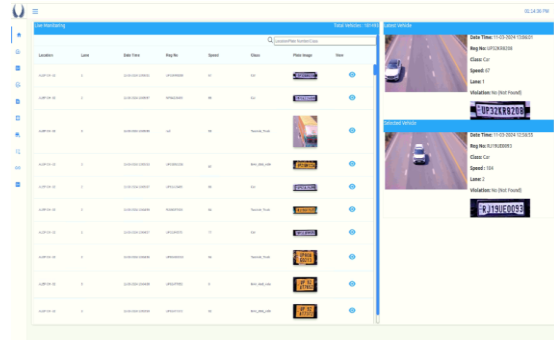




At a Glance

Speed Violation Detection System (SVDS) consists of a fixed ANPR camera, a fixed Radar and an attached Video Image processing unit. SVDS shall perform speed violation detection at designated spots on the highway section and optionally provide local warning to travellers using Speed Displays. The System shall communicate such detections to the ATMS Control Centre for storage, analysis, eChallaning & reporting. Sub-system Components are as follows:

- ⊖ RADAR.
- ⊖ ANPR Camera
- ⊖ IR Illuminators
- ⊖ Local Processing Unit
- ⊖ Speed Display
- ⊖ Aggregator PC (at Control Room)



Selected Vehicle

Date Time: 12-03-2024 13:20:45

Reg No: UP93BN5251

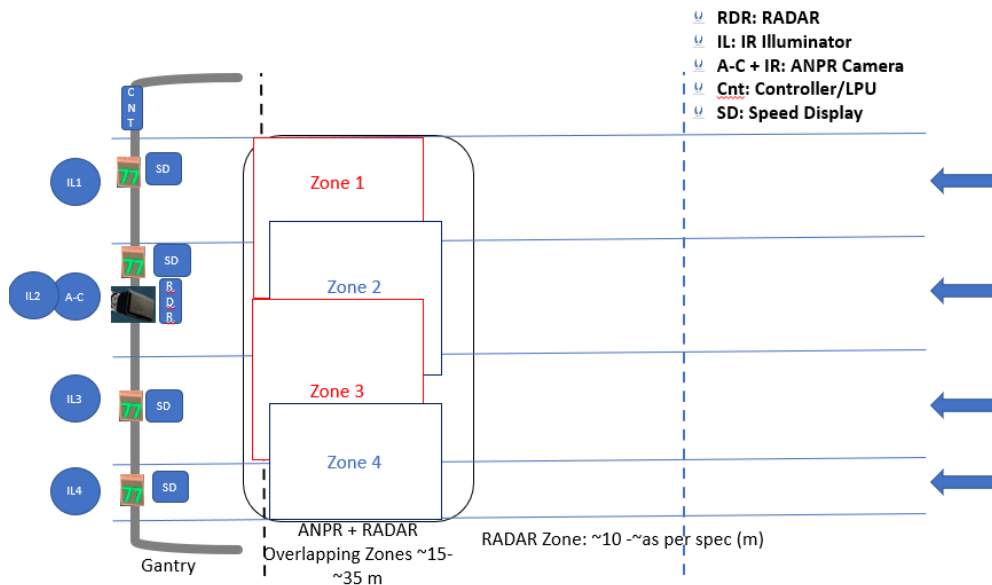
Class: Car

Speed: 134

Lane: 1

Violation: Yes

Subsystem Component layout



Specifications of Roadside Cabinet (LPU)

Parameters	Specifications
Operating Voltage	220 V, 1 phase, 50 Hz AC
Power consumption	20 Watt
Protection	Short Circuit, Overload, Overvoltage, ESD
Operating Temperature	-20°C to +65°C
IP Protection Rating	IP 65
CPU-GPU	6/8-core ≥2 GHz
Memory	SSD 512 GB – as per Project requirements
OS	Linux
Connectivity	10/100/1000 BASE-T ETHERNET, RS-485
Cabinet Size	450 mm (L) x 450 mm (H) x 220 mm (D) (Approx.)
Material	MS (Powder Coated)
Mounting Arrangement	Gantry Mounted / Stand Mounted

SVDS Reporting module

The screenshot displays the 'Reports' section of the SVDS Reporting module. It includes a search filter for 'Filtered Vehicles: 30' and a table with the following columns: Location, Date Time, Plate Number, Speed, Class, and Plate Image. The table contains 13 rows of data, including a 'Trash' button at the bottom left.

Location	Date Time	Plate Number	Speed	Class	Plate Image
ALEP CH -32	12-03-2024 14:11:51	UP32DX1888	89	Car	
ALEP CH -32	12-03-2024 14:11:35	UP82AQ9110	91	Car	
ALEP CH -32	12-03-2024 14:11:16	UP32MD0442	83	Car	
ALEP CH -32	12-03-2024 14:11:14	UP80GE5595	75	Car	
ALEP CH -32	12-03-2024 14:11:02	UP84Z9630	88	Car	
ALEP CH -32	12-03-2024 14:10:42	UP18BX786	102	Car	
ALEP CH -32	12-03-2024 14:10:18	UP18DL5424	99	Car	
ALEP CH -32	12-03-2024 14:09:56	NL61AD7731	46	TwoAxe_Truck	
ALEP CH -32	12-03-2024 14:09:25	UP83BA7315	82	Car	
ALEP CH -32	12-03-2024 14:09:06	CH91CH9817	84	Car	

CAMERA-BASED SPEED VIOLATION DETECTION SYSTEM(C-SVDS) PER LANE CAMERA

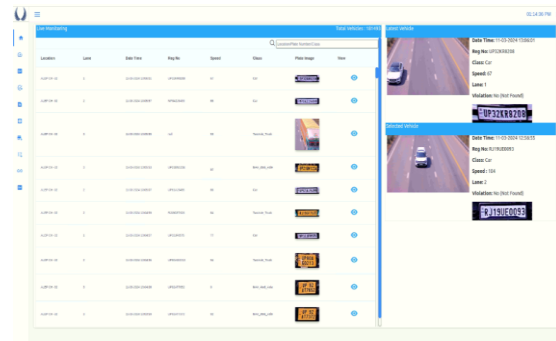
TECHNICAL DATASHEET

At a Glance

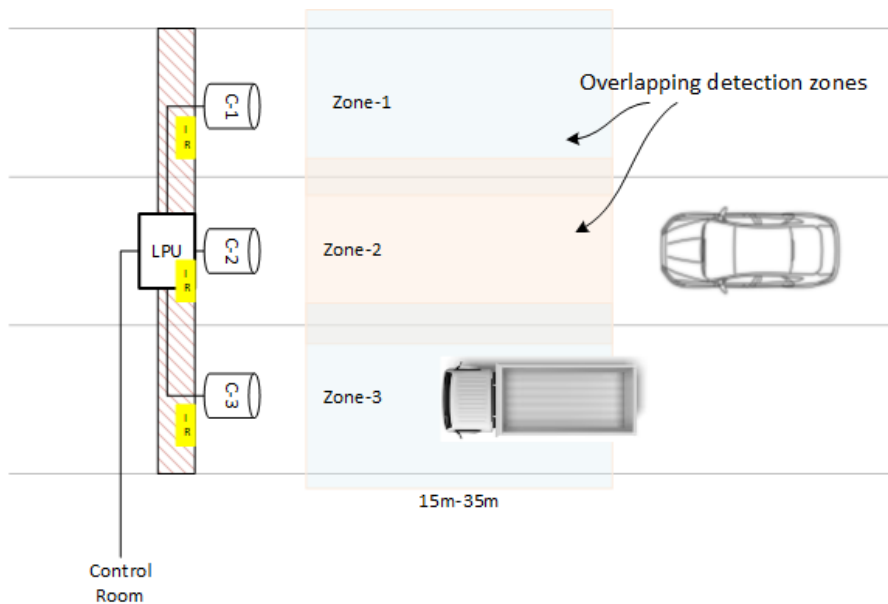
Camera-based Speed Violation Detection System (C-SVDS) consists of fixed ANPR cameras, one at each lane, and an attached video processing unit. C-SVDS shall perform speed violation detection at designated spots on the highway section at each lane and optionally provide local warning to travellers using Speed Displays. The System shall communicate such detections to the ATMS Control Centre for storage, analysis, eChallenging & reporting. Sub-system Components are as follows:

- ⌚ ANPR Camera (One per lane)
- ⌚ IR Illuminators
- ⌚ Local Processing Unit
- ⌚ Speed Display
- ⌚ Aggregator PC (at Control Room)
- ⌚ ARAI certified
- ⌚ Speed detection ranges up to 220 KM/ Hr
- ⌚ Vehicle classification, seatbelt, helmet, triple-riding detection optional

It is as per 2023 ATMS guidelines.



Subsystem Component layout



Specifications of Roadside Cabinet (LPU)

Parameters	Specifications
Operating Voltage	220 V, 1 phase, 50 Hz AC
Power consumption	120 Watt
Protection	Short Circuit, Overload, Overvoltage, ESD
Operating Temperature	-20°C to +65°C
IP Protection Rating	IP 65
CPU-GPU	6/8-core ≥2 GHz
Memory	SSD 512 GB – as per Project requirements
OS	Linux
Connectivity	10/100/1000 BASE-T ETHERNET, RS-485
Cabinet Size	450 mm (L) x 450 mm (H) x 220 mm (D) (Approx.)
Material	MS (Powder Coated)
Mounting Arrangement	Gantry Mounted / Stand Mounted

Specifications of Camera

Parameters	Specifications
Image Sensor	1/1.8” progressive scan RGB CMOS
Lens	5-50mm
Frame Rate	50/60 FPS
Shutter Speed	1/66500 s to 2 s with 50 Hz 1/66500 s to 2 s with 60 Hz
Signal to Noise Ratio	>55 dB
Operating conditions	-10 °C to 55 °C (14 °F to 131 °F) Humidity 10–85% RH (non-condensing)
Resolution	1080p(1920x1080)
Power	10–28 V DC, typical 4.53 W, max 11.14 W
WDR	120 dB
Video compression	H.264, H.265
Day and night	Automatically removable infrared-cut filter
IR Illuminator	100 meters

C-SVDS Reporting module

02:18:34 PM










Filtered Vehicles : 30

Reports

Report Type * Start date time End date time
 ANPR 3/12/2024, 2:00 PM 3/12/2024, 2:10 PM

Lane Name * Search
 Lane 02

Q Filter

Location	Date Time	Plate Number	Speed	Class	Plate Image
ALEP CH -32	12-03-2024 14:11:51	UP32DX1888	89	Car	
ALEP CH -32	12-03-2024 14:11:35	UP82AQ8110	91	Car	
ALEP CH -32	12-03-2024 14:11:16	UP32MD0442	83	Car	
ALEP CH -32	12-03-2024 14:11:14	UP80GE5095	75	Car	
ALEP CH -32	12-03-2024 14:11:02	UP94Z8630	88	Car	
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ALEP CH -32	12-03-2024 14:10:18	UP16DL5424	99	Car	
ALEP CH -32	12-03-2024 14:09:56	NL01AD7701	46	TwoWhe_Truck	
ALEP CH -32	12-03-2024 14:09:25	UP838AT315	82	Car	
ALEP CH -32	12-03-2024 14:09:06	CH01CH8817	84	Car	