

Surveillance

Representative Patent 04

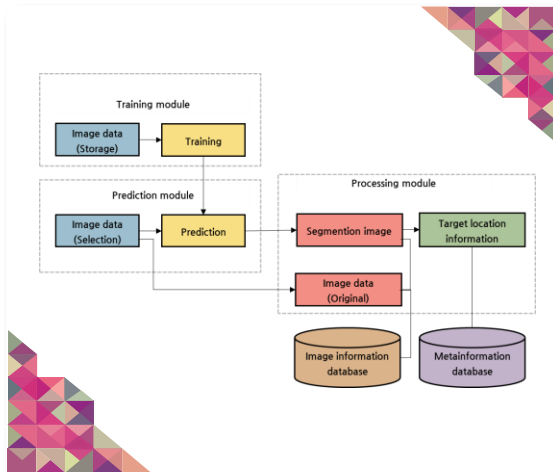
- ❖ Title of Invention : **Apparatus and method for real-time training of observation images, and for detecting object**
- ❖ Application Number. : KR2017-0140026

Application of Technology and Field of Use

◆ Detection of specific objects in segmented images

◆ It is not facilitated to access and store image data in the training model process that analyzes segmentation images

- A training model can be generated by collecting a large amount of image data received from a satellite and analyzing segmentation images.
- In the conventional training model generation process, since the image data to be analyzed is large, it was not facilitated to access and store the image data managed in a general database.



<Representative drawing>

Features of Technology

- A first database configured to store image data associated with earth observation
- A training module configured to generate a predictive training model by training image data stored in the first database
- A prediction module configured to create predictive image data for arbitrary image data by applying the predictive training model to arbitrary image data for which an analysis request has occurred
- A processing module configured to acquire a segmentation image related to a region of interest (ROI) in the arbitrary image data by using the prediction image data and store the obtained segmentation image in the first database in correspondence with the arbitrary image data

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Technical Effects

◆ Facilitate access to and storage of large-capacity images and images related to satellites

- By storing image data and segmentation images related to earth observation in an image information database, it is facilitated to access and store satellite-related image data and segmentation images.

◆ Possible to be increase accuracy of segmentation image acquisition

- Using the predictive training model, the segmentation image is acquired from data, and when an error is fed back, the predictive training model is updated based on the feedback.
- It is possible to increase the accuracy of segmentation image acquisition by using the updated predictive training model.



<Satellite observing movement on the ground>

Social, Environmental, Economical Effects

◆ Can be used in military reconnaissance systems

- By increasing the accuracy of segmentation image acquisition, it can be used not only as a general reconnaissance satellite, but also as a marine reconnaissance satellite and nuclear explosion detection satellite.

◆ Applicable to designated area monitoring systems

- As it is easy to access and store image data and segmentation video, it is possible to monitor a designated area and to quickly warn when anomalies occur.