

1)Title of project : “An IoT based device to measure weight,detect overload capacity provided with GPS tracking & accident alarm for trucks,tractors and other goods carrying vehicles.”

1.ABSTRACT

Most of the mining field requires goods carrying vehicles in the developing nation which is overloaded with a gangue material (coal, soil, sand, metals etc). To have smooth flow of the vehicles, as well as their safety from fatal accidents this can be achieved using the smart sensors and Internet of Things (IOT) as these are emerging technologies. So the proposed system is coming up with a smart IOT based system called "a device to measure weight load in a vehicles provided with accident detection". In traditional system, the accuracy of weight measuring is less, and vehicles should move to the location where the weight measuring system is installed but in this proposed system we are going to build the system into the vehicle. So the weight can be measured during tilling up the material and considering another safety measure of the vehicles.

Literature Survey:

Literature survey is very important while defining the novel approach it helps to understand the extensive survey done by various authors reading the proposed topic and describe the methodology used with their pros and cons.

Table (I) : Literature Review

Ref.	Author Names	Findings	Drawbacks
	Vasudev D. Shinde, Jayant K.Kittur (2020)	Basic information regarding strain gauge based load cells. Classification of these load cells and also throws a light on some of the new ways of designing these load cells.	Analyzed different load cells and there drawbacks like position of load cell was not properly placed.
2	Arthur Daniel Limantara, Tjahjaning Tingastuti Surjosuseno. (2021)	Analysis of I-Ix71 1 module which makes it easy for use to read weight FROM load cells. And it is highly sensitive.	Found out that if there is no fixed position of the sensor there will be some errors in the data obtained.
3	By Danny Jost (2019)	In II)l'nation about ultrasonic sensors, which are used in level sensors to detect . Monitor & Regulate levels.	Ultrasonic sensors are not as susceptible to interference of smoke gas and other airborne particles.

Proposed Work:

Problem statement:

In Sugar factories and coal mining a vehicle is loaded with sugarcane and coal and then transported to specific location. Many such vehicles do not have load cells to measure the loaded quantity. To make money, transporters prefer carrying more than the prescribed quantity of load in their vehicles. Many a times overloading causes the truck to skid, resulting in a head on crash or rollover incident. An overloaded truck is much harder to control during an off the road recovery.

Proposed Method:

The system design involves setting up of hardware components and installation of required packages. The Internet of Things refers to a collection of physical objects or set of entities that individual entity is allocated internet address for internet connectivity, and the communication that happens amongst these objects and other devices where internet is enabled and computer or mobile systems.

The Internet of Things (IoT) has provided a remarkable break over to shape supervisory of the larger organization or industrial machinery systems and the even the tiny of devices and other applications and a larger set of Industrial Internet of Things (IIoT) applications have been developed and deployed in recent:

PROJECT DESIGN

