Brief summary on wireless sensor networks

Abstract. This paper provides a brief summary on wireless sensor networks research.

Summary

The Mobile Sensor Networks are constituted on ad-hoc basis by tiny mobile sensor nodes deployed randomly over an area. The automatic random localization of mobile nodes may serve many potential applications where dynamicity and continuity are critically important. In this paper we envision one such application of health management. In most of the severe health risk, the patient is kept under intensive observation to collect post treatment health data about the patient. Sometime the observation period is prolonged, and just contributes to the traffic in the hospital. The housing in the central health care unit also imposes stressful cost to the patient. We propose a viable solution for the benefit of both. Post treatment under the observation period a patient - equipped with various body sensors - may be shifted to a nearby affordable locality where a patient may perform unguided longer walk also. The body sensors will continuously be disseminating the various health data to a data repository in the hospital where the concerned doctor has the access to look it up. As the sensor networks are formed on ad-hoc basis, so they are prone for loss. A network loss causes the loss of data and absence of the health data may put the patient on severe risk. In our solution, we propose a random movement of a set of mobile sensor nodes between the body sensors and the repository and responsible to strengthen the ad-hoc wireless sensor network, the transmitting medium between them. The sensors will randomly but unobtrusively be mobile and unnoticeably strengthening the data transmission from a patient to doctor. Mobile Sensor Networks are constituted on ad-hoc basis by tiny mobile sensor nodes deployed randomly over an area. The automatic random localization of mobile nodes may serve many potential applications where dynamicity and continuity are critically important. In this paper we envision one such application of health management. In most of the severe health risk, the patient is kept under intensive observation to collect post treatment health data about the patient. Sometime the observation period is prolonged, and just contributes to the traffic in the hospital. The housing in the central health care unit also imposes stressful cost to the patient. We propose a viable solution for the benefit of both. Post treatment under the observation period a patient - equipped with various body sensors - may be shifted to a nearby affordable locality where a patient may perform unguided longer walk also. The body sensors will continuously be disseminating the various health data to a data repository in the hospital where the concerned doctor has the access to look it up. As the sensor networks are formed on ad-hoc basis, so they are prone for loss. A network loss causes the loss of data and absence of the health data may put the patient on severe risk. In our solution, we propose a random movement of a set of mobile sensor nodes between the body sensors and the repository and responsible to strengthen the ad-hoc wireless sensor network, the transmitting medium between them. The sensors will randomly but unobtrusively be mobile and unnoticeably strengthening the data transmission from a patient to doctor.
Conclusion. This paper was a one pager wireless sensor networks research.

References


