

## عنوان مقاله:

Assessment of Effect of Interlayer Interface and Type of Behavior of Materials on Lifetime of Flexible Pavements  
Using Mechanistic-Empirical Method

## محل انتشار:

دومین کنفرانس بین المللی تحقیقات در عمران، معماری و شهرسازی و محیط زیست پایدار (سال: 1395)

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## خلاصه مقاله:

In analyzing multilayer systems, percentage of connection and continuity of different pavement layers is highly important. Flexible pavement layers are made of various materials and thicknesses due to economic considerations. In this paper, using Kenlayer by analyzing of the linear and nonlinear behavior of the base, sub-base, and subgrade layers, with an asphalt layer with invariant viscoelastic behavior to examine sensitivity of pavement design results in three pavement behavior models with interlayer interfaces in the following 4 states in terms of pavement lifetime and its damaging factors: a) full friction; b) lack of friction on the border between the asphalt and base layers; c) base/sub-base; d) base/sub-base/subgrade. Results revealed the direct effect of material behavior and interlayer interface on pavement lifetime. Therefore, by fully understanding the behavior of materials it is possible to design the most optimum interlayer interface. This method is economically effective. The highest concurrent positive effects of two factors belonged to Model 1 (grained) and Model 2 (fine-grained) in the order mentioned. The minimum negative effect also belonged to Model 2 (grained/ state c) and Model 3 (fine-grained/state d). In all of the designed behavioral models, group b led to a severe decline in pavement lifetime and caused failure

## کلمات کلیدی:

flexible pavement, linear behavior, nonlinear, interlayer interface, Kenlayer

## لینک ثابت مقاله در پایگاه سیویلیکا:

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