

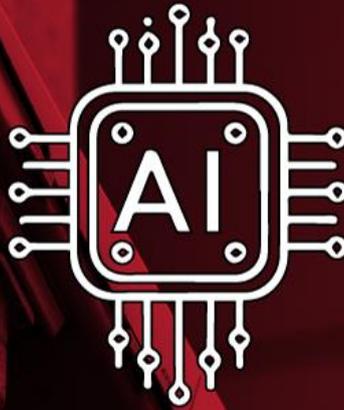
comTM
sur
the missing piece of CCTV

GET THE BOOK



**"SEE WHAT THE
CAMERA SAW"**

THE FOOTAGE WHISPERER



**'BETTER' AI VIA DAILY AUDITS
NO MORE DATA WALL**

100+ TOPICS - AIRPORTS TO ZOOS

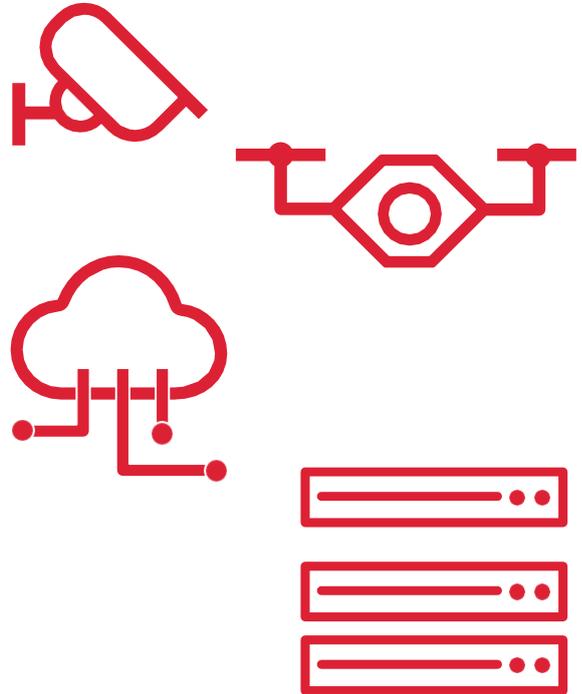
GAUTAM D. GORADIA

OVERVIEW

Videos, photos, and images are an integral part of policing across the world.

With the proliferation of surveillance videos from diverse sources such as CCTV, body-worn cameras, drones/UAVs, mobile phones, etc., there is a deluge of this medium of 'information'.

Trillions of hours of surveillance video are generated on a daily basis across the world. While such humongous amount of rich visual information will continue to grow, there is neither a standardized 'workflow', nor are there standardized tools being used by policing/law enforcement agencies to ensure that not only can this information be efficiently converted into actionable intelligence; but that, it can also be stored smartly, and shared in a standardized manner.



There is a need therefore, for an easy-to-use, and efficient tool to achieve the above objectives, as well as to ensure that this big data is not wasted!

A 'workflow' for CCTV/video surveillance should allow users to:



COM-SUR helps users do all the above very efficiently, and in a standardized manner.



CCTV – LET’S TURN GARBAGE INTO GOLD

CCTV is not enough. It must not be allowed to remain as 'fit and forget'.

That is why we built COM-SUR, the world’s only CCTV video footage auditing, smart backup, and standardized intelligent reporting software; the three ‘MISSING’ pieces of the CCTV puzzle.

Just like Google was the missing piece of the internet, COM-SUR is the missing piece of CCTV. While COM-SUR helps every user of CCTV to achieve actionable intelligence; for the police, law enforcement agencies, and defense forces, it is an exceptional tool to efficiently work with videos, photos, and images.

Google

Like MS Office, COM-SUR is a force multiplier that allows users to carry out several activities related to CCTV with ease, efficiency, and standardization.

Office

COM-SUR works with existing cameras and VMS (agnostic of type/brand).



Gautam Goradia
CEO & M.D.

CSR ACTIVITIES

Because we are so convinced that 'COM-SUR' will bring exceptional value to all users of CCTV world-over, we have decided to offer COM-SUR (Business version) for free* to:

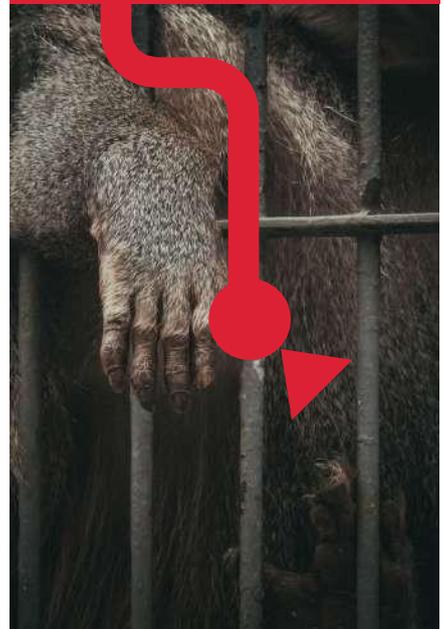
All places of Worship world-over (think of the multiple terror attacks at places of Worship across the world)



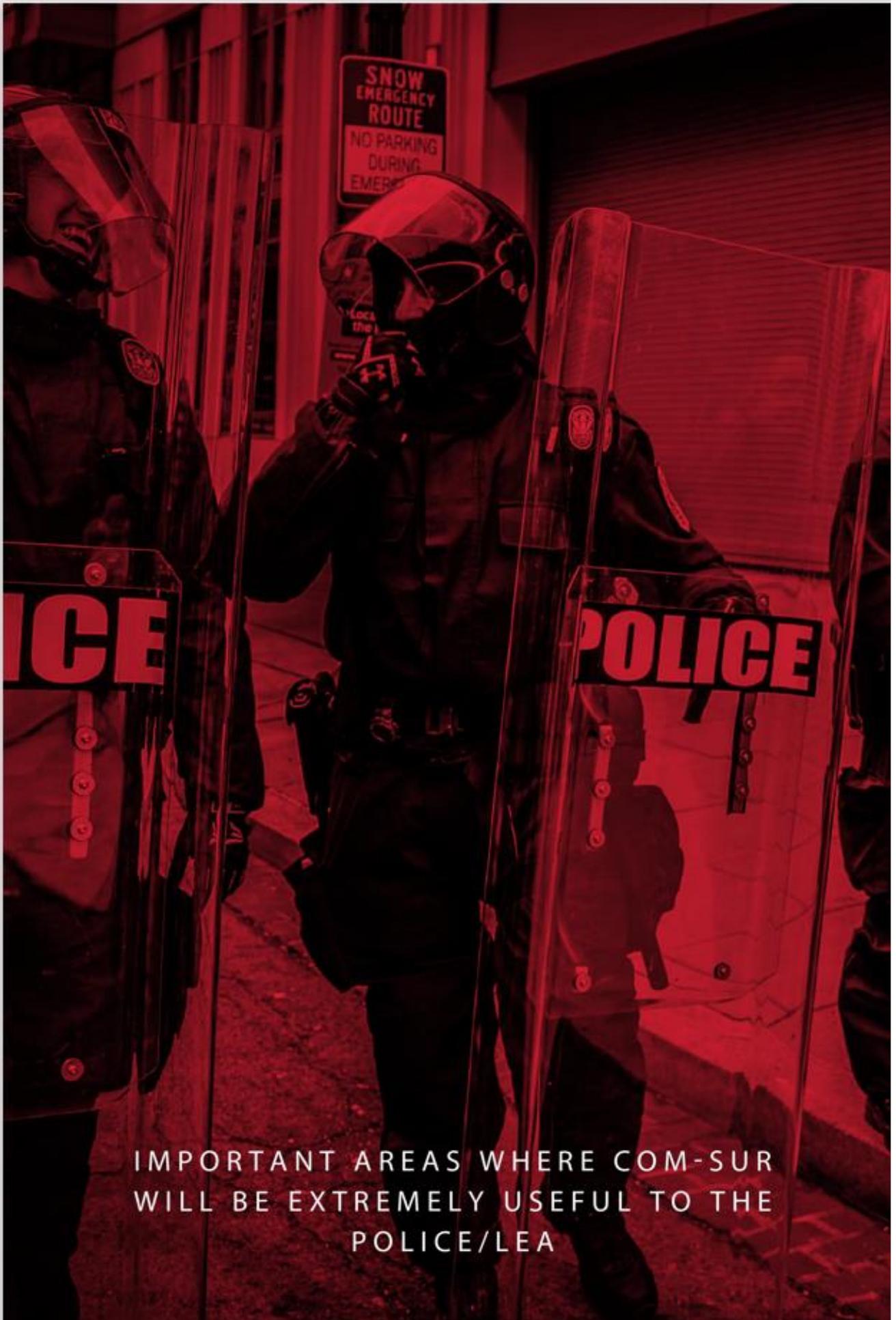
All low-budget government Schools world-over (think of the School shoot-outs, to abuse of various kinds across the world)



All Zoos world-over (think about Animal cruelty, theft, and so on across the world)



*Software comes for free. Admin fees and other conditions apply. Integration/Training etc. is to be carried out by relevant COM-SUR certified system integrators, which would be a chargeable activity.



IMPORTANT AREAS WHERE COM-SUR
WILL BE EXTREMELY USEFUL TO THE
POLICE/LEA

LAW & ORDER MAINTENANCE



Law and order are the first priority of a police force; especially during events like VIP visits, sports, religious and cultural events, rallies, and so on. CCTV, mobile phone, body-worn, drones, etc. are key video inputs that are deployed to manage such events, with video feeds often being viewed live in mobile surveillance units. This activity is carried out both before (for the purpose of sanitization) and during/after such events.

With COM-SUR, the Police/LEA can easily analyze such surveillance videos minutely at regular intervals, ensuring that what may have been missed out during live monitoring is discovered during the analyzing activity. Some of the areas where such analysis can help are:

- Discovery of recces.
- Better crowd control.
- Quick action in case of an incident; example: bomb blast, stampede, etc.
- No chance of loss of evidence in case the recording device is destroyed/ stolen/fails/tampered with.
- De-briefing.

HOMELAND SECURITY THROUGH COMMUNITY POLICING



"Cameras never lie". But how will one know, unless one 'sees' what the camera 'saw'?

COM-SUR encourages all users of CCTV to audit their own CCTV video footage as a standard operating procedure. Regular auditing of CCTV footage by the public means that the Police/LEA have more 'eyes' working for them through crowdsourced surveillance. This enables the Police/LEA in identifying potential threats and dangerous situations before they occur.

Also, in the case of a crime, if a standardized incident report is delivered to the Police/LEA by the affected party in PowerPoint carrying the entire story (what, where, when, why, who, how, and the video clip), crime will get solved faster.

CCTV VIDEO FOOTAGE AUDITORS

This new skill (NOS set by Ministry of Skill development of India, a world-first) is the need of the hour across the globe in order that millions of cameras which are currently in 'sleep mode', 'wake up', leading to huge benefits of all kinds.

A CCTV video footage auditor can be an immediate occupation for retired personnel from the Police/LEA.

SUPER RECOGNIZERS - SCOTLAND YARD

It may not be out of place to mention that the London Metropolitan Police formed a team of 'Super Recognizers' and put them to work to identify individuals whose faces are captured on CCTV. COM-SUR makes this activity very easy and efficient, including the analysis of micro-expressions and body language.

COMMAND & CONTROL CENTERS

While command centers are a very crucial part of centralized city surveillance, they come with some typical problems such as:

- Operator issues like poor attention span, video blindness, fatigue, boredom, lack of situational awareness, bias, and false alerts.
- Lost video feeds.
- Refresh rate of cameras.
- Difficulty in extraction of video, and the ability to easily create a 'story' that depicts multiple cameras.
- No standardized 'next steps'.

With COM-SUR, the Police/LEA can:

- Audit hours of video in minutes. Auditing at regular intervals will help them discover exceptions that can be missed out by alert-based systems. Research indicates that CCTV operators become 90% video blind in just 22 minutes.
- Share exceptions in standardized templates created using PowerPoint.
- Tag important findings to create institutional libraries for future use.



INVESTIGATION & FORENSICS

Whether it is a serious incident like a terror attack, or a petty crime like chain snatching, often there is no 'direct' CCTV footage covering the incident. Therefore, in order to investigate such incidents, the Police/LEA have to:

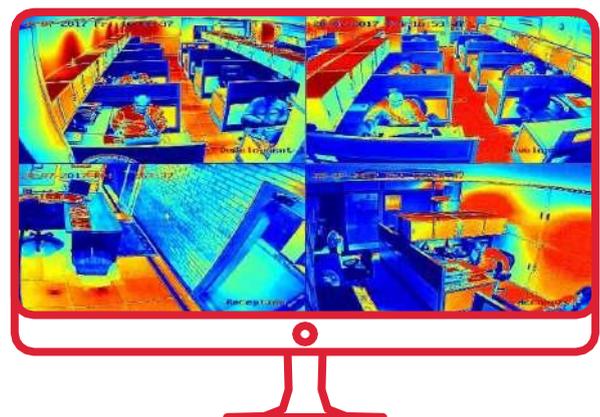


- 1 Depend on public videos, or city CCTV surveillance cameras, if available.
- 2 Painfully go through hundreds/thousands of hours of video (one by one), and put relevant findings together. Cases in point are the London riots where the police and other agencies had to review over 200000 hours of video; or the Boston bomb blast, where they had to review over 15000 hours of video.
- 3 Share the findings with other agencies.

To solve the above problem, a very unique ability that COM-SUR offers is to read 'extracted' frames from recorded videos and display multiple videos simultaneously in a 'dashboard' view (side by side), duly frame-synced. This makes it very easy for the Police/LEA to 'join the dots'.

Another wonderful utility that COM-SUR offers is the huge ease of aggregating relevant scenes from multiple video sources, and quickly converting them into reports using PowerPoint.

With respect to forensics, COM-SUR offers immense flexibility, color filters, zooming, panning, and cropping of relevant areas without having to toggle between different software.



PRISON AND POLICE STATION MANAGEMENT

Prison management

COM-SUR can be very useful in prisons for:

- Better prisoner monitoring and abuse prevention.
- Constant audit to prevent regular meetings of prisoners at a particular location.
- Creating photographic lists of prisoner and visitor information.
- Ensuring that there are no cases of human rights violations.

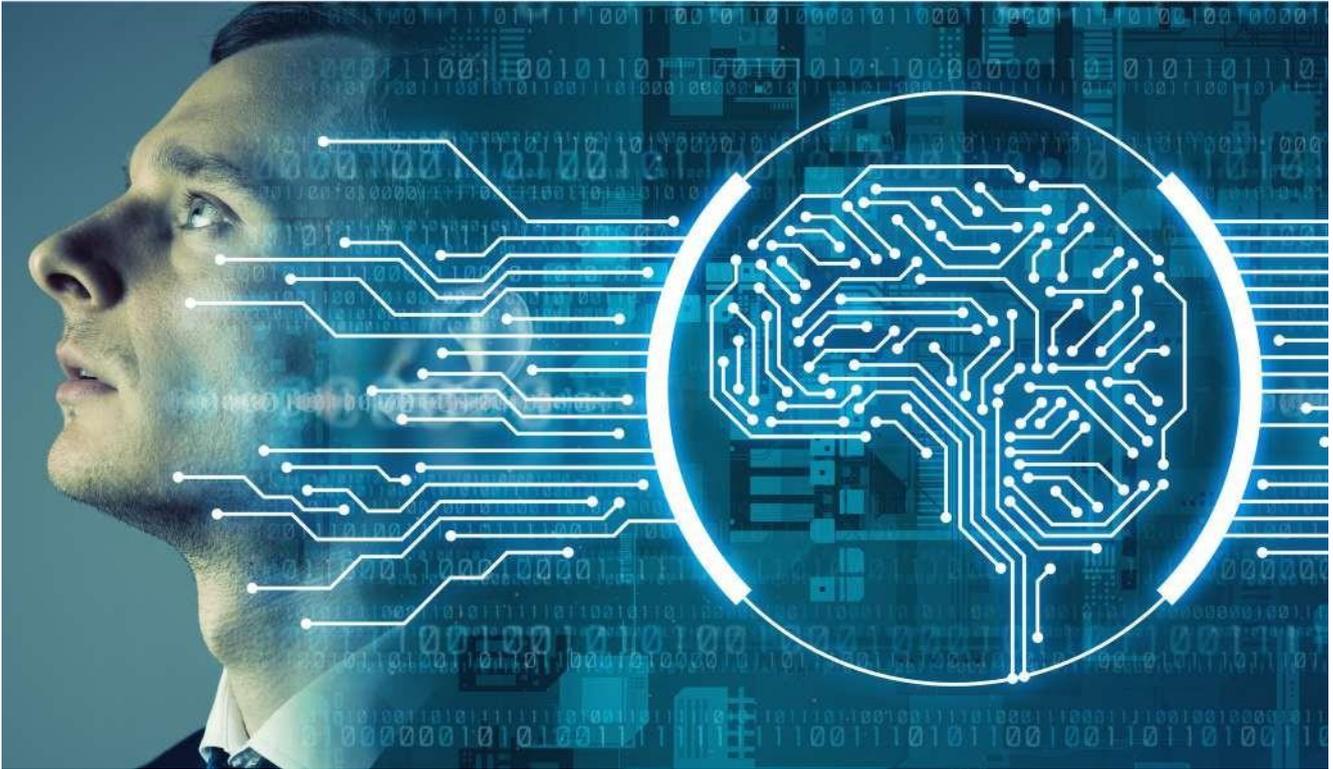


Police station management

In India, there are directives from the Honorable Supreme Court to install CCTV cameras at all police stations across India. The angle of auditing CCTV video footage as a standard operating procedure will help in several issues such as preventing custodial issues, identifying suspicious activity, as well as to maintain transparency in day-to-day police-public interaction.

AUGMENTED INTELLIGENCE

When artificial intelligence and human intelligence work together, it leads to AUGMENTED INTELLIGENCE.



With suitable modifications, where possible, COM-SUR can be integrated with artificial intelligence, machine learning, and deep learning technologies for purposes such as:

-  Training data
-  Image recognition
-  Face recognition
-  Pattern recognition
-  Predictive analytics

Moreover, images created by COM-SUR become 'relevant' training data for AI/ML/DL models, allowing for better solutions. This will help address the issue of 'hidden bias' often observed in AI/ML/DL systems, which can lead to false alerts.



OTHER GREAT BENEFITS

TRAFFIC MANAGEMENT

With COM-SUR, the Police/LEA can increase revenues by better monitoring of offences, (post/live monitoring) especially when COM-SUR is installed at a command-and-control center.

PREDICTIVE POLICING

With COM-SUR, the Police/LEA can:

Gain intelligence such as what kind of incidents are taking place on what days, time, location, and so on. This would help the Police/LEA in predicting similar incidents that are likely to take place in the future; and take the appropriate corrective and preventive measures.

SHARING OF MUGSHOTS & OTHER PHOTOS/IMAGES

With COM-SUR, the Police/LEA can create standardized lists of hundreds of mugshots and other relevant photos/images with just a click for easy sharing. Since photos of the above categories are very dynamic in nature, this feature would be very useful for the Police/LEA to share information quickly. For example, information received on suspected terrorists, offenders to 'look-out for', missing children, stolen vehicles, etc., can quickly be put together and shared at various border points etc.



E-DISCOVERY OF VIDEO EVIDENCE

With COM-SUR, the Police/LEA can 'tag' screenshots of surveillance video in order that they can be searched and retrieved easily in the future. This would greatly help in retrieving particular incidents and comparing them with other incidents.

ELEGANCE, EASE OF USE, & MULTIPLE USE CASES

COM-SUR is elegant, completely menu driven, non-complex, easy to use, and can be mastered very quickly. COM-SUR standardizes several activities and outputs. Since COM-SUR delivers outputs in popular formats like PowerPoint, Word, and PDF, there is no additional learning curve.

COM-SUR can also be used by the Police/LEA to create training material on various topics. The ease with which it creates outputs like PowerPoint, Word, Excel, and PDF makes it easy for even non-skilled staff to work with it.



THE VALIDATION

North India (Gurugram) School incident 2017:

Post the above sad incident, seemingly based on our suggestions, the then collector of Raipur passed an order; highlights of which are:

- 1 School principals and head masters should audit CCTV footage on a daily basis, and monitor the movements of children, school staff, and peons.
- 2 Schools should audit CCTV video multiple times a day, to ensure that there is no violation of rules or wastage of resources.
- 3 Schools should document the details of monitoring the footage.
- 4 Schools must ensure that CCTV footage is stored well as part of disaster recovery, so that the school has a record in case of theft or damage to cameras.



<https://timesofindia.indiatimes.com/city/raipur/cctv-cameras-monitoring-at-schools-must-collector/articleshow/62293213.cms>

THE SIGNAGE – TIME TO SEND OUT A POWERFUL NEW MESSAGE

We believe that it is time to standardize the CCTV signage across the world. It should have one color, one size, and a powerful message in English along with the regional language that reads:

"FOR EVERYONE'S SAFETY, WE AUDIT CCTV VIDEO FOOTAGE EVERYDAY!"



IN CONCLUSION - THE EXPECTATIONS

In order to achieve optimal results from any technology, user 'expectations' must be in order. Technology has to assist users in performing tasks in an easier and standardized manner, leading to better decision making. Award-winning COM-SUR does this unparallelly.

COM-SUR has solved several complex problems without complex solutions.

Note: For COM-SUR to perform optimally, certain system requirements (both hardware and software) have to be met. Several capabilities mentioned above will need customization.

**CCTV FOOTAGE
LET'S TURN GARBAGE INTO GOLD!**

**CAMERAS HAVE LENSES.
HUMANS HAVE EYES!**

**TRUST NOTHING
VERIFY EVERYTHING**

**LET'S MAKE CAMERAS
'ACCOUNTABLE'.**

gautam@comsur.biz | www.comsur.biz

Copyright 2013 Hayagriva Software (P) Ltd. Mumbai. CIN: U72900MH2001PTC134110 - E-Mail: info@comsur.biz - Website: www.comsur.biz.

All rights reserved. Patents Pending. COM-SUR is the Trademark of Hayagriva Software (P) Ltd. All other names used in this document belong to their respective owners. All content is without prejudice and is subject to change without notice.

Third party names and logos mentioned/shown in this document are registered and belong to such third parties. Hayagriva Software (P) Ltd. claims no affiliation to such third parties, nor does it claim that such third parties endorse COM-SUR.