

SOUTH AMERICAN APPLICATIONS OF STRAIN GAUGE BASED WIM

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ABSTRACT

Applications of Weigh-In-Motion (WIM) systems have included data collection, screening for enforcement, and tolling (ETC). Monitoring traffic volume for planning, and protection of roadway pavement systems by overload detection and vehicle diversion are common uses of WIM systems worldwide. With the increase in accuracy of WIM systems while maintaining traffic flow at higher speeds, developing utilization of WIM is expanding into use in direct enforcement, industrial, and other uses.

This presentation will present data from WIM sites that are in service for several applications, with an emphasis on strain gauge based strip sensor systems. Installations ranging from two sensors to eight sensors per lane will be presented, with measurements at various speeds ranging from low- to high-speed WIM operations.

Understanding the performance of different sensor configurations and conditions will provide insight into strain gauge WIM sensors, and how this technology can be integrated into WIM systems to provide the performance required with developing WIM applications.