Abstract

Economic concrete mix design is concrete mix design calculation that its proportion is based to the cheapest concrete mixes cost (in this case use computer program). Therefore, material price and concrete quality will influence mix design process with this way. The objective of this research is to know influence of material price and quality concrete toward cost and concrete proportion.

The first step in this research is to make computer program that can calculate economic concrete mix design called EkonoMix v 1.0. The second step is to validate the program to check weather the program is right. The third step is to calculate concrete mix design cost use program with case study.

The result shows that fine aggregate, coarse aggregate and quality concrete will influence directly cost and concrete proportion. This is different to cement material that cement price influences cost of concrete mixes but not to concrete proportion.

The conclusion of this research is that suitable concrete proportion can produce economic concrete mixes.

Keyword: ekonomic, concrete, mix design, program