itself. Furthermore, the learning device 34 may perform machine learning using other known methods such as genetic programming, functional logic programming, and a support vector machine.

[0035] Note that the learning device 34 may generate the learned model on a per-user basis on the basis of the air conditioning environment data 31 and the history information 33 specific to each user. Use of the learned model specific to each user enables the inference device 35 to infer the proposed setting 39 according to the settings usually made by the user in question.

[0036] FIG. 9 is a flowchart illustrating a procedure of inference processing of the air conditioning system according to the first embodiment.

[0037] At step S21, the inferring data acquisition unit 351 acquires the air conditioning environment data 31, which is the inferring data 38.

[0038] At step S22, the inference unit 352 inputs the air conditioning environment data 31 to the learned model stored in the learned model storage unit 36 to obtain the proposed setting 39.

[0039] At step S23, the inference unit 352 outputs the proposed setting 39 obtained using the learned model, to the air conditioning device 10.

[0040] At step S24, the control unit 11 causes an operation icon 190 to be displayed in a display portion 15 of the communication terminal 20 in addition to the icon or icons of the existing function, where the operation icon 190 is a proposed setting icon corresponding to the proposed setting 39. The user can perform an operation indicated in the proposed setting 39 obtained at step S23, through the operation icon 190 newly displayed in the display portion 15.

CLAIMS

[Claim 1] An air conditioning system comprising:

an air conditioning device comprising an air conditioning unit to perform air conditioning operation and a control unit to control the air conditioning unit;

an inferring data acquisition unit to acquire inferring data, the inferring data including air conditioning environment data, the air conditioning environment data being information of an environment in which the air conditioning device is installed;

an inference device to infer, from the air conditioning environment data, a proposed setting including at least two settings meeting a user's operation preference with respect to the air conditioning device; and

a communication terminal to remotely control the air conditioning device, wherein

the communication terminal includes a display portion to display a plurality of icons, the icons each representing a function of the air conditioning device,

the control unit causes a proposed setting icon to be displayed in the display portion, the proposed setting icon being an icon for making the proposed setting that has been inferred by the inference device, the proposed setting including the at least two settings, and

when a user taps the proposed setting icon, the control unit controls the air conditioning device according to the proposed setting corresponding to the proposed setting icon.

[Claim 2] The air conditioning system according to claim 1, wherein the inference device infers the proposed setting on a basis of the air conditioning environment data input from

the inferring data acquisition unit, using a learned model for inferring the proposed setting from the air conditioning environment data.

[Claim 3] The air conditioning system according to claim 1 or 2, wherein the air conditioning environment data is information about at least one of an outdoor temperature or a floor temperature.

[Claim 4] The air conditioning system according to any one of claims 1 to 3, wherein the proposed setting consists of at least two of an indoor temperature, a wind direction, an air volume, and air blow exposure.

[Claim 5] The air conditioning system according to claim 4, wherein the proposed setting includes two or more settings to be made at time intervals of execution.

[Claim 6] The air conditioning system according to any one of claims 1 to 5, comprising

a server comprising the inferring data acquisition unit and the inference device, wherein

the air conditioning device and the server are connected to each other via a network.

[Claim 7] The air conditioning system according to any one of claims 1 to 6, comprising a learning device, the learning device comprising a learning data acquisition unit and a model generation unit, the learning data acquisition unit acquiring learning data, the learning data including the air conditioning environment data and history information including at least two settings made by a user with respect to the air conditioning device, the model

generation unit generating, by using the learning data, a learned model for inferring, from the air conditioning environment data, a proposed setting including at least two settings to be made by the user with respect to the air conditioning device.

[Claim 8] The air conditioning system according to claim 7, wherein the history information is information representing settings of at least two of an operation mode, a set temperature, a wind direction, an air volume, and air blow exposure.

[Claim 9] A learning device comprising:

a learning data acquisition unit to acquire learning data, the learning data including air conditioning environment data and history information, the air conditioning environment data being information of an environment in which an air conditioning device is installed, the history information including at least two settings made by a user with respect to the air conditioning device; and

a model generation unit to generate, by using the learning data, a learned model for inferring, from the air conditioning environment data, a proposed setting including the at least two settings to be made by the user with respect to the air conditioning device.

[Claim 10] The learning device according to claim 9, wherein the history information is information representing settings of at least two of an operation mode, a set temperature, a wind direction, an air volume, and air blow exposure.