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Improving the accuracy of the machine learning predictive models for analyzing HCV datasets

Ivan Ivanov¹, Ivelin Ivanov² ¹Faculty of Economics and Business Administration Sofia University "St. Kl. Ohridski" i_ivanov@feb.uni-sofia.bg ²Shumen University College – Dobrich iwelin.ivanow@gmail.com

The diagnosis systems are usable tools for better disease control and management of the Hepatitis C. The aim of this talk is to propose a new methodology to predict and classify the HCV disease via the machine learning models. The methodology is tested on the hepatitis C dataset in the UCI library: <u>https://archive.ics.uci.edu/ml/datasets/HCV</u> data and <u>https://archive.ics.uci.edu/ml/datasets/Hepatitis+C+Virus+%28HCV%29+for+Egyptian+patients</u>

Applying the methodology for the second data set, the algorithm achieves 96.823% accuracy with SVM and 95.975% accuracy for KNN. The set of observations includes the four patient's classes.

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