



## **KERALA STATE ROAD TRANSPORT CORPORATION**

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**No. SRA05/65/2025**

**Date: 08.05.2025**

### **CORRIGENDUM - 3**

Sub: e-Tender for the Supply, Installation and Commissioning  
of Dash Board Cameras with Driver fatigue detection Sensor  
camera in KSRTC Buses - Amendment of NIT

- Ref: 1. NIT No. S001-SRA05/65/2025-Store KSRTC-HQ  
dt: 04.04.2025  
2. Tender ID: 2025\_KSRTC\_758580\_1  
3. Corrigendum - 1 dtd: 11.04.2025, 19.04.2025

The modified **Appendix - I** and Modified  
**Annexure - B** shall be uploaded in the e-Tender portal after duly  
filled and signed.

**Tender Inviting Authority**



### **Appendix – I (Modified)**

#### **Specifications of Supply, Installation and Commissioning of Dash Board Camera and its Standard Accessories with Driver fatigue detection Sensor camera in KSRTC Buses**

SI No.	specifications	
1	Digital Video Recorder (DVR)	1 Unit per Bus
	Channels	Minimum 4-channel DVR, hybrid support for Analog/IP cameras
	Compression	H.265 or higher
	Storage	Minimum 1TB internal HDD, expandable up to 2TB
	Backup	Local backup via USB port
	Display Output	VGA (mandatory); HDMI (optional rugged)
	Power	12V DC, suitable for in-vehicle environments
	Optional	Integrated GPS and 4G/5G module for snapshot access
	Compliance Clauses	<ol style="list-style-type: none"> <li>1. Must comply with BIS certification under the Electronics and IT Goods (Requirements for Compulsory Registration) Order, 2012</li> <li>2. Preference for products manufactured/assembled in India per the Public Procurement (Preference to Make in India) Order, 2017</li> </ol>
	Bidder must submit	<ol style="list-style-type: none"> <li>1. Valid BIS certificate</li> <li>2. Country of origin declaration and manufacturing details</li> <li>3. Compliance with Government of India procurement restrictions</li> <li>4. Tamper protection / unauthorized power-off alert</li> </ol>
2	Surveillance Camera System	4 Units per Bus
	Configuration	<ol style="list-style-type: none"> <li>1. 1× Front Road-Facing Camera</li> <li>2. 1× Rear View Camera (Reverse)</li> <li>3. 2× Left Footstep Cameras</li> </ol>
	Technical Requirements	<ol style="list-style-type: none"> <li>1. Resolution: Minimum 2MP (1080p Full HD)</li> <li>2. IR night vision</li> <li>3. IP54 or higher ingress protection</li> <li>4. Wide Dynamic Range (WDR) &gt; 70 Db</li> <li>5. Vandal-resistant</li> <li>6. Day/Night functionality with IR</li> <li>7. Rugged, vehicle-grade mounting brackets</li> <li>8. FPS: 25 or above</li> <li>9. HFOV: 100° or more</li> </ol>

	Compliance Clauses	<ol style="list-style-type: none"> <li>1. BIS certification under IS 13252 (Part 1):2010</li> <li>2. Products manufactured/ assembled in India preferred</li> </ol>
	Bidder must provide	<ol style="list-style-type: none"> <li>a. Valid BIS certificate</li> <li>b. Country of origin declaration</li> <li>c. Compliance with Indian government procurement restrictions</li> </ol>
3	Driver Monitoring System (DMS)	1 Unit per Bus
	Module	AI-powered, standalone DMS
	Functionality	<ol style="list-style-type: none"> <li>1. Drowsiness detection (eye closure, yawning)</li> <li>2. Mobile usage detection</li> <li>3. Distraction and abnormal head movement detection</li> </ol>
	Alerting	<ol style="list-style-type: none"> <li>1. Active only when vehicle speed &gt; 5 km/h</li> <li>2. Audio/Visual driver alerts</li> </ol>
	Connectivity	<ol style="list-style-type: none"> <li>1. Real-time alert transmission via cloud API</li> <li>2. Auto-upload of image/video events to the cloud</li> <li>3. Provision for 4G/5G SIM</li> <li>4. FPS: 30 or above</li> <li>5. HFOV: 100° or more</li> <li>6. Optional Mobile CMS (Android/iOS)</li> </ol>
	Compliance Clauses	<ol style="list-style-type: none"> <li>1. Must be developed and supported by Indian entities</li> <li>2. Cloud communication must comply with MeitY/CERT-In guidelines</li> <li>3. IP54 or higher ingress protection</li> <li>4. Minimum 95% accuracy in event detection</li> <li>5. ARAI certification</li> <li>6. Tamper protection / unauthorized power-off alert</li> <li>7. Country of origin and compliance declaration required</li> </ol>
4	Display Unit	1 Unit per Bus
	Display Size	Minimum 7-inch color screen
	Resolution	720p or higher
	Input	VGA (mandatory); rugged HDMI (optional)
	Mounting	Dashboard/panel mount
	View	Dual-channel preferred
	Compliance Clauses	<ol style="list-style-type: none"> <li>1. BIS certified</li> <li>2. Must be manufactured or assembled in India</li> <li>3. IP54 or higher ingress protection</li> </ol>
5	Power & System Integration	
	Power Supply	12V DC (vehicle-compatible)
	Durability	Vibration and shock-resistant
	Ingress Protection	Minimum IP54

	Cabling	Automotive-grade, labeled, and secured harnesses
	Compliance Clauses	<ol style="list-style-type: none"> <li>1. All components must comply with Indian procurement norms</li> <li>2. Documentation and traceability of component source required</li> </ol>
6	Cloud & Storage Architecture	
	DVR Camera Data	Local HDD-based recording only
	DMS Alerts	Cloud-based real-time image/video upload
	CMS Platform	<ol style="list-style-type: none"> <li>1. Web-based dashboard for fleet-level monitoring</li> <li>2. Driver behavior history and alert management</li> </ol>
	Compliance Clauses	<ol style="list-style-type: none"> <li>1. Hosting in Indian data centers compliant with MeitY guidelines</li> <li>2. Full data security per IT Act, 2000</li> </ol>
7	General Procurement Compliance	<ol style="list-style-type: none"> <li>1. BIS certification mandatory wherever applicable</li> <li>2. Preference under the Make in India policy</li> </ol>
	Required documents	<ol style="list-style-type: none"> <li>1. Valid BIS certificates for all components</li> <li>2. Declaration of country of origin</li> <li>3. Compliance with Indian procurement restrictions</li> <li>4. Details of manufacturing/ assembly locations</li> <li>5. Local support presence in Kerala</li> </ol>

Signature:

Name & Address of the Tenderer

Place:

Date:

(Seal of the Tenderer)



## ANNEXURE -B

### **SPECIFICATION SHEET (Modified)**

#### **Tender for the Dash Board Cameras with Driver fatigue detection Sensor camera in KSRTC Buses**

Tender No. S001-SRA05/65/2025- Store KSRTC-HQ    Dtd: 08.05.2025

#### Technical Specification

Make :

Brand :

Sl No.	specifications		Conformance of specification Yes/ No.	Remarks if any
1	Digital Video Recorder (DVR)	1 Unit per Bus		
	Channels	Minimum 4-channel DVR, hybrid support for Analog/IP cameras		
	Compression	H.265 or higher		
	Storage	Minimum 1TB internal HDD, expandable up to 2TB		
	Backup	Local backup via USB port		
	Display Output	VGA (mandatory); HDMI (optional rugged)		
	Power	12V DC, suitable for in-vehicle environments		
	Optional	Integrated GPS and 4G/5G module for snapshot access		
	Compliance Clauses	1. Must comply with BIS certification under the Electronics and IT Goods (Requirements for Compulsory Registration) Order, 2012 2. Preference for products manufactured/ assembled in India per the Public Procurement (Preference to Make in India) Order, 2017		

	Bidder must submit	<ol style="list-style-type: none"> <li>1. Valid BIS certificate</li> <li>2. Country of origin declaration and manufacturing details</li> <li>3. Compliance with Government of India procurement restrictions</li> <li>4. Tamper protection / unauthorized power-off alert</li> </ol>		
2	Surveillance Camera System	4 Units per Bus		
	Configuration	<ol style="list-style-type: none"> <li>1. 1× Front Road-Facing Camera</li> <li>2. 1× Rear View Camera (Reverse)</li> <li>3. 2× Left Footstep Cameras</li> </ol>		
	Technical Requirements	<ol style="list-style-type: none"> <li>1. Resolution: Minimum 2MP (1080p Full HD)</li> <li>2. IR night vision</li> <li>3. IP54 or higher ingress protection</li> <li>4. Wide Dynamic Range (WDR) &gt; 70 Db</li> <li>5. Vandal-resistant</li> <li>6. Day/Night functionality with IR</li> <li>7. Rugged, vehicle-grade mounting brackets</li> <li>8. FPS: 25 or above</li> <li>9. HFOV: 100° or more</li> </ol>		
	Compliance Clauses	<ol style="list-style-type: none"> <li>1. BIS certification under IS 13252 (Part 1):2010</li> <li>2. Products manufactured/ assembled in India preferred</li> </ol>		
	Bidder must provide	<ol style="list-style-type: none"> <li>a. Valid BIS certificate</li> <li>b. Country of origin declaration</li> <li>c. Compliance with Indian government procurement restrictions</li> </ol>		
3	Driver Monitoring System (DMS)	1 Unit per Bus		

	Module	AI-powered, standalone DMS		
	Functionality	<ol style="list-style-type: none"> <li>1. Drowsiness detection (eye closure, yawning)</li> <li>2. Mobile usage detection</li> <li>3. Distraction and abnormal head movement detection</li> </ol>		
	Alerting	<ol style="list-style-type: none"> <li>1. Active only when vehicle speed &gt; 5 km/h</li> <li>2. Audio/Visual driver alerts</li> </ol>		
	Connectivity	<ol style="list-style-type: none"> <li>1. Real-time alert transmission via cloud API</li> <li>2. Auto-upload of image/video events to the cloud</li> <li>3. Provision for 4G/5G SIM</li> <li>4. FPS: 30 or above</li> <li>5. HFOV: 100° or more</li> <li>6. Optional Mobile CMS (Android/iOS)</li> </ol>		
	Compliance Clauses	<ol style="list-style-type: none"> <li>1. Must be developed and supported by Indian entities</li> <li>2. Cloud communication must comply with MeitY/CERT-In guidelines</li> <li>3. IP54 or higher ingress protection</li> <li>4. Minimum 95% accuracy in event detection</li> <li>5. ARAI certification</li> <li>6. Tamper protection / unauthorized power-off alert</li> <li>7. Country of origin and compliance declaration required</li> </ol>		
4	Display Unit	1 Unit per Bus		
	Display Size	Minimum 7-inch color screen		

	Resolution	720p or higher		
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	Mounting	Dashboard/panel mount		
	View	Dual-channel preferred		
	Compliance Clauses	<ol style="list-style-type: none"> <li>1. BIS certified</li> <li>2. Must be manufactured or assembled in India</li> <li>3. IP54 or higher ingress protection</li> </ol>		
5	Power & System Integration			
	Power Supply	12V DC (vehicle-compatible)		
	Durability	Vibration and shock-resistant		
	Ingress Protection	Minimum IP54		
	Cabling	Automotive-grade, labeled, and secured harnesses		
	Compliance Clauses	<ol style="list-style-type: none"> <li>1. All components must comply with Indian procurement norms</li> <li>2. Documentation and traceability of component source required</li> </ol>		
6	Cloud & Storage Architecture			
	DVR Camera Data	Local HDD-based recording only		
	DMS Alerts	Cloud-based real-time image/video upload		
	CMS Platform	<ol style="list-style-type: none"> <li>1. Web-based dashboard for fleet-level monitoring</li> <li>2. Driver behavior history and alert management</li> </ol>		
	Compliance Clauses	<ol style="list-style-type: none"> <li>1. Hosting in Indian data centers compliant with MeitY guidelines</li> <li>2. Full data security per IT Act, 2000</li> </ol>		
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	Required documents	<ol style="list-style-type: none"> <li>1. Valid BIS certificates for all components</li> <li>2. Declaration of country of origin</li> <li>3. Compliance with Indian procurement restrictions</li> <li>4. Details of manufacturing/ assembly locations</li> <li>5. Local support presence in Kerala</li> </ol>		
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I/We hereby declare that the information furnished above are true, to the best of my / our knowledge and belief.

Place:  
Date:

Signature with Name, Address & Seal of  
Tenderer.