

Animal Habitat Conservation

Industry-Specific Problem:

Many animal species face habitat destruction due to deforestation, climate change, and human activities. Young learners need to understand how conservation efforts can protect these habitats and promote biodiversity. This project aims to develop awareness and practical solutions for wildlife conservation.

AI-Based Solution:

1. AI Habitat Monitoring:

AI-powered models analyze environmental conditions and suggest conservation strategies. These systems can detect changes in temperature, humidity, or deforestation using satellite imagery and sensors, enabling early interventions.

2. Virtual Habitat Simulation (Scratch/Code.org):

Students use platforms like Scratch or Code.org to design interactive ecosystems. They simulate changes in temperature, human activities, or pollution, and observe how different species react. This helps in understanding ecosystem dynamics and the importance of stability.

3. AI-Driven Awareness Campaign:

Students employ AI tools (e.g., Canva with AI, ChatGPT) to generate posters, presentations, and videos. These materials are aimed at educating their school and community about conservation, encouraging actions such as recycling, tree planting, and wildlife protection.

Animal Habitat Conservation

Learning Objectives:

- Understand the importance of habitats for biodiversity.
- Identify major threats to wildlife habitats.
- Explore AI's role in environmental science.
- Develop digital simulations of ecosystems.
- Promote awareness and advocacy for conservation.

Project Phases:

1. Research Phase:

- Study types of habitats and threats.
- Learn about AI tools and Scratch basics.

2. Design & Simulation Phase:

- Build ecosystem models using Scratch/Code.org.
- Implement environmental variables.

3. AI Monitoring & Data Interpretation:

- Analyze data using mock AI dashboards.
- Create response strategies for habitat protection.

4. Awareness Campaign:

- Use AI tools to make posters, videos, and presentations.
- Host school exhibition or awareness drive.

Animal Habitat Conservation

Tools & Platforms:

- Scratch (scratch.mit.edu)
- Code.org
- Canva AI
- Google Earth / NASA Earth Observatory
- ChatGPT / AI writing tools

Target Audience:

- Middle to High School Students (Grades 6-10)
- Designed for STEM, ICT, or Environmental Studies classes

Expected Outcomes:

- Students demonstrate understanding of conservation through digital projects.
- Increased peer and community awareness.
- Practical suggestions for real-world action.

Assessment Criteria:

- Creativity and originality of simulations.
- Use of AI tools in problem-solving.
- Depth of research and accuracy.
- Communication and campaign effectiveness.