iOmniscient

iQ-Rockfalls

Detection and prediction for roads and railways



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Table Of Contents

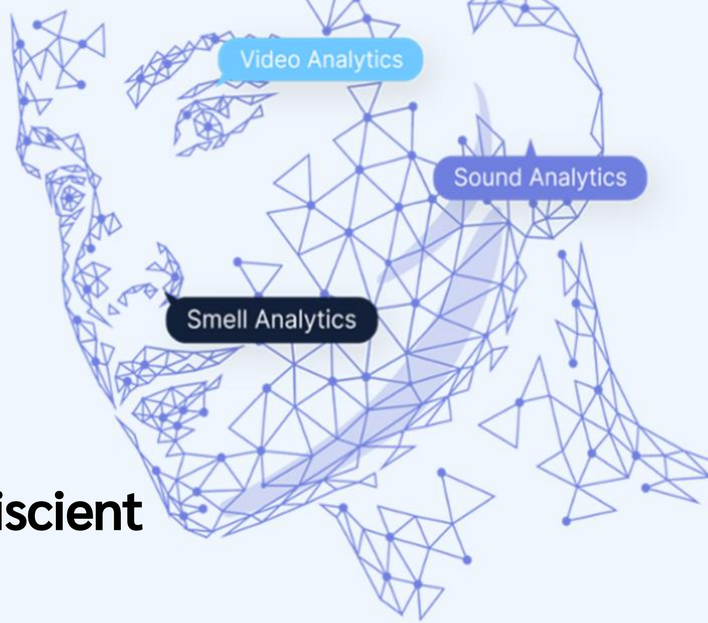
1 Hazard

2 Detection

3 Prediction

4 Warnings

5 About iOmniscient



Click a number and go to the page

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A Hazard Ahead

Weather extremes can increase rock-fall risk

Warn vehicles and trains

DETECT

Identify rock falls that threaten motorists and railways.

PREDICT

Watch for signs that a fall may be coming.



The core technology is internationally patented.

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Rocks on the Road

Detect debris and reduce nuisance alarms



Find rocks and other debris

DETECTION

The system detects rocks and other debris on the road.

NAMS

Nuisance Alarm Minimization System helps limit false alarms.

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Movement Before a Fall

Observe cliffs and hilly slopes

Small movements can be a warning

MONITOR

Watch underlying land structures.

PREDICT

Raise an alarm when small movements resemble those that precede a rock fall.

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Warn Oncoming Traffic

Send the alert through available channels

ROAD SIGNAGE

Automatically display a rock-fall warning to oncoming traffic.

TRAIN DRIVERS

Send alarms directly when communications infrastructure is available.

MAINTENANCE

Send information on ground movements directly to maintenance teams so they can take remedial action.

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About iOmniscient

Partnership

All iOmniscient Products run exclusively on Intel based computing hardware using OpenVINO™

- The use of Advanced AI technology that goes beyond Deep Learning enables iOmniscient to run its systems without the need for 3rd party GPUs.
- This reduces the power required by a factor of 16 – resulting in a 16-fold reduction in the carbon footprint.
- This is just one part of a multi-faceted program to help customers to implement Sustainable Systems.

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About iOmniscient

- iOmniscient is an **Ethical AI** company.
- It offers **multi-sensory (video-sound-smell) Artificial Intelligence based analytics for Autonomous Systems.**
- It focuses on ensuring **Outcomes** for its customers.
- With **over 2 decades of experience,** iOmniscient systems have been demonstrated to be **robust,** operating with high accuracy and few false alarms specially in **complex and crowded** environments.
- By design, its systems **reduce the cost of infrastructure** required:
  - they can use existing cameras
  - they require fewer cameras with lower resolution
  - they require 90% less storage and network bandwidth
  - they are computing light and require no GPUs
  - they allow autonomous operations requiring fewer personnel to operate
- iOmniscient has implemented projects in **70 countries.**
- With over **70 international patents** many of its capabilities are unique and unavailable from any other source.





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