

5. CONCLUSIONS

This paper introduces the results of research on dynamic interaction model between a three-axle vehicle and a cable-stayed bridge considering braking forces. The FEM has been applied to vibration analysis of the PhoNam bridge considering braking force and acceleration. The finite element analysis results were verified by the experiments. The FEM results agree well when compared with the experimental results. The results of dynamic impact factors are appreciable. Therefore, the authors recommend that in bridge design, engineers should take into account the dynamic interaction caused by the vehicle moving on bridge and the sudden braking.

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