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Specifications Mobile ANPR Application System

Mobile ANPR Application System	
S. no.	Functional Requirement
1.	Vehicle Detection and Video Capture Module: The System should automatically detect a vehicle in the camera view using video detection/still image and activate license plate recognition.
2.	The System shall automatically detect the license plate in the captured video feed/still image in real-time of all passing vehicles irrespective of traffic violation and non-violation.
3.	The system shall perform OCR (optical character recognition) of the license plate characters (English alpha-numeric characters in standard fonts). The system shall be robust to variation in License Plates in terms of font, size, contrast and color and should work with good accuracy for all type of vehicles including cars, HCV, and LCV.
4.	The System shall store JPEG image of vehicle and license plate and store it in a database along with date and time stamp along with site location details.
5.	The system shall be able to capture license plate in day and night operation.
6.	The system should be able to capture license plate for vehicle moving upto the speed of 120km/hours at: -90% accuracy for standard number plates with English alpha-numeric fonts and HSRP. -In cases where the no. plate is broken, dirty, not clearly visible, washed etc. such cases shall not be considered for the accuracy calculation.
7.	The system should have option to take input of license plates according to the hotlisted categories like "Wanted", "Suspicious", "Stolen", etc by authorized personnel.
8.	On successful recognition of number plate, system should be able to generate instantaneous and automatic alarm to alert the control room for vehicles which have been marked as "Wanted", "Suspicious", "Stolen", "Expired". (System should have provision/expansion option to add more categories for future need).
9.	The system shall enable easy and quick retrieval of snapshots, video and other data for post incident analysis and investigations. For example a database could be searched using criteria like date, time, location and vehicle number.
10.	The system should be able to generate suitable MIS reports that will provide meaningful data to concerned authorities and facilitate optimum utilization of resources. These reports shall include: -Report of vehicle flow at each of the installed locations for Last Day, Last week and Last Month. - Report of vehicles in the detected categories at each of the installed locations for Last Day, Last week and Last Month.
11.	The system should be able to store license plates numbers of at least 10,000 suspected vehicles at a time and should generate an Alert in form of video pop-up at the Monitor and/or SMS on Cell phones in case such vehicle has been captured by the ANPR system.
12.	The system shall have search option to tune the reports based on license plate number, date and time, site location as per the need of the authorities.
13.	The system shall have option to save custom reports for subsequent use. The system shall have option to export report being viewed to common format for use outside of the ANPR or

	exporting into other systems.
14.	The system should provide advanced and smart searching facility of License plates from the database. There should be an option of searching number plates almost matching with the specific number entered (Upto 1 and 2 character distance)
15.	Should be able to store the details captured in Storage system as per the guidelines received from Police Department (CP Office).

Technical Specs::Rugged Lapotop for Mobile ANPR system

S.no.	Parameter		Minimum specs
1	Processor	Generation	Intel i5 7th Generation Processor or above with Intel vPro
		CPU Architecture	x86
		Speed	2.4 Ghz or Higher
		cache	Min 6MB
		Chipset	Integrated with processor
2	Wireless Connectivity		IEEE 802.11 AC, Integrated Bluetooth 4.1 or higher
			Dedicated GPS
			Mobile Broadband supporting 4G LTE
3	Memory		8GB DDR-IV (2400 MHz) or higher expandable upto 32GB with 2 DIMM slots
4	Hard Disk Drive		512GB/1TB SSD; support for 1TB SSD
5	Display	Screen Size	14.0" or more
		Display Technology	Anti-glare (16:9) WLED, Sunlight readable, Glove touch capable
		Resolution	1920x1080 WXGA or higher
6	Keyboard		RGB Rugged Keyboard with resistive Touchpad
7	Operating System		Linux
8	Miscellaneous	Ports	Minimum 3 USB Ports 3.1, 1 USB 2.0, 2 RJ 45 ports, VGA/ HDMI, 2 Native RS 232, Microphone/ Stereo Head Phone .
		Weight	Less than 4kg without charger/adaptor (for asked spec)
		Battery Life	9 Cell Battery (min 80 WHr)
9	Certification for rugged laptop		FCC, UL compliance, BIS,TPM2.0
10	Rugged Certifications		MIL-STD-810G testing
			IEC ingress testing
			ANSI/ISA.12.12.01 and CAN/CSA C22.2 hazardous location testing UL and CE safety testing / ESD, emissions, immunity testing

		MIL-STD-461F electromagnetic interference testing

Mobile ANPR Camera

S. no.	Parameter	Minimum specs
1	Image sensor and Effective Pixels (Resolution)	1/2.8" or better, CMOS Progressive Scan & minimum 2MP
2	Electronic Shutter	1 to 1/10,000s or better
3	Focus	Automatic and Manual, both
4	Automatic Gain Control	Automatic/Manual
5	Frame Rate	25/30 FPS at Full Resolution
6	Codec	H.264/H.265, MJPEG or better
7	Day and Night Functionality	Automatic, Color, Mono
8	IR illuminator	External Illuminator with visibility should be at least 50m or better
9	Video resolution	Minimum 2MP (1920 x 1080) or better as per the requirement of the application
10	Video Streams	Individually configurable 02 video streams (H.264/H.265, MJPEG)
	Network & Interface	
11	Interface	RJ-45 for 10/100 base-T Ethernet
12	Network Protocols	IPv4,, IPv6, TCP/IP, HTTP, DHCP, UDP, DNS, SMTP, RTP, RTSP, SNMP protocols/Should meet all functional requirement of the project
13	Alarm Event (Non-working, tampering)	Events/alerts send via FTP, HTTP, email, pre-post alarms video buffering
14	Compliance	ONVIF compliant latest version
	Security	
15	General	Password Protection, HTTPS encryption, IEEE 802.1X
	General Camera features	
16	Operational Temperature	0degree C to 50 degree C
17	Casing	Vandal Proof IK10 or above rated/NEMA 4x/IP66 rated housing

Mobile Surveillance Camera

S. no.	Parameter	Minimum specs
	It will be used for general surveillance purpose.	
1	Image sensor and Effective Pixels (Resolution)	1/2.8" or better, CMOS Progressive Scan & minimum 5MP
2	Lens	3mm-8mm
3	Electronic Shutter	1 to 1/10,000s or better

4	Focus	Automatic and Manual, both
5	Automatic Gain Control	Automatic/Manual
6	Frame Rate	25/30 FPS at Full Resolution
7	Codec	H.264, MJPEG or better
8	Day and Night Functionality	Automatic, Color, Mono
9	Video Streams	Individually configurable 02 video streams (H.264/H.265, MJPEG)
	Network & Interface	
10	Interface	RJ-45 for 10/100 base-T Ethernet
11	Network Protocols	IPv4/IPv6, TCP/IP, HTTP, DHCP, UDP, DNS, SMTP, RTP, RTSP, SNMP protocols/Should meet all functional requirement of the project
12	Alarm Event (Non-working, tampering)	Events/alerts send via FTP, HTTP, email, pre-post alarms video buffering
	General Camera features	
13	Operational Temperature	0degree C to 50 degree C
14	Casing	Vandal Proof IK10 or above rated/NEMA 4x/IP66 rated housing

Pre-Qualification Criteria

1. The system design should be based on open architecture and should have unrestricted scope for scalability and integration with similar surveillance systems in use or likely to be used by the department.

2. The OEM should have minimum 10-15 ANPR installations in any of the Government Departments/PSU's in India from atleast 5 years and it should be an Indigenously Manufactured product "MAKE IN INDIA"

3. The Bidder should have Local Service Centre in Kerala for after sale support from minimum 2 Years (Proof of document to be submit like Telephone Bill, Address Details, etc).