

AI Based Wild-Life Recognition System

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Abstract: *The rapid decline in global biodiversity has necessitated innovative approaches to wildlife monitoring and conservation. Traditional methods of species identification, such as manual observation and camera traps, are labor-intensive and prone to errors. This paper proposes an AI-based wildlife recognition system leveraging deep learning techniques to automate species identification. Using the Residual Network (ResNet) architecture, the system achieves high accuracy in classifying wildlife species from image data. The model is trained on a diverse dataset comprising images from various habitats, ensuring robustness in real-world applications. The system's scalability allows for integration with mobile and IoT-based platforms, enabling real-time monitoring and data collection. This research aims to provide conservationists and researchers with a reliable tool for biodiversity assessment and wildlife protection*

Keywords: Wildlife Monitoring; Artificial Intelligence; Deep Learning; ResNet; Biodiversity Conservation; Image Classification

