

Energy companies perform inspections of power lines by helicopter. During these inspections photos are taken of equipment with defects. After the flight, these photos are sorted by equipment type, anomaly type, description of the anomaly and emergency level of the required intervention.

The classification of anomaly photos represents a long and tedious work carried out by an expert in the operation of electrical networks. Birds.ai provides the energy company with a solution to automatically classify the main characteristics in anomaly photos of the power lines.



The characteristics to detect are, by level of difficulty of their classification:

1. The global equipment type. There are 3 possible types of equipment.
2. The precise equipment type. There are 11 possible types of equipment.
3. The anomaly type. There are 16 possible types of anomalies.

The solution directions are open. This means that you can solve this task with classical machine learning or more modern deep learning.

The output (classification tags) of your solution can be used to help inspectors determine the health of the electrical network and subsequently plan maintenance.

Final Deliverable Performance Report

- Dataset description
- Explanation of methods applied
- Quantitative analysis (confusion matrix, precision, recall, top-N accuracy)
- Qualitative analysis
- Conclusion
- Recommendations

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About Birds.ai

The Insight to take Confident Operational Actions.

Our customers manage multi-million, and sometimes multi-billion euro assets in large-scale demanding areas. They deliver reliable high tech products and services that meet the highest demands in an always-on 24/7 environment. Birds.ai provides these customers the necessary bird's-eye view and detailed deep learning insights to be able to successfully increase utilization and fault-tolerance, minimize downtime and outage, and make confident decisions on current and future operations.