

Surveillance

Representative Patent 01

❖ Title of Invention : **Apparatus for remote sensing using drone**

❖ Application Number. : KR2015-0111726

Application of Technology and Field of Use

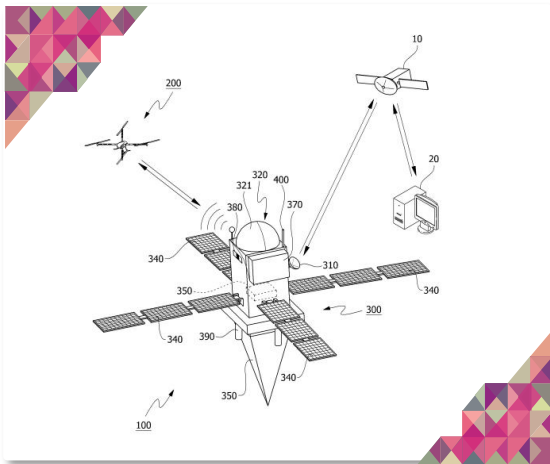
◆ **Reconnaissance of a specific area, Weather analysis, Environmental analysis**

◆ **Limitations of existing remote sensing satellites used for disaster and weather analysis**

- Because the remote sensing satellites are expensive, the countries where they are available are limited.
- They are suitable for wide-area exploration, but not for precise exploration of a narrow area.

◆ **Limitations in drones used as replacements for remote sensing satellites**

- A drone needs a temporary station for regular charging and non-exploration, but it is not well prepared.



<Representative drawing>

Features of Technology

- A drone station capable of performing transmission and reception with a server via a satellite, and comprising a storage unit at the upper part and a stake unit at the lower part
- A solar panel that is stored in the storage unit of the drone station and that includes a drone capable of transmitting and receiving with the drone station, which converts solar energy into electrical energy while installed in the drone station
- The capacitor configured to store the electrical energy generated from the solar panel while being installed in the drone station
- The charging storage access deck installed in the storage unit and configured to charge the drone

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Technical Effects

◆ Possible to provide drone station providing various functions

- Provide facilities for stable settlement on ground when dropped from the air.
- Provide facilities for charging drones.
- Provide all facilities for storing drones.

◆ Possible to supply power to drone without external power supply

- It is possible to supply power to drones and remote sensing equipment by generating electricity from its own solar panel and storing electricity by the capacitor.

Social, Environmental, Economical Effects



<Drone demonstrating rescue of survivors>

◆ Possible to perform reconnaissance and surveillance in specific areas without external power

- It is possible to effectively conduct reconnaissance and surveillance activities using drones in areas where power supply is difficult

◆ Possible to carry out long-term exploration work

- By providing the infrastructure for charging and storing drones, the drones can perform exploration work stably for a long period of time