

INNOVATION OF IN-SITU SENSING TECHNOLOGY FOR THE KOREA LAND MONITORING

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ABSTRACT:

A new R&D project "Innovation of In-Situ Sensing Technology for the Korea Land Monitoring Research" was initiated by Korean Land Spatialization Group in Sep. 2007. The project includes the development of techniques for real time land monitoring by ubiquitous sensor network(USN) as well as by the vehicles equipped with various sensing devices. This project is going to be supported by MOCT(Ministry of Construction & Transportation) and the total budget is about 3 million US dollar for next four years(from 2007 to 2011)

A ubiquitous sensor network(USN) is a wireless network consisting of spatially distributed autonomous devices using sensors to cooperatively monitor physical or environmental conditions, such as temperature, sound, vibration, pressure, motion or pollutants, at different locations. The development of wireless sensor networks was originally motivated by military applications such as battlefield surveillance. However, wireless sensor networks are now used in many civilian application areas, including environment and habitat monitoring, healthcare applications, home automation, and traffic control.

The applications for USN are many and varied. They are used in commercial and industrial applications to monitor data that would be difficult or expensive to monitor using wired sensors. They could be deployed in wilderness areas, where they would remain for many years (monitoring some environmental variables) without the need to recharge/replace their power supplies. As shown in Fig. 1.,the scope of this projects includes development of sensors, sensor network and real time in-situ land monitoring system.

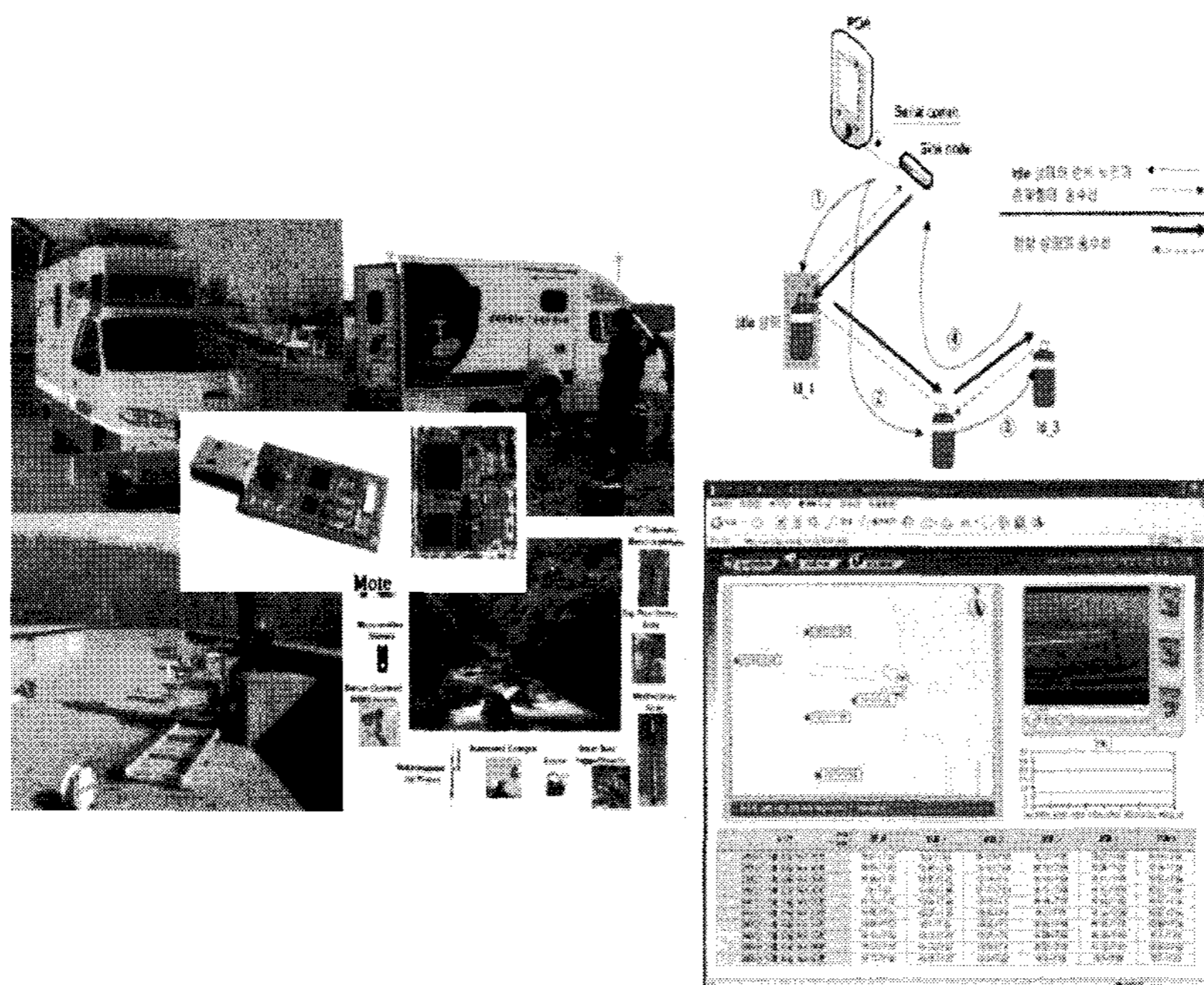


Figure 1. The scope of this project includes development of sensors, sensor network and real time in-situ land monitoring system.