

강의실내의 물리지표와 주관적평가와의 상관관계

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The relevancy between physical index and subjective appraisal of class

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Key Words : TSP(Time-Strechd-Pulse), reverberation-time, clearness, speech-transmission-index

Abstract : The eventual purpose of this research is to make optimum standards for acoustic-environment by using not only physical characteristics but also subjective appraisals. First, basic physical data were measured which were necessary to establish standards for acoustic environment in campus buildings, TSP has used to measure sound levels, reverberation times, clearness indexes, and speech-transmission-index. Second, in addition to physical characteristics, questionnaires were given to university students to given subjective appraisals. For instance, questions about volume or clearness of lectures. Finally, the relevancy between physical characteristics and subjective appraisals was studied.

경계요소법을 이용한 간섭형 방음벽의 설계

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Design of Interference Type Noise Barrier Using The BEM

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Key Words : Noise Barrier (방음벽), Interference (간섭), Boundary element Method (경계요소법), Insertion Loss (삽입손실)

Abstract : This paper investigates the insertion loss of noise barrier with a interference device. The efficiency of the conventional interference-type noise barrier depends on specific frequency. Thus this study is performed to improve the efficiency of the noise barrier in the range of broadband frequency, by changing the shape of interference device and adding the channel with various depths. The boundary element method (BEM) is used to predict the insertion loss of noise barrier. Two-dimensional boundary element model is created to simulate the performance of long barrier with a line source.