ANALYSIS OF BRIDGE SAFETY ASSESSMENT WITH CORRELATION BETWEEN MEASURING POINTS FOR BRIDGE HEALTH MONITORING

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ABSTRACT—By using linear statistical coefficients such as Pearson, Spearman and Kendall’s, and nonlinear methods such as time-delayed transfer entropy and mutual information, the correlation between the observation stations of bridge health monitoring system is obtained. A model for predicting structural safety based on the correlation coefficients is established, which provides a new research method for bridge health assessment and prediction based on bridge health monitoring system.

Keywords: Bridge Safety Assessment, Bridge Health Monitoring, Measuring Points, Correlation