LITERATURE SURVEY

7.Intelligent Systems Using Sensors (2022)

INTRODUCTION:

Worldwide, the persistent trend of human and animal life losses, as well as damage to properties due to wildlife–vehicle collisions (WVCs) remains a significant source of concerns for a broad range of stakeholders. Our study combines a systematic review with bibliometric analysis.

Future research directions identified include the design and development of algorithms for real-time animal detection systems. The latter provides a rationale for the applicability of our proposed solutions, for which we designed a continuous product development lifecycle to determine their feasibility.

The Wildlife study shows that unpaved roads recorded less WVCs than paved roads. High numbers of WVCs were both in hot and wet seasons, while cold and dry seasons experienced the lowest numbers. In February 2012, researchers recorded 470 animal mortality rates due to WVCs in just two fortnights in South Africa. Birds had the highest numbers, followed by reptiles, mammals, and amphibians. Roadkill and WVCs also happen in other parts of Africa, such as Tanzania. In 2015, John Kioki et al. Recorded a death rate of 3% for domestic animals and 97% for wildlife due to WVCs. Their research findings show that roads are a potential threat to wildlife in East Africa. Massive units with various components such as weights, activation functions, and backward and forward neurons connections to handle the vanishing gradient problem, which a very deep CNN would likely fail to address.

ADVANTAGES:

It helps to analyze negative factors that influence WVCs, such as human behaviors, animal behaviors, road features, and climatic changes.

The Applicability and feasibility of the proposed solutions to existing damaged roads, accident car collisions, humans, animals, and the environment.

It helps to design a continuous product development lifecycle to help engineering teams determine the feasibility of the proposed solutions.

DISADVANTAGES:

The traditional approaches are limited and are not always possible with steep rocky slopes and deep snowpack.

The negative factors contributing that act as features when developing intelligent systems which prevent WVCs.

Because of these limitations, other systems have received much attention.

CORRESPONDING AUTHOR:

Irene Nandutu,

MarcellinAtemkeng