

SHOW CASE PROJECT: CAMEA CAMEA WIMTRONIC – USING LONG-TERM EXPERIENCE TO DEVELOP OF A NOVEL WEIGHING DIGITAL SENSOR FOR FURTHER EVOLUTION OF WIM TECHNOLOGY

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ABSTRACT

CAMEA Weigh-In-Motion has been equipped at almost 900 traffic lanes so far, out of which approximately 200 are used for a direct enforcement application. Based on this experience, the system producer was able to identify the main needs the WIM technology has in order to evolve further. These are: facing the problem of drivers who intentionally avoid measurement or behavior documentation, minimizing the impact on the road surface when installing the WIM site, extending the lifetime of the installed WIM sensors.

This article suggests the tools to address these needs: Preventing the driver's maneuvers by taking government/law measures, recognizing such maneuvers and validating the results of the measurement using advanced SW and using sensors with small intrusion into the road and a long lifetime. The company's newly developed digital weighing sensor WIMTRONIC has numerous innovative characteristics and features. Some of its main advantages are embedded electronics, high accuracy, easy installation, and the possibility to measure previously unobtainable parameters of the vehicle, wheels, axles, and the road. All the while keeping the cost low to present an affordable solution for wide use of WIM.