# SYSTEM PROJECTS & QUALITY MANAGEMENT (7173)

Project Proposal

Semester 2, 2025

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| **Student ID** | U3284513 |
| **Project Title** | Use of Surveillance and GPS to Develop Interactive Map for Wildlife Activity |
| **Tutorial Time** | Wednesday, 3:30 – 5:30pm |
| **Tutor Name** |  |
| **Number of Pages** | Alot |

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# PROJECT SUMMARY

## Introduction

This project aims to build a wildlife monitoring system, using an interactive map of wildlife activities with the help of GPS, to warn drivers of area with high frequency of wildlife activities. According to Rowden et al. (2008), kangaroos and wallabies are involved in 44.8% of these crashes, as a result of migration from human’s urbanization and seasonal migration (Taylor-Brown et al., 2019). Another factor is due to drivers not paying attention to wildlife road sign warnings, swerving and speeding (Transport Canberra, 2021). The proposed project aims to address these problems:

* How to improve driver’s safety on the road, particularly reducing the number of wildlife – vehicle collision (WVC)?
* How to reduce the mortality of wildlife in a WVC?

## Project Aim

This project aims will concern the following domains:

* Accident management of wildlife/pets
* Interactive map
* Tracking and monitoring systems

And will be providing the following values to the domain:

* Capturing real time data and relaying it to the GPS system to warn drivers of areas with wildlife activities, thereby reducing the risk of WVC
* Reducing the mortality rate of wildlife in a WVC incident
* Reducing the risk of injuries of drivers on the road

## Project Introduction and Management

This project will combine cameras, motion sensors, GPS and network technologies to present a technology-driven solution to monitor and reflect areas with high wildlife activity. This information will be presented on an interactive map where users can interact with to make better decisions and plan their route accordingly. (Project management: Skills, people, processes, methods, knowledge, experience. Should include things such as deadlines, budget, deliverables and quality metrics)

## Success Metrics

The project and project management will be considered successful if:

* Project aspects:
  + Accurate mapping details for users
  + Systems can transfer accurate data in real time
  + Cameras and sensors successfully set up in areas spotted with wildlife activities
* Project management aspects:
  + Complete within the deadlines and budget
  + High adoption rate in rural and urban areas

# PROJECT SCOPE AND MOV

## Project Scope

The project considers the following points to be **within the scope**:

* A surveillance system which has the ability to monitor, track and collect real time movement of wildlife and/or pets.
* GPS technology to visualize and update the interactive map for users.
* An interface for user to interact with the map and display high activity area.
* A database to collect store information related to wildlife activities and accidents.

The project considers the following points to be **outside the scope**:

* Adoption of the surveillance system across Canberra.
* Response and rescue efforts in the case of an accident.
* Legal requirements with relevant wildlife and traffic body of authorities.
* Development of cameras and motion sensors for the project.

## Measurable Organisation Value (MOV)

The following steps will be taken to develop an MOV for the project:

### Area of Impact

This project will focus on the society aspect, which aims to reduce the wildlife – vehicle collision risks, mortality risks of wildlife and drivers, and educate drivers on areas of high wildlife activity.

### Desired Value for the Project

### Project Metrics

### Time Frame

### Verification of MOV

### MOV Summary

## Importance of MOV Summary

# REFERENCES

* Rowden, Peter, et al. “Road Crashes Involving Animals in Australia.” Accident Analysis & Prevention, vol. 40, no. 6, 1 Nov. 2008, pp. 1865–1871, [www.sciencedirect.com/science/article/pii/S0001457508001371](http://www.sciencedirect.com/science/article/pii/S0001457508001371), <https://doi.org/10.1016/j.aap.2008.08.002>
* Transport NSW. *Transport for New South Wales Using Technology to Reduce Wildlife - Vehicle Collisions*. Dec. 2024.
* Taylor-Brown, Alyce, et al. “The Impact of Human Activities on Australian Wildlife.” PLOS ONE, vol. 14, no. 1, 23 Jan. 2019, p. e0206958, <https://doi.org/10.1371/journal.pone.0206958>
* Transport Canberra. “Collisions with Wildlife.” www.cityservices.act.gov.au, 22 June 2021, [www.cityservices.act.gov.au/roads-and-paths/road-safety/wildlife](http://www.cityservices.act.gov.au/roads-and-paths/road-safety/wildlife)