[CLAIMS]

What is claimed is:

1. A congestion information display system comprising:

a storage unit configured to store a prediction model, which enables prediction of a congestion status of a facility, regarding a sensing information on presence or absence of users of a facility, which is obtained from a sensor device provided in the facility, as an input data;

a prediction unit configured to predict a time when the congestion status of the facility is changed from a first congestion status to a second congestion status, based on the prediction model; and

a display processing unit configured to display, on a display device, prediction information indicating that the congestion status is changed at the time predicted by the prediction unit and a congestion information indicating the congestion status of the facility at present time obtained based on the sensing information, wherein

when the first congestion status is information indicating that there are no vacant seats, the second congestion status is information indicating that there are vacant seats, and the prediction unit predicts a time when vacant seats will occur;

when the first congestion status is information indicating that there are vacant seats, the second congestion status is information indicating that there are no vacant seats, and the prediction unit predicts a congestion time.

2. The congestion information display system according to Claim 1, further comprising:

a determination unit that determines a current congestion status of the facility,

wherein when the determination unit determines that the current congestion status of the facility is the first congestion status, the prediction unit predicts a time when the current congestion status of the facility is changed from the first congestion status to the second congestion status.

3. The congestion information display system according to Claim 1 or 2,

wherein the display processing unit displays, on the display device as the prediction information, a time until the congestion status of the facility is changed from the first congestion status to the second congestion status.

4. The congestion information display system according to Claim 1 or 2,

wherein the prediction unit further predicts a duration time of the second congestion status, and

the display processing unit displays the duration time predicted by the prediction unit on the display device as the prediction information.

5. The congestion information display system according to Claim 1 or 2,

wherein the prediction unit collectively predicts congestion statuses at a plurality of times after the current time, and

the display processing unit displays, on the display device, the prediction information indicating a plurality of the congestion statuses predicted by the prediction unit.

6. The congestion information display system according to any one of Claims 1 to 5, further comprising:

a model generation unit configured to generate, as the prediction model, a trained model obtained by machine learning, based on sensing information on presence or absence of a user in the facility, acquired by a sensor device provided in the facility, and congestion information corresponding to the sensing information indicating the congestion status of the facility.

7. A congestion information display method comprising:

storing, via a storage unit, a prediction model which enables prediction of a congestion status of a facility, regarding a sensing information on presence or absence of users of a facility, which is obtained from a sensor device provided in the facility, as an input data;

predicting, via a prediction unit, a time when the congestion status of the facility is changed from a first congestion status to a second congestion status based on the prediction model; and

displaying, via a display processing unit, prediction information indicating that the congestion status is changed at the time predicted by the prediction unit and a congestion information indicating the congestion status of the facility at present time obtained based on the sensing information on a display device, wherein

when the first congestion status is information indicating that there are no vacant seats, the second congestion status is information indicating that there are vacant seats, and the prediction unit predicts a time when vacant seats will occur;

when the first congestion status is information indicating that there are vacant seats, the second congestion status is information indicating that there are no vacant seats, and the prediction unit predicts a congestion time.

8. A storage medium having a program stored therein, the program for causing a computer to:

store a prediction model which enables prediction of a congestion status of a facility, regarding a sensing information on presence or absence of users of a facility, which is obtained from a sensor device provided in the facility, as an input data;

predict a time when the congestion status of the facility is changed from a first congestion status to a second congestion status based on the prediction model; and

display, on a display device, prediction information indicating that the congestion status is changed at the time predicted and a congestion information indicating the congestion status of the facility at present time obtained based on the sensing information, wherein

when the first congestion status is information indicating that there are no vacant seats, the second congestion status is information indicating that there are vacant seats, and the prediction unit predicts a time when vacant seats will occur;

when the first congestion status is information indicating that there are vacant seats, the second congestion status is information indicating that there are no vacant seats, and the prediction unit predicts a congestion time.