

**Assam Electronics Development Corporation Ltd.**  
**(AMTRON)**  
**Industrial Estate, Bamunimaidan**  
**Guwahati – 781021**  
**www.amtron.in**

**2. NOTICE INVITING TENDER**

Tender No.: AEDC/VRLABS/TENDER/2026/01

Date: 06/02/2026

Assam Electronics Development Corporation Ltd. (AMTRON) on behalf of IT Department, Govt. of Assam invites e-tender from reputed companies having experience in related field for Supply and Installation of Hardware and Software Components for Implementation of 20 nos. of VR Labs in the govt. schools in various districts in Assam and 1 No. in AMTRON Head Office, to make the education system more efficient and making learning easy and interesting for the students.

Submission of bid shall be through e-procurement portal <http://assamtenders.gov.in>

For details and subsequent communication, you may visit <http://assamtenders.gov.in> and <http://amtron.in>

The detailed scope of work and qualifying criteria of the bidder are specified below:

**A. Brief Scope of work - Deliverables:**

VR Labs delivers a robust virtual classroom system that enables real-time interaction between students and qualified educators through a secure digital platform. Supported by reliable internet connectivity, the solution ensures consistent access to structured learning resources. It is developed to align with the curriculum standards for Classes III to X under the SEBA of the Assam Government. The bidder needs to supply and install the following components from (Sl. No. 1 to 7) in 20 schools and 1No. in AMTRON Head Office:

S.No.	Items with Minimum Specifications
1	<b>Standalone VR Headset with Controller</b> <ul style="list-style-type: none"><li>• Display: Fast LCD Screen, 2.5 K Resolution or higher</li><li>• Chipset: Qualcomm Snapdragon XR1 or higher</li><li>• Memory: RAM 6 GB or higher, ROM 128 GB or higher</li><li>• OS: Android 11 or higher</li><li>• Tracking: 3 DOF.</li><li>• Battery Capacity: 4000 mAh or above</li><li>• Charge Connector: Micro USB for Device Charging Headset Battery</li><li>• Bluetooth Version: Bluetooth 4.2</li><li>• WLAN: WLAN 802.11 b/g/n/ac</li><li>• USB: Micro USB</li><li>• Audio: Built-in stereo speakers and microphone, 3.5mm audio jack</li><li>• Warranty – 1 Year</li></ul>

2	<p><b>Tablet</b></p> <ul style="list-style-type: none"> <li>• RAM – 6 GB or higher</li> <li>• ROM – 128 GB or higher</li> <li>• Brightness – 500 Nits or more</li> <li>• CPU – Octa Core</li> <li>• Display – 11 inches or higher, 90 Hz</li> <li>• Battery – Li- Ion, 7000 mAh or higher</li> <li>• Operating System – Android 13 or higher</li> <li>• Camera – Rear 8 MP or higher, Front – 5 MP or higher</li> <li>• Adapter for Charger and charging wire are to be provided</li> <li>• Warranty – 1 Year</li> </ul>
3	<p><b>WiFi Router</b></p> <ul style="list-style-type: none"> <li>• Protocols: Ipv4 and Ipv 6</li> <li>• Ethernet Ports - 1× Gigabit WAN Port + 3 × Gigabit LAN Ports</li> <li>• USB Port - 1× USB 3.0 Port</li> <li>• Frequency: - Dual Band</li> <li>• Wireless: 1201 Mbps on 5 GHz + 300 Mbps on 2.4 GHz</li> <li>• Frequency: 5 Ghz, 2.4 GHz</li> <li>• Warranty – 1 year</li> </ul>
4	<p><b>Interactive VR Content</b></p> <ul style="list-style-type: none"> <li>• <b>Software features:</b> Teacher must have facility/control to manage the Student’s device on real time basis, Chapter Wise, MCQ available</li> <li>• <b>Application list:</b> Teacher App</li> <li>• <b>Name of the educational board for which software is applicable:</b> NCERT / State Board</li> <li>• <b>Contents Features of the software:</b> Contents should be clearly represented, structured and accurate, Good and effective graphics, and animations based on imaginative analogies, Availability of different learning approaches, Virtual science lab-based learning, Game-based learning, Content should be arranged chapters and topic wise hierarchy, Activities based content to increase child attention for the topic. Content should be Interactive (not Video based) and should have features to drag, drop, dissect etc. It should enable and facilitate self-paced learning.</li> <li>• <b>Name of the subjects for which Content is applicable:</b> Science includes Physics, Chemistry, Biology, Social Science (Geography &amp; History) &amp; Mathematics.</li> <li>• <b>Level (Class) for VR software offered:</b> Class 3 to 10. The VR Interactive content should be available for each class.</li> <li>• Minimum 500+ Interactive Virtual Reality modules covering Science, Mathematics and Social Science having on-screen text instructions and voice over, and offering learning interactions such as drag and drop, explore, assemble, dissect, identify, experiment, walk and assessments to enable teachers see scores and track the student performance (individual and class report). Only Interactive content shall be counted and Video based content shall not be counted.</li> <li>• Minimum 100 Interactive VR modules of each of the Maths, Science and Social Science. Only Interactive content shall be counted and Video based content shall not be counted.</li> <li>• Have the facility to update Onsite for patches and updates for software as well as content.</li> <li>• Allow Teacher to manage user registrations and profiles, define digital content access manage content.</li> </ul>

- Teachers should be able to monitor and manage all student devices in real time using teacher device.
- **Narration language & Educational content language:** English and Hindi
- Have a Student Centric learning approach by providing Learning Objectives, Audio, chapters with sub-topic, etc.
- Lessons should be proper animations and illustrations, more illustrated 3D animations rather than 360-degree pictures with simulation Content should run in both offline (without internet) & online mode.
- Maintain high visual standards and consistency with respect to fonts, colors, animations, designs etc.
- The e-learning courseware contents must not use any materials, images, animations, pictures etc. from the internet.
- Allow teacher to navigate from one courseware to another using a single user interface to select a particular module or courseware with simple Icon based navigation.
- Teacher device should be able to connect with different numbers of VR headset
- Learned under the observation of teacher, managed and monitored by a teacher in real time using teacher device
- Content should be preloaded in VR Device, and it should run in student's VR device without using internet.
- The teacher should be able to govern the content of student's device
- Content should have a well-organized index.
- Application/solution should be operated by teacher.
- The content should be a combination of Audio and Visual
- Assessments should be inbuilt in the module.
- The VR device, along with the operating system, should be capable of enabling student login on VR device in offline mode
- Students centric learning Analytics to be provided. Data is to be captured when connected to internet.

#### **AI-Enabled Educational Platform**

AI-Enabled educational platform should be provided for the students of grade 9 and 10<sup>th</sup> with the following features:

#### **AI-Powered Interactive Learning Engine**

- Automatically converts PDFs, textbooks, question banks, and documents into structured, interactive learning modules.
- AI-generated summaries, explanations, quizzes, and concept maps aligned to curriculum standards.
- Adaptive learning pathways customized to each learner's proficiency level.
- Real-time content personalization to support remedial as well as advanced learners.

#### **Multi-Format Content Input**

- Supports PDF upload, manual content entry, and text prompts.
- System automatically transforms input into:
  - Lessons
  - Interactive exercises
  - MCQs and subjective questions
  - Visual explanations
  - Voice-based instructional modules
- Enables teachers and administrators to digitize large syllabi rapidly.

#### **Multilingual Support (Including Regional Languages)**

- Supports English, Hindi, and Assamese.
  - AI automatically translates learning material into students' preferred language.
- Voice bot supports multilingual verbal queries and explanations

#### **AI Voice Tutor (Teacher-Like Learning Assistant)**

- 24/7 intelligent voice-based tutor for students.
- Capable of:
  - Explaining concepts
  - Solving doubts
  - Walking students through practice problems
  - Giving step-by-step reasoning
- Low-latency natural speech interaction, accessible even for young learners.
- Works across devices (mobile, tablet, desktop).

#### **Student Learning Management & Progress Tracking**

- Dashboard tracking individual student progress, learning gaps, and proficiency scores.
- AI-driven diagnostic analytics to identify weak areas and recommend personalized practice.
- Learning history stored securely and available for long-term monitoring.
- Supports continuous, competency-based education models.

#### **Teacher & Administrator Dashboard**

- Teachers can:
  - Create courses
  - Upload content
  - Assign assessments
  - Monitor engagement and performance

#### **Assessment & Examination Module**

- Supports Multiple Choice Questions (MCQs), Subjective Questions, Descriptive Answers, and Practical Tasks.
- Auto-evaluation capabilities for MCQs and structured subjective formats.
- Analytics for item difficulty, learning outcomes, and test performance.
- Allows teachers to create custom tests aligned with curriculum.

#### **User-Generated Content & Community Learning**

- Teachers and students can add:
  - Notes
  - Questions
  - Examples
  - Explanations
  - Practice materials
- Content moderation system ensures quality and compliance.
- Allows state governments to build a large local content repository.

#### **Accessibility & Inclusivity Features**

- Voice-based navigation for low-literacy and visually impaired students.
- Adjustable font sizes, color themes, and contrast modes.
- Multilingual audio explanations to support learners from diverse backgrounds.
- Works in low-bandwidth and rural environments.

#### **Data Security, Privacy, and Compliance**

- Data stored in India-based servers complying with applicable security guidelines.
- Role-based access control for students, teachers, and administrators.

#### **Scalability & Deployment Readiness**

	<ul style="list-style-type: none"> <li>• Can be deployed at school, district, or state level.</li> <li>• Cloud-based infrastructure supporting millions of users concurrently.</li> <li>• Offline mode for remote regions with poor connectivity.</li> </ul> <p><b>Support &amp; Training</b></p> <ul style="list-style-type: none"> <li>• Teacher training modules (online and in-person).</li> <li>• Dedicated support helpdesk.</li> </ul> <p>Tutorials, documentation, and onboarding guidance for easy adoption</p>
5	<p><b>Storage Cum Charging Case for VR</b></p> <ul style="list-style-type: none"> <li>• Body: Charging Cart body should be made up of Wooden Polymer (Heavy duty) (OR) Engineering Wood (OR) galvanic (GI) metal sheet of minimum 1.4mm thickness powder coated with proper chemical treatment from inside and outside.</li> <li>• Security: The main door should have lock and key facility.</li> <li>• Handle: One handle to pull/ move cart easily from one place to another.</li> <li>• Mobile: Charging Cart with mobile facility by adding heavy duty casters 360-degree movement.</li> <li>• Air Ventilation: Cart should have air ventilation from three sides including main doors</li> <li>• Switch and socket: Each and every VR should have individual connectivity through charging adaptor to switch and socket of 5amps or 6amp.</li> <li>• Charging cord: charging cord of 3 core cable of 1.5sqmm minimum 5mtr length with 16amps plug.</li> <li>• Power Supply: 230 V ac +/-6%, 50 Hz</li> <li>• Smooth surface is provided on the base of the Rack for easy travelling of the Device into docks / partitions during charging</li> <li>• Termite and Vermin Proof Enclosure in case of Wooden or Wooden Polymer Composite (OR) Engineering Wood</li> <li>• Storage: Cart should have the feature of vertical device storage, high security;</li> <li>• Warranty – 1 Year</li> </ul>
6	<p><b>Teacher Training</b></p> <ul style="list-style-type: none"> <li>• Provide hands-on training on the hardware, software application such that users are conversant with the functionalities, features and processes built in the solution.</li> <li>• Deploy adequate training resources.</li> <li>• Deployed trainers should be fluent in speaking Hindi and English.</li> <li>• Ensure training and handholding of the school teachers/headmaster so they can further train the other teachers accordingly.</li> <li>• Develop a training manual for each of the Labs activity for the teachers which should act as a ready reckoner for reference by the teachers at school level.</li> <li>• 1 day physical training of teachers on training components &amp; hardware equipment's.</li> </ul>
7	<p><b>Installation</b></p> <ul style="list-style-type: none"> <li>• Site survey of the room for the necessary set up of Virtual Reality Lab.</li> <li>• Installation of necessary sockets for the charging of VR Headsets and Tablet, if required.</li> </ul>

## **B. Tender Processing Fees:**

Bid document can be downloaded from the <https://assamtenders.gov.in> and a non-refundable tender processing fees of Rs. 10,000/- (Rupees Ten Thousand) shall be made towards the cost of tender document fee through Internet Banking from State Bank of India (SBI) or any other

banks listed at SBMOPS on <https://assamtenders.gov.in> or NEFT/RTGS in case of offline payment from any Bank. Bidders need to affix Rs.100/- court fee stamp while submitting the signed copy of bid document as a token of acceptance of the clauses and terms & conditions of the bid document.

**C. EMD:**

Bidders needs to deposit an EMD (earnest money deposit) of Rs. 10,00,000/- (Rupees Ten lakhs only) through Internet Banking from State Bank of India (SBI) or any other banks listed at SBMOPS on <https://assamtenders.gov.in> or NEFT/RTGS in case of offline payment from any Bank.

**D. Submission of Bid:**

The tender should be submitted online as well as in hardcopies (except Price Bid) as per date and time of submission given in the prescribed schedule. The technical bid in sealed envelopes superscripting the tender details as prescribed in the relevant section of the bid document shall be submitted to the office of The Managing Director, Assam Electronics Development Corporation Ltd., Industrial Estate, Bamunimaidan, Guwahati- 781021.

The various formats as presented for the Technical and Price Bids needs to be duly filled & signed by the bidders and further scanned & uploaded on the e-tendering portal.

**E. Delivery at designated points:**

- a. The Bidder must provide delivery, installation, product activation and end user training at designated schools at the districts and/or sub-divisions as instructed by AMTRON/District Administrations.
- b. Delivery shall be deemed to have been completed after handover of the product installed in the device to the end user at the schools and activation of the same. Service Engineer/representative of bidder shall have to be present during installation/service/re-installation of the products in the device at the time activation to the end users.
- c. AMTRON reserves the right to settle matters in regard to the designated points/schools of delivery of products to be supplied by the bidder(s) who is/are awarded the supply order(s) during the process of finalization of the supply order.
- d. All designated schools shall be in the state of Assam, and shall be duly notified by AMTRON.

**F. Key Events and Dates:**

Sl. No.	Description	Details
1	Issuing Authority of the Bid and Address	Assam Electronics Development Corporation Limited, Industrial Estate, Bamunimaidan, Guwahati-781021 on behalf of the Education (Secondary) Department, Govt. of Assam.
2	Issuer	Managing Director, Assam Electronics Development Corporation Limited (AMTRON)
3	Date of issue/publication	06/02/2026
4	Last date of submission of pre-bid queries and email id	09/02/2026 md@amtron.in Queries will be responded over email. In case of necessity, a pre-bid meeting may be called by AMTRON through virtual mode, the link of which shall be shared over email.
5	Uploading the corrigendum, if any	11/02/2026
6	Date and time of submission of the proposal and opening of the Technical Bid	<u>Last date &amp; time of submission:</u> i. Online submission: 20/02/2026 till 11.00 AM at <a href="https://assamtenders.gov.in">https://assamtenders.gov.in</a> ii. Submission of hardcopy of bids: 20/02/2026 till 02:00 PM at office of Managing Director, Assam Electronics Development Corporation Ltd., Guwahati- 781021 <u>Opening of Technical Bid:</u> 20/02/2026 at 03:00PM Venue: Assam Electronics Development Corporation Limited, Industrial Estate, Bamunimaidan, Guwahati-781021

7	Date of opening of the Price Bid	To be intimated later to the technically qualified bidders.
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Sl. No.	Description	Details
		Venue: Assam Electronics Development Corporation Limited, Industrial Estate, Bamunimaidan, Guwahati-781021
8	Address for submission of the bid	Assam Electronics Development Corporation Limited, Industrial Estate, Bamunimaidan, Guwahati-781021
9	Tender Processing Fees	Rs. 10,000/- (Rupees Ten thousand)
10	Earnest Money Deposit (EMD)	Rs. 10,00,000/- (Rupees Ten lacs)

Place: Guwahati  
Date: 06/02/2026

Sd/-  
Managing Director  
AEDC Ltd. (AMTRON)