PREDICTION OF TOOL LIFE EQUATION BY MULTIPLE REGRESSION ANALYSIS

T. SRIKANTH AND V. KAMALA

Abstract

Tool Life is one of the most specified customer requirements in machining. In this study, the experimental results corresponding to the effects of different insert nose radius of cutting tools, various depth of cuts, different feed rates and different cutting speeds on four different work pieces (EN8, EN31, EN24, EN30B) have been investigated using multiple regression analysis. Regression analysis based model is used for the prediction of tool life at various cutting conditions in turning. Coefficient of determination is 0.905 in multiple regression analysis.