

عنوان مقاله:

Investigation of Different Kernels of Support Vector Regression on Resilient Modulus of Treated Pavements

محل انتشار:

دومین کنگره بین المللی سازه ، معماری و توسعه شهری (سال: 1393)

تعداد صفحات اصل مقاله: 7

نویسندگان:

Mojtaba Nazemi - M.Sc. Student of Geotechnical Engineering Department of Graduate University of Advanced Technology, Kerman, Iran

Ali Heidariapanah - Assistant Professor of Geotechnical Engineering Department of Graduate University of Advanced Technology, Kerman, Iran

Fazlollah Soltani - Assistant Professor of Geotechnical Engineering Department of Graduate University of Advanced Technology, Kerman, Iran

خلاصه مقاله:

Resilient modulus (MR) plays a significant role in pavement designing in accordance with mechanistic–empirical method. Furthermore, since the utilization of different pavement stabilizers are generally established in road projects, acquiring the resilient modulus of treated pavement layers appears to be inevitable. However, due to the complexity, timeconsuming and equipment requirements for repeated load testing, several methods have been proposed to apply. Apart from the empirical formulas and multifarious regression models, the novel artificial intellect algorithm of Support Vector Regression (SVR) has been developed to evaluate the accurate value of (MR) of treated pavement layers. In this paper, the comparisons of the different kernel functions of Support Vector Regression (SVR) have been stated. Eventually, due to less sensitive to dataset input distribution, high accurate estimation, avoiding the black box and high adoptability to various dataset inputs, the polynomial kernel of SVR is selected as the most appropriate kernel for prediction model of (MR) value evaluation

کلمات کلیدی:

Resilient Modulus, Treated Pavement Layers, Support Vector Machine, Kernel Functions

لینک ثابت مقاله در پایگاه سیویلیکا:

<https://civilica.com/doc/352900>

