**DESIGN THE SYSTEM FOR MONITORING GROUND VABRATION OF CONSTRUCTION ACTIVITIES BY ARDUNIO MICROCONTROLLER AND LABVIEW.**

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**Abstract:**

There are many activities such as embankment vibratory rollers, piling, blasting tunnel ... causing wave propagation in the ground affect the surrounding buildings. If large wave strength may cause damage to the surrounding buildings and causing disputes between residential community construction sector and project owners. To determine the radius of vibration can cause damage to the neighboring buildings by causes vibration as the basis for planning, choice of construction technology, design damping measures to minimize the risk to the surrounding buildings the need for experimental vibration measurements in the field. This paper introduces the research results, making the measuring system based on ground vibration Ardunio microcontroller, labview and some experimental results measured vibration transmission in the ground due to some construction activities in the locality Da Nang, Vietnam. The results show that the measurement system has a very low cost while meeting the standards and precision measurement according to ISO 7378 and DIN 4054. Software written on Labview platform hardware connections, collect signals vibrations from sensors and process measurement data, measurement results reported as tables and charts to meet the standard requirements of the current vibration measurements.

**Keywords:** Ardunio, Labview, Ground vibration, Vibration effective radius, vibration source.