VALLURUPALLI NAGESWARA RAO VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY

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NBA Accreditation for B.Tech. CE,EEE,ME,ECE,CSE,EIE,IT,AME, M.Tech. STRE, PE, AMS, SWE Programmes
Approved by AICTE, New Delhi, Affiliated to JNTUH, NIRF (2022) 113th Rank in Engineering Category
College with Potential for Excellence by UGC,JNTUH-Recognized Research Centres:CE,EEE,ME,ECE,CSE Vignana Jyothi Nagar, Pragathi Nagar, Nizampet (S.O.),
Hyderabad – 500 090, TS, India.Telephone No: 040-2304 2758/59/60, Fax: 040-23042761E-mail: postbox@vnrvjiet.ac.in, Website: www.vnrvjiet.ac.in

DEPARTMENT OF CSE-AIML&IOT
SUMMER INTERNSHIP-EXPO
SMART FALL DETECTION

OBJECTIVES

✓ **Develop** a real-time **fall detection system** using **ESP32** and **MPU6050**.
✓ **Enhance personal safety** for elderly individuals and mobility-impaired persons.
✓ **Utilize accelerometer and gyroscope data** for continuous motion monitoring.
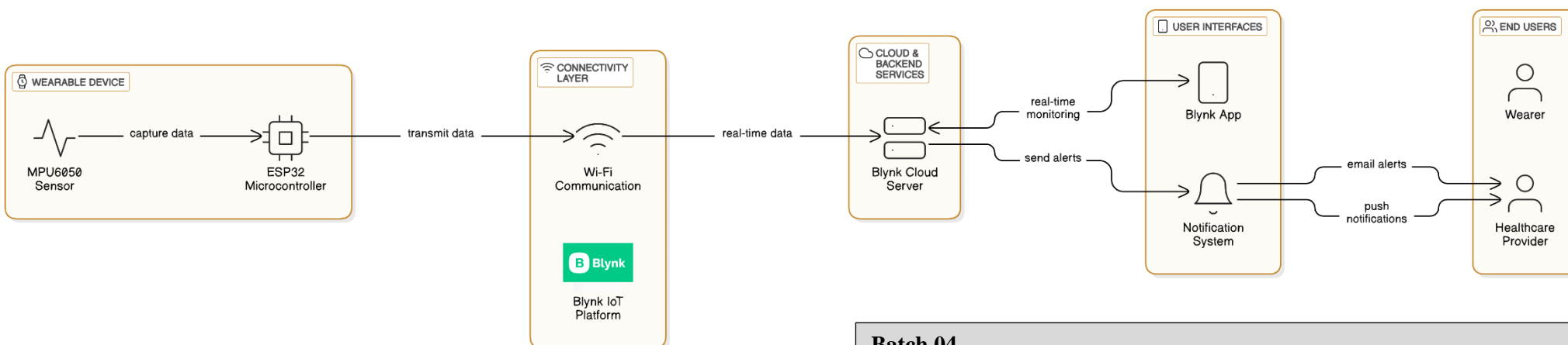✓ **Send instant alerts via Blynk** to caregivers or emergency contacts for quick response.

METHODOLOGY

📌 **Sensor Integration & Data Processing** – Captures motion data using **ESP32 and MPU6050**, processed in **Arduino IDE**.
📌 **Real-time Alert System** – Sends fall alerts via **Blynk IoT platform**, enabling remote monitoring.
📌 **Testing & Optimization** – Calibrates thresholds, and ensures reliable performance.

MAJOR OUTCOMES

✓ Accurate fall detection using MPU6050 and ESP32.
✓ Real-time alerts via Blynk for emergency response.
✓ Remote monitoring and fall history tracking.

SYSTEM ARCHITECTURE

Batch 04
1.22071A6915-E.Madhuri
2.22071A6918-K.Geethika
3.22071A6936-K.Abhi Sree
4.22071A6949-Danny

Name of the Guide:Dr K.Archana
Designation:Asst.Proffessor