

# SYMPOSIUM

## USING TECHNOLOGY TO REDUCE WILDLIFE-VEHICLE COLLISIONS:

*Identifying future directions and opportunities for research trials.*

TUESDAY 21 MAY 2024

Aerial UTS Function Centre,  
Bldg 10/Level 7, 235 Jones St, Ultimo, NSW  
and Online via Zoom



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Presentation materials  
| [Accessible here](#)

## ABSTRACT

### **Citizen science, remote sensing and machine learning: A collaborative approach for mitigating road mortality in urban turtles**

Road mortality is a significant threat to urban wildlife populations. This program explores a collaborative approach utilising citizen science, remote sensing, and machine learning (ML) for turtle conservation in New South Wales, Australia. The "1 million turtles" program developed the "Turtlesat" app, generating real-time data (over 21,000 entries) on turtle presence (alive or dead) on roads. This citizen science data informs a partnership between Western Sydney University and Transport for NSW, facilitating the development and implementation of targeted mitigation strategies. These strategies include strategic fencing and the integration of low-cost, turtle-friendly designs in new motorway construction. Additionally, the project investigates the proof-of-concept for ML-based turtle detection using dashcam footage. This system has the potential to be scaled for broader wildlife monitoring applications targeting species like kangaroos and koalas. This collaborative effort demonstrates the efficacy of integrating citizen science, remote sensing, and ML for mitigating road mortality in urban turtles, offering a valuable framework for future wildlife conservation efforts.