SAFETY SYSTEM FOR ELDERLY WANDERING PERSON

ABSTRACT
We have developed a new mobile phone-based safety support system for transmitting information of a wandering elderly person's location and the environmental sounds around that person. The system consists of a wearable sensor and a conventional desktop PC with Internet access acting as the server computer. The wearable sensor, which is attached behind the neck of the elderly person’s shirt, is composed of GPS module. The wandering elderly person's location is identified within 100 m from the mobile phone company’s antenna ID via the W-SIM. The caregiver sets the elderly person’s movement area by specialized computer software. The GPS module sends both the wandering elderly person’s location and the environmental sound to the server computer. The server computer informs automatically the caregiver by a message on the website. The caregiver can monitor the sound and the map of the wandering person's location via Internet.