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Improving Safety for Infant's Sleep from SIDS using Image Recognition

A dissertation by

Mr. M. A. Maleesh D. Piyaratne

Supervised by

Ms. Sachinthani Perera

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Abstract

In a world where productivity is key and an economy where inflation is rising at a staggering rate, household find it harder and harder to meet basic needs, let alone be able to hire afford childcare while they work.

Moreover, with the recent transformation in our culture with the Coronavirus Pandemic. Parents are now working from home. This means they must stay productive and keep a constant eye on their children. If they are to get any work done this work environment is not helpful. Even when the children are asleep, they can be in danger of suffocation caused by various risk factors discussed further down.

This research monitors infant's care and level of risk at moments when it is least being observed by caregivers. The system will observe the objects and the infant's surrounding to ensure a safe and risk-free sleep environment. The system will observe the behaviour at night to ensure that the   infant   sleep   in   the   most   optimum   placement/position.

Keywords: Machine Learning, Neural Networks, Deep Learning, Sudden Infant Death Syndrome,   Classification   Model

Subject Descriptors: Early Child Development, Sudden Infant Death Syndrome, Parenting.