Abstract

This paper presents a model of personal wellness prediction of Hellenic seafarers, based on mechanical learning with classification using the Exhaustive CHAID, ID3 algorithms and neural networks. The research is asked to answer the following research questions: "Is there a possibility of creating a model of personal wellness prediction through supervised mechanical learning? To what extent is this model acceptable and reliable? "And" can the binary classification with maximum information gain be applied? ". Training data was drawn from 900 samples of Hellenic naval engineers and captains completing training at the Navy Training Center (KESEN). The results of the research are that using Exhaustive CHAID with split-validation, Exhaustive CHAID with Crossvalidation, ID3 in Matlab environment and MLP with neural network methods, it is possible to create such a prediction model in which the sleep issues parameter is the determining factor for the existence or not of personal wellness.
5. Nikolaou G.,Advanced Systems Control Topics, Teaching notes of the postgraduate curriculum, Piraeus 2017

Index Terms

Computer Science  
Artificial Intelligence

Keywords

Wellness, stress, Hellenic seamen, machine learning, neural networks, artificial intelligence.