

Non-destructive concrete strength evaluation using PZT based surface wave propagation technique – a comparative study

Abstract

Surface wave propagation (SWP) technique employing Lead Zirconate Titanate (PZT) transducer has recently been found to be a useful tool in concrete hydration monitoring. In this paper, the performance of PZT based SWP technique was compared with the conventional techniques such as ultrasonic pulse velocity (UPV) test, rebound hammer (RH) test and concrete compression test. Results showed that the SWP technique, in addition to its inherent advantages, performed equally well as the conventional counterparts in concrete strength prediction