# 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** | Yasaman |
| **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
  + At least 60% 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 societal 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. This will help drivers make better decisions on a trip and helps prevent the percentage of WVC incidents in Canberra.

### Desired Value for the Project

The main goal of the project is to deliver a safer and better road condition for both Canberra drivers and the wildlife population. By implementing a real – time accurate interactive map of the wildlife population, the project can help minimize the chances of an accident happening and thus minimize mortality rate for both drivers and the wildlife population.

### Project Metrics

The project proposes the following metrics to measure the progress of the project:

* + Achieve at least 25% or more reduction in wildlife – vehicle collision incidents within the first year of implementation
  + Achieve an accuracy of 80% when mapping wildlife activities in Canberra
  + The project is reported to be in use by at least 40% of all drivers within Canberra

### Time Frame

The time frame for the project begins with a pilot testing phase in which over the course of 1 year will provide information about the project’s ability to be implemented on a city-wide scale. This testing phase will outline any potential problems regarding data collection instruments and how they combat weather elements, protocols and possible man-made damages that could occur. Then a six-month period is expected to examine the data collected by the instruments to evaluate the percentage of incidents reduced, the accuracy of information being reported back to the user, the data collection process and damage caused to the instruments. This step ensures that the project is ready for city-wide deployment. Then, a five years process will begin to implement and integrate the project into existing infrastructure in Canberra.

### Verification of MOV

The relevant bodies have reviewed and agreed that the metrics and their values are suitable for the project and have secured an agreement from the stakeholders.

### MOV Summary

In summary, the project is considered successful if it can help reduce 25% of wildlife related vehicle collision within Canberra, while reaching an 80% accuracy on wildlife activities mapping and have an adoption rate of at 40% of all drivers in Canberra.

## Importance of MOV Summary

The MOV serves as a benchmark and a guide for the project by providing clear goals and helps align them with the chosen domain for the project, that is accident management, interactive map and tracking and monitoring system. With the metrics outlined for evaluation, the MOV provides direction on where to direct resources and influence the decision-making process. It will also help the team to agree on deliverables and set a clear direction for the project, while also providing clear expectations for the stakeholders.

# PROJECT PLANNING AND WBS, TIME, COST, STRUCTURE

## Chosen Management Method

# REFERENCES

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