E-NETRA - AREA SCAN
Under Vehicle Surveillance System

SALIENT FEATURES

- The product is CE certified
- Assemblies, subassemblies, component parts and material used in the system conform to JSS standards
- The structure of system is produced by engineers having welder certificates for EN 287 part 1-2007 / PED 97/23/EC norms.
- Multiple monitor support to provide effective control of the entry sites.
- Robust system for Rugged applications (Fixed and Mobile)
- View and store Crystal clear full length images of under carriage of any vehicle
- Good resolution and Great zoom capability for quick analysis
- High resolution megapixel images and video from auxiliary cameras
- High Quality bright led array for effective color image from camera
- Complete IP system based with primary camera Area scan interface providing much more flexibility in installations, upgrades and integration with third party systems
- Integrated number plate recognition system
- Integrated driver image system
- State of art software with high accuracy for number plate recognition system and other features
- Integration with third party databases and comparison of history records
- Easy user friendly GUI
- Time and Date Stamp on images
- Easy maintenances
E-Netra Engineering and Design:

The product is available for easy and hassle free installation, with the modular and customized modules allowing and earmarking clients to select various options and decide their configurations with customized systems made for best security arrangements for their individual premises with conformity to Modern European Standards and every day needs. The modular system allows clients to select various options including mobile or fixed system with customized configurations, most suitable for their premise security and Business Operation. These systems are produced by special team of engineers and gravid welders, peculiarly responsible for creating fusion welding of the steel and are supported by process of examining and documenting the welder's capability to create welds of an acceptable quality following a well-defined welding procedures in conformity with EN 287 part 1-2007/ PED 97/23/EC norms.

E-Netra Technology:

The E-Netra is the world’s most advanced and powerful technology in Under Vehicle Surveillance Systems with systems incorporating Area scan, a revolutionary new interface technology grounded in all of our systems using industrial cameras, allowing the E-Netra for fast data transfer over long distances and seamless interoperations from various hardware and software’s over a simple Ethernet connection, permitting future upgradability. The E-Netra system comprises of digital cameras. It also locates the high resolution driver images with effective number plate recognition setting with redundant server configuration option. These systems can be placed in the mobile or fixed environmental housings with high bright LED layouts, scanning the vehicle and providing complete crystal clear full length images, with an additional megapixel camera installed to provide high resolution images and videos to locate any suspected areas.

User Interface and Control Room:

The systems are constituted with easy user interface, proving all required information in a single video, defining alarms and links with database providing flexibility to define events and their controlling.

The information including scanned under vehicle images with compared image, ANPR Data, driver images and CCTV footage can be derived in seconds during vehicle transit as the E-Netra is controlled using 3 monitor interface, with the ‘Individual Monitor’ defined for scanning interface, secondly the ‘Alarmed Monitor’ and the CCTV Video Monitor, using multiple monitors to effecting control and visualizing the alarmed events.
Benefits of in-house expertise of ANPR:

E-Netra systems are complimented with ANPR Cameras Software and are highly accurate in providing the leverage of per client requirement customization.

The ANPR cameras can also be used for combating and battling various other terrorist related crimes by integrating it with any third party data base, which can provide information and alarms on receiving any suspect vehicle (stolen vehicle, number plate with different under carriage, crime vehicle etc.). These Cameras are IP based with inbuilt IR illuminators with minimum 1MP resolution.

Auxiliary Cameras for Under Vehicle and Context Videos/Images:

E-Netra System incorporates optional cameras for driver image capturing and context video of Site with all data recording in standard database. The entire process of image generation and storage of all data including images and videos from various optional cameras, takes seconds and the system provides not only live inspection possibilities but also allows archiving of all data into a user friendly interface with selection of time various analysis, comparisons and report generations.

Data Base Management:

The UVSS Database comprises of two parts, The 'Information Database' and the 'Multimedia Database'.

The 'Information Database' is a high performance 64 bit SQL and it incorporates all transits data includible of timestamp, plate and site id etc. For its officiating and operation, the transit link to multimedia database is registered in information database. This database is optimized for a fast transit retrieve in all conditions and can contain and inhibit 10 million transits. The 'Multimedia Database' is an optimized file structure and stores all Multimedia Data including videos and images for each transit. This database is organized for fast image retrieval and establishes the maximum number of objects stored in database depending on the disks capacity and can be increased with a simple disk up gradation if necessary.

Integration Support:

E-Netra is the Ethernet based system and it provides easy access and integration with existing IP based systems and makes it easy for any Gate management devices, access controls, BAMS or CCTV system integrations, to be achieved in minimum span of time using the available SDK and API libraries.
TECHNICAL SPECIFICATIONS

| Main Camera | a) Gigabit Ethernet Progressive Area Scan Colour Camera  
b) Resolution 1280 X 1024  
c) Certification CE  
d) Power Supply 12V to 24 V  
e) Image Device Progressive Scan  
f) IR illuminators  
g) IP67 |
|-------------|--------------------------------------------------------------------------------------------------|
| Auxiliary and License Plate capture Camera | a) Image Type Progressive Area Scan  
b) Resolution 640x 480 pixels  
c) Certification CE  
d) Video Format NTSC/PAL  
e) Power Supply 12V  
f) Network Protocols all presently existing Protocols  
g) Day/Night feature  
h) Weather Proof Cover |
| Sensor Unit | a) Type Photocell barrier / Inductive Loop Sensor  
b) Power Supply 220V AC  
c) Output NO/NC Relay Type |
| Processing Unit | a) Processor Intel Pentium Dual Core (i-7)  
b) RAM minimum 16 GB  
c) HDD minimum 1 TB  
d) Monitor LED minimum 21"(Touch Screen)  
e) Key Board & Mouse  
f) Mother Board Intel original with compatible to i-7 |

High speed IP cameras for capturing front and number plate

Fixed IP based camera for taking image of driver.

Fixed IP based camera for capturing Automatic Number Plate at entry & exit gates.

The system provides real time video transmitting the high quality picture of the undercarriage of the vehicles of types having different breadth and length. Detailed viewing by zooming particular portion for inspection.

The system is capable of scanning the undercarriage of vehicles during adverse weather conditions like pitch dark, fog, rain, wind etc. without any additional lighting. The UVSS System is Corrosion Protected.

Instant scanning of any moving vehicle up to speed of 0 - 30 Kmph without any loss of quality and the composite image so captured is automatically and dynamically adjusted according to the speed of the vehicle using multiple loop based sensors. The UVSS is capable of producing a clear and undistorted image of the vehicle underside, even when a vehicle has completely stopped / halted over the UVSS unit.

E-Netra Area Scan UVSS automatically detects foreign object or additional attachments on the underside of vehicle.

The system is capable to withstand total vehicle load up to 40 tons
| Facility to store minimum 1 Lakh images and be able to transfer to external storage device. |
| Search function option with period wise, image wise, frontal view, number plate etc. |
| Operating Temperature Range between 0° and 55° Celsius. |
| The operator can view the coloured real time image underside of vehicle. |
| Capability of displaying the pre stored image of underside of the vehicle, for visual comparison either by license plate number or model name already stored in the data base. |
| Underside images of all types and makes of vehicles can be pre-loaded |

**NOTE:**
1. *Ethernet based progressive camera supplied can also be better depends on supply but will have minimum resolution of above camera*
2. *Number of ANPR Cameras, Driver Camera and Context Camera will depend on the techno-commercial offer.*
3. *Specifications of system can be changed for better performance and thus actual supplies would be done based on the techno-commercial offer.*
4. *Systems are available both in fixed as well as mobile options.*
5. *For detailed specification please do contact us.*
**Example of an E netra system**

**Example of E netra system connections**
Example of a car passing across the Enetra system
All specifications are subjected to change without prior notice

Actual configuration of system supply would be based on our Techno commercial offer and all products mentioned in brochure are not part of standard supply.