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(57) Abstract :

ABSTRACT TITLE: TRAFFIC MONITORING METHOD THROUGH WEIGH IN MOTION SENSING SYSTEM USING PROCESSED OPTICAL FIBER INTERFEROMETERS The present invention discloses a Weigh in Motion (WIM) based vehicular traffic sensing and monitoring system which comprises plurality of optical fiber elements, each of said optical fiber elements includes a specialty fiber with splicing sections and acts as a fiber interferometer, fiber couplers parallelly combining said optical fiber elements, said parallelly combined optical fiber elements are laid along in transverse direction in pavement below a depth, a broadband light source operatively connected to said parallelly combined optical fiber elements for transmission of light therethrough and generation of a transmission spectra due to interference of the light in the specialty fibers and a wavelength interrogator operatively connected to said parallelly combined optical fiber elements to track the transmission spectra including changes of the transmission spectra due to bending of the optical fiber elements under impact of moving vehicle load.

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