CLAIMS

[Claim 1]

A video surveillance system for detecting a plurality of incidents in a surveillance area using a video that captured the surveillance area, comprising:

a calculation unit which detects an image of a person and/or an object from the video, and calculates an incident feature quantity as a feature quantity representing a status of a detected person and/or a feature quantity of a detected object; and

a determination unit which detects an occurrence of an incident based on the incident feature quantity, determines subjects to be alerted of an occurred incident, which is a detected incident, based on a type of the occurred incident and a determination accuracy of the occurred incident,

wherein the determination unit identifies an event indicating a combination of the subjects to be alerted based on the type of the occurred incident and the determination accuracy of the occurred incident, and outputs the subjects to be alerted indicated in the identified event, and

wherein the subjects to be alerted include a responder to respond to the occurred incident in the surveillance area, and a manager to manage a status of the surveillance area, and a part of the event indicates a combination which excludes the manager from the subjects to be alerted.

[Claim 2]

The video surveillance system according to claim 1,

wherein, when an input to the video surveillance system is a moving image and human skeletal frame detection is to be used for determining an incident of a person, the calculation unit calculates a feature quantity representing a posture of a person calculated from an estimation result of a skeletal frame based on the human skeletal frame detection, and a feature quantity representing an amount of movement of a skeletal frame by concurrently using a previous image frame and a subsequent image frame, and using the feature quantities integrally.

[Claim 3]

The video surveillance system according to claim 1,

wherein the video surveillance system includes a storage unit which stores surveillance standard information to be referenced for outputting the subjects to be alerted based on the occurred incident and the determination accuracy of the

occurred incident, and

wherein the determination unit includes a surveillance importance determination unit, and determines surveillance importance prescribed for each type of the incident based on a surveillance importance determination standard set in the surveillance standard information.

[Claim 4]

The video surveillance system according to claim 3,

wherein the determination unit includes an event determination unit, and determines an event from the occurred incident type or the surveillance importance, and the determination accuracy of the occurred incident, based on an event determination standard set to the surveillance standard information.

[Claim 5]

The video surveillance system according to claim 4,

wherein the determination unit includes a subject to be alerted determination unit, and determines the subjects to be alerted from the event based on a subject to be alerted determination standard set to the surveillance standard information.

[Claim 6]

The video surveillance system according to claim 1,

wherein the video surveillance system detects an incident based on an interaction, which is a coordinated action between multiple persons in the surveillance area, by using a video that captured the surveillance area.

[Claim 7]

The video surveillance system according to claim 6,

wherein the calculation unit uses one type or multiple types of distances between body parts between persons for detection of interaction regarding the feature quantity to be calculated based on the skeletal frame of the detected person.

[Claim 8]

The video surveillance system according to claim 6,

wherein the calculation unit estimates, from a detection result of a person and an article, which person is in possession of the article for detection of interaction, and determines an interaction between persons via the article based on that information.

[Claim 9]

A video surveillance method for detecting a plurality of incidents in a surveillance area using a video that captured the surveillance area, comprising:

a calculation step which detects an image of a person and/or an object from the video, and calculates an incident feature quantity as a feature quantity representing a status of a detected person and/or a feature quantity of a detected object;

a detection step which detects an occurrence of the incident based on the incident feature quantity;

a determination step which determines subjects to be alerted of an occurred incident, which is a detected incident, based on a type of the occurred incident and a determination accuracy of the occurred incident;

an identification step which identifies an event indicating a combination of the subjects to be alerted based on the type of the occurred incident and the determination accuracy of the occurred incident, and

an output step which outputs the subjects to be alerted indicated in the identified event,

wherein the subjects to be alerted include a responder to respond to the occurred incident in the surveillance area, and a manager to manage a status of the surveillance area, and a part of the event indicates a combination which excludes the manager from the subjects to be alerted.