



CASE STUDY 03

AI Manufacturing Safety & Restricted-Zone Monitoring

Heavy Manufacturing

Computer Vision | Workplace Safety

Business Challenge

Manufacturing plants often have high-risk areas around storage racks, side loaders, forklifts and moving machinery. Traditional CCTV records incidents but generally depends on operators continuously watching multiple camera feeds.

Solution

An intelligent vision layer continuously analyzes existing or dedicated camera feeds and creates real-time alerts when predefined safety conditions occur.

- Human entry into restricted areas
- Person-forklift proximity
- Missing helmets or safety jackets
- Unsafe movement around machinery
- Unauthorized access
- Slip and fall incidents
- Extended loitering in hazardous zones

Solution Flow



Business Value

Instead of CCTV being used primarily for post-incident investigation, computer vision converts plant cameras into a proactive safety-monitoring system, triggering a hooter, dashboard alert, SMS, email or WhatsApp notification.

TECHNOLOGY

Computer Vision, Deep Learning, Edge AI, Real-Time Alerting, Industrial Cameras