

## **87. WAVELET REGULARIZED CLASSIFICATION FRAMEWORK FOR INDIRECT TECTONIC PROBING OF BRIDGE STATUS**

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With the rapidly increasing traffic movement across the country, a large number of bridges and flyovers are being constructed to ease and regulate traffic. Maintenance of their health is as important as construction of the bridge itself. It is infeasible to monitor the health of the bridge manually, since it requires a lot of sensors to be located along the bridges and it is very expensive and time consuming too. To overcome this issue, indirect monitoring of the bridge is being proposed in this paper. This can be done by extracting and analyzing the vibration of vehicle that pass on bridges. Wavelet packet tree pruning algorithm is being used to extract the features from the vehicles and this reliable parameter is being used to map the health of the bridge. Critical conditions are indicated to authorities by GSM. Another issue is to avoid the damage on bridge by overload. To overcome this issue loadcell are used. This loadcell balances the load on the bridge.

Keywords— wavelet packet tree pruning algorithm, GSM.

*Journal of Science and Innovative Engineering & Technology*