CLASSROOM ACOUSTICAL DESIGN WITH GREEN BUILDING CONCEPT

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Abstract

The classroom is a major facility in an academic environment, the quality of classroom acoustics determine the quality of teaching and learning. C125 classrooms of Engineering Physics, ITS is used as an object of this thesis research. C125 classroom acoustic design that has not met the standard with reverberation time of 2.4 seconds and the background noise of 45 dBA. Acoustic quality improvement, is done by simulating the addition of environmentally friendly materials such as products from Knauf, Himalayan Acoustic and JayaBoard. The addition of this material is intended for classroom C125 reverberation time down to 0.7 seconds. In addition, in accordance with the concept of green buildings, the need for natural light entering the space must also be considered, for it added to the skylight on the ceiling gypsum. The addition of a simulated glass area should not affect the acoustic performance that has been designed previously. Fixes the value of TL with the addition of simulated thickness is also a discussion on this thesis.

Keyword : Classroom C125, Acoustical quality, eco friendly
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