Device helps with Sudden Infant Death Syndrome detection

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University of Texas at Arlington researchers have obtained a patent for a device aimed at saving babies' lives through improved and rapid detection of Sudden Infant Death Syndrome.

Electrical Engineering professor J.-C. Chiao, doctoral candidate Hung Cao and Heather Beardsley, a research engineer at UT Arlington’s Automation & Robotics Research Institute, have developed a sensitive wireless sensor system that can detect carbon dioxide exhaled by babies as they sleep. But more importantly, the sensors know when infants are not expelling carbon dioxide – quickly enough to allow intervention.

“This has the chance to save lives,” said Chiao, who also holds the Janet and Mike Greene and Jenkins Garrett professorships in the UT Arlington College of Engineering. “Our system is more accurate than current systems. Our system reduces false alarms that desensitize parents or caregivers.”

SIDS typically occurs in infants under a year old while the child is sleeping. Cases are classified as SIDS when there is no other explainable cause of death.

The new sensors can be attached to a baby’s crib or car seat. The sensors are less cumbersome than current technology that requires breathing apparatus being placed around the baby’s nose.

“Our sensors just let you know the baby is breathing normally without all
“Now, there are audio, video and motion detection systems to monitor infants, but it is still difficult to determine whether a baby is breathing,” Beardsley said. “Those current systems aren’t being endorsed by the American Academy of Pediatrics anymore. The CO2 system is much better. It represents a significant risk reduction in the health care industry.”
Provided by University of Texas at Arlington


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