

# Advance Technology

SL.NO	Problem Statement	Description
<b>Software</b>		
01	<b>AI-Driven Virtual Healthcare Assistant</b>	Develop a multilingual virtual assistant using AI/ML to assist patients in rural areas with basic diagnosis and reminders.
02	<b>Smart Inventory System with Predictive Analytics</b>	Build a mobile-first system for small businesses that auto-restocks based on sales data trends and predicts shortages.
03	<b>AI-Powered Personalized Education System</b>	Create an education app that adapts to student learning styles and provides real-time feedback for improvement.
04	<b>Automated Legal Aid Chatbot</b>	Build a chatbot to guide users through legal documentation and connect them with free legal counsel based on need.
05	<b>AI-Based Virtual Fitness Coach.</b>	Develop an AI app that monitors body posture via a smartphone camera and suggests corrections in real time
06	<b>Traffic Pattern Analysis for Smart Cities</b>	Create a dashboard that uses real-time traffic data to optimize signal timings and emergency response routing.
07	<b>AI-Based Women's Health &amp; Safety Super-App</b>	Build a unified mobile platform for women to track health (periods, pregnancy, mental health), report violence, access legal/medical support, and get notified of safe zones.
08	<b>Digital Twin for Industrial Automation &amp; Smart Cities</b>	Real-time simulation of machines or cities improves efficiency, safety, and predictive maintenance, enabling AI-driven urban design.
09	<b>Next-Gen Edge AI for Wildlife Tracking &amp; Anti-Poaching</b>	Wildlife extinction is rising. Lightweight AI cameras on edge devices can monitor forests without requiring internet, power, or attention.
10	<b>AI Mirror: Deepfake vs Reality Analyzer</b>	Deepfakes threaten democracy, privacy, and journalism. A tool that flags manipulated media in real-time is essential in today's digital warfare.
<b>Hardware</b>		
01	<b>Brainwave-Controlled Wheelchair</b>	Design a headset-integrated wheelchair for differently-abled people to control movement via brain signals.
02	<b>Automated Solar Panel Cleaner Drone</b>	Build a drone to clean and inspect solar panels, enhancing efficiency and reducing manual labour.
03	<b>Gesture-Controlled IoT Devices</b>	Create a wearable band to control home appliances with gestures, tailored for the elderly or disabled.

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04	<b>Smart Traffic Cone for Accident Alerts</b>	A portable cone with built-in sensors and GSM module to alert authorities when accidents occur.
05	<b>Smart Helmet for Construction Workers</b>	Build a helmet that provides instructions, alerts for gas leaks, and live health monitoring on-site.
06	<b>Portable Lab-on-Wheels for STEM Learning</b>	Build a solar-powered mobile van equipped with hardware to demonstrate science experiments interactively.
07	<b>Smart Safety Pendant or Ring for Emergency Alerts</b>	Design an inconspicuous wearable that sends location + voice snippets to pre-set contacts when pressed twice or triggered by elevated stress levels.
08	<b>AI-Enabled Women's Safe Mobility Helmet</b>	Build a two-wheeler helmet with voice-assisted navigation, accident alerts, and a panic button to auto-notify emergency services and family.
09	<b>Brain-Machine Interface for Accessibility Solutions</b>	Millions live with motor impairments. A BMI that controls devices with thoughts could revolutionize communication and independence.
10	<b>AI-Powered Sign Language Interpreter (Gesture to Text)</b>	Real-time, camera-based ASL to text translation bridges communication gaps for the hearing impaired, enabling inclusivity.