









that have been formulated, the vibration acceleration values of the Grand stage are in the normal range and it's in a safe state now. In addition, the real-time waveform of monitoring data of vibration showed that we could analyse the vibration condition of buildings at some point specifically.

#### REFERENCES

- Bata M, 1971. Effects on buildings of vibrations caused by traffic. *Building Science*, 6(4), pp. 221-246.
- Bongiovanni G, Clemente P, Rinaldis D, et al, 2011. Traffic—induced vibrations in historical buildings. Proceedings of the 8th Inter—national Conference on Structural Dynamics, Leuven, Belgium, pp. 812-819.
- Breccolotti M, Materazzi A L, Salciarini D, et al, 2011. Vibrations in—duced by the new underground railway line in Palermo, Italy—experimental measurements and FE modeling. Proceedings of the 8th International Conference on Structural Dynamics, Leuven, Belgium, pp. 719-726.
- Clemente P, Rinaldis D, 1998. Protection of a monumental building against traffic-induced vibrations. *Soil Dynamics & Earthquake Engineering*, 17(5), pp. 289-296.
- Hong J, 2006. ANALYSIS OF EFFECTS INDUCED BY SUBWAY TRAIN ON SURROUNDING BUILDING VIBRATION. *Journal of Vibration & Shock*, 25(4), pp. 142-145.
- Zhai H, 2005. A Study on the Low Frequency Ground Response Induced by Metro Train and Corresponding Vibration Reduction Measures. *Urban Rapid Rail Transit*.