Phongpan Arayasang 2010: Baby Care Online System with Wireless Communication Technology. Master of Engineering (Electrical Engineering), Major Field: Electrical Engineering, Department of Electrical Engineering. Thesis Advisor: Assistant Professor Dusit Thanapatay, Ph.D. 79 pages.

"Baby Care Online System" is a monitoring system on babies' temperature, moisture of damp diapers and captures the babies' movements and sends information to website that even if baby-sitter haven't been with babies, always know when babies have been unusual. The components of this system consist of the small sensor for wearing on the baby's wrist which detects temperature and send the data to the baby-sitter's computer. Therefore, baby-sitter immediately knows when baby has fever. Additionally, this system has sensor install to diaper for detecting moister when baby urinated that baby-sitter can't know as long as baby has been uncomfortable and cried out or urine have seeped away. For sending information from sensors to the baby-sitters' computers, this system uses the wireless communication with radio frequency. Signal transmitter was designed to save energy with using 3-volts power supply, therefore the device has more than 1 month life-time. Moreover, the signal transmitter can send signal further than 50 meter away from the receiver. And this system can monitor the temperature and moisture of diapers about 50-150 babies at the same time also the baby-sitters can check the babies' information through the website using computer or mobile phone.

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