



Tender Notice

Short term Detailed Notice Inviting Tender (DNIT) for

Procurement and Implementation of Learning Management System (LMS)

Tender No: HKCL/KLC-DP/25-26/07

Issued by

Haryana Knowledge Corporation Limited

4th Floor, HSIIDC IT Park, Plot No 1, Sector 22, Panchkula,

Haryana

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Notice Inviting Tender**Important Information**

Sr. No.	Particulars	
1.	Tender Reference No.	HKCL/KLC-DP/25-26/07
2.	Tender Inviting Authority and Address	Haryana Knowledge Corporation Limited Plot No 1, 4th Floor, South Wing, HSIIDC IT Park, Sector 22, Panchkula, Haryana - 134109
3.	Name of the Work	Procurement and Implementation of Learning Management System (LMS) Only empanelled SDO/ TC-IP are eligible to participate in the tender.
4.	Tender document availability	Tender Notice & Tender Document is available at https://www.hkcl.in/ from 16 March 2026
5.	Starting date of Tender	17.03.2026
6.	Last date and time for submission of e-Tender	24.03.2026, 5 PM
7.	Last date for submission of hard copy of technical bid to HKCL.	24.03.2026 by 05:00 PM (Hard Copy of Technical bid with proper binding and indexing l by the respective bidder must be submitted by bidder in the HKCL office Managing Director & CEO, Plot No 1, 4th Floor, South Wing, HSIIDC IT Park, Sector 22, Panchkula, Haryana - 134109
8.	Date and Time of Opening of Technical and Commercial Bids	25.03.2026 at 04:00 PM
9.	Communication Mail address	md@hkcl.in , info@hkcl.in

1. About HKCL

Haryana Knowledge Corporation Limited (HKCL) works under the administrative control of the Citizen Resource Information Department (CRID), Government of Haryana. HKCL is engaged in promoting digital education, IT literacy, skill development, and technology-enabled learning across the state.

To strengthen its digital learning ecosystem and support various training programs, HKCL intends to procure and implement a Learning Management System (LMS).

2. Invitation of Tender

HKCL invites sealed proposals from its empanelled partners for the supply, implementation, and support of a Learning Management System (LMS) to support training delivery, course management, learner engagement, and digital assessments.

The LMS platform will be used for delivering online, hybrid, and blended training programs conducted by HKCL.

3. Eligibility Criteria

Only the following entities are eligible to participate:

1. The bidder must be an empanelled partner of HKCL.
2. The bidder must be either:
 - HKCL empanelled SDO (Software Development Organization)
OR
 - HKCL empanelled TCIP (Training Coordinator & Implementation Partner).
3. The bidder must not have been blacklisted by any Government department or PSU.
4. The bidder must have valid GST and PAN registration.
5. The bidder must have experience in development / implementation / management of digital platforms, LMS, or education technology solutions.
6. The bidder must submit authorization from the competent authority to sign the proposal.

Any proposal received from a non-empanelled agency will be rejected.

4. Scope of Work

Functional Requirements

User and Access Management

- LMS will leverage the user and role management capabilities of HKCL platform. The LMS will closely be integrated with HKCL platform therefore all user and roles management activities like user creation, role creation, user and role mapping, edits to users and roles, will be managed within HKCL platform.
- LMS will only be accessed by users who have access to HKCL platform.
- HKCL platform may potentially have following roles:
 - Super Administrator
 - Admin (eg. Startups Mentor) – managing School / College / Startup / Aspiring Startup
 - School / College / Startup / Aspiring Startup
 - Incubator Coordinator
 - Launchpad Coordinator
 - Academic Partner
 - Co-working Partner
- Access / Login to LMS will be done through
 - HKCL Portal: LMS can be accessed by only those users who are registered on HKCL portal and have a role assigned to them.
 - Direct LMS Access: LMS will also have an independent URL (e.g. learn.HKCL.Haryana.gov.in). The user will have to login using a valid SSO Id only. The system will then access HKCL database and authenticate user and role before providing access to LMS.
- Once successfully logged in, users will be able to access content and reports based on the roles assigned to them.
- LMS will provide the facility to map the contents, reports and various other sources and functionalities based on the Role. Once logged in, users will be able to view only those features, contents, reports that they have access to as per the role assigned to them.
- Password Policy: User passwords must comply with the following rules: minimum 8 characters, at least one uppercase letter, one number, and one special character. Admin/Super Admin passwords must be changed every 90 days. Learner accounts will be locked after 5 consecutive failed login attempts and unlocked via OTP or admin reset.
- Multi-Factor Authentication (MFA): MFA is mandatory for Super Administrator and Admin roles. MFA will be implemented via TOTP (Time-based One-Time Password)

app or SMS OTP on registered mobile number. MFA is optional but recommended for all other roles.

- Session Management: Inactive sessions will be automatically terminated after 15 minutes for Admin roles and 30 minutes for Learner roles. Absolute maximum session duration is 8 hours regardless of activity. Concurrent logins per user account will be limited to 1 session (Admin) and 3 sessions (Learner). Forced logout will be available to Super Admin for any active session.
- Audit Log for User Events: All user lifecycle events must be recorded in the audit log with timestamp, IP address, and actor. Events include: account creation, role change, password reset, login, logout, failed login attempts, account deactivation, and MFA enable/disable.
- Bulk User Management: LMS will support bulk creation and deactivation of user accounts via Excel/CSV upload. The template will include: Name, Email, Phone, Role, Department. Validation errors will be flagged row-by-row before import is committed.
- Admin Panel Access Restriction: The LMS admin panel URL will be accessible only from IP addresses whitelisted by HKCL IT team. Any access attempt from non-whitelisted IPs will be denied and logged.

Course Management

- Course management activities comprise of the processes of creating, organizing, delivering, and tracking content and learner's progress.
- To better organize and display courses, a group / subgroup or category / sub-category may be created with the LMS.
- The LMS shall support multiple types of learning content to be associated with a course. These content formats may include:
 - Videos
 - PDFs and other downloadable documents
 - Presentations
 - Interactive learning modules
- LMS allow tracking progress feature for AV contents where learners as well as administrators will be able to track the progress.
- LMS will have a feature to run AV content in the sequence of the TOC. The administrator will be able to turn on / off this feature.
- For every course, LMS will allow the assessment though it will not be mandatory. Assessment for a given course may be allowed the course level.
- Course to role mapping will be done in the system so that only a particular set of learners will be able to see relevant courses.
- LMS will allow necessary edits in the course creation process like changing the name, description, assigning the content type, sequencing.
- LMS should provide the ability to save learner progress while accessing AV courses and allow learners to resume learning from where they left.

- System should maintain a log / version history of all content types including the date the content was last edited.
- Course Versioning & Archiving: LMS must allow administrators to create updated versions of a course while preserving access to archived versions for audit/compliance.
- Multi-language Support: LMS should support content in multiple languages with the ability for learners to switch language preferences / view a specific language content. However, the contents that will be uploaded in the LMS will be Hindi and English languages.
- Time-bound Access: LMS must support defining course start and end dates, including timed release (drip content) of chapters as and when required.
- Course Rating & Feedback: Learners should be able to rate a course and submit feedback upon completion to help improve course quality.
- Bulk Uploads: LMS should support bulk upload of course content, users, and metadata to simplify course deployment.
- Progress Tracking: Track enrolment status and course completion. Provide dashboards for admins, instructors, and learners to view course progress and performance. Notifications to users can be sent the
- Notifications: Email/SMS alerts for enrolments, deadlines, completions.
- SCORM / xAPI Support: LMS must support SCORM 1.2 and SCORM 2004 content packaging standards for importing third-party course content. xAPI (Tin Can API) support is recommended to enable granular learning activity tracking beyond course-level completion.
- Course Prerequisites: Administrator will be able to configure course prerequisite logic — a learner cannot enrol in or access Course B until Course A has been completed and passed. This will be configurable per course.
- Course Expiry and Re-Enrolment: Administrator will be able to set a course access expiry date per learner or cohort. On expiry, the learner will receive a notification. Re-enrolment will be allowed only with admin approval.
- Content Search: LMS must support full-text search across course names, chapter titles, descriptions, and tags. Search results must update in real-time as the user types.
- Low-Bandwidth / Offline Access: LMS will implement Progressive Web App (PWA) capabilities to allow learners to download course content (video modules, PDFs) for offline access on mobile devices. This is critical for learners in districts with unreliable internet connectivity.
- Co-Instructor Support: Multiple instructors or reviewers may be assigned to a single course. Each assigned instructor can view learner progress for their course. Only Super Admin or Admin can edit course structure.
- Waitlist Management: For live sessions with a defined seat capacity, LMS will maintain an automated waitlist. Learners on the waitlist will be auto-enrolled and notified as seats become available.

Assessments and Reporting

This section captures features and functionalities needed for a learning management system to effectively assess learners and track their progress.

- **Assessment Types:** The proposed LMS will be able to create multiple kinds of assessments for learners, e.g. Multiple choices objective questions, True / False, Fill in the Blanks (MCQ Choice) In addition, an administrator will also be able to create MCQ based polls and surveys. All polls, Surveys will only be created by HKCL Super Admin only
- **Complexity:** The system will allow to create different kinds of complexities for the assessments and questions. The LMS will provide a facility where an administrator may deliver different kinds of complexities of assessment to learners. The questions and respective options can also be randomized.
- **Delivery and Scheduling:** The LMS will allow event based or schedule-based access of assessments to learners. (Start and End date)
- **Grading / Assessment:** Based on pre-feed responses, system will automatically be able to assess the exams and deliver the results instantly to learners, if required.
- **Certificates:** Pre-defined Certificate templates will allow learners to receive auto generated e-Certificates as and when they clear the assessment as per passing criteria set by the administrator. Certificates will allow dynamic fields for name, course, date and will be verifiable via unique QR or ID.
- **Question Bank:** LMS will allow facility to feed questions and respective answers into the system through admin panels. In addition, question banks may also be allowed to feed into the system through bulk-uploading (Excel).
- **Anti-Cheating Controls:** During assessments, the system will detect and log tab-switching or browser window changes. After 2 detected switches, the assessment will be auto-submitted. Copy-paste of text into answer fields will be disabled. Question and answer option order will be randomised per attempt (already noted in SoW — confirm this applies per attempt, not per learner).
- **Attempt Limits and Cooling Period:** Administrator will define the maximum number of attempts permitted per assessment. A mandatory cooling period (configurable: e.g., 24 hours, 48 hours) will be enforced between consecutive attempts.
- **Grace Period:** If a learner loses internet connectivity during an active assessment, their progress (answers already selected) will be auto-saved locally and synced upon reconnection within a 10-minute grace window. After 10 minutes, the attempt will be auto submitted with answers saved up to that point.
- **Assessment Preview:** Administrators will be able to preview an assessment in learner view before publishing it live.
- **Assessment Result Archival:** Individual assessment attempt records (score, answers, timestamp, IP) will be retained for a minimum of 3 years for audit and compliance purposes.

- Reporting & Analytics:
 - Dashboards & Reports: Offer pre-built and customizable dashboards and reports on learners, assessments, courses, and usage patterns.
 - Completion Tracking: Monitor assessment completion status, time taken, pass/fail status and assessment re-attempts.
 - Visual Analytics: Charts and graphs for quick insights on learner performance, average scores, drop-off rates
 - Group-Level Reporting: Enable reporting by multiple levels like role, category / group, region as and when required.
 - Export Options: Reports should be exportable in PDF, CSV, or Excel formats for offline analysis.
 - API Access:
 - Enable admins to extract assessment and progress data programmatically using secure APIs.
 - Enable HKCL to extract all relevant data from LMS by providing secure APIs. HKCL will use the data for dashboards and providing detailed reports on HKCL portal.
 - Role-Based Access: Dashboards and reports should be visible based on role — e.g., instructors can only see their learners, while admins have full access.
 - Custom Alerts: Alerts will not be configurable and will be defined by development team into the system
 - Audit Logs: Maintain an audit trail of assessment changes — when it was created, edited, who attempted it, and timestamps of activity.
 - MIS Report Calendar: HKCL will receive a standard set of monthly MIS reports by the 5th of each month. Reports will include: (a) total enrolments by course/role/district, (b) completion rates, (c) assessment pass/fail rates, (d) certificate issuances, (e) daily active users. Format: Excel and PDF.
 - Learner Progress Detail Report: Each learner's report will include: time spent per module, score per assessment attempt, certificate status, last access date, and enrolment date. This report will be accessible to the learner, their assigned Admin, and HKCL Super Admin.
 - Content Engagement Report: Video-level analytics will show: total views, average watch percentage per video, drop-off timestamps (where learners typically stop watching), and re-watch frequency. This data will be used by HKCL to improve content quality.
 - Failed Login & Security Report: A weekly security report will be generated showing: failed login attempts by account, IP addresses of repeated failures, admin account activities, and bulk operations performed.

- **API Documentation:** All reporting and data extraction APIs will be documented using OpenAPI (Swagger) specification. API access will require OAuth 2.0 token. Rate limiting: maximum 100 requests per minute per API key.

Feedback Management

- LMS will provide facility for receiving feedback from the users across multiple spectrum like courses, assessment. This will ensure that constant feedback received from end users are properly channelized to improve overall system and user experience.
- **Anonymous Feedback Option:** Learners will have the option to submit course and assessment feedback anonymously. The system will record that feedback was submitted but will not link it to the learner's identity in reports visible to instructors.
- **Feedback Analytics Dashboard:** HKCL Super Admin will have access to an aggregated feedback dashboard showing: average course rating over time, most common feedback themes (via keyword tagging), courses with lowest ratings flagged for review.
- **Feedback Response Tracking:** Admin will be able to mark feedback as 'Reviewed' or 'Action Taken'. HKCL Super Admin can view feedback resolution status across all courses.

Learning Models Supported

- **Live Session:** Admin will be able to create and schedule a Live class/session, and email will be sent to all respective users will be shown in relevant areas/users as applicable (Mandatory for DOiT to provide API of the conference tool.)
- **Self-Paced eLearning:** Deliver purely online courses (videos, e-modules, readings) with assessments. Provide flexible navigation (learn-any-time) through course material. Track time spent and mastery of topics.
- **Discussion-Based Learning:** LMS will provide a course-level discussion forum where learners can post questions, share insights, and respond to peers. Instructors and Admins can moderate posts (approve, delete, pin). This feature is particularly important for the Startup and Incubator user segments where peer interaction and mentor feedback are central to the learning experience.
- **Gamified Learning:** LMS will support a points and badge system. Learners will earn points for: completing a module (1 pt), completing a course (10 pts), passing an assessment on first attempt (bonus 5 pts), maintaining a 7-day learning streak (bonus 10 pts). Badges will be awarded for key milestones. A leaderboard will be visible within each cohort/role group. HKCL Super Admin can configure points values and enable/disable gamification per course category.

Content Provision & Support

- Video Format Support:
 - Native support for .m3u8 streaming video format.
 - Content delivery must ensure low latency and high-quality buffering.
- Video Player Integration:
 - LMS must support integration of JavaScript-based video players.
- Multimedia Support: AV, PDF documents.
- Content Versioning: Maintain previous versions of content with update logs.

Technical Requirements

Deployment Environment

- On-Premises Hosting:
 - Windows Based Deployment
- Browser/device Compatibility
 - Mobile Response
 - Browser independent
- System Architecture:
 - 3-tier architecture: Frontend, Backend (App Server), Database.
 - RESTful API architecture preferred for integrations.
- Hardware Requirements (Indicative):
 - CPU: Minimum 8 cores
 - RAM: 32 GB minimum (scalable)
 - Storage: SSD-based storage with RAID (min 2 TB), scalable
 - Network: Gigabit LAN with internet access (for remote sync/CDNs)

Video Streaming & Playback

- M3U8 Format Support:
 - LMS must natively handle .m3u8 streaming content.
 - Adaptive Bitrate Streaming (ABR) support.
- JavaScript Player Integration:
 - LMS will have an inbuilt player
- Streaming Engine Compatibility:
 - LMS should support integration with engines Provided by DOIT&C
 - LMS must offer configuration hooks or API endpoints to integrate with these tools.

CDN Support

- LMS must support content distribution via third-party CDNs.
 - CDN endpoints can be manually configured.
 - Must allow for content caching at edge nodes.
 - Compatibility with:
 - Any private CDN configured (Provided by DoIT)
 - CDN Failover: If the primary DoIT CDN is unavailable, the LMS will automatically fall back to direct origin delivery. The CDN health check will run every 60 seconds. Failover will be transparent to the learner.
 - CDN Bandwidth SLA: DoIT must provide a CDN bandwidth SLA before go-live. Minimum required: 10 Gbps peak burst capacity, <100ms latency to 90% of Haryana districts, 99.9% CDN uptime.
 -
- Use signed URLs/token-based access to prevent unauthorized video sharing.

SECURITY & COMPLIANCE

- Vulnerability Assessment and Penetration Testing (VAPT)
 - VAPT Mandate: A Vulnerability Assessment and Penetration Testing (VAPT) exercise must be conducted by a CERT-In empanelled security agency before the platform goes live. The VAPT report must be submitted to HKCL and all Critical and High severity findings must be remediated before go-live clearance is granted.
 - VAPT Scope: The VAPT will cover — web application (all roles/features), REST APIs, authentication and session management, file upload functionality, video streaming endpoints, admin panel, and database access controls.
 - Ongoing VAPT: VAPT must be repeated annually and after every major release (any release introducing new modules or significant changes to existing ones).
 - OWASP Top-10 Compliance: All application modules must be developed and tested against the OWASP Top-10 (2021 edition). Specifically: A01 Broken Access Control, A02 Cryptographic Failures, A03 Injection (SQL/XSS/LDAP), A04 Insecure Design, A05 Security Misconfiguration, A07 Identification and Authentication Failures, A08 Software and Data Integrity Failures.
- Data Privacy & PDPB:
 - AES 256-bit encryption for data at rest.
 - TLS 1.2 or higher for data in transit.
- User Authentication:
 - LDAP / Active Directory support.

- Role-based access control (RBAC).
- Optional: 2FA and SSO using SAML or OAuth 2.0.
- Content Protection:
 - DRM support or token-based streaming.
 - Disable content downloads unless explicitly allowed.
- Audit Trails:
 - Activity logs for all critical user/admin actions.
 - Exportable audit logs for compliance
- Session Management:

Integration Capabilities

- API:
 - RESTful API with OAuth 2.0 authentication.
 - CRUD operations for users, courses, assessments.
- External System Integration:
 - Analytics Tools (Google Analytics)
- Webhooks Support:
 - Trigger webhooks for events like course completion, user creation.

Performance & Scalability Requirements

Performance Metric	Minimum Acceptable	Target
Concurrent Users	500 simultaneous users	2,000 concurrent (exam/enrolment peak)
Page Load Time (desktop)	< 3 seconds on 10 Mbps	< 2 seconds
Page Load Time (mobile)	< 5 seconds on 3G (1 Mbps)	< 4 seconds with PWA caching
Video Start Time	< 5 seconds to first frame	< 3 seconds with CDN
API Response Time (p95)	< 500 ms	< 200 ms for read endpoints
Course Search Results	< 2 seconds for 10,000 courses	< 1 second with search index
Report Generation (1,000 rows)	< 10 seconds	Async export — no UI blocking

Performance Metric	Minimum Acceptable	Target
Certificate Generation	< 5 seconds per certificate	< 2 seconds with template cache
System Uptime (monthly SLA)	99.5%	99.9% (excl. planned maintenance)
Planned Maintenance Window	Max 4 hours/month	Off-peak only: 12 AM – 4 AM IST
Backup RTO	< 4 hours (full recovery)	< 1 hour (with warm standby)

- **Load Testing:** Vendor must conduct and submit a load test report simulating 1,000 concurrent users for a sustained 30-minute period before UAT sign-off. Test tool: Apache JMeter or equivalent. Report must show: average response time, 95th percentile response time, error rate (must be < 0.1%), and throughput (requests/second).
- **Performance Regression:** After every major release, a baseline performance test must confirm that no existing endpoint has degraded by more than 20% compared to the previous release.

Disaster Recovery & Business Continuity Plan

- **Recovery Time Objective (RTO):** Maximum acceptable downtime following a system failure is 4 hours for partial recovery (core learning functionality restored) and 24 hours for full recovery (all features and data restored). These targets must be demonstrated during pre-go-live DR testing.
- **Recovery Point Objective (RPO):** Maximum acceptable data loss is 4 hours, aligned with the transaction log backup frequency (every 4 hours). In the event of a catastrophic failure, data entered more than 4 hours before the failure will be fully recoverable.
- **Backup Schedule:** SQL Server full backup every Sunday at 2:00 AM IST. Differential backup every day (Monday–Saturday) at 2:00 AM IST. Transaction log backup every 4 hours. All backups encrypted with AES-256. Backup files stored on a separate NAS device at the Haryana Data Centre. A copy of weekly full backups will be stored at an off-site or secondary location approved by HKCL.
- **Backup Retention:** Full backups retained for 90 days. Differential backups retained for 30 days. Transaction log backups retained for 14 days.
- **Backup Restoration Testing:** A restoration drill will be conducted every month. The drill will restore the previous week's full backup to a test environment and verify data integrity. Results will be documented and shared with HKCL IT within 3 business days.

- Disaster Recovery Drill: A full DR drill simulating a complete primary server failure will be conducted every quarter (first Sunday of each quarter). Drill results (actual RTO achieved, issues found, actions taken) will be documented and reviewed by HKCL.
- Database Automatic Failover: SQL Server Always On Availability Group is configured for automatic failover to the secondary replica within 30 seconds of primary failure. RPO for the database layer: near-zero (seconds) due to synchronous replication within the Data Centre.
- Application Continuity: Static assets (HTML, CSS, JS) will be served from CDN even if the application server is down. A maintenance mode page will display for dynamic features with an estimated restoration time.
- Business Continuity — Partial Failure Scenarios: Video streaming down → LMS continues to serve non-video content and assessments. CDN down → Failover to direct origin. Authentication (SSO) down → Fallback to local LMS credentials (if enabled). Database replica down → Continue on primary, alert triggered, repair within 4 hours.

Data Privacy & DPDP Act 2023 Compliance

- DPDP Compliance: The LMS will be developed and operated in compliance with India's Digital Personal Data Protection (DPDP) Act 2023. The vendor will maintain a Data Processing Agreement (DPA) with HKCL governing their role as a Data Processor.
- Data Classification: All data stored by the LMS will be classified as follows — Public (course catalogue, published content), Internal (usage analytics), Confidential (user PII: name, email, phone), Restricted (assessment records, Aadhaar if collected). Confidential and Restricted data will be encrypted at rest.
- Consent Management: At registration, users will be presented with a clear, plain-language consent notice explaining what data is collected, for what purpose, and how long it is retained. Consent will be obtained separately for: (a) platform operation, (b) marketing communications. Users may withdraw marketing consent at any time from their profile.
- Right to Erasure: Users may request deletion of their personal data by submitting a request through the LMS profile page or by emailing the designated HKCL data officer. Requests will be processed within 30 calendar days. Course completion records and certificates will be anonymised (name replaced with User ID) rather than deleted, as they are required for audit and verification purposes.
- Data Minimisation: The LMS will collect only data strictly necessary for platform operation and reporting. Collection of Aadhaar number is not required and will not be collected unless specifically mandated and approved by HKCL with appropriate legal basis.
- Privacy Policy: A versioned Privacy Policy will be published at the LMS URL and linked from every page footer. The Privacy Policy will be reviewed and updated at least annually and whenever data practices change. Version history will be maintained.
- Analytics — No Google Analytics: Google Analytics will not be used as it transmits user data to Google's servers (outside India), which is incompatible with data

localisation requirements. Instead, Matomo Analytics (open-source, on-premise) will be deployed within the Haryana Data Centre for all usage analytics and reporting.

- **Data Breach Response:** In the event of a suspected or confirmed data breach, HKCL must be notified within 6 hours of discovery. CERT-In must be notified as required under Section 70B of the IT Act. Affected users must be notified within 72 hours if their personal data is compromised. A post-incident report will be submitted to HKCL within 7 days of the breach being contained.

Accessibility — WCAG 2.1 AA Compliance

- **WCAG 2.1 AA Compliance:** The LMS will meet WCAG (Web Content Accessibility Guidelines) 2.1 Level AA across all public-facing and learner-facing pages. This is required under the Guidelines for Indian Government Websites (GIGW) issued by the Ministry of Electronics and Information Technology (MeitY).
- **Screen Reader Compatibility:** All pages will be fully navigable using screen readers (NVDA on Windows, VoiceOver on iOS/macOS). All images will have descriptive alt text. All form fields will have associated labels. Error messages will be announced to screen readers.
- **Keyboard Navigation:** All LMS functionality — including course enrolment, video playback controls, assessment submission, and certificate download — will be accessible via keyboard alone (Tab, Enter, Arrow keys, Escape). No keyboard trap will exist anywhere in the interface.
- **Colour Contrast:** Text and background colour combinations will meet minimum contrast ratios: 4.5:1 for normal text, 3:1 for large text (18pt or 14pt bold). Information will not be conveyed by colour alone.
- **Video Captions:** All video content will include accurate, synchronised closed captions in Hindi and English in WebVTT format. Caption files will be reviewed for accuracy before content is published.
- **Responsive Design:** Full platform functionality will be available at screen widths from 320px (small mobile) to 2560px (large desktop). No horizontal scrolling will be required on any device.
- **Accessibility Audit:** An independent accessibility audit using automated tools (axe-core or equivalent) combined with manual expert review will be conducted before go-live. All Critical and Serious issues from the audit must be resolved. The audit report will be shared with HKCL.

Key Features

- **Presenter-Based Learning**
 - Professionally recorded video sessions
 - Each course broken down into 5-15 minutes modules
 - Real-world startup examples and case-based learning
- **M3U8 Video Streaming**

- Adaptive format for smooth delivery across devices
- Optimized for low bandwidth
- MCQ-Based Assessments
 - Randomized questions per attempt
 - Timed quizzes with instant feedback
 - Auto-grading and result tracking
- Digital Certification
 - Auto-generated upon course completion
 - Downloadable PDF format
 - Government scheme branding (HKCL logo)
- Personalized Dashboard
 - Course progress tracker
 - Certificate and test score repository
 - Suggested learning modules

Technology Stack

Layer	Technology
Frontend	HTML5, CSS3, jQuery, Bootstrap, Tailwind, React/Angular
Backend	.NET Framework / ASP.NET MVC (C#), Java, springBoot
Database	Microsoft SQL Server, PostgreSQL, MySQL, MongoDB
Video Streaming	Embedded M3U8 Player, HLS (HTTP Live Streaming) Player, DASH (Dynamic Adaptive Streaming over HTTP), HTML5 Native Video Player
Certificate Engine	PDF generation module
Authentication	Haryana SSO integration, JWT token/session -based authentication
Hosting	Servers recommended by HKCL

Platform Architecture

- Web Interface: Responsive for mobile and desktop
- Content Layer: Video modules linked to assessment modules

- Logic Layer: Assessment engine, certificate generator
- Security Layer: Role-based access, encrypted sessions
- Integration Layer: SSO bridge with HKCL APIs

Admin Panel Functionalities

- Upload/manage courses and contents, mapping
- Course Categorization / sub-categorization
- Role / user mapping with contents, assessment, features
- Add/edit Assessments, Polls, Surveys-
- Monitor performance reports and platform usage (per role, per territory)
- Export reports for MIS or impact evaluation

User Journey and Dashboard Features

For Startups, Students

- Enroll in open or assigned courses
- View video lessons and track progress
- Attempt assessments and view reports
- Earn certificates

For Mentors

- Enroll in open or assigned courses
- View video lessons and track progress
- Attempt assessments and view reports
- Earn certificates
- Monitor progress of mentees
- Suggest courses to mentees
- View consolidated reports

For Launchpad Coordinators

- Enroll in open or assigned courses
- View video lessons and track progress
- Attempt assessments and view reports
- Earn certificates
- Suggest batches / cohorts
- View consolidated reports at regional level

Dashboard Widgets:

- Startups enrolled
- Total courses
- Courses in progress

- Completed courses
- Tests taken + scores
- Watch hours
- Certificates earned

Security and SSO Integration

- Integrated with Haryana SSO using a landing URL
- Credentials shared with staging server initially
- Access logs maintained for each session
- HTTPS with SSL certificate
- Role-based feature access with audit trails

Server, Hosting & Network Requirements

Application Server

- RAM: 32 GB
- CPU: 64 vCPUs
- Disk: 100 GB SSD
- OS: Windows Server (Latest)
- Web Server: IIS

Database Server

- MS SQL Server 2019
- RAM: 32 GB
- Disk: 100 GB SSD
- Encrypted storage enabled

Network

- Static IP recommended
- Ports: 80, 443, 1433 (SQL)
- DNS & domain mapping

User Acceptance Testing (UAT)

- UAT Plan: Vendor will submit a UAT test plan to HKCL minimum 4 weeks before UAT commencement. The plan will include: test scenarios for all roles (Super Admin, Admin, Learner, Incubator Coordinator, etc.), test data requirements, environment specifications, and sign-off criteria.
- UAT Environment: A dedicated UAT environment will be maintained, identical in configuration to production. UAT data will be anonymised production-equivalent data (not live data).

- UAT Participants: HKCL will nominate minimum 2–3 testers per role. Vendor will provide test accounts and onboarding support.
- Defect Classification: P1 (Show-stopper) — platform unusable for a role. Zero P1 defects permitted at go-live. P2 (Major) — significant feature broken. Maximum 3 open P2 defects at go-live, each with a committed fix date. P3 (Minor) — cosmetic or low-impact. Tracked in backlog with next release commitment.
- Sign-Off Criteria: UAT sign-off will be granted by HKCL only when: zero P1 defects, maximum 3 open P2 defects (with fix committed within 5 business days of go-live), all P3 defects logged with agreed resolution date, and load test report approved.
- Go-Live Checklist: HKCL and vendor will jointly sign off on the following before production deployment: VAPT completed (all critical/high findings resolved), load test report approved, UAT sign-off obtained, DR drill completed, WCAG accessibility audit completed, backup restoration tested, all security headers configured, monitoring and alerting active.

Assumptions

- LMS will not have user and role creation and management features as these credentials will be picked up from HKCL. However, role mapping with content and assessments will be done in the LMS.
- HKCL will leverage LMS APIs to create comprehensive and relevant reports for administrator to have an integrated and 360-degree view. However basic reports at the startup levels will be provided in the LMS.
- Mobile App development is not part of the scope. However, API support will be provided to HKCL team to integrated LMS into HKCL Mobile App.

5. Proposal Submission

Interested empanelled SDOs / TCIPs must submit the following:

1. Company Profile
2. HKCL Empanelment Proof (SDO or TCIP)
3. Technical proposal of LMS platform
4. LMS feature details
5. Experience details of similar projects
6. Implementation plan
7. Commercial proposal
8. Declaration regarding clean record

All pages of the proposal must be signed and stamped by the authorized signatory.

6. Project Timelines

- The successful bidder/firm shall commence the work of Planning, Designing, Development and UAT immediately after giving the work order as per the terms & conditions of tender and shall be required to complete the said work within 60 (sixty) days period from the date of issuing the work order, to ensure the commissioning of project on production environment within the said period.
- The project must be commissioned by the successful bidder/firm within the stipulated period as mentioned above, failing which the work order will be cancelled by HKCL and in that case, no payment will be released to the bidder/firm for the executed incomplete work.
- The successful bidder/firm/company shall provide the three months warranty period, bug resolving, maintenance and full technical support/services of project at own expense from the date of commissioning of the project.

7. Payment Terms

- The payment to the successful bidder/firm shall be released on submission of a proper invoice (by showing the GST component separately in the invoice & payable by the bidder).
- HKCL shall make payment for the quoted price submitted by the SDO in financial bid, which shall include the **one-time development cost and a one-month maintenance period**.

8. Penalty clause

In the event that the successful bidder fails to perform its obligations under this tender in accordance with the agreed timelines, scope of work, and performance standards, HKCL shall not be liable to make any payment for the unfulfilled or non-compliant services.

9. Evaluation Criteria

1. **Preliminary Examination:** the Technical Bids shall be examined to determine whether they are complete, properly signed, and accompanied by all mandatory documents as prescribed. Bids found incomplete, unsigned, or non-responsive shall be liable for rejection.
 1. **Minimum Eligibility & Technical Compliance:** The bidder must meet all the minimum eligibility criteria specified in the RFP. Non-compliance with any one criterion shall result in disqualification.
 2. **Technical Qualification:** Bidders meeting all the above eligibility requirements shall be declared Technically Qualified. Only the Financial Bids of such bidders shall be opened for further evaluation.

2. Financial Evaluation

1. Opening of Financial Bids: Financial Bids of only those bidders who are declared technically qualified shall be opened at a date and time to be notified separately.

2. Evaluation of Financial Bids

Financial bids shall be evaluated on the basis of the total quoted price, inclusive of all applicable taxes, duties, and levies, as specified in the RFP.

In case of discrepancy between amounts in figures and words, the amount in words shall prevail.

3. Determination of L1

The bidder quoting the **lowest evaluated financial bid (L1)** shall be considered for award of contract, subject to fulfilment of all tender conditions and acceptance of the quoted rates by the Competent Authority.

1. Tie-Breaking Criteria

In case two or more bidders quote the same L1 price, the following criteria shall be applied sequentially:

- Bidder with higher average annual turnover during the last three financial years
- Bidder with higher net worth as on 31.03.2025
- Decision of the Competent Authority, whose decision shall be final and binding

2. **Award of Contract:** The contract shall be awarded to the **Lowest Financial Bidder (L1)** among the technically qualified bidders subject to satisfaction of all terms and conditions of the RFP and approval of the Competent Authority.

10. Key Dates

Activity	Date
Issue of Tender	17 March 2026
Last Date for Submission	24 March 2026 (5:00 PM)
Technical Evaluation	25 March 2026 (4 :00 PM)
Final Selection	26 March 2026

11. Submission Address

Proposals should be submitted to:

Managing Director & CEO

**Haryana Knowledge Corporation Limited

Plot No. 1, 4th Floor, South Wing

HSIIDC IT Park, Sector 22

Panchkula, Haryana – 134109

Email: md@hkcl.in

12. General Terms

- HKCL reserves the right to accept or reject any proposal without assigning reasons.
- HKCL may seek clarification from bidders during evaluation.
- The selected bidder shall sign an NDA with HKCL.

With Regards,

Sincerely yours,



Abhijeet Kulkarni

Managing Director & CEO