com sur ™

the missing piece of CCTV

THE FOOTAGE WHISPERER

"SEE WHAT THE CAMERA SAW"

100+ TOPICS – AIRPORTS TO ZOOS

WELCOME

AUDIT HOURS OF FOOTAGE IN MINUTES
FIND OUT HOW COM-SUR WILL HELP

CCTV and other forms of video surveillance are commonly used by most organizations to enhance occupational safety and health, but footage is often only reviewed reactively. Our company realized this problem early-on and has developed the world's only CCTV video footage auditing software that encourages daily auditing (hours in minutes) of CCTV footage, filling the gap for a complete "workflow". The software works with existing cameras and VMS, regardless of type/brand, and provides a standardized approach for intelligent incident reporting. Our software also offers exceptional investigative capabilities.

'COM-SUR' – THE WORLD'S ONLY CCTV/ SURVEILLANCE VIDEO FOOTAGE AUDITING, SMART BACKUP, AND STANDARDIZED INTELLIGENT INCIDENT REPORTING SOFTWARE – THE MISSING PIECE OF CCTV/SURVEILLANCE VIDEO

COM-SUR is the world's only CCTV/surveillance video footage auditing, smart backup, and standardized intelligent incident reporting software that serves as a complete workflow and force multiplier. It helps audit 24 hours of footage in minutes, reduces data size, creates standardized intelligent reports, and delivers business intelligence. COM-SUR helps unlock hidden information in CCTV/surveillance video footage and enables people to gain actionable intelligence, improve homeland security, prevent crime and losses, identify and mitigate threats and hazards, and improve operational efficiency. It empowers people to gain new jobs as CCTV/surveillance video footage auditors and start new businesses of auditing video footage. Like MS Office, COM-SUR is an enabler that makes it easy to work with CCTV and other surveillance cameras in a standardized way, leading to better decision-making. It also offers exceptional investigative capabilities.

HOW COM-SUR SMARTLY REDUCES 'VIDEO' STORAGE SIZE

COM-SUR employs an innovative approach to smartly reduce the amount of video to be audited and consequently the storage size of videos. Regardless of the video's frame rate, COM-SUR captures a single screenshot of the consolidated 'moment' of 'that' one second, when the I, P, and B frames come together. This method significantly reduces data size without sacrificing vital information. It goes without saying that when multiple cameras are displayed in a grid view, say 4x4, the storage size is further reduced since all the cameras are captured as a single image. Since no suggestion is being made to replace the actual video with screenshots, COM-SUR acts as a wonderful supportive technology both to audit (review) just 86400 frames representing 24 hours and reducing the data size at the same time.

ALCOA – THE AMERICAN ALUMINIUM GIANT - HOW 'SAFETY' QUINTUPLED ITS INCOME

Safety and security are two sides of the same coin, as both aim to prevent incidents and keep people and assets safe. This was exemplified by Alcoa CEO Paul O'Neill, who emphasized worker safety as a top priority, leading to a safer and more efficient work environment. This focus on safety led to improved profits, as the company examined and improved its manufacturing processes. O'Neill's philosophy was to prioritize safety as a pre-condition, not just a priority, and to fix any potential hazards as soon as they were identified.

OCCUPATIONAL SAFETY AND HEALTH CHALLENGES

1. Hazardous working conditions:

Workers in industries such as construction, mining, manufacturing, transportation and such other industries are often exposed to hazardous working conditions that can cause accidents, injuries, and illnesses.

2. Lack of training:

Inadequate or insufficient training of workers on safety procedures and equipment can lead to accidents and injuries.

3. Compliance issues:

Keeping up with ever-changing occupational safety and health regulations and ensuring compliance can be a significant challenge for employers, especially those in highly regulated industries.

4. Workplace violence:

Workers may face violence, harassment, and bullying from colleagues or customers, which can lead to physical or mental health problems.

5. Mental health issues:

Work-related stress, burnout, and mental health issues have become significant challenges for many workers, especially those in high-pressure jobs.

6. Insider threats:

Organizations have to deal with insider threats from disgruntled employees or even unwitting staff who fail to follow proper health and safety measures.

7. Aging workforce:

As the workforce ages, older workers may face increased risk of injury and illness due to

physical limitations and chronic health conditions.

8. New technologies:

The adoption of new technologies, such as automation and robotics, can create new safety risks for workers, and it is essential to understand and manage these risks.

9. Pandemics and public health emergencies:

Pandemics and public health emergencies, such as COVID-19, can present significant occupational safety and health challenges, especially for frontline workers.

10. Humongous growth of surveillance video:

The exponential growth of surveillance cameras has resulted in an unprecedented surge in surveillance video. Effectively managing this data has become a daunting challenge due to the massive storage capacity required, especially considering the prolonged retention periods necessary for security, incident investigation, or legal purposes. Furthermore, the prevalence of high-resolution video with increasing megapixels compounds the storage demands, making efficient data management an urgent priority for organizations grappling with the immense volume of surveillance footage.

THREAT/HAZARD IDENTIFICATION AND RISK ASSESSMENT/ANALYSIS (THIRA/HIRA)

Governments/organizations/establishments often have to deal with various kinds of threats and hazards that affect their personnel, their assets, the public, as well as the environment. In order to mitigate threats and hazards, several governments /organizations/establishments

carry out an exercise known as 'Threat/Hazard Identification and Risk Assessment/Analysis' (THIRA/HIRA).

The objective of this exercise is to address the following queries:

1. What are the potential threats /hazards/risks that are likely to occur?

2. What will be the consequences /implications of these threats/hazards /risks?

3. How often are these threats/hazards/risks likely to occur?

Carrying out this exercise enables relevant stakeholders to take necessary corrective and preventive measures.

COVID-19 PANDEMIC

The pandemic severely impacted several organizations worldwide with respect to occupational safety and health issues. Many organizations had to either shut their operations temporarily or continue in a limited capacity. Guidelines were issued to prevent the spread of COVID-19, but outbreaks still occurred.

USE OF VIDEO SURVEILLANCE TO MONITOR OCCUPATIONAL SAFETY AND HEALTH

Most organizations deploy video surveillance to monitor the following areas for occupational safety and health issues:

- Manufacturing floors

- Loading docks and shipping areas

- High-risk areas

- Emergency exits and stairwells

- Public areas

Further, the concerned stakeholders at organizations generally need to review and analyse recorded video footage from time to time for investigating incidents and/or accidents, and other issues in order to corroborate evidence. Also, to monitor remote /inaccessible locations where installing CCTV cameras is not feasible, drones are being used. This helps facilitate identification of safe work practices and the best risk management approaches as well as helps train the workforce in these respective areas.

REMOTE VIDEO INSPECTION

Several organizations make use of specialised CCTV systems to carry out 'remote video inspection' of structures, equipment, and components that are otherwise inaccessible to a human inspector to physically carry out such activity due to reasons such as their physical configuration, safety concerns, or other limitations. Additionally, organizations also make use of a technique known as video exposure monitoring (VEM) in order to evaluate the various 'exposures' to potentially hazardous substances like chemicals, dust, exhaust, radioactive material, carcinogenic agents, gases, pesticides, fire etc., that workers are subjected to in the work premises. In several industries (especially mining), workers are provided with a 'helmet cam' that records videos of their respective conditions which are reviewed later.

LIVE MONITORING – CHALLENGES

Several organizations have a dedicated control room with operators, set up for live monitoring of CCTV and other cameras such as drones. However, live monitoring comes with its own set of challenges of video blindness, poor attention span, boredom, operator bias, false alerts, and so on.

Moreover, these cameras continuously capture and record humungous amounts of video data. It therefore becomes a daunting task for the operators to review and analyse this data whenever the need arises. Thus, it may be noted that benefits from video surveillance systems can accrue only when they are used optimally, suggestions for which are enumerated further on, in this document.

COMPLIANCE - GENERAL

Conformity or compliance in any organization means adherence to laws and/or rules and regulations, various standards, as well as data storage and security requirements as laid down by government bodies, governing bodies of the respective industry, or the management of the organization. When an organization complies with the requirements mandated by government and/or governing bodies, then it is termed as 'regulatory compliance' which enables the organization to run in a legal and safe manner.

COMPLIANCE - AUDITS

Several organizations carry out compliance audits on a regular basis to avoid the potential consequences of non-compliance. A compliance

audit examines how well an organization adheres to compliance requirements. Some organizations use video surveillance to monitor compliance issues and audit recorded CCTV video footage from time to time for investigating and preventing compliance issues. Auditing CCTV provides actionable insights on the level of compliance within the organization.

AUTOMATED SOFTWARE – WHY THEY WILL NOT WORK IN ISOLATION

In the wake of the Christchurch shooting incident, several high-profile places of worship considered deploying gun detection technology. However, there are concerns about its efficacy, since it may not be able to detect all types of weapons, or the perpetrator could still create damage before being detected.
Similarly, automated systems like video analytics, AI/ML can only detect what they have been programmed for. What about the rest? Again, these technologies are prone to triggering huge amounts of false alarms.
Also, since the permutation combinations of exceptions can be vast and varied, it becomes almost impossible to automate every kind of exception. Facial recognition technology also raises ethical and privacy concerns, and has been found to produce inaccurate results, especially for certain ethnic groups.
Therefore, experts suggest that while automated technologies will continue to grow, human intervention and intelligence will still be necessary to verify alerts and ensure their efficacy.

"CCTV AND OTHER FORMS OF VIDEO SURVEILLANCE ARE NOT ENOUGH – WE MAKE IT WORK FOR YOU"

While it is not being suggested that optimal usage of video surveillance can cure all issues, several issues of the following kind can be addressed by doing just a little 'more' with respect to making the optimal use of video surveillance systems:

- Health and safety issues including workplace injuries and work-related illness, skin exposure, repetitive stress injuries, working at height, slips, trips, and falls, vibration, noise, ergonomic issues such as standing/sitting for long working hours, static/dynamic work

- Potential threats/hazards/stressors

- Human rights violations/child labour

- Workplace violence/harassment

- Inadequate personal protective equipment (PPE)

- Designated staff not present/shortage of staff/unskilled staff

- Overcrowding on working platform

- Improper handling and management of material

- Hazardous vehicular behaviour

- Sentinel events

- Behavioural and psychosomatic issues such as work overload, boredom and lack of control over work situation, ethnic/racial issues,

smoking, alcohol/drug abuse, fatigue etc.

- Compliance issues

- Negligence

- Inadequate/defective illumination/lighting and ventilation conditions

- Mismatch between worker's body dimensions and the work equipment/machinery

- Fraud/loss/corruption/theft

- Insider job/security lapses

- Recces/suspicious movements/activities

- Unauthorized/unlawful activities/visitors

- Entry into Forbidden/restricted/no-go zones

- Inattentive staff (e.g. guard sleeping)

- Cameras/recorder malfunctions

So, what is the 'more' that needs to be done?

1) AUDIT CCTV AND OTHER SURVEILLANCE VIDEO FOOTAGE DAILY AS A STANDARD OPERATING PROCEDURE

'Auditing' means 'seeing' what the cameras 'saw'. Auditing of CCTV and other surveillance video footage should be done daily (continuous investigation) to identify potential issues and threats. Auditing is a dedicated and systematic process that helps address challenges related to live monitoring and alert-based systems. Auditing helps in evaluating analyzing incidents to improve existing policies, procedures, and processes. Concerned personnel should be trained to become video footage auditors, and the audit teams should be rotated to avoid complacency/collusion. Daily auditing of CCTV and other surveillance video footage can also help in adhering to the principles of Kaizen and TQM for business improvement.

2) DOCUMENT AUDIT FINDINGS/INCIDENTS

Audit findings/incidents should be documented in a standardized template to find the root cause to prevent future recurrences. Historical data of such findings/incidents can reveal patterns that can help take better informed corrective and preventive action. If the entire industry reports incidents in a standardized template, relevant authorities can derive business intelligence from the data and take action for the collective benefit of all stakeholders of occupational safety and health initiatives.

3) ENSURE DISASTER RECOVERY OF CCTV AND OTHER SURVEILLANCE VIDEO FOOTAGE – LIKE A 'BLACKBOX'

CCTV and other surveillance video footage must be stored at multiple locations in order to ensure that even if the recorder/storage device is stolen, destroyed or tampered with the data is never lost. Further, any backed-up data must easily be searchable and retrievable; else, it is going to be a nightmare finding the relevant video.

4) DISPLAY DYNAMIC INFORMATION AT RELEVANT PLACES

Document and display details of information that is dynamic in nature in relevant areas.

For example:

1. List of authorized staff (with their duty timings and their allotted locations).

2. List of safety/hazard signs along with their respective descriptions.

3. List of authorized external visitors (contractors, suppliers etc.)

4. List of authorized security guards (with their relevant details).

5. List of habitual offenders/suspects likely to visit the premises (a 'Watch out' list)

5) USE A POWERFUL NEW SIGNAGE

"WE AUDIT CCTV VIDEO FOOTAGE EVERYDAY".

One size, one color, one powerful message. Across the nation.

DE-CENTRALIZED SURVEILLANCE + CENTRALIZED SURVEILLANCE = OPTIMAL RESULTS

Organizations with multiple locations struggle with centralized video surveillance due to infrastructure cost, internet bandwidth, and operator limitations. De-centralized surveillance offers higher accountability at each location and better situational awareness, leading to more chances of discovering exceptions.

CONCLUSION

"You see, but you do not observe" is a quote by Sherlock Holmes in A Scandal in Bohemia (1891, written by Sir Arthur Conan Doyle).

COM-SUR makes 'observation' far effortless and effectual leading to superior results.

"Cameras don't lie" - but how will you know unless you 'see' what the cameras 'saw'? Audit video - why suffer!

Get award-winning COM-SUR now. Don't wait for things to go wrong!