Abstract

The current research aims to use expert systems techniques to predict the training needs of trainees based on several factors related to the functional status of each employee (group, quality, job, training courses), which are essential factors in this forecasting process; because of the diversity of the training needs in light of the job conditions, technological and international development. So, the hold makers are imposed to identify these needs which are determined as the most important processes lead to success the training process. In this paper, three prediction algorithms were used: Bagging, NaviaBayes, and Neural Network to predict the training needs of the trainees in order to support and decision-making among the decision makers in education and increase the accuracy as well as the effectiveness of the training courses. The dataset consisted of 334 cases. The results of the experiments showed that the Bagging algorithm achieved the better accuracy against the rest of the algorithms.
1. Bahrani, M. (2014). Training Needs of Faculty Members in Applied Sciences Colleges in the Sultanate of Oman, not published, Faculty of Science and Arts, University of Nizwa


13. Seongwook Youn, Dennis McLeod,2007. A Comparative Study for Email Classification, University of Southern California, Los Angeles, CA 90089, USA.


**Index Terms**

Computer Science  
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**Keywords**

Bagging; NaviaBayes; Neural Network; Predicting Training Needs.