

## عنوان مقاله:

Forecasting and discovering association relations weighted between the characteristics of breast cancer patients

## محل انتشار:

چهاردهمین کنگره بین المللی سرطان پستان (سال: 1397)

تعداد صفحات اصل مقاله: 1

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## خلاصه مقاله:

**Introduction & Aim:** In Iran, in the current year 22 out of 100,000 people suffer from breast cancer, of whom 7 are among the deaths. One of the reasons for the occurrence in society is the lack of timely and correct diagnosis of the disease. Today all patients' information is recorded in computer files. There is a data mining technique, the prediction of the correctness of the disease can be made with the help of an up-to-date technology. With this knowledge, we can prevent breast cancer. The purpose of this study is to provide a reliable prediction and to find a relationship between the characteristics of breast cancer using data mining techniques. **Methods:** In this study, the medical records of 3,000 breast cancer patients with 18 functional characteristics with a mortality rate of 5 years were included in this model. In order to provide a prognostic and rule discovery model for breast cancer mortality, Weka software was used. After the accurate identification of the data, first in WEKA, a J48 algorithm is used to create a decision tree and after that used weighted Classifier algorithm for associated rule discovery. **Results:** After examining the algorithm and its implementation on the patient data for a pre-made model, we created a decision tree with 86% Correctly Classified Instances and 10 significant rules of the Association for Classification generated by Rule Miner with 93% confidence, finding the relationship between features for the sustainability of the individual's life. **Conclusion:** These substantial rules, after expert review of physicians, were shown most notably relationships between degrees of cancer, examination of HER2, PR, P53, tumor size and the age of first delivery.

## کلمات کلیدی:

Breast Cancer, Data mining, Forecasting

## لینک ثابت مقاله در پایگاه سیویلیکا:

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