

SparkVision

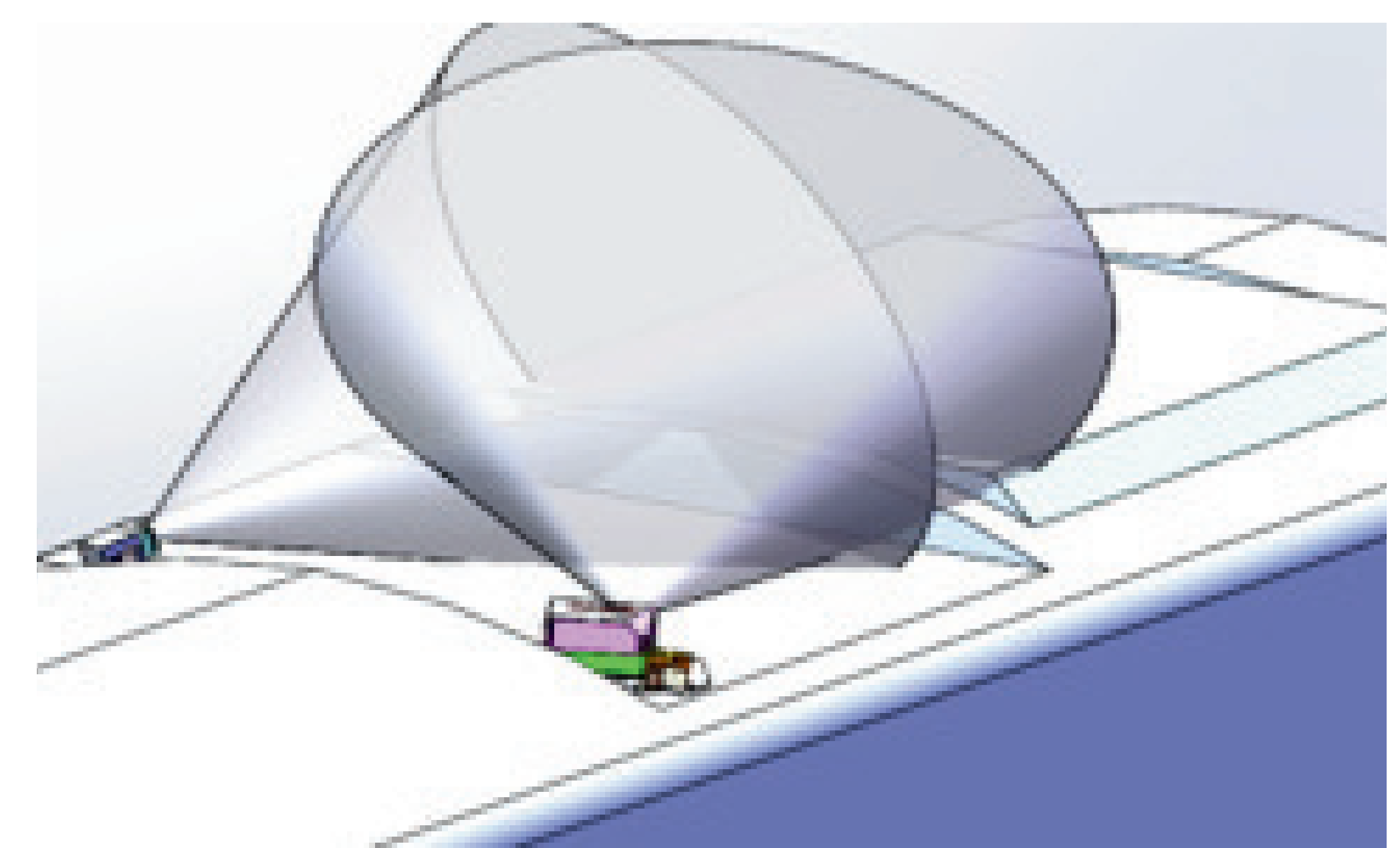


Railway Overhead Power Line Monitoring

SparkVision leverages YOLO algorithms to monitor overhead powerline video footages and detect sparks caused by faulty connections between pantographs and overhead power lines. By offering continuous surveillance during train operations, SparkVision aids maintenance crews in identifying and addressing issues promptly, enhancing the reliability and safety of the railway network.

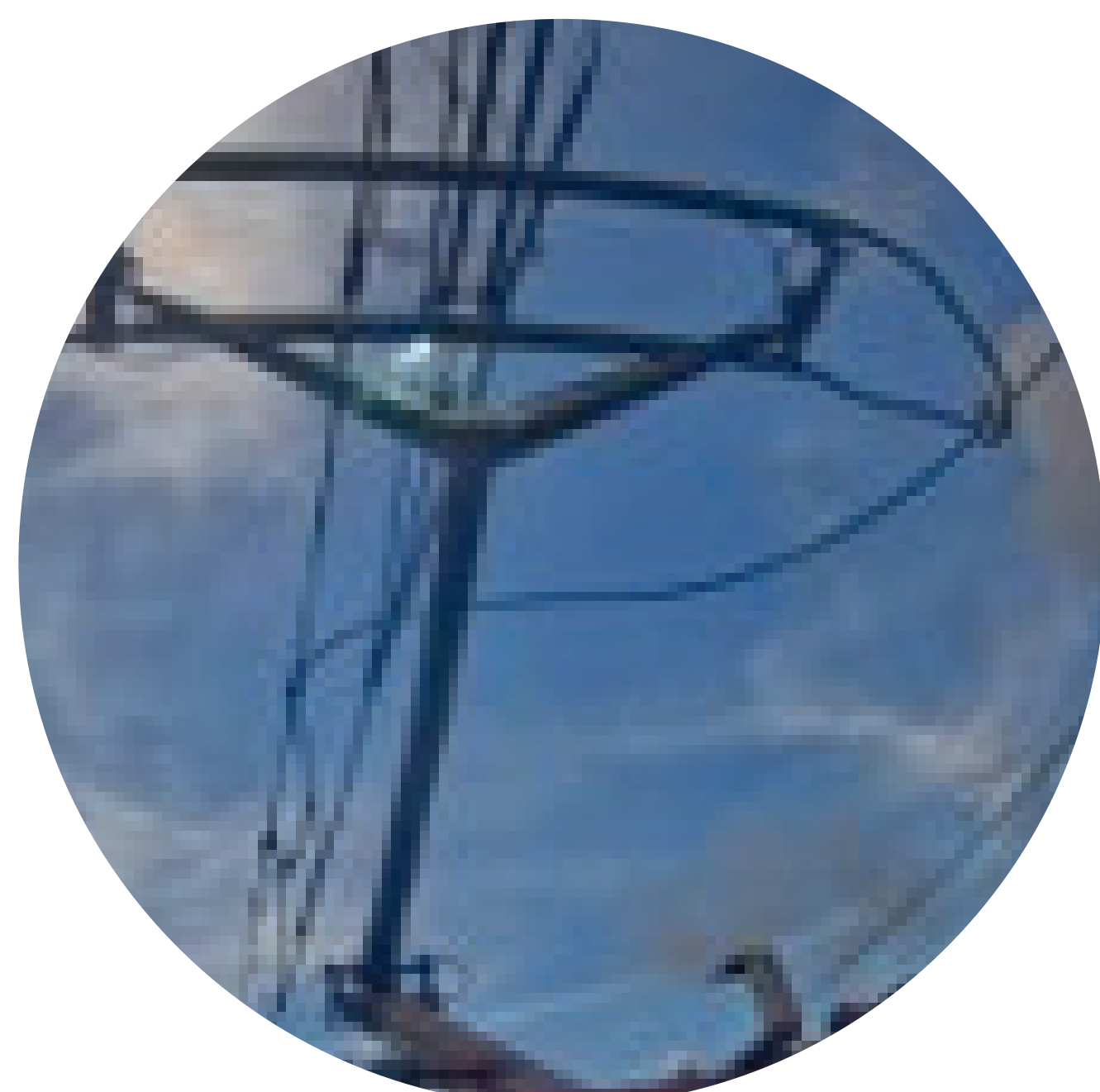
AI / Data-Driven Maintenance Approach

AI and cloud computing analyze potential true alarms, allowing maintenance users to proactively review them via a web application. This process enhances maintenance decision-making by prioritizing fault maintenance and improves AI model accuracy through verification and retraining.



Camera on top of passenger train

Types of Electric Arcs



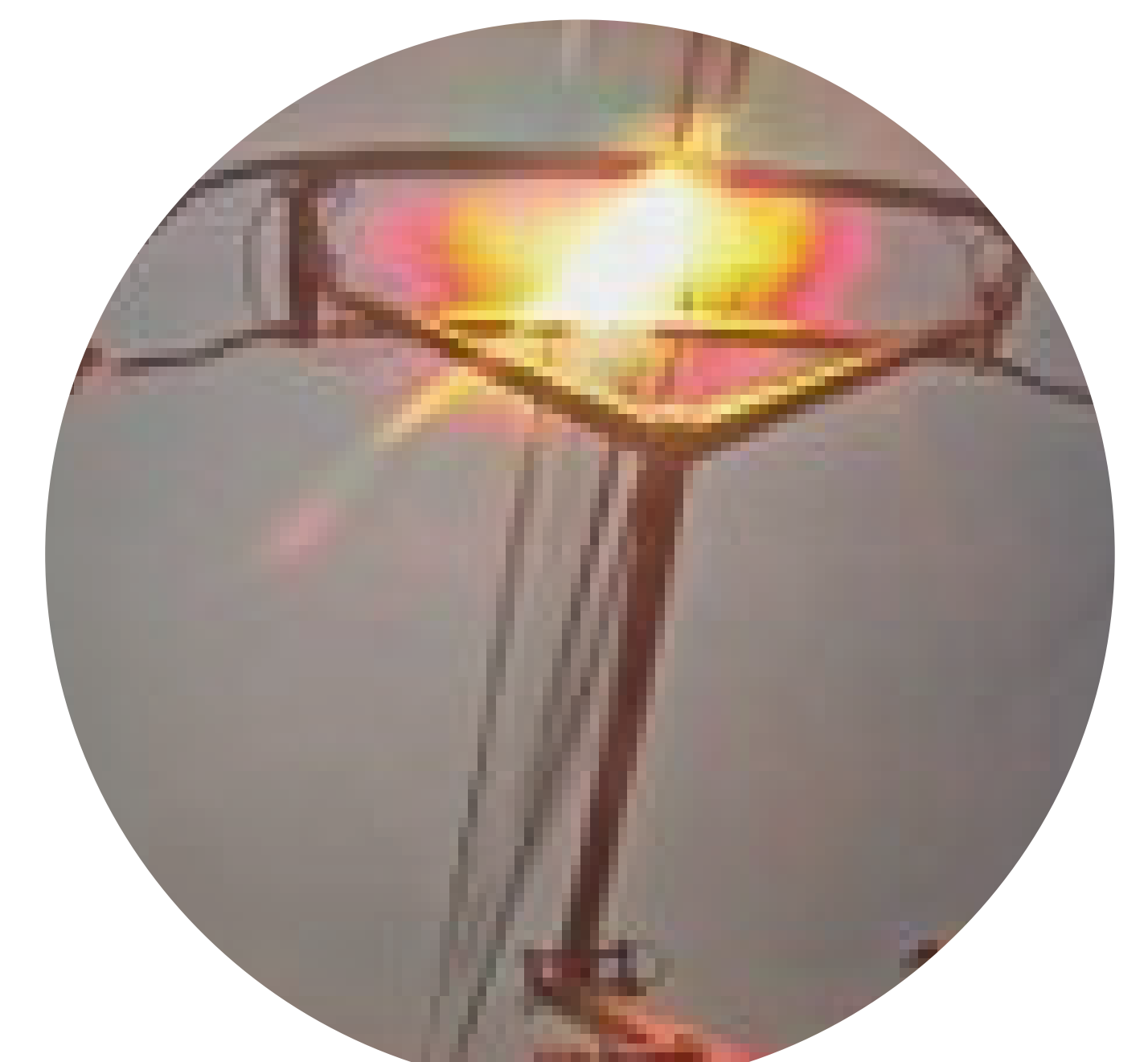
Normal Spark



Spark



Excessive Spark



Yellow Flame

Cloud Computation and Storage

Provides scalability, cost-efficiency, and reliability. Scale computational and storage resources up or down based on demand, ensuring optimal performance without over-provisioning.



Dashboards

Overview of alarms and model performance

Machine Learning

Automatically classify images of sparks. Retrain with new labels to get better results.