

Detection of Lumpy Skin Disease in cattle using IOT and Deep Learning Techniques

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Abstract: A virus from the *Capripoxvirus* genus of the *Poxviridae* family induces Lumpy Skin Disease (LSD), a highly infectious disease in cows. This virus is responsible for a variety of economic problems that result in large reductions in fertilization, milk output, trade tariffs, and in some instances even death of animals. Also, it was discovered that sick cattle's pus and ocular secretions contained the LSD virus. Through the implementation of battery-powered sensors and smart gadgets, farmers can now continue data collection on their cattle without having to carry them everywhere. In this research, we present a tool that enables farmers to subtract current health parameters from current health metrics, allowing them to subtract any reduction in the health of the cattle. In our wireless sensor-based cow health monitoring system, vital signs such as body temperature, hypersalivation, ulcers, lacrimation, and lumps on the skin are continuously tracked. The Arduino Board ATMEGA328, Temperature Sensor, Wet Sensor are necessities for our project.

Keywords: LSD, Capripoxvirus, Poxviridae, Smart Device

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