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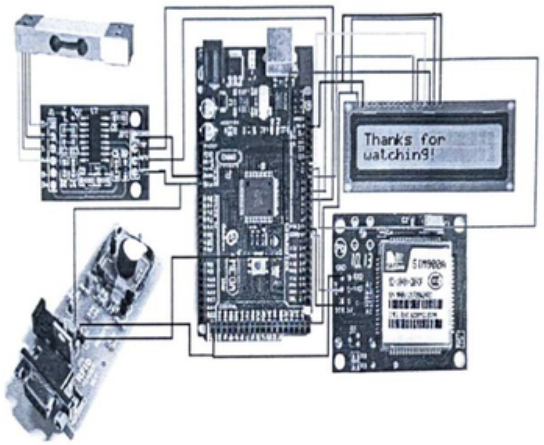
NOVEL SYSTEM FOR TRACKING OVERLOADED VEHICLES

Seeking parties interested in licensing and commercialization of technology.

Technology Brief

This technology provides an automated, IoT-based system designed to identify and restrict overloaded vehicles in real-time at toll plazas and checkpoints. Utilizing RFID technology affixed to vehicles, the system automatically retrieves vehicle registration and owner details as a vehicle enters the station. Integrated load cells measure the vehicle's actual weight and pass the data to an Arduino-based processing unit to determine overload status. If an overload condition is detected, the system automatically halts the vehicle's gate clearance and triggers instant SMS alerts to nearby law enforcement agencies via an integrated GSM module, streaming the event log back to a central server via serial communication.

Block Diagram



Technical Applications

The tracking system is primary suited for smart toll gates, highway weigh stations, and automated freight checkpoints to automate weight compliance without manual intervention. It can also be deployed at industrial facilities, ports, logistics hubs, and mining sites to ensure trucks adhere to legal payload limits prior to entering public roads, thereby reducing road pavement damage and improving traffic safety.

Salient Features

- Automated RFID Vehicle Identification
- Integrated Load-Sensing & Gate Control
- High-Pressure Multi-Station Molding

Glimpse of the Technology

REFERENCE NUMBER
iTNT-TECH-0192

TECHNOLOGY SECTOR
Enterprise Applications

IP STATUS
Patent Granted

APPLICATION NUMBER
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TECHNOLOGY READINESS LEVEL
TRL 5

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