HAZARDOUS AREA MONITORING FOR INDUSTRIAL PLANTS POWERED BY IOT

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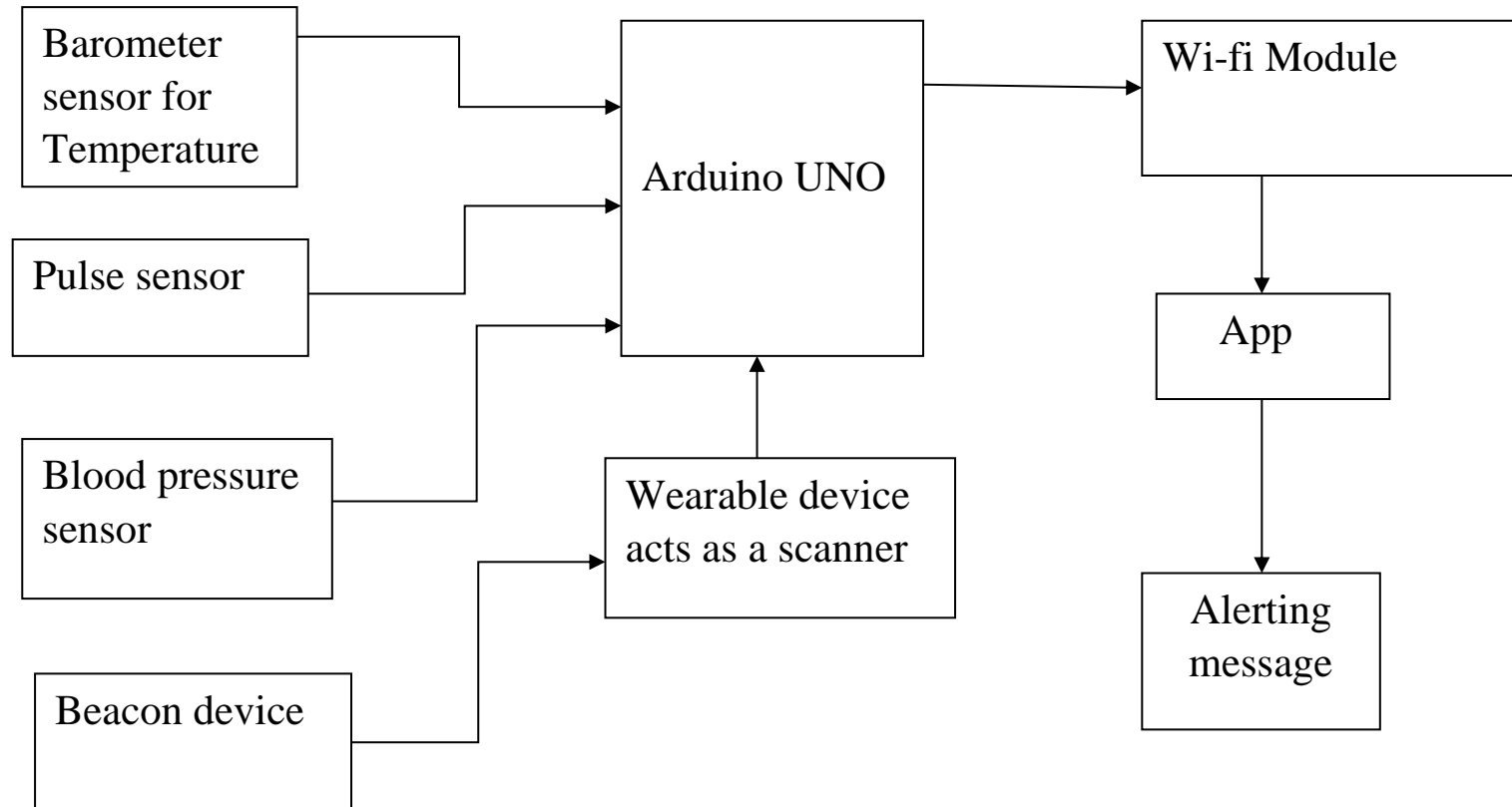Kavitha S   – 113219041049

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BACHELOR OF ENGINEERING IN ELECTRONICS

AND COMMUNICATION ENGINERRING

PROJECT DESIGN PHASE-II

DATA FLOW DIAGRAM AND USER SRORIES

DATA FLOW DIAGRAM:

USER STORIES

USER TYPE	FUNCTIONAL REQUIREMENT (EPIC)	USER STORY NUMBER	USER STORY / TASK	ACCEPTANCE CRITERIA	PRIORITY	RELEASE
Worker in an industrial plant	Registration	USN-1	As a user, I can wear the device to view the temperature and will receive the alerts to mobile through app once I have registered in the application.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Gmail	I can register & access the dashboard	Low	Sprint-2
		USN-4	As a user, I can log into the application by entering email & password	I can receive confirmation email & click confirm	Medium	Sprint-1
Worker in industry	Login	USN-1	As a user, I can wear the device comfortably and I can view the changes in temperature.		High	Sprint-1
		USN-2	As a user, I can receive the alerts correctly to the mobile through app.	I can receive confirmation email	High	Sprint-1

USER TYPE	FUNCTIONAL REQUIREMENT (EPIC)	USER STORY NUMBER	USER STORY / TASK	ACCEPTANCE CRITERIA	PRIORITY	RELEASE
Worker in mining industry	Login	USN-1	As a user, I can view the temperature through wearable device though there is no proper signal.			
Administrator	Login	USN-1	As a user, I can take necessary precautions once the alerts are received according to the problem.	I can access my account through application.	High	Sprint-1
-		USN-2	I can check the temperature conditions through app and wearable device.		Medium	Sprint-2

SOLUTION REQUIREMENTS (FUNCTIONAL & NON-FUNCTIONAL)

Functional Requirements:

Following are the functional requirements of the proposed solution.

FR No.	Functional Requirement (Epic)	Sub Requirement (Story / Sub-Task)
FR-1	Temperature sensors	To detect the temperature of a particular area.
FR-2	Beacons	To broadcast the data.
FR-3	Smart wearables	To notify the workers about the temperature.
FR-4	Alarm	To alert the workers in nearby areas.
FR-5	Mobile App	To alert the workers if the temperature goes beyond the limit.
FR-6	Cloud Storage	To store and access the data.

Non-functional Requirements:

Following are the non-functional requirements of the proposed solution.

FR No.	Non-Functional Requirement	Description
NFR-1	**Usability**	Availability of user-friendly wearable devices.
NFR-2	**Security**	It will be safe for the workers by installing the devices in the industry.
NFR-3	**Reliability**	Data are saved in the secured server so they don't provide any loopholes for the hackers.
NFR-4	**Performance**	No server crash or server down.
NFR-5	**Availability**	Information is available through wearable devices and mobile application.
NFR-6	**Scalability**	Easily accessible with high reliability.