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**The use of piezoelectric based monitoring techniques in monitoring of curing process**

**Yee Yan Lim**

Southern Cross University, Australia

The unique transduction capability of piezoelectric materials allow them to be employed as active sensors for the purpose of structural health monitoring (SHM). Early development of these piezoelectric based monitoring techniques, such as the electromechanical impedance (EMI) technique and the wave propagation (WP) technique, mainly focus on their ability in monitoring damage of engineering structures. Their application have later been extended to monitoring of curing process of certain civil engineering materials. This is particularly

useful for materials such as concrete and structural adhesive, which require considerable time for stiffness and strength development. Recent studies show that the use of piezoelectric based monitoring techniques could potentially replace the conventional destructive based testing techniques. Real time and remote monitoring is also possible. This study provides a comprehensive review of recent development of the piezoelectric based monitoring techniques in this particular application.

e: yee.lim@scu.edu.au

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