

Digital speed limit sign:

Variable Speed Display Board is a vehicle speed warning device made up of speed radar sensor, LED display and Micro processor based main controller. It is mainly installed in accident-prone areas, such as school zones, sharp turning roads, construction sites, highways, parks, conjunctions of main roads and busy crossroads to create speed awareness among the drivers.

Weather detection:

Networks of AI-integrated sensors detect weather conditions that impact road safety. Road Weather Information Systems (RWIS) in use today are limited because they only collect data from a small set of weather stations. A larger future network could use automated weather stations to collect atmospheric and weather data and instantly upload it to the cloud. Dynamic temperature-sensitive paint could be used to highlight invisible roadway conditions like black ice.

Traffic detection:

Data that helps travelers plan their routes. Sensors lining highways monitor traffic flow and weight load, warn drivers of traffic jams, and automatically alert the authorities about accidents. Fiber-optic cables embedded in the road detect wear and tear, and communication between vehicles and roads can improve traffic management. For example, rapid flow technologies use artificial intelligence (AI) to manage traffic lights, which respond to each other and to cars. Traditional systems were pre-programmed to optimize flow around

peak journey times, new technologies are able to process and optimize flows in real time.