introduction

- The integration of IoT in the healthcare sector has significantly enhanced telemedicine by enabling providers to offer a great quality of care, as reliable as in-person treatment modalities.
- In the wake of the COVID-19 pandemic, there has been a massive surge in the adoption of telemedicine in healthcare service, which is also fostering the need for such devices Health Vita is set to revolutionize the healthcare based IoT paradigm.
- Wearable devices with sensors are the need of the hour in the Healthcare industry tracking an individual's activities through day and night, without much interruption and discomfort

Methods

This project comprises of three major parts:

- Sensing Human Vitals
- Cloud Computing
- Analytics for preventive and assistive healthcare

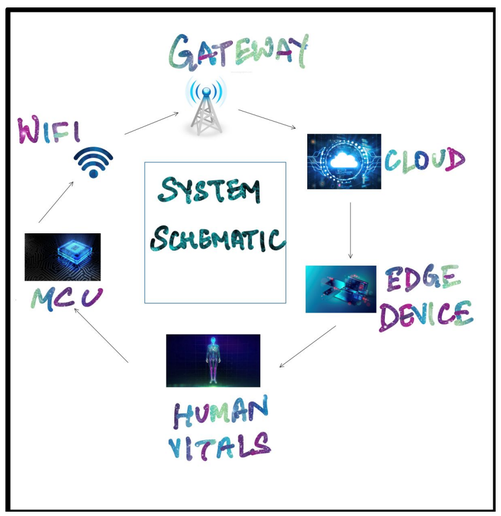

fig 1. Schematic Diagram for the system

Data Analysis

- ThingSpeak enables sensors, instruments, and websites to send data to the cloud where it is stored in either a private channel.
- Once data is in a ThingSpeak channel, data can be analyzed and visualize it, calculate new data, or interact with social media, web services, and other devices

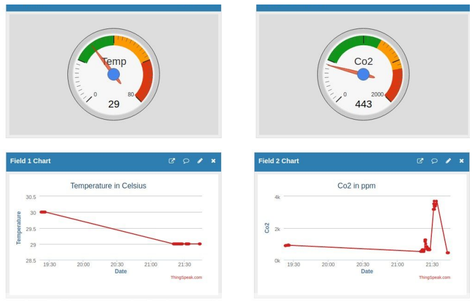

Fig 2 : Thingspeak Schematic

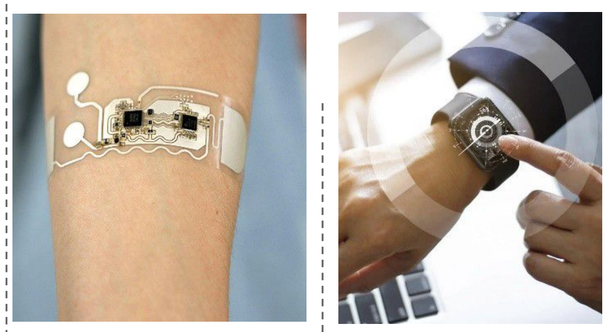

Fig 3: Wearable Edge Devices

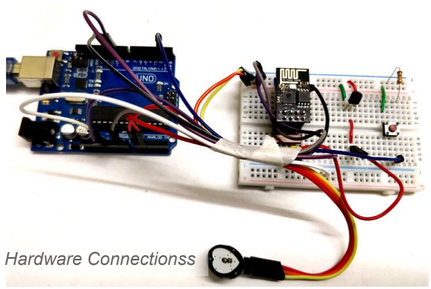

Fig 4: Hardware Connectionss

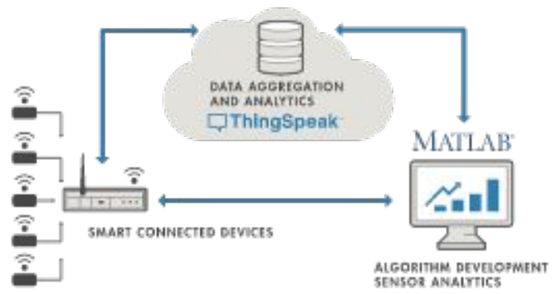

Fig 5: Complete Workflow

Results

The demand for smart wearables has been driven by increasing focus on active patient engagement and patient-centric care, growth of high-speed network technologies for IoT connectivity, and the surging need for the adoption of cost-control measures in the healthcare sector.

Fig 6: Connected E

Future Prospects

- Recent advances in the wearable sweat based technologies have overcome the historic drawbacks existing in sweat based sensing.
- Human sweat contains a lots of physiologically relevant information about a human body, such as Blood sugar values, blood pressure and many other data.
- This sensor can be used in future replace many traditional sensors to just one sweat based sensor doing multiple operations.

Conclusion

- Health is Wealth. There could be nothing as important as health to lead a prosperous life.
- The Human Body is the most precious and at the same time the most vulnerable source of impairment.
- It is high time that we take care of our health in every way possible.
- With the advent of the Internet of Things, healthcare system is evolving into an advanced ecosystem to manoeuvre early precautions and cure with the help of accurate data procurement and analysis.
- Health Vita envisions to provide tracking of the most vital parameters, which when overlooked can prove fatal.
- With its unique technology and ease of adoption, this project will set up a benchmark in the MedTech aspect of the Internet of Things.

References

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