

Abstract—

The objective of this paper is to analyze radiographic images of patients and to discriminate between them using nine morphological and clinical parameters. Four models were constructed and trained using three Bayes classifiers: Bayesian logistic regression, Byes Net, and Naive Bayes. The purpose was to find the best configuration combining selected features and the best classifier providing the highest rate of classification. The validation was done using the '10-fold cross-validation' technique. A total of 100 images were collected from patients, divided into two groups, 50 healthy subjects, and 50 osteoporotic patients. The results obtained reveal that the selected features model combined with the Bayesian logistic regression classifier provided accurate discrimination between the two populations, with ACC = 87% demonstrating the performance of this configuration.