Landslide susceptibility mapping of a landslide-prone area by data mining

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Some detrimental effects resulting from landslides on human life and economy of many nations are observed throughout the world. Owing to these effects of landslides, landslide susceptibility evaluation is one of the hot topics in international landslide literature. Various methods such as simple overlay, bivariate and multivariate statistics, fuzzy logic and artificial neural networks have been applied on landslide susceptibility evaluation. However, the data mining technique, one of the most efficient methods, has not been used for this purpose up to now. For this reason, the purpose of the present study is to apply the data mining in landslide susceptibility evaluation of a landslide-prone area (Cekmece, Istanbul, Turkey). For the purpose of the study, a detailed landslide inventory has been used. Approximately 19.2