

Surveillance

Representative Patent 05

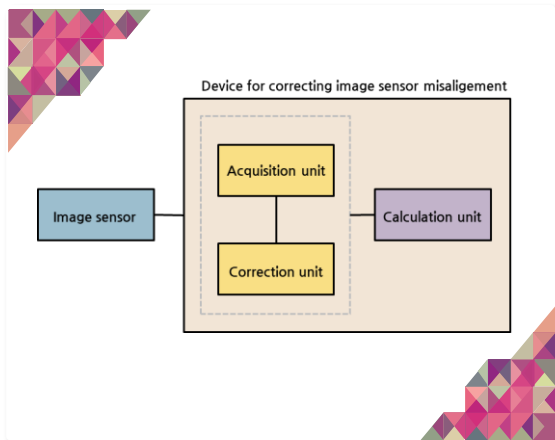
- ❖ Title of Invention : **Method and device of correcting image sensor misalignment using ship identification information**
- ❖ Application Number. : KR2018-0133725

Application of Technology and Field of Use

◆ Ground target video surveillance

◆ Misalignment correction for the conventional image sensor has limitations due to the existing ground-based reference target.

- If the number of reference targets installed on the ground is small, information necessary to correct a mounting misalignment value of the image sensor is insufficient, and the accuracy decreases.
- In order to expand the reference target on the ground, the installation cost and management cost will increase excessively.



<Representative drawing>

Features of Technology

- Acquiring a ship image from an image sensor
- Acquiring a ship identification information from an automatic ship identification system (AIS)
- Correcting a misalignment value of the image sensor using first coordinates of the ship calculated from the ship image and second coordinates of the ship calculated from the ship identification information

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Technical Effects

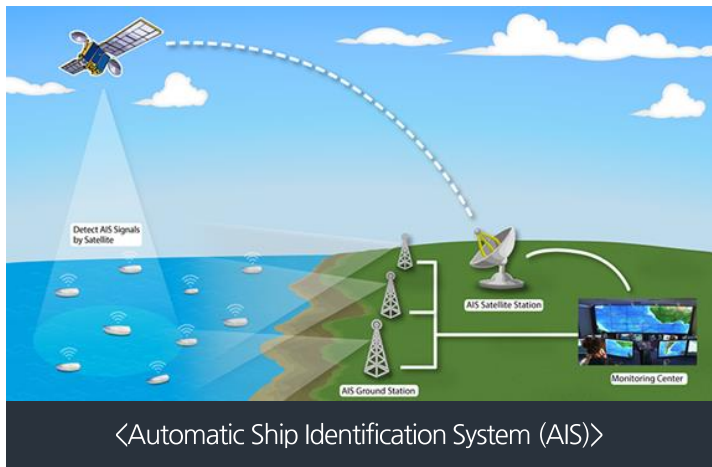
◆ Accurate calculation of mounting misalignment value for image sensor

- It is possible to accurately calculate the mounting misalignment value of the image sensor by using a position difference that occurs after visual synchronization of the image-based ship coordinates and the AIS-based ship coordinates.

◆ Improvement of statistical precision of mounting misalignment calculation algorithm

- It is possible to improve statistical precision of a mounting misalignment calculation algorithm by securing a sufficient number of reference targets.

Social, Environmental, Economical Effects



◆ Possible to perform misalignment correction on image sensor while reducing cost

- Through the AIS, which continuously transmits the position of the ship, it is possible to process the misalignment correction for the image sensor mounted on the satellite at relatively low-cost.

◆ Possible to reduce reference target installation and management costs

- It is possible to increase accessibility and reduce the cost of installing and managing the reference target by securing the reference target in the sea area.