User

Scenario

Develop a smart damage /leakage detection system for oil and gas pipe lines integrated with a mobile SMSapp to alert and display the issue , including time and location of leakage

Expectations

*The hardware system (sensors and GPS) is robust and seamlessly conneccentralted to the server.

*The mobile app is user-friendly and supports instant notifications.

	AWARENESS	SETUP & INSTALLATION	VERIFICATION & CONFIRMATION	REPAIR AND RESOLUTION
Actions	Maintenance personnel, pipeline inspectors, or operations managers. →	Installs sensors along pipeline sections and integrates the SMS app with the detection system.	Verifies the alert by inspecting the location or remotely assessing data.	Technicians perform repairs based on documented data, and app tracks repair status.
GOAL	Discover a reliable, real-time solution for damage and leakage detection on pipelines.	Ensure the detection system and mobile app are fully functional and synced.	Confirm the leak or damage before proceeding with repairs.	Complete repairs effectively, with accurate documentation and minimal downtime.
TOUCH POINTS	Internal company communications, industry conferences, ads, or solution providers.	Sensor placement, app setup guide, SMS permissions, connectivity testing.	Map and GPS location within the app, image/video verification, comparison with historical data.	App updates with repair status, SMS confirmation once repair is completed, repair checklists.
PAIN POINTS	Current manual inspections are costly and slow; inability to detect issues before significant damage occurs.	Complex installation processes, issues with network coverage, sensor calibration challenges.R	Limited visibility or access in remote areas, difficulty verifying the exact damage location, possible need for manual inspection.	Limited repair tracking, lack of real-time repair updates, manual data entry.