ABSTRACT

This paper discusses concrete nondestructive test in details for the first time and introduces physical basis of supersonic test and basic knowledge of signal processing .It provides basis with studying the aspects more deeply for the following time. Ultrasonic nondestructive test is validated by physical experiment. Travel time and sound amplitude can decide and analysis characteristic of concrete by data analysis. Ceter frequency can be used as adjective method. The process of ultrasonic wave data information is discussed by signal processing. It provides help for intelligentizing non-metal ultrasonic machine. The paper also introduces the reason of unparallelism of detected pipeline、types of incline and its influence on measured data. In term of its reason . Author make us of three methods to process. Anomaly removal approach by inference can get rid of the inference by unparallelism of detected pipeline. The paper introduces discriminant of defects in pile foundations. It provides help for editing a versatile intellectual program for ultrasonic transmission data processing. At last anomaly removal approach by inference is a good way by engineering example.

Key words: supersonic nondestructive test signal processing anomaly removal approach by inference