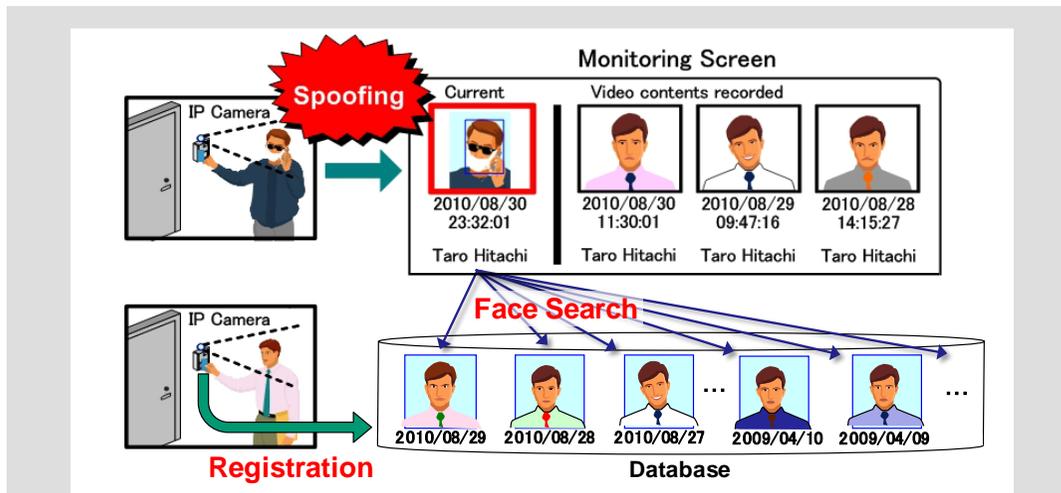


Masquerade detection technology for IC card access control systems using face recognition



Hitachi, Ltd. and Hitachi Information & Communication Engineering, Ltd., have developed masquerade detection technology for IC card access control systems based on face recognition of images recorded on each entry/exit.

The access control system using this technology collates the facial images of a person entering or leaving a restricted area in a face recognition data base for future reference. Accordingly, the system does not require updating to accommodate changes over time. Further, by employing high-speed similarity-based image search technology which can process 10 million images in 1 second, an individual can be identified in real-time using an extremely large volume of recorded images.

■ Features of the technology developed

- ① A new method for facial recognition based on several facial images taken and recorded each time a user enters or exits a room, was employed.
- ② Real-time verification is achieved by applying high-speed similarity-based image search technology which can retrieve similar images based on the search key images from 10 million recorded images in 1 second.

■ Future directions

Pilot tests are currently being conducted with view to commercialization in FY2012.

■ Conference presentation

This research result was presented at the 17th Symposium on Sensing via Image Information 2011, held at PACIFICO YOKOHAMA, Japan.

■ A word from the development team

As the system does not require updating of registered images to accommodate for aging, we hope the technology will contribute to an easy-to-use access control system for offices, server rooms, and data centers.