Modeling the pavement condition of roadway is very important in Pavement Management System to optimize maintenance/repair work in the roads and to make a good planning. In the literature, the term "Present Serviceability Rating" has been accepted as the first to represent roadway pavement performance. Over here, it's a matter of rating the pavement performance ratios between 1 and 5 (very poor, poor, fair, good, very good).

In this study, a hybrid machine learning model was developed for the "Present Serviceability Rating" index of flexible pavements. Model predicts the pavement performance using slope variance, rut depth, patches, cracking and longitudinal cracking data from AASHTO dataset. This methodology which involving the application of a hybrid technique by combining different machine learning algorithms, can be easily and realistically performed to solve the problems which do not have a formulation or function about the solution. The success rate obtained with this model is higher than both conventional models and ANN, ANFIS models.