CLAIMS

1. A vehicle accident prediction system comprising:

a preprocessing portion that obtains a training data set containing feature group data including a first feature representing an attribute of a driver of a vehicle, a second feature representing a state of the vehicle, and a third feature combining a plurality of the second features, and accident data relating to an accident of the vehicle;

a model creation portion that creates, through learning, a learned model that predicts an accident of the vehicle from the feature group data using a plurality of the training data sets obtained by the preprocessing portion;

a prediction target input portion that inputs the feature group data that is to be a prediction target; and

a prediction portion that predicts an accident of the vehicle from the feature group data input by the prediction target input portion using the learned model created by the model creation portion,wherein

the third feature is obtained by combining a plurality of the second features, each obtained by treating each of independent data, so that they represent a specific traveling phase of the vehicle and are treated as composite data.

2. The vehicle accident prediction system according to claim 1, wherein

the first feature includes values quantifying at least one of number of days the driver has been with an operator managing the vehicle, a past traveling distance/time of the driver, on-duty hours of the driver in a predetermined past period, and number of days elapsed since the driver's last service date.

3. The vehicle accident prediction system according to claim 1 or 2, wherein

the third feature includes values quantifying at least one of acceleration distribution in each speed range of the vehicle, deceleration distribution in each speed range of the vehicle, average acceleration and deceleration time in each speed range of the vehicle, direction change amount distribution in each speed range of the vehicle, direction change time in each speed range of the vehicle, distribution of rotation speed of the driving power source in each acceleration range of the vehicle, and direction change amount distribution in each deceleration range of the vehicle.

4. The vehicle accident prediction system according to any one of claims 1 to 3, wherein

the feature group data includes a fourth feature representing a driving scene of the vehicle, and

the fourth feature includes values quantifying at least one of a driving scene in a time period when traffic is heavy, a driving scene after a break, a driving scene in which the vehicle is behind a predicted arrival time at a destination, a driving scene in which the vehicle is entering a narrow alley, and a driving scene in rough weather.

5. A vehicle accident prediction program for causing a computer to perform operations comprising:

obtaining a training data set containing feature group data including a first feature representing an attribute of a driver of a vehicle, a second feature

representing a state of the vehicle, and a third feature combining a plurality of the second features, and accident data relating to an accident of the vehicle;

creating, through learning, a learned model that predicts an accident of the vehicle from the feature group data using a plurality of the obtained training data sets;

inputting the feature group data that is to be a prediction target; and

predicting an accident of the vehicle from the input feature group data using the created learned model, wherein

the third feature is obtained by combining a plurality of the second features, each obtained by treating each of independent data, so that they represent a specific traveling phase of the vehicle and are treated as composite data.

6. A learned model creation system comprising:

a preprocessing portion that obtains a training data set containing feature group data including a first feature representing an attribute of a driver of a vehicle, a second feature representing a state of the vehicle, and a third feature combining a plurality of the second features, and accident data relating to an accident of the vehicle; and

a model creation portion that creates, through learning, a learned model that predicts an accident of the vehicle from the feature group data using a plurality of the training data sets obtained by the preprocessing portion,wherein

the third feature is obtained by combining a plurality of the second features, each obtained by treating each of independent data, so that they represent a specific traveling phase of the vehicle and are treated as composite data.