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**In situ measurement of acoustic parameters with smart devices**

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Instruments for in situ analysis of the acoustic parameters of a room are, due to their high prime cost, not widely accessible. In an effort to change this, new software was developed to enable these measurements by use of highly portable consumer electronics such as PDA's and Smart phones. The newly developed software calculates the reverberation time using the impulse method and aims at delivering accurate results using the built-in microphone or an external one. This paper will discuss the accuracy of the new software in comparison with professional equipment through several case studies, even as the different techniques used to overcome the inherent problems forthcoming the equipment used, i.e. microphone quality and automatic gain control.