

Ministry of Higher Education and Scientific Research

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Department of Statistics

"Comparison Between The Support vector machine (SVM) and Logistic Regression Model For Classification With application to diabetic patients at Basrah port hospital "

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“Abstract “

In this thesis, the process of classification or categorizing statistical data was studied by using the dual-response support vector machine and the logistic regression model based on the correct classification of observations for both methods, The simulation was used in the two methods with different samples and different variations and different arithmetic mean, then the comparison between the two methods, Then applied the two methods in the practical side and with real data for diabetes patients obtained from the Endocrine Center at the General Ports Hospital in Basra , Also the comparison was made between the two methods used in the study. Finally the study found that the supporting vector machine was the best in the classification whether using the real data in the practical side or by using the simulation on the experimental side with different samples of especially when data overlap.