

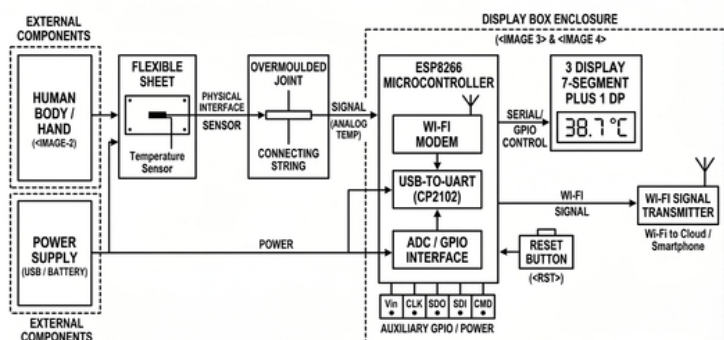
Haptic-based wearable temperature monitoring device for Hypoesthesia Persons

Seeking parties interested in licensing and commercialization of technology.

Technology Brief

This novel wearable system offers continuous, real-time temperature monitoring tailored for individuals with hypoesthesia who cannot perceive thermal stimuli. Built on a flexible, biocompatible, and sweat-resistant substrate, the device integrates an accurate LM603 series sensor housed in a malleable joint to maintain optimal skin contact and signal integrity across various anatomical sites. An embedded ESP8266 microcontroller leverages a resilient mesh network topology to process data locally and stream it via an Ethernet gateway to secure cloud platforms for remote clinical monitoring. Designed to replace rigid, wired alternatives, the ergonomic system provides immediate user feedback through a wearable display module equipped with haptic and audible alarms for hazardous temperature thresholds, delivering a scalable and power-efficient solution for enhanced patient autonomy.

Block Diagram



Technical Applications

Assistive Healthcare & Sensory Augmentation, Clinical Rehabilitation & Digital Health Networks, Industrial Safety & Smart PPE, Sports Medicine & Extreme Environmental Training, Immersive Technologies & VR/AR Training Simulations

Salient Features

- ✓ Wearable Design & Ergonomics
- ✓ Real-Time Alerts & Feedback
- ✓ Robust Wireless Connectivity

Glimpse of the Technology



REFERENCE NUMBER

iTNT-TECH-0164



TECHNOLOGY SECTOR

Biotech & Healthcare



IP STATUS

Patent Granted



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202241068212



TECHNOLOGY READINESS LEVEL

TRL 3

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