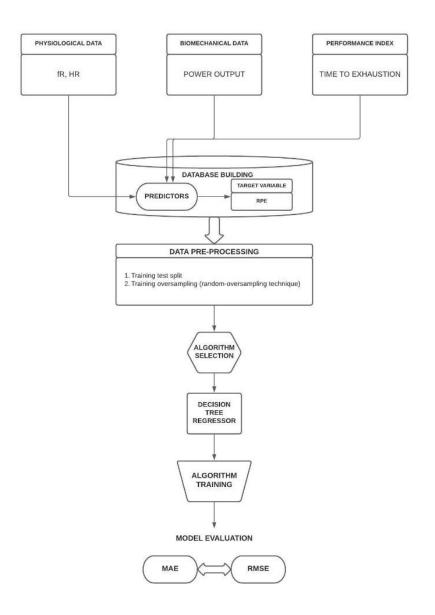
Figure A1. Data Processing flow chart



 $f_{\rm R}$ = respiratory frequency HR = heart rate

RPE = rating of perceived exertion

MAE = mean absolute error

RMSE = root mean squared error

Figure A2. Feature importance analysis

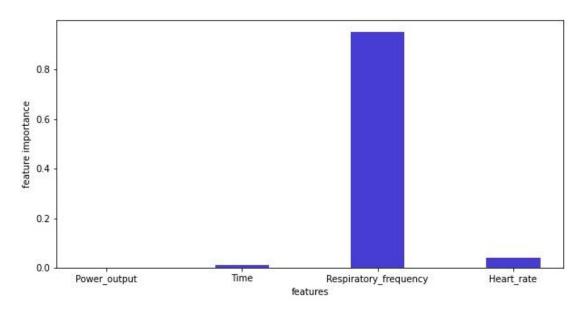
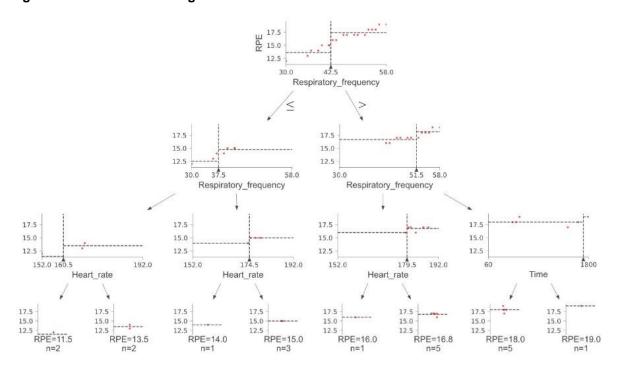


Figure A3. Decision Tree Regressor



DT is a directed acyclic graph consisting of a combination of internal nodes and leaf nodes. Each internal node presents a specific test that must be carried out on a single variable. In relation to the test result (≤ or > than the cut off value identified by the model), the branches indicate the possible outcomes. Therefore, starting from the root node and following the path towards the leaf nodes, it is possible to predict the outcome (RPE).