





# Weigh In Motion System

Improving Road Traffic & Reducing Road Infrastructure Damage Solution



## Overloaded Vehicles Management: Enhancing Road User Safety and Smooth Traffic Flow

For Road Users, safety is always the most fundamental and important requirement for driving. Especially when driving on highways with heavy load and high speeds. For special vehicles with high load capacity, the impacts from vehicles with these heavy-weight cargo on the road surface is much greater than the impacts from ordinary vehicles; and for the road users, the overloaded vehicles also has an exponential impacts on the driving reaction time and the braking distance.

For the safety of the many rad users and to keep the roads in a good condition for driving, it is necessary to manage the heavy-weight vehicles, and, especially to the overloaded vehicles.



# About Overloaded Vehicles....



For many concerns, including the driver's own safety and extra expense (maintenance cost and gasoline expense), and the other drivers' safety as well; it is not appropriate to allow the overloaded vehicles on the roads.

The overloaded vehicles may have the risks as below:

- Impacts on Road Surface
- Longer Driving Reaction Time
- Longer Braking Distance
- Higher Maintenance Costs
- Huge Energy Consumption

#### Weigh In Motion System-A Better Choice of Managing Overloaded Vehicles

FETC International is one of the leading solution provider with the decades' experience of Electronic Toll Collection and Intelligent Transportation.

Combining the state-of-the-art Automated License Plate Recognition (ALPR) technology and high-precision WIM sensors, FETC International provides a Smart Weigh In Motion system to the road management operators and the government authorities.

#### Automated Preselection: Improving Accuracy, Efficiency and Reducing Traffic Law

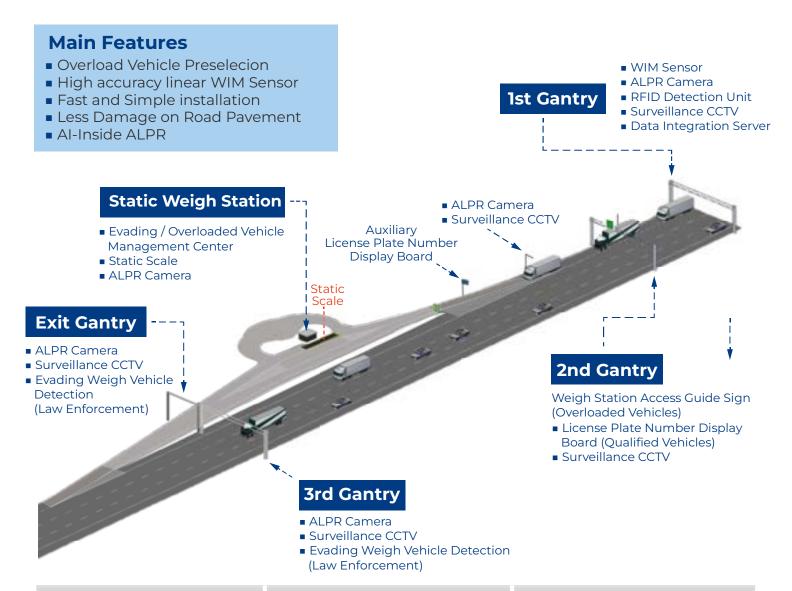
With the integration of liner WIM sensors and ALPR, FETC International's WIM solution can monitor and record the vehicles' weight and license plate data without reducing the driving speed. Our intelligent WIM system can screen out the vehicles that may be overloaded and guide to the static weigh station for inspection.

The mechanism of **Automated Preselection** can greatly preserve the smooth traffic flow and reduce the required time and tasks of vehicle weigh inspection, especially at MLFF highway system.



# AI-Enhanced Preselection Smart Weigh In Motion System

#### **Mainline Vehicle Screening WIM System**







#### Overloaded Vehicle Inspection& Management



Mainline Vehicle Weigh Screening & Overloaded Vehicle Preselection





### Protect The Road User, Infrastructure, and Ensure Smooth Traffic Flow



Highway Road system has becoming the crucial infrastructure of a country in both economic developments and public service. For that Overloaded Vehicles Management is necessary for the Road Safety and prevention of road damage.

FETC International's smart WIM System integrates the machine-learning AI ALPR and high-precision WIM sensors to precisely preselect the overloaded vehicles on the mainline; that ensure the smooth traffic flow, improve the accuracy of overloaded vehicle detection, and reduce the tasks of vehicle weigh inspection in the static weigh station.

- Traffic Flow Inprovement (Overloaded Vehicle only to the WIM station)
- AI ALPR & Machine Learning Vehicle Detection
- High-Accuracy Overloaded Vehicle Preselection
- Integration to ETC or Law Enforcement System

### Non-Stop Vehicle Weight Monitoring & WIM Managing System

96.12 %
WIM Detection Success
Rate

99.11 %
License Plate Detection
Accuracy

-64.62 %
Weigh Inspection Vehicles
Reduced





#### FETC International Co., Ltd.

FETC International is the leading intelligent services enabler in ETC and Smart City. Our mission is to enable the digital transformation acceleration through innovations from ETC to Digital Vehicle Economy, Contact: Service@fetci.com