ANALGEBRAIC MODEL FOR THE SUSTAINABLE DEVELOPMENT ASSESSMENT

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Abstract:In the paper we have proposed a new algebraic assessment method for the sustainable development potential, based on a nonlinear variation of the characteristic sustainability parameters**.** We have chosen an exponential (Gaussian) variation of parameters, since most of the natural phenomena are characterized by properties whose distribution is Gaussian (normal distribution).The selected characteristic parameters are normalized to the unit, so their range lies between 0 and 1, correspondint to the two practical cases: "higher is better" or "lower is better". The result obtained (the "global sustainability score") was quantified in sustainability classes, which makes it possible to compare different situations or sustainable development projects.The method proposed by us is more "demanding" and allows a more accurate assessment compared to the method in which the parameters have a linear variation.

Keywords:sustanaibility, building, environmental parameters, quantification, Gauss distribution, architecture