

ABSTRACT

Church is a building of worship for Christians. In acoustic functions, the church is classified as a room of speech and musical building. To determine the level of acoustic comfort in the church, it is necessary to evaluate acoustic performance by obtaining objective parameters on direct measurements in the field and subjective parameters obtained from a person's subjective opinion as a reference. The church used as the object of the research was the GKP Dayeuhkolot church, GKI Pos Jember Kopo, and GKP Awiligar. The objective parameters used are background noise, RT (recovery time), EDT (Early Decay Time), D50 (Definition), and C80 (Clarity). Based on the results of direct measurements from the three churches, the NC values obtained ranged from NC 30 - NC 50, RT values 0.743-2,636 s, EDT values 0.068-1.558 s, D50 values 14.756-74.008%, and C80 values worth -3.37 - 6.95 dB . Objective measurement data have not met the standard criteria based on the reference value on the objective parameters that are in accordance with the standard of comfort. In subjective measurement, the soundscape method is carried out as a person's perspective approach to subjective acoustic parameters. respondents were asked to listen to a sample of sounds from three measurement objects. The three measurement objects consisted of GKP Dayeuhkolot, GKI Pos Jember Kopo, and GKP Awiligar. Furthermore, respondents were asked to answer questions related to acoustic performance on the comfort of worship. The results of subjective assessment will be seen through percentages according to the rating of the Likert scale. In the results of the measurement of subjective parameters from aspects of all aspects tested the results have an assessment tend to be good from every aspect, this is due to the results of the assessment of subjective parameters on the scale tend to be good, good, and very well chosen by more than 50% of respondents.

Keywords : Worships, Comfort, Objective Parameters, Subjective Parameters, *Soundscape*.