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**On the Reverberation time of Gamelan Bali Concert Hall based on
the Physio-Acoustic Responses**

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Based on the fourth orthogonal acoustic factors of a concert hall design theory, it is possible to calculate the acoustical quality at any position in a proposed Gamelan Bali concert hall. And, it is well known that the value of preferred sound fields depends upon the characteristics of the sound source signal. Previous research has reported the most preferred value of the four orthogonal factors of Gamelan Bali sound fields based on the subjective response. It would be important to obtain the objective response, based on the physio-acoustics measurement using Electroencephalograph (EEG), when the subjects were excited by a certain variation of sound fields while other parameters were kept constant. In this research, the subjects were excited by a serial variation of the subsequent reverberation time of gamelan Bali music. The brain activities were measured using EEG in the temporal areas. The result shows that the maximum power spectral of Alpha Waves of the subjects occurred when the reverberation time of Gamelan Bali were between 750 mS to 1750 mS.