



# TAMIL VIRTUAL ACADEMY

Request for Proposal

For Selection of System Implementation Partner (SIP) for

Design, Development and Maintenance of Tamil Virtual Academy (TVA) –  
Integrated Digital Archival Management System & Portal including Hybrid  
Mobile App

**Tender Ref No: TVA/DIGI/2022-23**

Tamil Virtual Academy  
Gandhi Mandapam Road, Kottur,  
Chennai - 600 025.

Tel No: +91-44-2220 9400

Email: tva@tn.gov.in

Website: [www.tamilvu.org](http://www.tamilvu.org) | [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in)

**Important Notice**

This Tender (RFP) process is governed by The Tamil Nadu Transparency in Tenders Act 1998 and The Tamil Nadu Transparency in Tenders Rules 2000 as amended from time to time.

In case of any conflict between the terms and conditions in the tender document and the Tamil Nadu Transparency in Tenders Act 1998 and The Tamil Nadu Transparency in Tenders Rules 2000, the Act and Rules shall prevail.

**Letter of Undertaking to Abide by All Conditions of this Tender Document**

To

The Director,  
Tamil Virtual Academy,  
Gandhi Mandapam Road,  
Kottur, Chennai - 600 025.  
Tel No: +91-44-2220 9400  
Email: tva@tn.gov.in

Sir,

Sub: Undertaking for participating in **Selection of System Implementation Partner (SIP) for Design, Development and Maintenance of TVA– Integrated Digital Archival Management System and Portal including Hybrid Mobile App** - Reg.

Ref: Tender Ref: **TVA/DIGI/2022-23**

I/We do hereby submit my/our bid for the **Selection of System Implementation Partner (SIP) for Design, Development and Maintenance of TVA– Integrated Digital Archival Management System and Portal including Hybrid Mobile App** in accordance with the Terms and Conditions of this RFP.

I/We have examined the details of the tender and have carefully noted the conditions and specifications of the contract, the stipulations of which I/We agree to comply. I/We hereby undertake to complete the assigned tasks as **Selection of System Implementation Partner (SIP) for Design, Development and Maintenance of TVA– Integrated Digital Archival Management System and Portal including Hybrid Mobile App** at the places mentioned in the specification of all the articles within as per RFP & tender schedule from the date of communication of acceptance of my/our tender.

I/We further agree that the acceptance of this tender shall result in a valid and concluded contract binding on me/us the terms whereof shall be taken to be those mentioned in the form of agreement here to annexed notwithstanding the non-execution of the said agreement.

I/We hereby declare that I/We agree to do the various acts, deeds and things referred to herein including the condition relating to non-withdrawal of this tender above set out in consideration of the TVA and considering this my/our tender.

I/We ----- hereby confirm that our Company/Companies was/were not blacklisted by any State Government/ Central Government/ Public Sector Undertakings during the last three years. We also hereby confirm that our EMD/SD was not forfeited by any State Government / Central Government / Public Sector Undertakings during the last three years due to our non-performance, non-compliance with the tender conditions etc.

I/We ----- hereby confirm that our Company has not filed for bankruptcy during the last three years.

I/We ----- hereby confirm that our Company has not violated / infringed on any Indian or foreign trademark, patent, registered design or other intellectual property rights any time anywhere in India.

I/We..... shall not sub-contract any works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.

I/We..... have read the section regarding restrictions on procurement from a bidder of a country which shares a land border with India, as per Government of Tamil Nadu G.O.Ms.No.343, Finance (Salaries) department, dated 18.9.2020; I certify that this bidder is not from such a country or, if from such a country, has been registered with the Competent Authority. I certify that this bidder fulfils all requirements in this regard and is eligible to be considered.

I/We ----- hereby declare that all the particulars furnished by us in this Tender are true to the best of my/our knowledge and we understand and accept that if at any stage, the information furnished is found to be incorrect or false, we are liable for disqualification from this tender and also are liable for any penal action that may arise due to the above.

I/We \_\_\_\_\_ certify that we are liable and responsible for any disputes arising out of Intellectual Property Rights.

I/We \_\_\_\_\_ certify that I/we shall not form any consortium

with other firms/ organizations/agencies/companies for carrying out the tasks specified in this RFP.

**In case of violation of any of the conditions above, I/We .....understand that I/We are liable to be blacklisted by TVA/Government of Tamil Nadu for a period of three years.**

**Primary Partner in Bidding Consortium:**

**Signature of Signing Authority:**

**Name of Signing Authority**

**Designation of Signing Authority:**

**Note:**

- Declaration on the company's/ primary bidding entity's letter head should be submitted as per format given above
- If the bidding firm/any partner in case of a bidding consortium has been blacklisted by any State Government/ Central Government/ Public Sector Undertakings earlier, then the details should be provided

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## List of Acronyms

CMS	Content Management System
EMD	Earnest Money Deposit
GIGW	Guidelines for Indian Government Websites
NDA	Non-Disclosure Agreement
NeSDA	National e-Governance Service Delivery Assessment
OWASP	Open Web Application Security Project
RFP	Request for Proposal
RTI	Right to Information
SIP	System Implementation Partner
SLA	Service Level Agreement
SRS	Software Requirement Specification
SSL	Secure Socket Layer
SSO	Single Sign-On
TDLA	Tamil Digital Library Application
TNGIS	Tamil Nadu Geographical Information System
TVA	Tamil Virtual Academy
UAT	User Acceptance Test
W3C	World Wide Web Consortium

## 1 Introduction

Tamil Virtual Academy (TVA) was established as Tamil Virtual University as per the Tamil Nadu Co-operative Societies Act and functioning under the administrative control of the Information Technology & Digital Services Department. TVU was renamed as Tamil Virtual Academy (TVA) on 16<sup>th</sup> July 2010. The main aim of the TVA is to provide Tamil education through internet ([www.tamilvu.org](http://www.tamilvu.org)) for the Tamil Diaspora and to promote Tamil Computing.

TVA is functioning under the guidance of board of directors and general body consisting of academician and officers as members.

Tamil Virtual Academy has developed websites for Tamil digital library, namely, [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in) and [www.tagavalaatrappadai.in](http://www.tagavalaatrappadai.in). These websites contain rare collections of printed books, periodicals, manuscripts, and photographs related to the Tamil language and culture.

TVA want to add more additional categories such as audio, videos, maps, charts, etc to take up the website to the next level as a part of this website revamp RFP. The scope includes combining the above two websites into one new portal as [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in).

All the existing data and the new data proposed to be added should be available on this new portal.

Hence, the Department of Information Technology & Digital Services, Government of Tamil Nadu, proposed the Revamp of TVA – Digital Library website which will provide all information about TVA’s Digital Library with high visibility, accessibility and user friendliness. Importantly, the application needs to have a strong, customized content management system (CMS) backing it. The resulting new website will have updated information in one

place. This website needs to be standardized and follow the Guidelines for Indian Government Websites (GIGW).

The objective of this RFP is to select a System Implementation Partner (SIP) to implement the “TVA–Integrated Digital Archival Management System and Portal including Hybrid Mobile App” project and give a seamless experience to citizens.

The SIP shall work with TVA and the respective service providers towards solution design, software development, solution deployment & operationalization of the new portal (along with its content management system).

## 2 Tender schedule and data sheets

*Table 1 Tender schedule*

1.	Tender inviting Authority, Designation and Address	The Director, Tamil Virtual Academy, Anna University Campus, Gandhi Mandapam Road, Kottur, Chennai - 600 025. Tel No: +91-44-2220 9400 Email: tva@tn.gov.in
2.	Tender accepting Authority, Designation and Address	The Board, Tamil Virtual Academy, Anna University Campus, Gandhi Mandapam Road, Kottur, Chennai - 600 025. Tel No: +91-44-2220 9400 Email: tva@tn.gov.in

RFP for Design, Development and Maintenance of TVA- Integrated Digital Archival Management System & Portal including Hybrid Mobile App

3.	A) Name of the Work	Selection of System Implementation Partner (SIP) for Design, Development and Maintenance of TVA – Integrated Digital Archival Management System and Portal including Hybrid Mobile App
4.	B) Tender Ref No.	TVA/DIGI/2022-23
4.	Earnest Money Deposit	Rs.70,000/- (Rupees Seventy Thousand only) should be paid through Demand Draft (DD) in favour of The Director, Tamil Virtual Academy, Anna University Campus, Gandhi Mandapam Road, Kottur, Chennai - 600 025.
5.	Contract Period	42 months (6 months development period (up to Go-live)) + 12 months free warranty period after Go-live + 24 months O&M period after free warranty
6.	Tender document	The Tender document can be downloaded from the URL <a href="https://www.tamilvu.org">https://www.tamilvu.org</a> <a href="https://tntenders.gov.in">https://tntenders.gov.in</a> at FREE OF COST.
7.	Mode of Submission	The Sealed tenders should be submitted at Tamil Virtual Academy, Anna University Campus, Gandhi Mandapam Road, Kottur, Chennai - 600 025. Bids cannot be submitted after the due date and time.
8.	Date and Place of Pre-Bid meeting	On 10.10.2022@ 11:00 hrs. Tamil Virtual Academy, Anna University Campus, Gandhi Mandapam Road, Kottur, Chennai - 600 025.

9.	Due Date and Time for Bid Submission	On 31.10.2022@ 17.00 hrs.
10.	Date, Time, and Place of Opening of Technical Bids	On 01.11.2022@ 11.00 hrs.
11.	Date, Time, and Place of Opening of Price Bids	Price Bid opening Date & Time will be communicated to Technically qualified bidders ONLY.

**Note:** *Neither TVA nor their representatives are obligated to inform any bidders who have not qualified in any of the stages of bid process management.*

### 3 General Instructions

#### 3.1 General

- 1) The bidders are requested to examine the instructions, terms and conditions, and specifications given in the Request for Proposal (RFP). Failure to furnish all required information in every respect will be at the bidder's risk and may result in the rejection of bid.
- 2) It will be imperative for each bidder(s) to familiarize itself/ themselves with the prevailing legal situations for the execution of contract. TVA shall not entertain any request for clarification from the bidder regarding such legal aspects of submission of the Bids.
- 3) It will be the responsibility of the bidder that all factors have been investigated and considered while submitting the Bids and no claim whatsoever including those of financial adjustments to the contract awarded under this tender will be entertained by TVA. Neither any time schedule nor financial adjustments arising thereof shall be permitted on account of failure by the bidder to appraise themselves.

- 4) The bidder shall be deemed to have satisfied itself fully before Bidding as to the correctness and sufficiency of its Bids for the contract and price quoted in the Bid to cover all obligations under this tender.
- 5) It must be clearly understood that the Terms and Conditions and specifications are intended to be strictly enforced. No escalation of cost in the tender by the bidder will be permitted throughout the period of Agreement or throughout the period of completion of contract whichever is later, on account of any reasons whatsoever.
- 6) The bidder should be fully and completely responsible to TVA and State Government for all the deliveries and deliverables. In case of a bidding consortium, the Primary partner will be held responsible for all the deliveries and deliverables.
- 7) The bidder shall submit the bid document and corrigendum (if any) with company seal and sign as an acceptance of the bid.
- 8) Any bidder from a country which shares a land border with India will be eligible to bid in this tender only if the bidder is registered with the Competent Authority.

### 3.2 Clarifications to the RFP

- 1) A prospective bidder requiring any clarification in the RFP may notified by email to [tva@tn.gov.in](mailto:tva@tn.gov.in). Clarifications to the queries (if any) by the bidders and corrigendum's (if any) will be published in the websites <https://www.tamilvu.org> and <https://tntenders.gov.in>.

### 3.3 Amendments to the tender

- 1) A Pre-bid meeting will be held at TVA for addressing the clarifications on the date and time mentioned in the tender Data Sheet or any other date to be decided by TVA. The bidders are requested to participate in the Pre-bid meeting and get the clarifications.

- 2) Before closing of the tender, clarifications, and corrigendum (if any) will be notified in the websites mentioned in the tender Schedule. The bidders shall periodically check for the amendments or corrigendum or information in the websites till the closing date of this tender. TVA will not make any individual communication and will in no way be responsible for any information missed out by the bidders.
- 3) No clarifications would be offered within 48 hours prior to the due date and time for submitting the tender.
- 4) Before the closing of the tender, TVA may amend the tender document as per requirements or wherever it feels that such amendments are absolutely necessary.
- 5) Amendments also may be given in response to the queries by the prospective bidder(s). Such amendments will be notified in the websites mentioned in the tender schedule. It is bidder responsibility to keep checking the website for any changes or clarifications or corrigendum to the tender document.
- 6) TVA at its discretion may or may not extend the due date and time for the submission of bids on account of any amendments.
- 7) TVA is not responsible for any misinterpretation of the provisions of this tender document on account of the bidder failure to update the Bid documents on changes announced through the website.

### 3.4 Language of the bid

- 1) The bid prepared by the bidder as well as all correspondences and documents relating to the bid shall be in English only. The supporting documents and printed literature furnished by the bidder may be in another language provided they are accompanied by an accurate translation in English duly notarized, in which case, for all purposes of the bid, the translation shall govern. Bids received without such translation copy are liable to be rejected.

### 3.5 Bid currency

- 1) Price should be quoted in Indian Rupees (INR) only and Payment shall be made in Indian Rupees only.

### 3.6 Contacting tender inviting authority

- 1) Bidders shall not make attempts to establish unsolicited and unauthorized contact with the tender accepting authority, tender inviting authority, or tender scrutiny committee after the opening of the tender and prior to the notification of the Award and any attempt by any bidder to bring to bear extraneous pressures on the tender accepting authority shall be sufficient reason to disqualify the bidder.
- 2) Notwithstanding anything mentioned above, the tender inviting authority or the tender accepting authority may seek bonafide clarifications from bidders relating to the tenders submitted by them during the evaluation of tenders.

### 3.7 Force Majeure

- 1) Neither the Purchaser / nor the Successful Bidder (the selected SIP) shall be liable to the other for any delay or failure in the performance of their respective obligations due to causes or contingencies beyond their reasonable control such as:
  - a) Natural phenomena including, but not limited to, earthquakes, floods, and epidemics.
  - b) Acts of any Government authority (domestic or foreign) including, but not limited to, war (declared or undeclared), priorities and quarantine restrictions.
  - c) Accidents or disruptions including, but not limited to fire, explosions, breakdown of essential machinery or equipment, power, and water shortages.

- 2) Provided that the parties stipulate that Force Majeure shall not include the novel coronavirus Covid-19 pandemic which is ongoing as of the date of execution of this agreement.
- 3) For the avoidance of doubt, Force Majeure shall not include
  - a) Financial distress nor the inability of either party to make a profit or avoid a financial loss, or
  - b) Changes in the market prices or conditions, or
  - c) A party's financial inability to perform its obligations hereunder

### 3.8 Arbitration

- 1) In case of any dispute, the matter will be referred to a sole Arbitrator to be appointed by the The Director, Tamil Virtual Academy (TVA) under the "Arbitration and Conciliation Act 1996". The arbitration shall be held in Chennai, Tamil Nadu, India and the language of arbitration shall be English. The Courts at Chennai alone shall have jurisdiction in the matter. Arbitration is detailed in section 7.11.

## 4 Minimum Eligibility Criteria (MEC) & Technical Evaluation System (TES)

The bidders should have the following MEC for participating in the tender and will be evaluated on the following TES.

### 4.1 Bidding Consortium

- A consortium of 2 partner companies can bid, with one of them designated as primary partner and the other as the secondary.
- A legally valid agreement shall be executed for the consortium binding all the partners in INR 100 Non-Judicial stamp paper. Consortium agreement should be registered in Chennai.
- The consortium agreement should bind partners of the consortium to be liable jointly and severally for the execution of the contract in accordance

with the contract terms. The consortium agreement should precisely indicate the role of each partner of the consortium in respect of the contract.

- The consortium agreement shall authorize one of the partners of the consortium as primary partner by submitting of Power of Attorney signed by the legally authorized signatories of both partners. The other partner should be explicitly designated as the secondary partner
- Consortium agreement shall be enclosed with the technical bid. Alternatively, a Letter of Intent to execute a consortium agreement in the event of a successful bid shall be signed by both the partners and submitted with the bid along with the copy of the proposed agreement.
- The primary partner of the consortium shall be authorized to incur liabilities and receive instruction for and on behalf of both partners of the consortium through the entire execution of the contract.
- Payments shall be done exclusively to the primary partner.
- The primary partner would be considered successful bidder should the consortium qualify in the final evaluation of the bid.
- No partner of the consortium should bid individually or as a partner of another consortium

#### 4.2 Minimum Eligibility Criteria (MEC)

The Bidders should have the following Eligibility for participating in the Tender. The Bidders should enclose documentary evidence for fulfilling the Eligibility in the Technical Bid. **If a Bidder fails to enclose the documentary proof for eligibility, their bid will be summarily rejected.**

*Table 2 Minimum Eligibility Criteria for the Bidder*

Item No.	Criteria	Description	Documentary proof(s) to be submitted
4.2.1	Legal Entity	<p><b>Consortium of Bidders:</b> Both partners should be <b>registered companies</b> (registered under Indian Companies Act, 1956 or Indian Companies Act, 2013) and must have at least 3 years of operations in India as on the date of submission of the bid.</p>	<p>For a <b>Bidding Consortium</b>, all consortium partners individually should submit the below documents -</p> <ol style="list-style-type: none"> <li>1. Copy of Letter of Incorporation/ Certificate of Registration attested by the Authorized Signatory of the company</li> <li>2. Certificate issued by the CA (with CA's Registration Number/ Seal) regarding the company having operations in India for the last three years as on the date of submission of the bid.</li> <li>3. Consortium Agreement or Letter of Intent as stated in cl. 4.1</li> </ol>
4.2.2	Nature of the firm	<p>The Primary Partner should be a software development firm and should be in operation in successful software</p>	<p>Work Orders / Client Certificates confirming proof of delivery per scope of work order.</p>

Item No.	Criteria	Description	Documentary proof(s) to be submitted
		<p>development, software customization &amp; implementation anywhere in India during the last 3 years as of 01.04.2022.</p> <p>The Secondary Partner should be a UI/UX design agency specialized in website design &amp; development and delivered world-class creative designs for top websites. The partner should be in operation in India during the last 3 years as of 01.04.2022.</p>	
4.2.3	Turnover	The primary partner should have an average annual turnover of INR <b>2 crore or above</b> in the last three financial years, i.e., FY 2019-20, FY 2020-21, FY 2021-22.	Audited and certified Balance Sheet & Profit/Loss Account statement for last 3 financial years, i.e., FY 2019-20, FY 2020-21, FY 2021-22.
4.2.4	Web Development & Implementation Experience	<p>The primary partner must have Web Development &amp; Implementation experience in India related to any Government/PSU/Private sector entity with a minimum project value of <b>INR 50 lakhs</b> and the scope including:</p> <ol style="list-style-type: none"> <li>1. Solution design &amp; development</li> </ol>	<ol style="list-style-type: none"> <li>1. Work Order/Project Contract document with details of project value, scope</li> <li>2. Satisfactory completion certificate from the client/ Payment receipt/ UAT sign-off/Implementation</li> </ol>

Item No.	Criteria	Description	Documentary proof(s) to be submitted
		<p>2. Web Application software design and development                      3. Content Management System Implementation and Customization                      4. Hardware sizing and commissioning                      5. O&amp;M for software</p> <p>This project should have been successfully implemented and operational in last 3 years as on 01-04-2022.</p> <p>The secondary partner must be design agency with UI/UX design experience in India related to any Government/PSU/Private sector entity with a minimum project value of <b>INR 50 lakhs</b> and the scope including:</p>	<p>certificate.</p>
4.2.5	Office location	Both the partners should have an office in Chennai or should furnish a letter of undertaking to open an office in Chennai within 15 days from the date of issue of work order if they are awarded the work.	<p>Property tax bill /                      Electricity Bill /                      Telephone Bill /                      G.S.T.-C.S.T.                      Registration / Lease agreement /                      Undertaking Letter</p>

1) The bidder is required to do a self-assessment of the criteria and submit the self-assessment document as per the template provided in Annexure IV along with documentary evidence for each of the criteria.

- 2) The bidders who have submitted required documents and meet the eligibility criteria as mentioned above and as determined by the Tender Scrutiny Committee (TSC) shall only be eligible for further technical evaluation as per section 4.2 of this RFP.

#### 4.3 Technical Evaluation System (TES)

- 1) The bidders should enclose documentary evidence for fulfilling the following TES and the Tender Scrutiny Committee will evaluate the bids as per the criteria set below:

*Table 3 Technical Evaluation System for the Bidder*

<b>Technical Evaluation</b>				
<b>Item No.</b>	<b>Criteria</b>	<b>Description</b>	<b>Marking System</b>	<b>Maximum Marks</b>
4.3.1	Company Profile - Turnover	The average annual turnover of the primary partner for the last 3 financial years, i.e., FY 2019-20, FY 2020-21, FY 2021-22. <b><u>Supporting documents to be provided:</u></b> Audited and certified Balance Sheet & Profit/Loss Account statement for last 3 financial Years, i.e., FY 2019-20, FY 2020-21, FY 2021-22.	<ul style="list-style-type: none"> <li>• &gt;= INR 5 Crores: 10 marks</li> <li>• &gt;= INR 2 Crores and &lt; INR 5 Crores: 5 marks</li> </ul>	10
4.3.2	Certifications	The bidder and the partner in consortium should hold certification(s) recognized in the industry for following quality management standards,	<ul style="list-style-type: none"> <li>• Any one certification – 2 marks</li> <li>• Both certifications – 5 marks</li> </ul>	5

		<p>information security standards etc. The following certifications are considered relevant for this RFP:</p> <ol style="list-style-type: none"> <li>1. ISO 9001 (quality management systems)</li> <li>2. ISO 27001 (for information security) or equivalent</li> </ol> <p><b><u>Supporting documents to be provided:</u></b></p> <p>Copy of valid certificate(s) (the certification should be valid as on the date of submission of the bid document).</p> <p>Both the partners in the bidding consortium should hold the certifications.</p>		
4.3.3	Web App Development & Implementation	<p>The bidder must have web application development &amp; implementation experience in India related to any Government/PSU/Private sector entity with project value equal to or greater than <b>INR 50 lakhs</b> and the scope including:</p> <ol style="list-style-type: none"> <li>1. Solution design &amp; development</li> <li>2. Web Application</li> </ol>	<p>The projects would be evaluated for fitment of the solution against size &amp; complexity of the problem and similarity to the current project.</p> <p>Up to 15 marks for each relevant project assessed for the following from the case study documents:</p> <ul style="list-style-type: none"> <li>• Availability of cross-platform / cross-device support, including – web,</li> </ul>	35

		<p>software design and development</p> <p>3. Content Management System Implementation and Customization</p> <p>4. Hardware sizing and commissioning</p> <p>5. O&amp;M for software</p> <p>All the projects should have been successfully implemented and operational in last 3 years as on 01-04-2022.</p> <p><b><u>Supporting Documents to be provided:</u></b></p> <p>1. Work Order/Project Contract Document with details of project value, scope;</p> <p>2. Satisfactory completion certificate from the client/ Payment receipt/UAT sign-off/Implementation certificate.</p> <p>3. Case study/presentation with details such as project value, scope, solution details etc.</p>	<p>Android and iOS devices</p> <ul style="list-style-type: none"> <li>• If the project provides API based services</li> <li>• Content Life Cycle Management</li> <li>• Tool used for CMS</li> <li>• Privacy &amp; Security considerations</li> <li>• Design for Usability</li> <li>• Application user base of more than 1,00,000</li> </ul> <p>Up to 1.5 additional marks per project would be given for projects delivered to State or central government involving multiple departments and agencies.</p> <p>Up to 1 additional marks per project would be given for projects that are supported for more than 1 year (by the time of bid submission) managing the entire software life cycle.</p>	
4.3.4	Profile of Key Resources	The bidder should submit detailed profiles/resumes of key resources of the development team planned by the bidder for	Qualitative assessment of submitted profiles evaluating proposed resources for educational qualifications and relevant	15

		<p>undertaking the project, which should include the following key capacities:</p> <p><b>Project Manager</b></p> <ol style="list-style-type: none"> <li>1. Should have B.Tech/ B.E or equivalent degree in Computer Science /Information Technology/ Any other Engineering discipline</li> <li>2. At least 60% marks in undergraduate (and graduate degree if applicable)</li> <li>3. At least 8 years of experience as a Project Manager managing large multi-year projects</li> </ol> <p><b>Technical Lead</b></p> <ol style="list-style-type: none"> <li>1. Should have B.Tech/ B.E or equivalent degree in Computer Science /Information Technology/ Any other Engineering discipline</li> <li>2. At least 60% marks in undergraduate (and graduate degree if applicable)</li> <li>3. Overall Experience of 8 years in software conceptualization, design, development,</li> </ol>	<p>project experiences. The resources will be scored as follows:</p> <ul style="list-style-type: none"> <li>• Up to 2 marks per each role</li> <li>• 1 Additional mark per role for proficiency (Read/Write/Speak) in Tamil</li> </ul>	
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		<p>testing &amp; implementation</p> <ol style="list-style-type: none"> <li>4. At least 6 years of experience with content management systems, web app development</li> <li>5. Experience leading team with diverse levels of technical / business domain experience</li> </ol> <p><b>Front end developer</b></p> <ol style="list-style-type: none"> <li>1. Should have B.Tech/ B.E or equivalent degree in Computer Science / IT / Any other Engineering discipline</li> <li>2. At least 60% marks in undergraduate (and graduate degree if applicable)</li> <li>3. Overall Experience of 6 years in IT</li> <li>4. Experience of 4 years or more in front end development</li> </ol> <p><b>Backend developer</b></p> <ol style="list-style-type: none"> <li>1. Should have B.Tech/ B.E or equivalent degree in Computer Science / IT / Any other Engineering discipline</li> <li>2. At least 60% marks in</li> </ol>		
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		<p>undergraduate (and graduate degree if applicable)</p> <ol style="list-style-type: none"> <li>3. Overall Experience of 6 years in IT</li> <li>4. Experience of 4 years or more in API/back-end development, design, development, testing, and implementation of databases, APIs</li> <li>5. Experience of 3 years or more with content management systems</li> </ol> <p><b>UI/UX Developer / Designer</b></p> <ol style="list-style-type: none"> <li>1. Experience of 6 years working in a UI/UX in the IT industry with experience in complete UI/UX design and development lifecycle of many successful web applications</li> <li>2. Experience of at least 4 years leading UI/UX efforts in software development</li> <li>3. Mastery of UX interaction and design principles and deliverables including rapid prototyping, concept diagrams, user scenarios,</li> </ol>		
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		<p>wireframes, flows, experience maps, design patterns and annotated comps.</p> <p><b><u>Supporting documents to be provided:</u></b></p> <p>Detailed CV / resume for each of the above-mentioned roles</p>		
4.3.5	Demonstration of understanding of the business requirements, solution approach and methodology	<p>The demonstration of understanding of project requirements, technology strategy and support strategy for meeting the scope of this RFP.</p> <p><b><u>Supporting documents to be provided:</u></b></p> <ol style="list-style-type: none"> <li>1. Document describing the proposed solution, development strategy, implementation plans, timelines, risks, and mitigations etc.,</li> <li>2. The bidder will have to carry out a technical presentation/demo on the same.</li> </ol>	<p>The proposed solution approach would be qualitatively evaluated for completeness and responsiveness - the extent to which the proposal responds exhaustively to all the requirements. The aspects considered for the evaluation would include:</p> <ul style="list-style-type: none"> <li>• Understanding of the context</li> <li>• Solution development approach &amp; methodology</li> <li>• Proposed functionality</li> <li>• Risks &amp; challenges anticipated, and the management plan for the same.</li> <li>• Project timelines, Training, deployment, and operational plans</li> </ul>	15
4.3.6	Architecture, Design & Functionality	<p>The technical aspect of the bidder's proposed solution architecture, design, and system</p>	<p>The proposed solution approach would be qualitatively evaluated for completeness and</p>	20

		<p>functionality.  <b><u>Supporting documents to be provided:</u></b></p> <ol style="list-style-type: none"> <li>1. Document describing the proposed solution architecture, design considerations, major features/functionalities, etc.</li> <li>2. The bidder will have to carry out a technical presentation/demo on the same.</li> </ol>	<p>responsiveness - the extent to which the proposal responds exhaustively to all the requirements. The aspects considered during evaluation would include:</p> <ul style="list-style-type: none"> <li>• Application architecture, platform components and frameworks</li> <li>• Functionality of the CMS proposed, Cross-platform, Cross-device support</li> <li>• Ease of adding / updating new modules/informational content</li> <li>• Integration of search intelligence</li> <li>• The suitability/appropriateness of 3<sup>rd</sup> party components the vendor proposes to use / integrate with, to deliver the solution</li> <li>• Proposed chatbot solution</li> <li>• Design for GIGW compliance, Designing for User Experience for all types of users</li> <li>• Application deployment considerations including website</li> </ul>	
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			<p>updates, notifications, etc.</p> <ul style="list-style-type: none"> <li>• Scalability, Data security and privacy aspects</li> <li>• Architectural diagrams for the application and the hosting infrastructure</li> </ul>	
<b>Total Marks (4.3.1 through 4.3.6)</b>				<b>100</b>

- 2) The bidder shall be required to get at least 70 marks out of 100 marks to qualify for next stage i.e., opening of the financial bids.
- 3) The bidder is required to do a self-assessment of the criteria and submit the self-assessment documents as per the templates provided in Annexure IV and Annexure V along with documentary evidence for each of the criteria.

**Evaluation of technical proposal:**

- 1) The Tender Scrutiny Committee (TSC) will evaluate whether all the requirements mentioned in the RFP are understood and addressed well.
- 2) The bidder must make a technical presentation/demonstration (as per sections 4.3.3, 4.3.5, and 4.3.6) to the TSC.
- 3) To declare a bidder as technically qualified, the bidder must score a minimum of 70 marks based on the above said section 4.3, TES, and financial bids of those bidders who score 70 or above in the TES shall only be opened.
- 4) The bidder shall ensure that the candidates proposed in the bid for resources outlined in 4.3.4 are deployed in this project during implementation.

#### 4.4 Final Evaluation of Bid

1) The Final Evaluation will be done on Quality-cum-Cost-Based-System (QCBS) with the weightage of Technical & financial bid (Price bid) score in the ratio 70:30. The final evaluation be done as described below:

a) The marks scored in Technical Bid will be evaluated as follows:

$$T_N = T_B / T_{Max} * 100$$

$T_N$  = Normalized technical score of the bidder under consideration

$T_B$  = Evaluated technical score for the bidder under consideration

$T_{Max}$  = Maximum technical score for any bidder

b) For Technically Qualified bidders, the commercial scores will be calculated as

$$F_N = F_{Min} / F_B * 100$$

Where

$F_N$  = Normalized financial score of the bidder under consideration

$F_B$  = Evaluated cost for the bidder under consideration

$F_{Min}$  = Minimum evaluated cost for any bidder

c) Both the Technical Bid mark & Price Bid mark will be added to arrive at the total mark as follows:

$$B_N = 0.7 * T_N + 0.3 * F_N$$

Where

$B_N$  = overall score of the bidder under consideration

$T_N$  = Normalized technical score for the bidder under consideration

$F_N$  = Normalized financial score of the bidder under consideration

2) The total mark will be arranged in the descending order. The Highest scorer (H1) will be declared as the successful bidder.

- 3) In the event the Final scores are 'tied', the bidder securing the highest technical score will be adjudicated as the Best Value bidder for award of the Project.

## 5 Bid Preparation and Submission

### 5.1 Cost of Bidding

- 1) The bidder should bear all costs associated with the preparation and submission of Bids. TVA will in no way be responsible or liable for these charges/costs incurred regardless of the conduct or outcome of the bidding process.

### 5.2 Earnest Money Deposit (EMD)

- 1) An EMD amount as specified in the tender Schedule should be paid through Demand Draft (DD) in favour of The Director, Tamil Virtual Academy, Anna University Campus, Gandhi Mandapam Road, Kottur, Chennai - 600 025. The EMD of the unsuccessful bidders will be refunded within a reasonable time in consistent with the rules and regulations in this behalf. The EMD amount held by TVA till it is refunded to the unsuccessful bidders will not earn any interest thereof.
- 2) The EMD amount of the successful bidder shall be converted as part of the Security Deposit (SD) for successful execution of the work and will be returned only after the successful fulfilment of the Contract.
- 3) The EMD amount will be forfeited by TVA, if the bidder withdraws the bid during the period of its validity specified in the tender or if the successful bidder fails to sign the contract or the Successful in bidder fails to remit Security Deposit within the respective due dates.

### 5.3 Letter of Authorization

- 1) A letter of authorization from the Board of Directors / appropriate authority authorizing the tender submitting authority or a Power of

Attorney should be submitted in the tender; otherwise, the Bids will be summarily rejected.

#### 5.4 Two Part Bidding

- 1) Bidders should examine all Instructions, Terms and Conditions and Technical specifications given in the tender document. Failure to furnish information required by the Bid or submission of a Bid not substantially responsive in every respect will be at the bidders risk and may result in rejection of Bids. bidders should strictly submit the Bid as specified in the tender, failing which the bids will be non-responsive and will be rejected.

##### 5.4.1 Technical Bid

- 1) The first part relates to technical bid submitting all the required details and documents complying with all the eligibility conditions and the other tender conditions/instructions as well as the statement of compliance consisting of the following:
  - a) A Letter of Undertaking (as per the format given in this RFP) in company's letter head and letter of authorization
  - b) This RFP (Technical Bid document) and corrigendum if any
  - c) Copy of supporting documents for MEC and TES

##### 5.4.2 Financial Bid

- 1) Second part relates to the financial bid (price bid) which should be submitted in the Bill of Quotation (BoQ) as given in the tender.
- 2) The rate quoted by the bidder in the financial bid should be for the cost involved in the successful implementation of scope of work of this RFP, and no other charges will be allowed by the TVA other than the cost quoted.
- 3) Bill of Quotation (BoQ) should not contain any conditional offers or variation clause, otherwise the bids will be summarily rejected.

- 4) The rate quoted by the bidder in the price bid for **“Software development, and free warranty for a period of 12 months and 24 months Operation & Maintenance (one-time)”** should be inclusive of manpower, software development, UAT, pilot run, any proprietary/ third-party software license fee, 12 month free warranty after go-live and 24 months of O&M period after free warranty (per the scope defined in 9.19), training, administration overheads if any, travel, lodging, boarding, in-station & outstation expenses, etc. Software development includes go-live of the website ([www.tamildigitallibrary.in](http://www.tamildigitallibrary.in)) as mentioned in section 8.
- 5) The rate quoted by the bidder in the price discovery for **“Technical manpower cost for Change Request / New feature Development”** is all inclusive cost of executing the task during the period of Free warranty / O&M after Go-Live. It includes pay-roll costs, training, administration, replacements (if need be), travel and any other incidental expenses for the members deployed during free warranty and O&M period.
- 6) The rate quoted by the bidder in the price discovery for **“O & M extension for a period of 24 months after free warranty period and O&M period”** includes all such costs incurred to maintain the applications defect free, and scale with users and usage defined in 9.19.
- 7) The rates quoted shall be in INDIAN RUPEES (INR) only. The tender is liable for rejection if the BoQ contains conditional offers.
- 8) The cost quoted by the bidder shall be kept firm for a period specified in the tender from the date of opening of the tender. The bidder should keep the rates firm during the period of contract including during the period of extension of time if any. Escalation of cost will not be permitted during the said periods or during any period while providing services whether extended or not for reasons other than increase of duties / taxes payable to the Governments in India.

5.4.3 Details of the documentary proofs to be submitted

*Table 4 Details of the documentary proofs to be submitted*

<b>Letter of Undertaking</b>		
A Letter of Undertaking in company’s letterhead as per the format given in this RFP		<b>1</b>
<b>Consortium Declaration – Appendix - III</b>		
Consortium Declaration duly signed by both partners and explicitly mentioning primary partner and secondary partner		<b>1</b>
<b>Tender document</b>		
This tender document (RFP) and corrigendum if any		<b>1</b>
<b>Minimum Eligibility Criteria (4.2)</b>		
<b>1</b>	Copy of documentary proofs for item no. 4.2.1	<b>6</b>
<b>2</b>	Copy of documentary proofs for item no. 4.2.3	
<b>3</b>	Copy of documentary proofs in chronological order for item no. 4.2.2	
<b>4</b>	Copy of documentary proofs for item no. 4.2.4	
<b>5</b>	Copy of documentary proofs for item no. 4.2.5	
<b>6</b>	Self-Assessment of Minimum Eligibility Criteria (ANNEXURE – IV)	
<b>Technical Evaluation System (4.3)</b>		
<b>1</b>	Copy of documentary proofs for item no. 4.3.1	<b>7</b>
<b>2</b>	Copy of documentary proofs for item no. 4.3.2	
<b>3</b>	Copy of documentary proofs for item no. 4.3.3	
<b>4</b>	Copy of documentary proofs for item no. 4.3.4	
<b>5</b>	Copy of documentary proofs for item no. 4.3.5	
<b>6</b>	Copy of documentary proofs for item no. 4.3.6	
<b>7</b>	Self-Assessment of Technical Evaluation Criteria (ANNEXURE – V)	
<b>Support team</b>		
4 CVs for each profile of the support team required as mentioned in item no. 8.9.5		<b>1</b>

<b>Price Bid</b>	
Bill of Quotation (BoQ)	<b>1</b>
<b>Total</b>	<b>17</b>

Note:

Under Technical bid = 16 documents

Under Price bid = 1 document (pre-defined template)

### 5.5 Bid closing date and time

- 1) Bids cannot be submitted later than the date and time specified in the tender Schedule or Corrigendum if published. Hence bidders should be cautious to submit the Bids well in advance to avoid disappointments.

### 5.6 Submission of Bids

- 1) Bidder should read all the terms and conditions and accept the same to proceed further to submit bids.
- 2) The envelope shall be addressed to The Director and shall be submitted at Tamil Virtual Academy, Gandhi Manapam Road, Kottur, Chennai.
- 3) If the envelope is not sealed and marked as instructed above, the Authority assumes no responsibility for the misplacement or premature opening of the contents of the bid submitted and consequent losses, if any, suffered by the Bidder.
- 4) Bids submitted by fax, telex, telegram or e-mail shall not be entertained and shall be summarily rejected.

## 6 Tender Opening and Evaluation

### 6.1 Technical Bid Opening

- 1) The Technical Bid will be opened on the date and time as specified in the tender schedule or in the Corrigendum issued by TVA (if any).

**Note: If the date fixed for opening of the tender happens to be a Government holiday, the e-tender will be opened on the next Working**

day at the time specified in the tender Schedule.

## 6.2 Tender Validity

- 1) The offer submitted by the bidders should be valid for a minimum period of 90 days from the date of opening of the tender.

## 6.3 Initial Scrutiny

- 1) Initial Bid scrutiny will be conducted, and incomplete details as given below will be treated as non-responsive if tenders are:
  - a) received without the Letter of Undertaking (as per the format given in this RFP) and Letter of Authorization
  - b) received without EMD amount
  - c) found with suppression of details
  - d) with incomplete information, subjective, conditional offers, and partial offers
  - e) submitted without support documents as per the MEC and TES
  - f) submitted without self-assessment per Annexure-VII and Annexure-VIII
  - g) non-compliance of any of the sections / clauses stipulated in the tender
  - h) lesser validity period
- 2) All responsive Bids will be considered for further evaluation. The decision of TVA will be final in this regard.

## 6.4 Clarifications

- 1) When deemed necessary, TVA shall seek bona-fide clarifications on any aspect from the bidder ONLY under Short Fall of documents. However, that would not entitle the bidder to change or cause any change in the substance of the Bid or price quoted. During Technical Bid evaluation, TVA may seek additional information or historical documents for verification to facilitate decision making. In case the bidder failed to

comply with the requirements of TVA as stated above, such Bids may at the discretion of TVA, shall be rejected as technically non-responsive.

## 6.5 Tender Evaluation

### 6.5.1 Suppression of facts and misleading information

- 1) During the bid evaluation, if any suppression or misrepresentation is brought to the notice of TVA, TVA shall have the right to reject the bid and if after selection, TVA would terminate the contract, as the case may be. Termination of the contract will be without any compensation to the bidder and the EMD / SD, as the case may be, shall be forfeited.
- 2) Bidders should note that any figures in the proof documents submitted by the bidders for proving their eligibility is found suppressed or erased, TVA shall have the right to seek the correct facts and figures or reject such Bids.
- 3) It is up to the bidders to submit the full copies of the proof documents to meet out the MEC and TES. Otherwise, TVA at its discretion may or may not consider such documents.
- 4) The tender calls for full copies of documents to prove the bidder's experience and capacity to undertake the project.

### 6.5.2 Technical Bid Evaluation

#### **Minimum Eligibility Criteria:**

- 1) TSC will examine the technical bids as per section 4.1, MEC, given in the tender document. The documents which did not meet the eligibility criteria in the first stage of scrutiny will be rejected in that stage itself and further evaluation will not be carried out for such bidders. The eligible bidders satisfying all the criteria in section 4.1 alone will be considered for further evaluation as per TES (section 4.2). The decision of TVA will be final in this regard.

#### **Technical Evaluation System:**

- 1) TSC will examine the bids as per section 4.2 TES based on the documentary evidence enclosed by the bidder in the Technical Bid. The bidder shall be informed to make presentations to TSC as per sections 4.2.3, 4.2.5, and 4.2.6. If the bidder fails to demonstrate, their bid will be summarily rejected. The minimum mark to be scored by the bidders in the TES is 70 (seventy) out of 100, to declare the bid as technically qualified. Bidders who score 70 and above marks in the TES as per section 4.2 above shall be deemed technically qualified and financial bids of those bidders only will be opened.

### 6.5.3 Financial Bid Evaluations

- 1) Bidders should fill in price quote details ONLY in the Bill of Quotation (BoQ).
- 2) All the taxes indicated in the financial bid will be taken for the financial evaluation as per the Tamil Nadu Transparency in Tender Rules 2000 with the latest amendments.
- 3) Bidders should quote for all the items. Failure to submit the rates for all the items (including price discovery items) or partial offer will be liable for rejection of the bid itself. The decision of TVA will be the final.
- 4) Bidders who satisfy the MEC (4.2), scored 70 or more out of 100 in TES (4.3) and has the highest QCBS score (H1) per section 4.4 (Final evaluation of bid) would be declared as the successful bidder (H1).

### 6.6 Negotiations

- 1) Negotiations will be conducted with the successful (H1) bidder for improvement in the scope of work, specification, further reduction in the bid price and advancement of delivery schedule.

### 6.7 Award of Contract (through <https://tntenders.gov.in>)

- 1) Award of Contract (Letter of Acceptance) shall be issued to the successful (H1) bidder. After acceptance of the tender and LOA issued by TVA, the

successful bidder (H1) shall have no right to withdraw their tender or claim a higher price.

- 2) No dispute can be raised by any bidder whose bid has been rejected and no claims will be entertained or paid on this account.

#### 6.8 TVA reserves the right to:

- 1) Modify, reduce, or increase the quantity requirements to an extent of tendered quantity as per the provisions of Tamil Nadu Transparency in Tenders Act 1998 and Tamil Nadu Transparency in Tenders Rules, 2000.
- 2) Inspect the bidders' premises/Company before or after placement of orders and based on the inspection, reserves a right to modify the quantity ordered.
- 3) Withhold any amount for the deficiency in Quality/Service aspect rendered during the contract period.
- 4) Accept or reject any or all the tenders in full or in parts without assigning any reason whatsoever. The tender accepting authority may also reject all the tenders for reasons such as change in scope, specification, lack of anticipated financial resources, court orders, calamities, or any other unforeseen circumstances.

## 7 Execution of Contract

### 7.1 Payment of Security Deposit (SD)

- 1) The successful Bidder will be required to remit a Security Deposit (SD) of 5% of contract value by way of Demand Draft or Banker's Cheque payable at Chennai or in the form of unconditional irrevocable Bank Guarantee valid for a period of 45 months from the date of acceptance of the tender on receipt of confirmation from TVA. The SD shall be paid within 10 days from the date of issue Letter of Acceptance (LOA) by TVA.
- 2) The SD furnished by the Successful Bidder in respect of the tender will be returned to them after successful fulfillment of work. The Security Deposit

will be refunded to the Successful Bidder only after successful completion of Contract Period. The Security Deposit held by TVA till it is refunded to the Successful Bidder will not earn any interest thereof.

- 3) The EMD/Security Deposit will be forfeited if the Successful Bidder withdraws the Bid during the period of Bid validity specified in the Tender or if the Bidder fails to sign the contract.

## 7.2 Execution of Contract

- 1) The successful bidder should execute a Contract on an INR 100 non-judicial Stamp Paper bought in Tamil Nadu in the name of the bidder within 14 working days from the date of Letter of Acceptance issued by TVA with such changes/modifications as may be indicated by TVA at the time of execution on receipt of confirmation from TVA.
- 2) The successful bidder shall not assign or makeover the contract, the benefit or burden thereof to any other person or persons or body corporate for the execution of the contract or any part thereof without the prior written consent of TVA. In case of a Bidding Consortium the primary partner can assign the contract in part or whole to the secondary partner and submit the same to TVA for approval. TVA reserves its right to cancel the work order either in part or full if this condition is violated. If the successful bidder fails to execute the agreement within the stipulated period of 14 days, the SD of the successful bidder will be forfeited and their tender will be held as non-responsive.
- 3) The expenses incidental to the execution of the agreement should be borne by the successful bidder.
- 4) The conditions stipulated in the agreement should be strictly adhered to and violation of any of the conditions will entail termination of the contract without prejudice to the rights of TVA. TVA also has the right to recover any consequential losses from the successful bidder.

### 7.3 Release of Work Order

- 1) After the payment of the Security Deposit and execution of the Contract by the successful bidder, TVA will issue the Work Order to the successful bidder for commencement of the work.

### 7.4 Refund of EMD

- 1) The EMD amount paid by the successful bidder will be adjusted towards the security deposit payable by them. If the successful bidder submits a security deposit for the stipulated value in full, the EMD will be refunded. The EMD amount of the unsuccessful bidder(s) will be auto-refunded upon finalization and issue of LoA to the successful bidder.

### 7.5 Forfeiture of EMD and SD

- 1) If the successful bidder fails to act according to the tender conditions or backs out, after the tender has been accepted, the EMD will be forfeited.
- 2) If the successful bidder fails to remit the SD, the EMD remitted by him will be forfeited to TVA and the tender will be held void.
- 3) If the successful bidder fails to act up on to the tender conditions or backs out from the contract, the SD mentioned above will also be forfeited by TVA.

### 7.6 Termination of Contract

#### 7.6.1 Termination for default

- 1) TVA may without prejudice to any other remedy for breach of contract, by written notice of default with a notice period of 15 days, sent to the Successful Bidder, terminate the contract in whole or part
  - a) if the Successful Bidder fails to deliver any or all of the service within the time period(s) specified in the Contract, or fails to supply the items as per the Delivery Schedule or within any extension thereof granted by TVA; or

- b) if the Successful Bidder fails to perform any of the obligation(s) under the contract; or
  - c) if the Successful TVA, in the judgment of TVA, has engaged in fraudulent and corrupt practices in competing for or in executing the Contract.
- 2) In the event TVA terminates the Contract in whole or in part, TVA may procure, upon terms and in such manner as it deems appropriate, the goods and services similar to those and delivered and the Successful Bidder shall be liable to TVA for any additional costs for such similar goods and service. However, the Successful Bidder shall continue the performance of the contract to the extent not terminated.

#### 7.6.2 Termination for Insolvency

a) TVA may at any time terminate the Contract by giving written notice with a notice period of 7 days to the Successful Bidder, if the Successful Bidder becomes bankrupt or otherwise insolvent. In this event, termination will be without compensation to the Successful Bidder, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to TVA.

#### 7.6.3 Termination for Convenience

1) TVA may by written notice, with a notice period of 15 days sent to the successful bidder, terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for TVA's convenience, the extent to which performance of work under the Contract is terminated, and the date upon which such termination becomes effective. On termination, the successful bidder is not entitled to any compensation whatsoever.

## 7.7 Project Lead

- 1) The successful bidder should nominate and intimate TVA, a Project Lead who should be responsible for effective delivery of work complying with all the terms and conditions. The successful bidder should ensure that the Project Lead fully familiarizes with the RFP, Contract and deliverables.

## 7.8 Assigning of tender whole or in part

- 1) The successful bidder shall not assign or make over the contract, the benefit or burden thereof to any other person or persons or body corporate. The successful bidder should not under-let or sublet to any person(s) or body corporate for the execution of the contract or any part thereof, without the written consent of TVA.

## 7.9 Liquidated Damages (LD)

- 1) The successful bidder must strictly adhere to the implementation schedule specified in the RFP & Contract issued by TVA to the successful bidder. Any delay attributable to the successful bidder will enable TVA to resort to any or all the following:
- 2) Claim liquidated damages at 0.5% of the contract value for delayed performance per week and the maximum LD applicable is 10% of the contract value. When the LD reaches 10% of the contract, TVA may terminate the contract due to the non-performance of the successful bidder. However, LD shall not be levied if the delay is not attributable to the successful bidder.
- 3) In case of the termination of the contract by TVA due to non-performance of the successful bidder, the Earnest Money Deposit / Security Deposit will be forfeited.
- 4) In addition, TVA reserves the right to award the work to any other party/parties and the loss/expenses incurred thereafter will be recovered from the successful bidder.

- 5) The RFP, bid submitted by the successful bidder, negotiated offer of the successful bidder, contract and the work orders will form part of this contract. Wherever the offer conditions furnished by the successful bidder are at variance with conditions of this contract or conditions stipulated in the work order, the latter shall prevail over the offer conditions furnished by the successful bidder.
- 6) Notwithstanding anything contained in this section, TVA reserves the right to blacklist the successful bidder from taking part in any of the procurement operations of TVA for a minimum period of three years from the date of blacklisting for their failure to execute the work as per the agreed terms and conditions of the RFP, Contract and Work Order.

#### 7.10 Other Conditions

- 1) TVA reserves the right not to accept lowest price, to reject any or all the tenders without assigning any reason, to relax or waive any of the conditions stipulated in the terms and conditions of tender as deemed necessary in the best interest of TVA for good and sufficient reasons.

#### 7.11 Arbitration and Jurisdiction

- 1) Except as otherwise provided elsewhere in the contract, if any dispute, difference, question, or disagreement arises between the parties hereto or their respective representatives or assignees, at any time in connection with construction, meaning, operation, effect, interpretation or out of the contract or breach thereof, the same shall be decided by Sole Arbitrator to be appointed by the The Director, TVA.
- 2) If the sole arbitrator so appointed dies, resigns, incapacitated, or withdraws for any reason from the proceedings, another Sole Arbitrator shall be appointed by the The Director, TVA. The Sole Arbitrator so appointed shall proceed with the reference from the stage, where his predecessor had left if both parties consent for the same.

- 3) It is a term of the contract that the party invoking arbitration shall specify all disputes to be referred to arbitration at the time of invocation of arbitration and not thereafter. Neither party to the contract shall be entitled to seek interest, and the arbitrator should not grant interest.
- 4) The Sole Arbitrator shall give reasoned award and the same shall be final, conclusive, and binding on the parties.
- 5) The venue of the arbitration shall be Chennai and language English. The fees of the sole arbitrator and expenses incidental to the arbitration proceedings shall be borne equally by the parties.
- 6) Subject to as aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 and any statutory modifications or re-enactment in lieu thereof shall apply to the arbitration proceedings under this section.
- 7) Subject to the above, the Courts in Chennai alone shall have jurisdiction in this matter.

## 8 Scope of Work

### 8.1 Overview

Tamil Virtual Academy (TVA) was established as Tamil Virtual University as per the Tamil Nadu Co-operative Societies Act and functioning under the administrative control of the Information Technology Department. TVU was renamed as Tamil Virtual Academy (TVA) on 16th July 2010. The main aim of the TVA is to provide Tamil education through internet for the Tamil Diaspora and to promote Tamil Computing.

TVA is functioning under the guidance of board of directors and general body consisting of academician and officers as members.

Tamil Virtual Academy (TVA) has developed websites for Tamil digital library, namely, [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in) and [www.tagavalaatrappadai.in](http://www.tagavalaatrappadai.in). These websites contain rare collections of printed books, periodicals,

manuscripts, photographs, paintings, historical monuments etc. related to the Tamil language and culture.

TVA wants to add more additional categories such as audio, videos, maps, charts, etc to take the website to the next level as a part of this website revamp RFP. The scope includes combining the above two websites into one new website as [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in) and hybrid mobile development for the same.

All the existing website data and the newly digitized data should be available on the new portal.

The proposed portal needs to be made more user friendly, updated, easier or seamless for citizens to find the information they are looking for, with updated technology stack.

The goal of the TVA-Digital Library website project is to revamp the existing TVA - digital library websites, namely, [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in) and [www.tagavalaatrappadai.in](http://www.tagavalaatrappadai.in). and combine them into one new website with access to all information about the Tamil Virtual Academy Digital Library, with user-centric design, smooth user experience, and up-to-date content.

- 1) Use of a modern content management system which provides a templated, easy, and convenient manner to add new content and copy existing website content/updated content.
- 2) Use of the same CMS with standardized templates to develop new webpages / microsites.

The user interface of the web portals should be easy-to-use, intuitive, accessible to those who are differently abled as well, and available in both Tamil and English, in future other Indian, Asian and European languages. The entire app (backend, frontend, apps, DB structure) should be compatible

with Unicode. The Portal should be responsive to multiple screen sizes, such as those of a desktop, laptop, tablet, smart phone and also hybrid mobile app development for the same. They should also support all industry standard browsers, such as: Chrome, Edge, Firefox, and Safari.

The Portal must be in compliance with Guidelines for Indian Government Websites (GIGW).

The content in the Tamil Digital Library Application (TDLA) must be owned & managed by the respective stake holders of different categories / entities as required.

The functional and non-functional requirements are detailed in the following sections.

## 8.2 About Tamil Virtual Academy (TVA)

Tamil Virtual Academy (TVA) is functioning under the administrative control of the Information Technology Department, Government of Tamil Nadu.

The objective of the organization is to teach Tamil through the internet and to provide Internet based Tamil resources to the Tamil Diaspora across the globe and others who are interested in learning Tamil language, literature, art, culture, etc.

TVA has created a Tamil Digital Library ([www.tamildigitallibrary.in](http://www.tamildigitallibrary.in)) consisting of more than 50,000 rare books, periodicals, and palm-leaf manuscripts of various subjects such as literature, religion, history, medicine, science, etc. The library is being enriched continuously by improvising and also by uploading more documents with a search facility. All the above digital contents are published in the open domain free of cost for the use of students, scholars, and the general public across the world.

So far, this Tamil Virtual Academy's digital library website has of 2,11,65,112 webpage hits.

Tamil Virtual Academy (TVA) has developed websites for Tamil digital library, namely, [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in) and [www.tagavalaatrupidai.in](http://www.tagavalaatrupidai.in). These websites contain rare collections of printed books, periodicals, manuscripts, photographs, paintings, historical monuments etc. related to the Tamil language and culture.

TVA wants to add more additional categories such as audio, videos, maps, charts, etc to take it up to the next level as a part of this website revamp RFP. The scope includes combining the above two websites into one new portal as [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in).

### 8.3 Existing Website

There are two websites developed by Tamil Virtual Academy (TVA) for hosting the Tamil digital library.

1) [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in)

2) [www.tagavalaatrupidai.in](http://www.tagavalaatrupidai.in)

These two website domain names were hosted on the same server having a common database running on two difference port numbers.

Following are the existing tech stack details:

- PHP 7
- MySQL
- Apache Web Server
- Linux

There are 28,000 books, 18,000 periodicals etc. are available in the existing websites. These books are stored as 'pdf' files in application folder and the reference path is stored in database.

3) [www.tamilvu.org/ta/நூலகம்](http://www.tamilvu.org/ta/நூலகம்)

Further, more than 400 Tamil books are provided in HTML format with specific search facility in the [www.tamilvu.org/ta/நூலகம்](http://www.tamilvu.org/ta/நூலகம்) for the user of scholars, students and general public. **These materials are stored in HTML format in Oracle Database. These books need to be converted in to latest database structure.**

#### 8.4 Functional requirements

The proposed TVA Digital Library web portal should have all the web content available in existing TVA digital library websites 1) [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in), 2) [www.tagavalaatrappadai.in](http://www.tagavalaatrappadai.in), 3) [www.tamilvu.org/ta/நூலகம்](http://www.tamilvu.org/ta/நூலகம்)

- The proposed website should have three broad components such as, Visitors section, Administrator Section and Crowd-source Section.
- The Platform should have retrieval abilities based on keyword search or image search
- Provide indexing for easy search
- The website should support audio/video content without plugins.
- The Administrator should be able to upload multiple types of files such as pdf, audio, video, image files
- The department dashboard should display the log of search keywords used by the public, such as: top keywords, no results for the searches, etc.
- Allows multiple user access levels / graded access for downloading, printing etc. and authorization of Users depending on Roles.

- The SI should enable provision for publishing API's for each Books, Periodicals, Manuscripts, audio, video, Architecture - Religious Places, Coins, Excavations, Sculptures, Inscriptions, Copper Plates, Historical Monuments, Paintings etc. available on the TVA-Digital Library portal which can be consumed and integrated on any third party websites after necessary approval.
- The new portal should display contents by integrating external links/API's such as social media (Instagram, YouTube, Facebook, Twitter, etc.), blogs, TVA LMS platform, etc.
- **Migrating the existing data from the database and optimize, re-structure and re-organise for better performance of the new portal. [Existing are in MySQL and some of the book materials are stored in HTML format in Oracle Database. These books need to be converted in to latest database structure.]**

#### 8.4.1 Visitor Section

This section will have following features:

- Provide key information about TVA Digital Library, contact details, official landline phone number, email ID, and social media handles.
- This will also include pages for every Books, Periodicals, Manuscripts, Architecture - Religious Places, Coins, Excavations, Sculptures, Inscriptions, Copper Plates, Historical Monuments, Paintings, etc.
- All the content published on the Portal should be Bi-lingual (Tamil and English)
- Flip view page options, such as: double page, single page, zooming, next/previous button, moving slide, vertical scrolling, play/pause, thumbnail view, go to page, and provide audio & video, photographs, etc.

- List view options such as: title, author, subject, keywords, views, favourite, QR code, multiple file format option, downloading, flag, favourite, share, citation, related resources.
- The option to write a review on the published material after successful login to the portal.
- The detailed view / show more option display full detail of the resources in MARC21 format.
- Geographical location for applicable categories to be enabled
- Provision for hyperlink for search related terms like keywords, subjects, authors etc.
- Provision of full text search in the portal for all the content published. On entering any keyword, the system must be able to search in all links, sub-links and should provide links where that word is present. On clicking the link, the content should be displayed.
- Provision of Morphology / related word search in all categories. For ex: if மதுரை is searched, it should also display search results related words like, பாண்டிய மன்னர்கள், சிலப்பதிகாரம், etc.
- **Search Results view**
  - Results should be in the fetching view.
  - Selection of Image / List view option to be provided in the result page.
  - List view, specific categories like, book title, author, year, publication, etc are to be provided separately.
  - Result page, provision for selection of the list like, category, author, subject, publication, language, resources, etc.
- **Navigation**
  - Books, Periodicals, Manuscript, Thesis & dissertation, Multimedia, Cultural Gallery, Virtual Museum, author bibliography, and also

display any other new category when added by the administrator.

- Provision for menu, sub-menu and sub sub-menu in each category (minimum 3 levels to be provided)

- **Dashboard**

- Display information about Trending, Latest Events, Newly uploaded content, Reviews, Top landing pages, Page visits, top visitors, unique visitors, live visitors map, latest visitors, top countries, top referrers, top devices
- The application administrator should be able to configure Digital Library materials display based on the above parameters.

- **User Login**

- New user registration
- Secure login provision
- Profile updation
- Dashboard on materials shared, viewed today, maximum viewed etc.
- Write a review option
- Recent views
- User's history
- Feedback for particular content
- Favourite for a particular category or title
- Provision for sharing the library materials on social media

#### 8.4.2 Department Login

The TVA Digital Library portal will hold templated and relevant information about all the Books, Periodicals, Manuscripts, Architecture - Religious Places, Coins, Excavations, Sculptures, Inscriptions, Copper Plates, Historical

Monuments, Paintings on the department dashboard / the department user login of the portal.

- Review the feedback, reviews received from users and analyse and respond within the application
- Configure auto-response messages to the users
- Generate various MIS reports based on requirements
- Provision to pre-design, pre-configure reports using templates and auto sending to configured users via e-mail as per the schedule.

#### 8.4.3 Administrator login

- The Administrator of the portal should have all the controls for Master data management, User Management, Role Management, User Access controls etc.
- Configurations and settings parameters to modify the user experience and evaluation criteria for user reviews, Analyse user feedback, performance monitoring.
- Performance fine tuning, data archiving, resource allocation and usage etc. for day-to-day operation and maintenance of the system.

#### 8.4.4 Crowd-source Section

- This should be a separate application to receive the crowd source requests and processing such requests by the authorities separately and the approved requests should be added in the Digital Library portal.
- Provision to create various promotional campaigns for the public to participate in the appeal for crowd-sourcing by TVA and post reviews / views / opinions / ideas / requests for publishing books etc.
- Provision for registered authors, publishers, group of users to share and publish their articles, books, paintings etc. in this section.

- This should be done automatically through API integration provided by the crowd source users in the online application process for “request for publishing”.
- These requests should be reviewed and approved by the TVA authorities before publishing the materials in the portal.
- The review and approval process should be a configurable workflow approval process online.

#### 8.4.5 Other Features

- The Integrated Digital Archival Management System & Portal including Hybrid Mobile App must contain templated information about all the categories of materials available for the public.
- This information must be in a single database and presented in the form of a user-friendly catalogue to help citizens find their desired information easily.
- Users must be able to search for the relevant information using keywords, tags / additional metadata, and also be able to filter based on category, sub-category, types, etc.
- Wherever the Books, Periodicals, Manuscripts, Architecture - Religious Places, Coins, Excavations, Sculptures, Inscriptions, Copper Plates, Historical Monuments, Paintings, etc. is available online, the portal should have provision to integrate in TVA Digital Library on approval by the authorities.
- Integrated Digital Archival Management System & Portal including Hybrid Mobile App should provide a API interface based on the request received from requestor and published to the requestor on approval by the authorities through department login.

#### 8.4.6 Announcements and Social Media

- The platform must have a section with latest announcements about the Digital Library that will be relevant for the citizens.
- There should also be social media feed of the Digital Library displayed in the form of live, dynamic widgets.
- An embedded video player must also continuously play videos about the Digital Library as obtained from YouTube / news channels.

#### 8.4.7 Other Content

The TVA Digital Library website needs to contain other important content as follows:

- Books calendar, upcoming publishments/events
- Forms and other documents
- Link to other websites / applications as an easily accessible manner
- Links to various open data sources as requested by TVA.

#### 8.4.8 Rating and Feedback

- Enable the users to provide feedback on the accuracy of any library content or their user experience. They should be able to dynamically provide this at any point while browsing the website.
- This may be in the form of ratings, quick surveys, and written reviews, which may appear in the form of floating widgets, pop-ups, an email listed on the website to which to send such issues to, etc.
- The feedback must also have categories that help verify the content on the website, options such as an error in the information, outdated information, an incorrect URL, etc.
- They should be able to send supporting attachments such as screenshots too.
- The feedback must directly reach the admin as well as the owner of the data (for e.g., the designated nodal officer of the department login /

administrator login). This may be either automatically done or manually through an authorized user based on mapping of the library content to the users.

## 8.5 Interactive features

### 8.5.1 Structure / Organization

The Integrated Digital Archival Management System & Portal including Hybrid Mobile App needs to be organized in a neat, systematic, structured, intuitive manner. The most important sections of the portal must be accessible with a single click from the main page. The user must be able to navigate to a particular section / page through multiple routes. The home page and navigation bar need to be extremely well organized such that the most frequently asked information is available within a click.

The landing page / home page design needs to be citizen-centric that allows easy navigation to various sections of importance to the citizens.

The information should be discoverable in the following ways:

- 1) Navigation bar (preferably accessible throughout the website)
- 2) Simple and advanced search options
- 3) Text chatbots
- 4) Buttons / widgets highlighting the most used / most important sections
- 5) Hyperlinks on any relevant page of the Digital Library
- 6) Sitemap

### 8.5.2 Easy search

- 1) The search should support the following:
  - a) Keyword Based Search on the metadata fields, tags, names, content, etc.

- b) Nested Searches based on 'OR', 'AND' & other operators
- c) Search based on web pages and documents
- d) Wildcard searching
- e) Search facility to retrieve documents and other files
- f) Provision for automatic saving (through a log) of all searches to track usage pattern
- g) Sorting of search results based on relevance, submission date, category, subject, etc.
- h) Advanced searches like phonetic searching, misspelled words, typographical errors, word stem searching, etc.

#### 8.5.3 Filter

- 1) All the pages on the website which involve a specific search box for that section, or which provide a catalogue of information, should have filter options based on content, categories, metadata, etc.
  - a) For example, if a citizen visits the books directory section, it should be easy for them to narrow down their search by filtering options such as the author, subject, etc.
- 2) These filters should be nested as well such that one influences the other.
- 3) It should be easy for the citizen to reset any particular filter category or all the filters on that page, at any time.

#### 8.5.4 Text chatbot

- 1) Provide a text chatbot solution, both in Tamil and English, to make it easier for users to find what they are looking for.
- 2) This may either be developed from scratch or be an add-on of an existing solution.
- 3) Collect Feedback and user reviews on all categories of materials

### 8.5.5 Responsiveness and Compatibility

- 1) The proposed portal should be responsive to multiple screen sizes – desktops, laptops, tablets, as well as smart phones.
- 2) The published website must support standard browsers – Chrome, Firefox, Edge, and Safari.
- 3) This should also be valid for reading documents and images within the website, on any device.

### 8.6 Integration

- 1) The solution must support integration with existing applications such as LMS to access up-to-date data from them.
- 2) These external applications will expose the APIs, lend access to their database, or provide a data dump for the information or data that needs to be made available on the digital library.
- 3) The user experience of Integrated Digital Archival Management System & Portal including Hybrid Mobile App should be smooth across the applications.

#### 8.6.1 GIS

- 1) TNGIS is Tamil Nadu’s web GIS system that holds vast spatial data generated through GIS projects undertaken by many departments of the state.
- 2) The Geographical location of applicable categories such as religious Places, Sculptures, Historical Monuments of the Digital Library to be enabled with GIS maps
- 3) For map-based sections, in addition to using any third-party/open-source solutions, the solution should allow integration with TNGIS for accessing the layers available in TNGIS.

- 4) The successful bidder must comply with TNGIS’s data policy while dealing with its data.

#### 8.6.2 Social Media APIs

- 1) The solution must either directly integrate or use connectors to integrate with social media APIs to display the social media widgets of TVA and Digital Library in this website.
- 2) The successful bidder must comply with the relevant data policies.

### 8.7 Tamil Digital Library Application (TDLA)

The Tamil digital library application for the website should serve as a backbone for this Digital Library portal.

#### 8.7.1 Technical Requirements

- 1) The unified headless Tamil digital library application should standardize the content framework and citizen interface to consolidate the information presently available in the existing portal, as well as the new content which is proposed to be added.
- 2) The successful bidder must offer standard procedure in the common unified content management framework.
- 3) The TDLA must offer easy, low / no-code access to design new webpages of the websites using the templates and themes.
- 4) The TDLA must have numerous website themes and a library of common layout templates for various sections of the website and web pages
- 5) The TDLA must allow designated users to create customized templates and customize existing templates.
- 6) The TDLA must allow different pages within the website to have different templates.

- 7) The TDLA must allow content categorization up to any depth, and the categories must be accompanied by their corresponding meta data, source, validity date etc.
- 8) The TDLA should enable content tagging to identify, classify, consolidate and summarize content.
- 9) The TDLA must offer content versioning and also support auto-update every few seconds so that no latest content that is added is missed.
- 10) The TDLA should allow the content contributor to schedule any content for publishing, and to set content expiry date. In case of the latter, the solution must send a reminder to the content owner / moderator / admin around that date to verify if that data is still valid.
- 11) The TDLA must allow easy addition of images, videos, audio, etc.
- 12) It would be good to have front-end editing enabled such that the site can be edited while browsing through it.
- 13) The TDLA must allow the creation of as many menus and menu items as required.
- 14) The solution must provide the option of speeding up the website with caching.
- 15) The platform should be dynamic and highly scalable to accommodate new categories on the website.
- 16) The TDLA should support bilingual functionality with both Tamil and English content.
- 17) The TDLA must allow configuration of workflows for the portal, with a Content Creator, Moderator and Approver. The processes for these should follow GIGW guidelines.
- 18) The TDLA must allow the content to be updated using any devices.
- 19) It must enable content to be easily shared on social media.
- 20) It must provide search engine optimization.

- 21) The platform should follow the OWASP Top 10 Web Application Security rules to ensure the safety of information/services.
- 22) The TDLA must allow for content to be mapped to content contributors, approvers & owners, such that any feedback that comes in for certain content is routed (automatically or through the content moderator, approver, or admin) to the authorized person.
- 23) The platform must allow the admins to track the error logs, issues with content such as outdated links, etc. in the form of a history log or dashboard.

#### 8.7.2 Role based user access management

- 1) The TDLA should support multiple user personas: Developer, Content Creator, Moderator, Approver, Admin, and the end user of the website. Each will have a distinct set of functions in the content management, website development and maintenance processes.
- 2) The solution should provide flexibility of different user personas and access levels.
- 3) Each individual user / user role must be allowed to be mapped with more than one user persona. Each persona may be carried by more than one person (e.g. The capabilities of the 'developer' user persona may be borne by the front-end developer, the back-end developer, and the UI/UX designer).
- 4) Each user should be assigned a level of authorization that grants them access to different features of the solution. The level of access must be customizable as per the user role, user persona and the individual.
- 5) Different levels of access imply different levels of interactivity, visibility, and access to the website as well as the TDLA behind the website.

#### 8.7.3 Audit log

- 1) The solution must log all the following:

- a) The user carrying out the action
  - b) The action carried out by the user
  - c) The object to which the action is applied
  - d) The date and time of action
- 2) The solution must provide statistics to evaluate usage, using insightful analytics and intuitive visualizations.
  - 3) The audit trail should also record changes made to metadata
  - 4) The solution must support both database and file system-based audit trail logs.

#### 8.7.4 Usage Analytics

The solution must include the necessary analytics to assess its performance:

- 1) Web Analytics
- 2) Application Analytics based on the logs and usage captured (including clickstream analytics)

### 8.8 Non-functional requirements

#### 8.8.1 UI/UX Design

User experience (UX) is one of the most critical elements of the solution. The web portal, as well as the CMS must be easy to use, intuitive, relevant and revealing, and easy to use for all citizens of different levels of experience with digital tools. The website must follow the Guidelines for Indian Government Websites (GIGW).

#### 8.8.2 Information security – Best practices

The solution must be developed with the following in mind:

- 1) The solution should be developed as per OWASP guidelines

- 2) The successful bidder must ensure Data, Application and Network security.
- 3) The successful bidder must Install information security software: Antivirus, etc.
- 4) The successful bidder must carry out: Vulnerability Assessment, PT Compliance, Application Audit, Malware scanning, etc. on a periodic basis of 6 monthly interval.
- 5) The architecture should provide an end-to-end security model that protects data.
- 6) Unauthorized access to application, database, servers, and network should be prevented.
- 7) The applications should provide alerts in case of security breaches.
- 8) The applications must provide access/security levels for classifying records as confidential, public access, etc.
- 9) All APIs should be called over secure URLs.

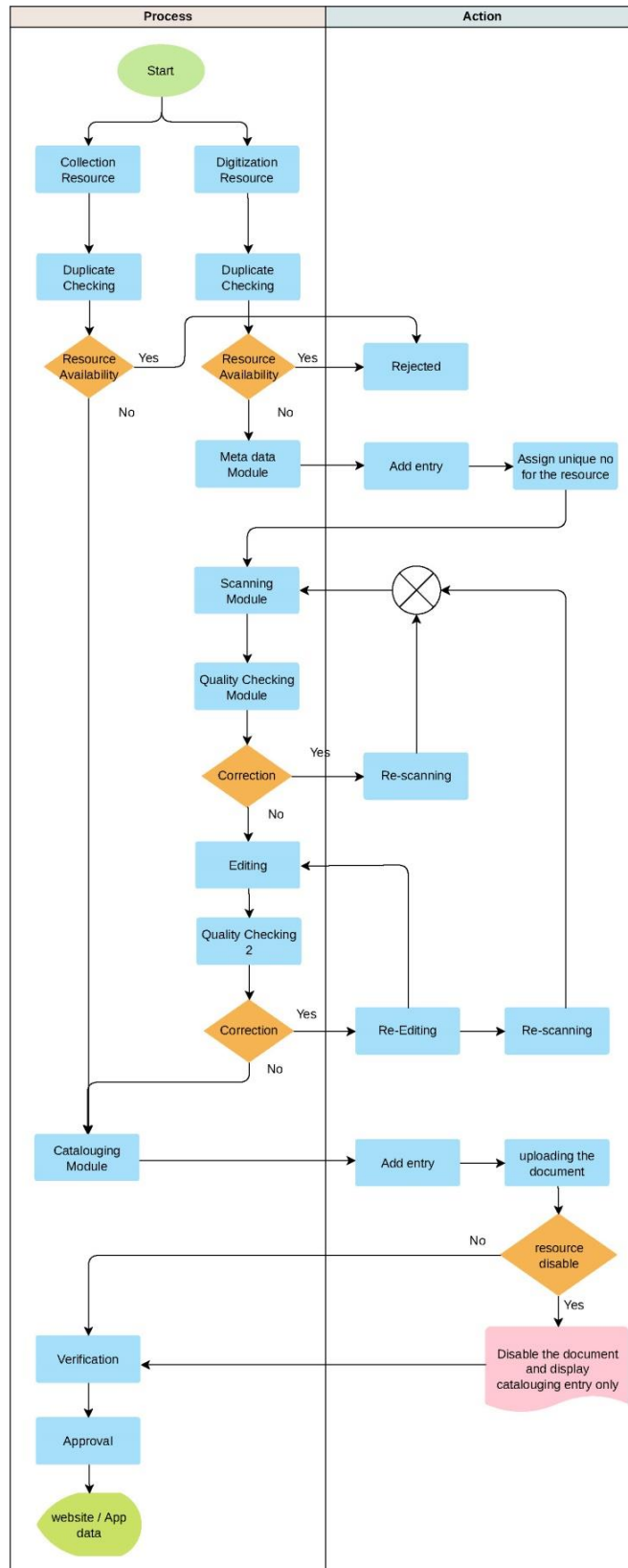
### 8.8.3 Privacy

- 1) The solution should provide visible, clear, and concise information to users about what will be done with the data.
- 2) The successful bidder must minimize the data to be collected for signing in or accessing any service, i.e., no information other than minimum required should be stored in database.
- 3) The solution must allow consent to be obtained from the stakeholders to collect, retain and share their data, on the application.
- 4) The successful bidder must agree to safeguard proprietary information and prevent unauthorized use or disclosure thereof.
- 5) The successful bidder must ensure adherence to all data and privacy protection rules and regulations as notified by Government of India / Tamil Nadu from time to time.

#### 8.8.4 Technology stack

- 1) The solution should choose latest open source technologies that are horizontally scalable, easily extendable with special focus on data security, privacy.
- 2) Other key considerations for choosing the technologies
  - a) Open source is preferred (PHP, PostgreSQL, MariaDB, React, Angular)
  - b) Easy to maintain and abundant trained resources available in open market
  - c) No hidden licensing costs and limitations on transferability/extensibility in future.
  - d) If any licensing / plugins are required the successful bidder must be arrange that their own cost with the valid reasons.

### 8.8.5 Workflow Diagram



### 8.8.6 Workflow Synopsis

#### ***Manage Articles:***

- View /Add/Update/Delete & Listing all articles on Grid with flexible filters & Search
- Duplication checking during Add/ Update
- Duplicate checking to avoid duplicate scanning of the same materials.
- If any dispute arises in the resource like, copyright, against the government law and etc., Should have provision from admin side to disable from public facing website at any time.
- Audit Log should be managed for each action for articles
- Should have Folder Names and Location where the scanned Raw files exist & unique ID and Number should be generated to create a PDF file.

#### ***Manage Article Type:***

- This could be Book in text or PDF / Image / Audio / Video Etc....

#### ***Manage Article Status:***

- This could be Scanning/ Review/ Re-Submission/ Approved
- Have to maintain audit history for this Status changes
- Analytical Report could be available for department admins

#### ***Manage Roles:***

- View /Add/Update/Delete & Listing all Roles on Grid with flexible filters & Search
- Duplication checking during Add/ Update
- This could be Super admin/ Admin / Scanner/ Reviewer (Level1 QC, Level2 QC)/ Approver

***Manage Users:***

- View /Add/Update/Delete & Listing all Users on Grid with flexible filters & Search
- Duplication checking during Add/ Update
- User Module to be developed as per standard to manage above Roles

***Manage Scanner (Third party Vendor Company):***

- View /Add/Update/Delete & Listing all Reviewer on Grid with flexible filters & Search
- Duplication checking during Add/ Update
- Able to create Article and have to mention Physical Folder names and Files lists.
- Dashboard should show all their notifications. Like No of new Articles, No of Completed Articles & No of Re-Submitted for scanning (from Level1 OR Level2 QC)

***System Flow Admin/ Website:***

- Super admin will able to manage all process in this system
- Admin can manage all process except admin user creation. He should get articles which is new and cannot override other admin activities.
- Super admin/ Admin can create Scanner(Vendor Company), Reviewer(Level1 QC, Level2 QC)/, Approver
- Scanner can login to the system and can Manage Articles and have to provide Folder & File Names. Once Scanner submit the article. This should be available for Level1 QC users' dashboard.
- Level1 QC users can pick and assign themselves the articles or admin can able to assign to Level1 QC.

- Level1 QC dashboard should have all notifications (No Of articles Completed/ On- Queue / Re-Submitted). On Queue should have listed of new articles assigned as well as no of resubmission completed from Scanner for re-review.
- Once Level1 QC completes and submitted this will go to Level2 QC review.
- Level2 QC dashboard should have all notifications (No Of articles Completed/ On- Queue / Re-Submitted). On Queue should have listed of new articles assigned as well as no of resubmission completed from Scanner for re-review.
- Once Level2 QC approves it will be available for public in website.
- Over all system will have Remarks history for articles

***Public Facing Website:***

- Should be designed to list all approved articles/ Categories for public view.
- Based on Type of articles (image/ video /audio) details should have proper viewer / player.
- GUI will be approved by TVA team

***General Note:***

- Selected bidder should follow all SDLC with Agile.
- Should follow GIGW standards and security aspects.
- GUI should be User friendly easy to use
- Team should be capable of doing Impact analysis before do any CR
- Code Reviews will happen for each deliverable in TVA
- QC should be done for deliverables
- Bidder should have versioning control for code base/ DB Script
- Bidder should maintain backup for code base/ DB Script / Files. At any point in time any problem TVA can raise request rollback.

### 8.8.7 Database Samples (current structure)

#### **Database structure [Book Sample - marc21 format] – tamildigitallibrary.in / tagavalaatruppadai.in**

Column	100_a	110_d	130_h	246_first
id (Primary)	100_d	111_first	130_k	246_second
000	100_e	111_second	130_n	246_5
003	100_q	111_0	130_o	246_6
005	100_0	111_4	130_p	246_8
006	100_6	111_6	240_first	246_a
007	100_8	111_8	240_second	246_b
008	100_b	111_a	240_a	246_f
010_first	100_c	111_b	240_d	246_g
010_second	100_f	111_c	240_h	246_h
010_a	100_g	111_d	240_k	246_i
010_b	100_k	111_e	240_l	246_r
010_z	100_l	111_f	240_m	246_s
010_8	100_n	111_g	240_r	246_n
020_first	100_p	111_j	240_s	246_p
020_second	100_j	111_k	240_0	247_first
020_a	100_t	111_l	240_6	247_second
020_c	100_u	111_n	240_8	247_a
020_q	110_first	111_p	240_f	247_b
020_z	110_second	111_q	240_g	247_f
020_6	110_0	111_u	240_n	247_g
020_8	110_4	111_t	240_o	247_h
022_first	110_6	130_first	240_p	247_n
022_second	110_8	130_second	245_first	247_p
022_a	110_a	130_0	245_second	247_x
022_2	110_b	130_4	245_6	247_6
040_first	110_e	130_6	245_8	247_8
040_second	110_q	130_8	245_a	250_first
040_a	110_c	130_9	245_b1	250_second
040_b	110_f	130_a	245_b2	250_3
040_c	110_g	130_d	245_c	250_6
040_d	110_k	130_l	245_f	250_8
040_e	110_l	130_m	245_g	250_a
040_6	110_j	130_r	245_h	250_b
040_8	110_n	130_s	245_k	260_first
100_first	110_p	130_t	245_n	260_second
100_second	110_t	130_f	245_p	260_a
100_4	110_u	130_g	245_s	260_b

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260_c	490_8	510_second	600_s	610_u
260_e	500_first	510_a	600_u	610_2
260_f	500_second	510_b	600_p	610_a
260_g	500_a	510_c	600_0	610_b
260_3	500_3	510_u	600_3	610_t
260_6	500_5	510_x	600_4	610_v
260_8	500_6	510_3	600_6	610_x
300_first	500_8	510_6	600_8	610_y
300_second	500_l	510_8	600_9	610_z
300_a	500_n	520_first	600_b	611_first
300_b	500_x	520_second	600_c	611_second
300_c	500_z	520_a	600_e	611_2
300_e	501_first	520_b	600_f	611_9
300_f	501_second	520_u	600_g	611_a
300_g	501_a	520_2	600_h	611_c
300_3	501_5	520_3	600_j	611_d
300_6	501_6	520_6	600_k	611_e
300_8	501_8	520_8	600_l	611_t
310_first	502_first	520_c	600_m	611_v
310_second	502_second	520_z	600_n	611_x
310_a	502_a	546_first	600_o	611_y
310_b	502_6	546_second	600_r	611_z
310_6	502_8	546_a	610_first	611_0
310_8	502_b	546_b	610_second	611_3
321_first	502_c	546_3	610_0	611_4
321_second	502_d	546_6	610_3	611_6
321_a	502_g	546_8	610_4	611_8
321_b	502_o	546_z	610_6	611_f
321_6	504_first	547_first	610_8	611_g
321_8	504_second	547_second	610_9	611_h
362_first	504_a	547_a	610_c	611_s
362_second	504_b	547_6	610_d	611_j
362_a	504_6	547_8	610_e	611_k
362_z	504_8	600_first	610_f	611_l
362_6	505_first	600_second	610_g	611_m
362_8	505_second	600_2	610_h	611_n
490_first	505_a	600_a	610_k	611_p
490_second	505_g	600_d	610_l	611_q
490_a	505_r	600_q	610_m	611_u
490_l	505_t	600_t	610_n	630_first
490_v	505_u	600_v	610_o	630_second
490_x	505_6	600_x	610_p	630_a
490_3	505_8	600_y	610_r	630_l
490_6	510_first	600_z	610_s	630_t

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630_v	651_e	700_q	711_4	730_s
630_x	651_g	700_r	711_5	730_t
630_y	651_v	700_s	711_6	730_x
630_z	651_x	700_t	711_8	740_first
630_0	651_y	700_u	711_a	740_second
630_2	651_z	700_v	711_c	740_a
630_3	651_0	700_x	711_d	740_5
630_4	651_2	700_0	711_e	740_6
630_6	651_3	700_6	711_f	740_8
630_8	651_4	700_8	711_g	740_h
630_9	651_6	700_b	711_h	740_n
630_d	651_8	700_c	711_i	740_p
630_e	653_first	710_first	711_j	850_first
630_f	653_second	710_second	711_k	850_second
630_g	653_a	710_0	711_l	850_a
630_h	653_6	710_3	711_m	850_b
630_k	653_8	710_4	711_n	850_d
630_m	690_first	710_5	711_p	850_e
630_n	690_second	710_6	711_q	850_8
630_o	690_2	710_8	711_s	856_first
630_p	690_a	710_a	711_t	856_second
630_r	690_v	710_b	711_u	856_q
630_s	690_x	710_c	711_x	856_u
650_first	690_y	710_d	730_first	856_y
650_second	690_z	710_e	730_second	856_z
650_0	700_first	710_f	730_0	856_3
650_2	700_second	710_g	730_3	856_2
650_3	700_3	710_h	730_5	856_6
650_4	700_4	710_i	730_6	856_8
650_6	700_5	710_k	730_8	856_a
650_8	700_a	710_l	730_9	856_b
650_a	700_d	710_m	730_a	856_c
650_b	700_e	710_n	730_d	856_d
650_c	700_f	710_o	730_f	856_f
650_d	700_g	710_p	730_g	856_h
650_e	700_h	710_r	730_h	856_i
650_g	700_i	710_s	730_i	856_j
650_v	700_j	710_t	730_k	856_k
650_x	700_k	710_u	730_l	856_l
650_y	700_l	710_x	730_m	856_m
650_z	700_m	711_first	730_n	856_n
651_first	700_n	711_second	730_o	856_o
651_second	700_o	711_0	730_p	856_p
651_a	700_p	711_3	730_r	856_r

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856_s	995_a	description	created_by	deleted_by
856_t	barcode	material_type	modified_by	view_count
856_v	cover	tenses	verified_by	download_cou
856_w	book	book_categor	verified_statu	nt
856_x	keyword	y	s	file_size
995_first	page_name	created_date	status	
995_second	page_no	updated_date	delete_status	

240_n	240_o	240_p	245_first	245_second	245_6	245_6	245_a	245_b1
a:1(0:s:0...)	a:1(0:s:0...)	a:2(0:s:1"1":1:s:1"1")	a:2(0:s:1"0":1:s:1"0")	a:2(0:s:0...:1:s:0...)	a:2(0:a:2(0:s:0...:1:s:0...):1:a:2(0:...	a:2(0:s:47:"நா நார்த்த தீபிகை":1:s:20:"Nā nar...	a:2(0:s:0...:1:s:0...)	
a:1(0:s:0...)	a:1(0:s:0...)	a:2(0:s:1"1":1:s:1"1")	a:2(0:s:1"0":1:s:1"0")	a:2(0:s:0...:1:s:0...)	a:2(0:a:2(0:s:0...:1:s:0...):1:a:2(0:...	a:2(0:s:122:"பரணவ வித்யா பரிமளம் எண்கூடம் ஒங்கா...	a:2(0:s:77:"நாரணு வேதப் பிரமாணங்கூடன்":1:s:...	
a:1(0:s:0...)	a:1(0:s:0...)	a:2(0:s:1"1":1:s:1"1")	a:2(0:s:1"0":1:s:1"0")	a:2(0:s:0...:1:s:0...)	a:2(0:a:2(0:s:0...:1:s:0...):1:a:2(0:...	a:2(0:s:62:"சைவ நித்தியா நுஷ்டாண்ம":1:s:30:"C...	a:2(0:s:170:"நுழி மிரந்த விபிகளில் மந்திரங்கூ...	
a:1(0:s:0...)	a:1(0:s:0...)	a:2(0:s:1"1":1:s:1"1")	a:2(0:s:1"0":1:s:1"0")	a:2(0:s:0...:1:s:0...)	a:2(0:a:2(0:s:0...:1:s:0...):1:a:2(0:...	a:2(0:s:152:"பஞ்சாக்ஷர அஷ்டாக்ஷர மந்திரா...	a:2(0:s:0...:1:s:0...)	
a:1(0:s:0...)	a:1(0:s:0...)	a:2(0:s:1"1":1:s:1"1")	a:2(0:s:1"0":1:s:1"0")	a:2(0:s:0...:1:s:0...)	a:2(0:a:2(0:s:0...:1:s:0...):1:a:2(0:...	a:2(0:s:66:"தொண்டரடிப்பொடியாழ்வார்":1:s:32"...	a:2(0:s:0...:1:s:0...)	
a:1(0:s:0...)	a:1(0:s:0...)	a:2(0:s:1"1":1:s:1"1")	a:2(0:s:1"0":1:s:1"0")	a:2(0:s:0...:1:s:0...)	a:2(0:a:2(0:s:0...:1:s:0...):1:a:2(0:...	a:2(0:s:45:"திருமங்கைமன்னன்":1:s:24:"Tirumank...	a:2(0:s:0...:1:s:0...)	
a:1(0:s:0...)	a:1(0:s:0...)	a:2(0:s:1"1":1:s:1"1")	a:2(0:s:1"0":1:s:1"0")	a:2(0:s:0...:1:s:0...)	a:2(0:a:2(0:s:0...:1:s:0...):1:a:2(0:...	a:2(0:s:42:"குலசேகராழ்வார்":1:s:19:"Kulacakar...	a:2(0:s:0...:1:s:0...)	
a:1(0:s:0...)	a:1(0:s:0...)	a:2(0:s:1"1":1:s:1"1")	a:2(0:s:1"0":1:s:1"0")	a:2(0:s:0...:1:s:0...)	a:2(0:a:2(0:s:0...:1:s:0...):1:a:2(0:...	a:2(0:s:33:"நும்மாழ்வார்":1:s:14:"Nammāḷḅār"...	a:2(0:s:0...:1:s:0...)	
a:1(0:s:0...)	a:1(0:s:0...)	a:1(0:s:1"1")	a:1(0:s:1"0")	a:1(0:s:0...)	a:1(0:a:1(0:s:0...))	a:1(0:s:18:"கம்பர்")	a:1(0:s:0...)	

245_b2	245_c	245_f	245_g	245_h	245_k	245_n	245_p	245_s	246_first	246_second	246_5	246_6
a:2(0:s:0...:1:s:16:"Nanartha Dipikai")	a:2(0:s:447:"திருநெல்வேலி கவிராயர் முத்துகவாயி...	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:1(0:s:1"1")	a:1(0:s:1"1")			
a:2(0:s:0...:1:s:0...)	a:2(0:s:601:"இது சித்தாந்த சைவசரயம் சோளங்கிபு...	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:1(0:s:1"0")	a:1(0:s:1"1")			
a:2(0:s:0...:1:s:0...)	a:2(0:s:594:"இது சித்தாந்த சைவசரயம் சோளங்கிபு...	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:1(0:s:1"0")	a:1(0:s:1"1")			
a:2(0:s:0...:1:s:0...)	a:2(0:s:316:"இது சித்தாந்த சைவ சரயம் சோளங்கிபு...	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:1(0:s:1"0")	a:1(0:s:1"1")			
a:2(0:s:0...:1:s:0...)	a:2(0:s:84:"ஆ. பாஷ்யம் ஜயங்கர் எழுதியது"...	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:1(0:s:1"0")	a:1(0:s:1"1")			
a:2(0:s:0...:1:s:0...)	a:2(0:s:94:"இது ஆ. பாஷ்யம் ஜயங்கர் எழுதியது..."	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:1(0:s:1"0")	a:1(0:s:1"1")			
a:2(0:s:0...:1:s:0...)	a:2(0:s:84:"ஆ. பாஷ்யம் ஜயங்கர் எழுதியது"...	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:1(0:s:1"0")	a:1(0:s:1"1")			
a:2(0:s:0...:1:s:0...)	a:2(0:s:84:"ஆ. பாஷ்யம் ஜயங்கர் எழுதியது"...	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:s:0...:1:s:0...)	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:2(0:a:1(0:s:0...:1:a:1(0:s:0...))	a:1(0:s:1"0")	a:1(0:s:1"1")			

#### 8.8.8 Development of Hybrid Mobile App

- 1) To integrate easy to use Tamil Digital Library Application for easily managing overall content of the website.
- 2) Mobile App (both Android and iOS) & Portal shall be developed for general users & TVA with industry standard User Interfaces and new technological design patterns.
- 3) To provide information to users with minimum number of clicks.
- 4) The design of Application should be robust, scalable, interoperable, modular so that it can be integrated with other TVA's applications / portals.
- 5) An interactive dashboard shall be developed which contain various data analytics and reports based on data collected through Apps & APIs. Dashboard layout e.g. graphs, chart, visual, comparison piechart etc. shall be finalized during the requirement gathering phase and it may change as and when required.
- 6) The end user Dashboard shall also be containing various reports like total number of resource watching, resource status wise report etc.
- 7) End to end integration (via APIs) & API testing of Mobile App & Portal with Tamil Digital Library Application.
- 8) Application shall be hosted in cloud and security auditing shall be done by Successful Bidder. The Successful Bidder shall also be responsible for server monitoring.
- 9) The Successful Bidder shall ensure 99% uptime and will take immediate action in case of bugs related to the application. The Successful Bidder shall ensure that in a given instance, the system should not be down for more than 4 hours.
- 10) The Successful Bidder shall address device compatibility / responsive forms related issues.

- 11) The Successful Bidder shall be responsible for testing of patches / application.
- 12) The Successful Bidder shall fix security vulnerabilities whenever any issue occurs.
- 13) The Successful Bidder shall be responsible for patch deployment on production server.
- 14) The Successful Bidder shall keep & provide up-to-date source codes and necessary documentation in repositories (like GITLAB etc.) as identified by TVA or whenever any modification is made. The source codes shall comprise of Android App, iOS App & Portal. Apps shall be released through code available on repository only. Apps releases shall be managed by Successful Bidder however if TVA wishes to manage the same itself, then the Successful Bidder shall provide all necessary support in complete release process.
- 15) The Successful Bidder shall be responsible for version control & management of the App & Portal source code.
- 16) The Successful Bidder shall provide a walk-through of App whenever there is any update made to them.
- 17) The Successful Bidder shall provide data management like storage monitoring on all VMs, backup, purging, archiving, retrieving etc. optimizing database for optimum utilization of available infrastructure.
- 18) Successful Bidder shall maintain and provide month-wise data to TVA in geo-spatial format, raw & processed logs. Successful Bidder shall also provide ad-hoc reports to TVA as when required.

#### 8.8.9 Common guidelines to be adopted

The following guidelines must be adhered to, in the development / customization of the solution, especially the final, published website:

- 1) World Wide Web Consortium (W3C) standards

- 2) Guidelines for Indian Government Websites (GIGW)
- 3) Content Management Framework for Government Websites
- 4) National e-Governance Service Delivery Assessment (NeSDA) criteria such as: accessibility (i.e., people with disabilities can perceive, understand, navigate, interact, and contribute through web)
- 5) Open Web Application Security Project (OWASP) and CERT-In guidelines
- 6) ISO/IEC 29100:2011 Information technology — Security techniques — Privacy framework
- 7) UI/UX principles such as the Norman-Nielsen Heuristic Evaluation criteria

### 8.9 Development Team

- 1) The successful bidder must deploy one project manager (as described in section 4.2 of this RFP) who coordinates with TVA, the department, and the rest of the development team with resources whose profiles have been submitted as mentioned in section 4.2, for this project. This manager must possess decision making authority within the successful bidder's team / organization.
- 2) This manager must be deployed throughout the entire contract period (development, free warranty) for coordination with the stakeholders, monitoring the iterative development, and ensuring completion of KT to the support team (Refer to section 8.9.5).
- 3) The development personnel must be assigned full-time to this project. The team members must make themselves available onsite if it is required by TVA.
- 4) The team members deployed should continue till the final go-live and in extreme cases where there is a need for replacement of resources, the successful bidder must deploy similar/higher skilled resources with prior approval from TVA.

## 8.10 Deliverables

This project comprises the following deliverables: a customized content management system framework / platform customized to develop the Integrated Digital Archival Management System & Portal including Hybrid Mobile App, and a support team post Go-Live.

### 8.10.1 TVA's Integrated Digital Archival Management System & Portal including Hybrid Mobile App

The TVA's Integrated Digital Archival Management System & Portal including Hybrid Mobile App, with content as described in section 8.3, with domain names as [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in) and [www.tagavalaatrappadai.in](http://www.tagavalaatrappadai.in). The successful bidder needs to revamp the websites and merge the data by combining the above two websites into one new website as [www.tamildigitallibrary.in](http://www.tamildigitallibrary.in) and also Hybrid mobile App (Android and iOS). This is the final deliverable or outcome of this project as visible to the public / citizens. It needs to be well designed, easy to navigate, with the prime motive to make it easy for users (citizens) of diverse technology proficiency levels to seek information in the Digital Library. This portal must be bilingual (Tamil and English) with Unicode support.

### 8.10.2 Support team

- 1) After the go-live of the web portal, the successful bidder should support the portal during free warranty for 12 months and O&M support for 24 months. The cost of support team for a period of 12 months and O&M period is part of the financial bid. The number of resources required could vary and it is advised that the bidder maintain the necessary resource pool if additional resources were to be required. The O&M support may be extendable as mentioned the price discovery section in this RFP.

- 2) The successful bidder must continuously support the team with necessary technical and domain specific knowledge of the company to enable them to perform their duties as per requirement of this RFP.
- 3) The successful bidder would ensure that there is no change in the support team. However, TVA may ask for the replacement of any resource due to reasons such as behavioral issues, quality & timeliness of deliveries, etc.
- 4) In case any of the support team members are to be replaced, the successful bidder must ensure that proper handover process is completed and must send the confirmation mail to TVA with the checklist in a timely manner.
- 5) Refer to section 11, 'SLA Monitoring' for quantitative details as per the SLA.

## 9 Activities

### 9.1 Application study and analysis of requirements

The successful bidder would be required to study the requirement for TVA – Integrated Digital Archival Management System & Portal including Hybrid Mobile App development. They shall analyze these requirements and ensure they are complete, accurate, consistent, and unambiguous.

Post the detailed study, they will suggest development and re-engineering of the solution as required, and vet the functionality of the proposed applications with TVA before beginning the design of the system. The structure of the portal needs to be built based on the wireframes, provided by the TVA team.

### 9.2 Solution design

Based on the requirements study and the wireframe, the design and customization of the solution would be done by the successful bidder.

Below is an indicative list of documentation to be prepared as part of this phase:

- 1) Detailed design document detailing technical architecture (application, network, and security)
- 2) Data architecture, interface architecture and integration architecture, appropriate load balancing and clustering techniques adopted in the solution design for meeting the requirements of the RFP.
- 3) SRS document meeting the standards specified in this RFP. The SRS shall be validated and approved by the TVA for all subsequent phases of application development and deployment from an application requirements perspective.
- 4) The successful bidder is required to keep all such documentation up to date to reflect the latest enhancements/modifications made to the application.
- 5) The successful bidder is required to catalog each tech stack component (open source and third-party) and seek explicit approval from TVA.

### 9.3 Application development

- 1) The successful bidder would be responsible for developing, customizing, testing, and implementing the end-to-end web applications. The application developed would be evaluated against the SRS as approved by TVA.
- 2) The successful bidder will be required to deliver the overall application including the website, and their documentation in line with best standards.
- 3) The development should comply with relevant standards on data, security, industry best practices on coding and documentation.

- 4) The successful bidder will need to check-in the latest version of the complete source code, UI artefacts and other documents to the TVA servers daily or as mutually agreed in writing.

#### 9.4 Application testing & user acceptance testing

Once the application development has been completed by the successful bidder, they will thoroughly test the application at their end for user acceptance, including Unit Testing, Integration Testing, System Testing and Performance / Load testing. The successful bidder has to carry out the performance / load testing within the project cost (bid price) itself. The approved design documents will be used as inputs for this activity.

##### 1) Unit Testing

- a) This will be done in parallel to the development work. The test cases, test matrix and screenshots of the test results will be submitted to TVA.

##### 2) Integration Testing

- a) The successful bidder should thoroughly test the web portal for functional testing and integrated testing as per the standards and proven methodologies. A report of the integration testing with screenshots shall be submitted to TVA at the time of submission of UAT test cases.

##### 3) Performance Testing

- a) The successful bidder will conduct performance testing on many industry standard performance testing parameters. The load testing should be done for 15,000 concurrent users for the portal. At the time of requirement sign off, the successful bidder may provide their study results for the number of users of the proposed system. The successful bidder shall incorporate the changes/suggestions that come out of load testing/ audit results.

#### 4) UAT Server Installation

- a) The successful bidder must install the web portal on their server for the UAT purpose.

#### 5) User Acceptance Testing (UAT)

- a) The successful bidder shall design detailed procedures for user acceptance and develop a UAT plan in consultation with TVA.
- b) The successful bidder shall thoroughly test the application at bidder's premises for functional testing and integrated testing as per the standards and proven methodologies. Test cases and test reports of the Unit and Integration testing shall be submitted when requested by TVA.
- c) For UAT, the bidder shall install the application in a staging server and publish the test link. Test cases for UAT shall be provided by the successful bidder in consultation with TVA. TVA would share bugs report with the bidder. The bugs may be prioritized by TVA based on their severity. The bidder shall ensure all bugs are resolved and retested.
- d) The changes if any at this stage shall be made in the software without any additional cost. The UAT shall be completed, and Signoff shall be obtained from TVA.

#### 9.5 Release management

The successful bidder should maintain the source code and other artifacts in a repository system. Every release, the release build along with its release note should be maintained the repository. Anytime, the production environment can be rolled back to any of its previous versions without any difficulty.

## 9.6 Training

The successful bidder will be responsible for training the users of the web portal and the content management system. A comprehensive planning of the capacity building program is fundamental as it has direct association with the success of the overall implementation. For training to be considered effective, sufficient high-level as well as important, specific objectives need to be set, and monitored at periodic intervals. An overall plan for capacity building for the department must be prepared based on the training objectives. The successful bidder should work this out with proper schedule and submit it as part of the overall project plan.

The major components of capacity building and training programs are:

- 1) Identification of the different users who need to be trained.
- 2) Identification of the training objectives as per the user roles / types (e.g. 'training the trainer' modules, modules customized to those with limited technological familiarity).
- 3) Planning and scheduling the location, number, duration of trainings, etc.
- 4) Using a hands-on, well-designed training methodology with excellent training materials for aid.
- 5) Preparation of neat, intuitive, self-explanatory, and well-crafted training materials (documentations, tutorial videos, assignments, etc.), help files, etc. in both Tamil, and English.
- 6) Providing the required training materials, manuals, and help files in both soft and hard copies during the training session for all trainees.
- 7) Conducting the training programs both for direct usage and to train trainers.
- 8) Getting feedback and closing the feedback loop.
- 9) Instructions on how to get help after the training as well.
- 10) Addressing the user issues and resolving them as and when required.

The venue will be provided by TVA office being trained. The bidder must ensure that the venues have the required audio/visual communication tools and internet connectivity, and make appropriate arrangements in the event that those are not available.

### 9.7 Pilot run

The UAT-passed applications shall then be launched as a pilot operation. The changes, if any, at this stage shall be made in the software without any additional cost. The bugs, if any, at this stage should be fixed. The following requirements should be standardized during this phase:

- 1) Number of peak sessions and concurrent sessions, number of peak users and concurrent users
- 2) Application response time when peak number of users connected
- 3) Network bandwidth utilization and throughput
- 4) Server configuration parameters tuning
- 5) Any other parameters which determine application reliability and scalability
- 6) At this stage, if the successful bidder finds that there are more concurrent users than the target set in SLA, the SLA target may be amended upon mutual understanding, and the same may be incorporated in the MSA.

### 9.8 Software freezing

After UAT and Pilot testing, the software shall be finalized for all the standardized parameters. The applications shall be ready for rollout.

### 9.9 Rollout

After the UAT and Pilot run, the successful bidder shall ensure that all the phases are rolled out within the agreed timeframe.

After successful rollout, the applications must be handed over to TVA for back-up purpose.

### 9.10 Production deployment

The successful bidder shall install the web portal in the production servers. The successful bidder shall finalize the architecture and server configuration and submit them to TVA for validation and approval. The successful bidder shall install the operating system, the database and web services, the application servers and services and support and install the necessary software required. The web server/middle ware servers shall be configured for the parameters standardized during the UAT and pilot. The application shall be replicated from staging server.

Any modification or corrections in the platform should be done in the staging server and pushed into the production server after testing. The application should comply with the standards as mentioned in this RFP.

### 9.11 Data retention

- 1) During pilot implementation, application and related processing data should be captured.
- 2) On state-wide rollout, the data captured during pilot implementation should be migrated to the new infrastructure.
- 3) The frequency of archival should be customizable.

### 9.12 Data backup and disaster recovery

- 1) Ensure real time data backup, i.e., back up each transaction immediately after it occurs on the system server.
- 2) The system server should be able to recover the data, with rollback capability, in case of any system or communication failure.
- 3) Implement Disaster Recovery with adequate data backup, business continuity and restoration procedures for all Data (including, but not limited to, the database, attachments and all other data elements created in and generated by the system and users).

- 4) The DR site will be hosted at the state DR site at Tiruchirappalli / on Cloud. The successful bidder must ensure implementation of the Hot DR. In case of primary failure, the access to the server and the portal available in DR site must happen without manual interventions, or with minimal manual interventions if required. The successful bidder must ensure this switch over activity happens in less than an hour and provided with the availability of last successful transaction data that happened at the primary data centre / Cloud.

### 9.13 IT Infrastructure Setup

- 1) The successful bidder should evaluate the requirements and size the H/W and S/W, network, network bandwidth for hosting the solution. The successful bidder should suggest if any additional hardware required in this regard with necessary supporting documents/reports. The requirement will be validated by TVA based on which the procurement will be done. The successful bidder must take care of the IT infrastructure for the development and UAT Phases. For the production environment, TVA will procure the necessary H/W and the successful bidder will support the installation, commissioning and other deployment activities with the OEMs and other stakeholders.
- 2) The successful bidder shall be responsible for hosting the TVA Digital Library web portal. The hosting will be done in the TN State Data Center / on Cloud and bidder would be responsible for arranging all the necessary software (other than State Data Center / Cloud infrastructure and DR), licenses etc. for hosting the application.
  - a) The proposed solution should provide the following without compromising in the quality & performance of the services:
    - i) High Reliability
    - ii) High Availability (24\*7\*365) i.e., >99% Server Uptime

- iii) High Scalability (15,000 concurrent users) with load balancing & clustering as per the need.
- iv) High Performance (The proposed solution should work even with low bandwidth connections)
- v) Other aspects as mentioned in section 11 of this RFP.
- b) The successful bidder shall deploy, commission, and configure the software (application, database, monitoring, etc.), servers and networks for the staging and production environment.
- c) The successful bidder must migrate data from existing applications / servers as needed.
- d) Additionally, they must test the environment before Go-Live.
- e) The successful bidder should also support the content management and training activities. The bidder shall ensure that the deployment strategies and solutions for the CMS, the web portal should work on any hardware.

#### 9.14 Implementation and support

The successful bidder's responsibilities during the implementation and support phase would include:

- 1) Implementation and commissioning of the applications
- 2) Providing technical support to resolve any issues logged by internal and external stakeholders. The tool used for issue-tracking and resolution will need to be approved by TVA.
- 3) Engaging in patch management, testing and installation of software upgrades issued by the OEM/vendors from time to time.
- 4) Monitoring of application activity/performance and periodic reporting with respect to adherence to SLAs.

### 9.15 Software change management

This phase includes making enhancements / modifications to the applications (the CMS, web portal), arising from changes in legislation or regulations, change in user requirements, or any other factor.

- 1) Any change to the application from the system requirements specification document must be agreed and signed-off by TVA.
- 2) The successful bidder is expected to adopt the relevant procedures, protocols, and standards of a mature Software Development Life Cycle (SDLC) including (but not limited to) the following for any enhancement / amendment done to the application during the project:
  - a) Feasibility study / Proposal for change
  - b) Requirement study
  - c) Design
  - d) Development
  - e) Unit and Integration testing
  - f) User acceptance testing
  - g) Pilot launch
  - h) Incorporation of from pilot rollout changes
  - i) Rollout
- 3) Before proceeding to the next phase, the successful bidder shall ensure that they obtain formal approval from TVA for the deliverables (including documentation).
- 4) Even for enhancements/amendments to the application, the successful bidder will be required to prepare all documentation applicable as otherwise done for the application as per industry standards. This includes (but not limited to):
  - a) Design documents
  - b) Test documents
  - c) Change request logs

- 5) Preparing at-least the following documentation as per industry standards at the implementation stage:
  - a) Software installation guide
  - b) Application release documents
  - c) User manuals & training manuals
  - d) Detailed documentation of any changes to the application including proposed changes, impact to the system in terms of functional outcomes/additional features added to the system, etc.
- 6) Change requests, wherever applicable are to be handled by the successful bidder as detailed in section 12. The successful bidder must continuously support these members with necessary technical and domain specific knowledge of the company and enable them to perform their duties as per requirement of this RFP. (Refer to section 12 for further details.)

#### 9.16 Software documentation

- 1) An indicative list of documents to be developed and maintained by the successful bidder for various activities is mentioned above.
- 2) All documentation should be prepared as per latest industry standards and should incorporate necessary version control mechanism.

#### 9.17 Software configuration management and project management

- 1) The successful bidder must employ suitable and proven software(s) for configuration and project management practice, such as GitHub, Jira, or others. This would include the software documentation that the successful bidder must maintain and share, as well as issue tracking systems.

#### 9.18 Security Audit

- 1) The security audit shall be carried out by the empaneled vendors of TNeGA.
- 2) The successful bidder should resolve the issues (Non-Conformity) reported by the IT security audit agency (TNeGA/empaneled vendors).

- 3) After the compliance certificate is issued by the IT security audit agency, the website will be deployed in the SDC / Cloud environment. The cost of security audit shall be borne by TVA.
- 4) Generating the CSR, obtaining the SSL and other related activities pertaining to installation & maintenance of SSL certificate belong to successful bidder. The payment for the procurement of SSL will be made by TVA.

## 9.19 Free Warranty, and Operations & Maintenance

### 9.19.1 Duration of Free Warranty, Operations & Maintenance

- 1) The successful bidder should maintain the Integrated Digital Archival Management System & Portal and the content for the entire contract period of 42 months – 6 months of development period, 12 months of Free Warranty period from the date of Go-live and 24 months O&M after completion of Free warranty.
- 2) The contract is extendable by another 2 years (called the Operations & Maintenance period – O&M). The successful bidder should submit a price discovery for the same.

### 9.19.2 Scope of work during Free Warranty, Operations & Maintenance

In brief, the scope of work for free warranty and Operation & Maintenance consists of comprehensive regular timely operations, maintenance, CR implementation, H/W and S/W installation & support, commissioning of H/W and S/W components, managing the system alerts & events etc. activities related to information gathering, analysis, etc.

During the period of free warranty and O&M, the following detailed activities should be performed one or more times based on the requirement. For the below activities, all human resources required are to be maintained and managed separately by the successful bidder.

Apart from the above the following detailed activities should be performed one or more times based on the requirement:

- 1) Bug fixes and updates to the asset or the underlying software / hardware stack.
- 2) Regular monitoring and maintenance of entire stack for optimal performance – applications, databases, and servers.
- 3) SLA reporting – periodic reporting (weekly/monthly/quarterly) on the users, usage, transactions, activities, system performance, application response and allied, preferably along with a dashboard.
- 4) Generation of adhoc reports requested by Government and other departments.
- 5) Addition/Removal/Update of content (static or dynamic) or layers including its authoring; where content includes, but is not limited to: Web pages, Style sheets, Images, Audio, Video, Maps, Animation, Scripting, AJAX interfaces, Flash interfaces/content etc. and authoring includes but is not limited to: capturing, development, testing, processing etc.
- 6) Replacing any content (photos, videos, text etc.) derived from public domain with the official content as and when they are developed or made available for a given asset.
- 7) Server-side activities required for proper functioning, but not limited to: configuration, fine-tuning, optimization, scripting, and addition/soft deletion/update of features for the applicable web server(s), application server(s), database server(s) etc.
- 8) Feedback-based continuous improvement
- 9) Identification of preventive and corrective measures with respect to the changes occurring
- 10) Maintain a log for the operations being done which can be used for further action.
- 11) BCP management

During the O&M period, the successful bidder will also carry out the above activities for any additional software component developed through the Change Request/ New feature development team.

### 9.20 List of Deliverable Artefacts

The successful bidder shall deliver/update the artefacts relevant at each milestone. The list of artefacts include:

- 1) Project Plan and Schedule along with the Project implementation timeline
- 2) Requirement Traceability matrix
- 3) Software Requirement Specifications (SRS)
- 4) UI Design and Wireframes
- 5) Design documents
- 6) Database Design documents
- 7) Data Mapping documentation
- 8) Documentation of steps involved in data modeling, data transformation, data pre-processing, and data validation
- 9) Documentation of the steps involved in building the analytics / arriving at the KPIs
- 10) Use cases, Test cases, Test reports
- 11) Bug fixing report
- 12) Incident / Issue Resolution Reports
- 13) CR Reports
- 14) System tuning and Patch update
- 15) Application usage report including analytics
- 16) User Manuals, Help files, training materials and trainings
- 17) Backup, restore procedure
- 18) SOP (Standard Operating Procedures) for O&M
- 19) Application Deployment Plan

- 20) Source code (complete software source code with versions incl. the latest version used at Go-Live, for further enhancements as and when required)
- 21) Configuration file in case of a customized product-based solution
- 22) Database data Backup
- 23) SLA dashboard reports
- 24) Minutes of the Meetings
- 25) All Data and documents related to the software
- 26) Other artefacts as required by TVA
- 27) Issue tracking and action-taken reports

## 10 Implementation Timelines

The implementation timelines for Integrated Digital Archival Management System & Portal including Hybrid Mobile App are as follows. The Successful Bidder must strictly adhere to the specified timelines. (Please note that the timelines are measured from the time the contract is awarded).

S No	Milestone	Duration	Milestone timeline	Cumulative timeline
0.1	Award of Contract (LOA)	-	T0	
0.2	Provide performance Bank guarantee, signing of contract and issue of work order	2 weeks	T1 = T0 + 2 weeks	T0 + 2 weeks
<b>1</b>	<b>Milestone A: SRS Sign off and Wireframes</b>			
1.1	SRS Sign off and Wireframes	2 weeks	T2 = T1 + 2 weeks	T0 + 4 weeks
<b>2</b>	<b>Milestone B: Launch the TVA Digital Library web portal</b>			
2.1	Complete development of the	12 weeks	T3 = T2 + 12	T0 + 16

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	Integrated Digital Archival Management System & Portal including Hybrid Mobile App (including the chatbot).		weeks	weeks
2.2	1) Data migration 2) UAT 3) Security Audit	4 weeks	$T4 = T3 + 4$ weeks	$T0 + 20$ weeks
<b>3</b>	<b>Milestone C: Launch (Pilot, Go Live)</b>			
3.1	Pilot Launch	3 weeks	$T5 = T0 + 3$ weeks	$T0 + 23$ weeks
3.2	Launch	1 week	$T6 = T5 + 1$ week	$T0 + 24$ weeks
<b>4</b>	<b>Milestone D: Free-Warranty for 12 months</b>			
4.1	Free-Warranty for 12 months	12 months	$T7 = T6 + 52$ weeks	$T0 + 76$ weeks (1 yr + 6 months)
<b>5</b>	<b>Milestone E: O &amp; M for 24 months</b>			
4.1	Operation & Maintenance for 24 months	24 months	$T8 = T7 + 104$ weeks	$T0 + 180$ weeks (3 yr + 6 months)

## 11 SLA Monitoring

### 11.1 Service Level Agreement

- 1) The web portal should be developed, deployed and hosted at the State Data Center (SDC) / Cloud server. Necessary application-level support and client level support shall be required when issues are reported by TVA.
- 2) SLA will be monitored during the Free Warranty (and O&M) post Go-Live.
- 3) The Successful Bidder shall ensure application uptime, responsiveness and resolution of issues reported are within the acceptable limits as set forth in section 11.2.
- 4) The Successful Bidder will maintain logs for the entire contract period.
- 5) The Successful Bidder must develop the required tool and an SLA Dashboard to monitor and visualize the SLA parameters. This development must be completed before the beginning of the free warranty period.
- 6) The sections below list the SLA parameters and quantify penalty for any breaches.

### 11.2 Application Availability and Performance SLAs

<b>Description</b>	<b>Baseline</b>	<b>Severity Level 1 Breach</b>	<b>Severity Level 2 Breach</b>	<b>Severity Level 3 Breach</b>	<b>Severity Level 4 Breach</b>
<b>Availability of Application</b>	99%	<99% and ≥98%	<98% and ≥96%	<96% and ≥95%	<95%

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<p>(Any failure due to external factors or scheduled downtime is not part of the SLA but the bidder is required to document these external failures and provide documentary evidence when asked for)</p>					
<p><b>Application Performance SLA</b></p> <p>Average Response Time for any user interaction (Excluding the time taken by the external system)</p>	<p>&lt;=2 seconds for 99% of the requests</p>	<p>&lt;=2 seconds for 98% of the requests</p>	<p>&lt;=2 seconds for 96% of the requests</p>	<p>&lt;=2 seconds for 95% of the requests</p>	<p>&lt;=2 seconds for less than 95% of the requests</p>
<p><b>Support Resolution SLA – P1</b></p> <p>Time taken to fix a P1 defect once reported</p> <p>P1: A defect which results in users not being able to complete the service transaction / activity</p>	<p>16 hrs</p>	<p>&gt;16 hrs and &lt;=24 hrs</p>	<p>&gt;24 hrs and &lt;=48 hrs</p>	<p>&gt;48 hrs and &lt;=72 hrs</p>	<p>&gt;72 hrs</p>

<b>Support Resolution SLA – P2</b>	48 hrs	>48 hrs and <=72 hrs	>72 hrs and <=96 hrs	> 96 hrs and <=120 hrs	>120 hrs
<p>Time taken to fix a P2 defect once reported</p> <p>P2: A defect which impacts the functionality, services/information are delivered at a sub-optimal level or workaround for the identified issue is not possible without significant inconvenience to the users or loss of required functionality</p>					

**Note:**

- 1) The above SLA parameters and criteria for evaluation apply unless otherwise agreed in writing mutually between TVA and the Successful bidder.
- 2) Additional SLAs may be defined by TVA and agreed upon mutually, in writing, from time to time, to ensure better user experience.

**11.3 SLA Non Compliance and Penalty Calculation**

- 1) The penalty for SLA breaches will be calculated based on the severity level of the breach determined in accordance with the table in 11.2, and levied as % of the milestone payment as set forth in the table below:

*Table 5 Penalty as per Severity of Breach*

<b>Severity Level</b>	<b>Penalty</b>
4	2.0%
3	1.5%
2	1.0%
1	0.5%

- 2) Penalties for SLA non-compliance would be calculated each quarter.
- 3) Penalty for each breach is added up to arrive at the total penalty for the quarter.
- 4) When the cumulative penalty reaches 10% of the total contract value, or when the total penalty during the milestone period reaches 50% of the milestone payment, TVA may terminate the contract due to the non-performance of the successful bidder.
- 5) Penalty shall not be levied if the SLA breach is not attributable to the successful bidder.

## 12 Change Requests

- 1) The successful bidder must continuously support the Integrated Digital Archival Management System & Portal including Hybrid Mobile App with necessary technical and domain specific skilled manpower to enable them to perform their duties as per requirement of this RFP.
- 2) The change requests that may be required for any reason by TVA shall be made in accordance with the procedures to be established by the department in this regard.

- 3) The changes referred to here are the ones that aren't covered in the scope of free warranty & O&M, and do not include changes that may be made within the solution by the admin, such as setting up of new user accounts, configuration management, role management, master data management, performance fine tuning, etc. No additional cost will be paid for such work.
- 4) For adding new features at times, there may be a need for developing new modules or making major changes to the web portal. In case of such change requirements, the development effort for every individual request will be estimated by the SI and sent to the Development Approval Committee (DAC) for review and approval.
- 5) TVA will setup a Development Approval Committee (DAC) which would evaluate all such new / change development proposals and decide whether they can be categorized as 'Change Request'.
- 6) Payment for the change request / newly developed module / component(s) will be made after successful Go Live of the feature on a quarterly basis.

#### 12.1.1 Development Approval Committee (DAC)

- 1) The purpose of this committee is to have a streamlined and auditable process for carrying out enhancements to the web portal and approve the change requests.
- 2) TVA will create the Development Approval Committee (DAC) which includes Functional Experts/ Subject Matter Experts (SME) as advisors and representatives from user departments, to oversee the administration of the Change Requirement / Enhancement / new development and implementation procedures and guidelines.
- 3) The DAC will be authorized to review and approve new / change development requirement proposals and the estimation submitted by

the SI. All decisions of the DAC will be final and binding on all parties involved.

- 4) The effort estimation for the change request development would be mutually agreed between TVA and System Integrator. TVA reserves the right to get the effort estimate validated by an independent agency which will be binding on the System Integrator & TVA
- 5) Any configuration, performance tuning, mitigation of security observation during annual/ periodical audits, minor enhancements required to accommodate patches, upgrades, bugs fixing and other maintenance activities which are required for the continued operation of the project shall not qualify as New / Change Development requirement.
- 6) All the development / customization/ configuration must meet the requirements for security, performance, and ease of use for operations, administration, and management.
- 7) Any report whose data is residing in the portal Application solution, or which can be arrived at by using some logic on the available data will not fall/ qualify as a New Development Request.

### 13 Intellectual Property Rights (IPR)

Except as is otherwise expressly provided in writing in the form of a contract, TVA shall be entitled to all intellectual property and other proprietary rights including, but not limited to, patents, copyrights, and trademarks, with regard to products, processes, inventions, ideas, know-how, or documents and other materials which the Bidder has developed for TVA pursuant to the performance of services under this RFP and which bear a direct relation to or are produced or prepared or collected in consequence of, or during the course of, the performance of services under this RFP, and the Bidder acknowledges and agrees that such products, documents and

other materials constitute works made for hire for the TVA.

To the extent that any such intellectual property or other proprietary rights consist of any intellectual property or other proprietary rights of the Bidder: (i) that pre-existed the performance by the Bidder of its obligations under this RFP, or (ii) that the Bidder may develop or acquire, or may have developed or acquired, independently of the performance of its obligations under this RFP, TVA does not and shall not claim any ownership interest thereto, and the Bidder grants to TVA a perpetual license to use such intellectual property or other proprietary right solely for the purposes of and in accordance with the requirements of this RFP.

At the request of TVA, the Bidder shall take all necessary steps, execute all necessary documents and generally assist in securing such proprietary rights and transferring or licensing them to the TVA in compliance with the requirements of the applicable law and this RFP.

Subject to the foregoing provisions, all maps, drawings, photographs, mosaics, plans, reports, estimates, recommendations, documents, source code and all other data compiled by or received by the Bidder pursuant to the performance of services under this RFP shall be the property of TVA, shall be made available for use or inspection by TVA at reasonable times and in reasonable places, shall be treated as confidential, and shall be delivered only to TVA authorized officials on completion of work under this RFP.

## 14 Review and Monitoring

- 1) The successful bidder would be accountable to TVA for successful implementation of Integrated Digital Archival Management System & Portal including Hybrid Mobile App. TVA will hold regular review meetings

and the successful bidder should report the progress and adhere to the decisions made during the review meetings.

- 2) The successful bidder should appoint the project manager (as mentioned in the section 8.8 'Development Team') as a point of contact from their end for the entire duration of the TVA Digital Library project (for the development, free warranty, and if extended, the O&M phase). This designated member must be in a position of decision-making authority relative to the team deployed for this project. This point of contact must hold monthly review meetings with TVA during the development phase, and quarterly meetings during the free warranty phase, to track the progress of the project, and review and resolve issues that are observed.

## 15 Exit Clause

At the time of expiry of the contract period, as per the contract between the parties, the Successful Bidder should ensure complete knowledge transfer to the new professional(s) replacing them, within a period of 4 weeks. The Successful Bidder will handover the following at the time of exit process:

- 1) All information relating to the work rendered
- 2) The developed web portal / software applications (including the source code, user manuals, software builds, release configuration files and associated scripts, the design and API document) – must be handed over to TVA preferably in a portable drive.
- 3) Project data and confidential information
- 4) All other information including but not limited to documents, records and agreements relating to the services reasonably necessary to TVA or any other agency identified to carryout due diligence in order to transition the provision of services to TVA or any other agency identified
- 5) All properties provided by TVA
- 6) All new and updated deliverables, and shall not retain any copy thereof

## 16 Payment Terms

- 1) No advance payment will be made. Stage-wise payment will be released based on the milestone deliverables completed and approved by TVA.
- 2) Any payment due to the Successful Bidder will be released within 30 days from the date of receipt of bills along with acceptance from TVA.
- 3) The TDS amount, and penalty if any, will be deducted from the payment of Successful Bidder.
- 4) The taxes as applicable during the contract period as specified in the tender will be paid by TVA. In case the taxes have been reduced retrospectively, the Successful Bidder shall be liable to return the same to TVA.
- 5) The Successful Bidder shall have full and exclusive liability for payment of all taxes and other statutory payments payable under any or all the Statutes/Laws/Acts etc., now or hereafter imposed. TVA will not be responsible or liable for defaulting on payment of taxes to the statutory authorities.
- 6) All taxes and other levies imposed by Governments of India will be paid at actual as applicable.
- 7) All Payments shall be made in Indian Rupees Only.
- 8) The payments will be released in stages as follows.

### 16.1 Payment for Software Development Charges

S. No	Milestone Activity	Fee	Basis of Approval
1	<b>Milestone A1: SRS Sign off and Wireframes</b>		
1.1	a) SRS Sign off & Wireframes	10% of Software Development cost	On approval of TVA
2	<b>Milestone A2: Launch the Integrated Digital Archival Management System &amp; Portal including Hybrid Mobile App</b>		
2.1	a) Data Migration b) UAT approval	30% of Software Development cost	Copy of UAT Report, On approval of TVA
2.2	a) Security Audit b) Go-live	15% of Software Development cost	Copy of Security Audit Compliance Certificate, On approval of TVA
3	<b>Milestone C: Free-Warranty for 12 Months</b>		
6.1	Free warranty period of 12 months	10% of the Software Development cost will be released end of every quarter	On approval of TVA
	<b>Sub-Total for Software Development Cost</b>	<b>95%</b> of Software Development cost	

- 1) 5% of the project cost will be paid after successful completion of exit clause as per section 15 of RFP.

## 16.2 Payment of O&M Charges

For the O&M period, the payment terms will be as follows:

S. No	Milestone Activity	Fee	Basis of Approval
1	O&M of 24 months after free warranty period	12.5% of the O&M cost will be released end of every quarter	On approval of TVA

## 16.3 Payment for Change Request / New feature development

S. No	Milestone Activity	Fee	Basis of Approval
1	Change requirement / New feature development after final Go-live	Payment will be released end of every quarter based on the work man-days effort approved by the DAC and the feature is live.	On approval of TVA

## 17 Reference standards and Policies

The Integrated Digital Archival Management System & Portal including Hybrid Mobile App must be designed following the Reference standards published by the Government of Tamil Nadu and in line with overall system requirements set out in this RFP, in order to provide for good quality, security and interoperability with multiple platforms.

The Integrated Digital Archival Management System & Portal including Hybrid Mobile App must also comply with the Data Policy published by the Government of Tamil Nadu.

ANNEXURE I: Bank Guarantee Format  
(To be executed in Rs.100/- Stamp Paper)

To  
The Director,  
Tamil Virtual Academy,  
Gandhi Mandapam Road,  
Kottur, Chennai - 600 025.

Bank Guarantee No:  
Amount of Guarantee:  
Guarantee covers from:  
Last date for lodgment of claim:

This Deed of Guarantee executed by ..... (Bankers Name & Address) having our Head Office at .....(address) (hereinafter referred to as "the Bank") in favor of The Director, TVA, registered under Societies Act and wholly owned by Government of Tamil Nadu and having its Registered office at Anna University Campus, Gandhi Mandapam Road, Kottur, Chennai - 600 025. (hereinafter referred to as "the Beneficiary") for an amount not exceeding Rs.\_\_\_\_\_/ - (Rupees \_\_\_\_\_ Only) as per the request of M/s. \_\_\_\_\_having its office address at \_\_\_\_\_ (hereinafter referred to as "successful bidder") against Letter of Acceptance reference \_\_\_\_\_ dated \_\_\_/\_\_\_/\_\_\_\_ of M/s. Tamil Virtual Academy. This guarantee is issued subject to the condition that the liability of the Bank under this guarantee is limited to a maximum Rs.\_\_\_\_\_/ - (Rupees \_\_\_\_\_ Only) and the guarantee shall remain in full force up to \_\_\_ months from the date of Bank Guarantee and cannot be invoked otherwise by a written demand or claim

by the beneficiary under the Guarantee served on the Bank before \_\_\_months from the date of Bank Guarantee.

AND WHEREAS it has been stipulated by you in the said ORDER that the successful bidder shall furnish you with a Bank Guarantee by a Scheduled / Nationalized Bank for the sum specified therein as security for compliance with the successful bidder performance obligations for a period in accordance with the contract.

AND WHEREAS we have agreed to give the successful bidder a Guarantee.

THEREFORE, we (Bankers address)....., hereby affirm that we are Guarantors and responsible to you on behalf of the successful bidder up to a total of Rs.\_\_\_\_\_/ - (Rupees \_\_\_\_\_ Only) and we undertake to pay you, upon your first written demand declaring the successful bidder to be in default under the contract and without any demur, cavil or argument, any sum or sums within the limit of Rs.\_\_\_\_\_/ - (Rupees \_\_\_\_\_ Only) as aforesaid, without your needing to prove or show grounds or reasons for your demand or the sum specified therein. We will pay the guaranteed amount notwithstanding any objection or dispute whatsoever raised by the successful bidder.

This Guarantee is valid until \_\_\_ months from the date of Bank Guarantee. Notwithstanding, anything contained herein, our liability under this guarantee shall not exceed Rs.\_\_\_\_\_/ - (Rupees \_\_\_\_\_ Only). This Bank Guarantee shall be valid up to \_\_\_ months from the date of Bank guarantee and we are liable to pay the guaranteed amount or any part thereof under this Bank Guarantee only and only if you serve upon us a written claim or demand on or before\_\_\_\_\_.

RFP for Design, Development and Maintenance of TVA- Integrated Digital Archival Management System & Portal including Hybrid Mobile App

In witness whereof the Bank, through its authorized Officer, has set its hand and stamp on this.....at .....

Witness:

(Signature)

(Name in Block Letters)

ANNEXURE II: Model Form of Contract

(To be executed on a Rs.100/- Non-Judicial Stamp Paper bought in Tamil Nadu by the successful bidder)

**(NO FIGURES IN NUMERALS OR WORDS SHALL BE FILLED UP IN THIS SAMPLE FORM AT THE TIME OF SUBMISSION OF TENDER)**

This CONTRACT is made at Chennai on the..... day of ..... 2022

BETWEEN

**Tamil Virtual Academy**, registered under the Tamil Nadu Societies Registration Act 1975 and having its Registered Office at Gandhi Mandapam Road, Kottur, Chennai - 600 025, being the Service recipient (hereinafter referred to as "TVA" which expression shall unless repugnant to the context mean and include its successors and assigns) on Behalf of ..... of the FIRST PART.

AND

....., a firm represented herein by ....., aged .....years and having its Registered office at .....(hereinafter referred to as "successful bidder" which expression shall unless repugnant to the context mean and include its successors and assigns) of the SECOND PART.

Whereas, TVA invited a tender vide **tender Ref: tender Ref No: TVA/DIGI/2022-23 for Selection of System Implementation Partner (SIP) for Design, Development and Maintenance of TVA– Integrated Digital Archival Management System & Portal including Hybrid Mobile App** as per the scope of work and the terms and conditions prescribed in the tender document.

Whereas TVA and the successful bidder in pursuance thereof have arrived at the following terms and conditions.

#### NOW THEREFORE

In consideration of the mutual protection of information herein by the parties hereto and such additional promises and understandings as are hereinafter set forth, the parties agree as follows:

#### 1) Purpose

- a. The purpose of this Agreement is to maintain in confidence the various Confidential Information, which is provided between TVA and System Integrator to perform the considerations (hereinafter called "Purpose") set forth in below:

#### 2) Definition

- a. For purposes of this Agreement, "Confidential Information" means the terms and conditions, and with respect to either party, any and all information in written, representational, electronic, verbal or other form relating directly or indirectly to the Purpose (including, but not limited to, information identified as being proprietary and/or confidential or pertaining to, pricing, marketing plans or strategy, volumes, services rendered, customers and suppliers lists, financial or technical or service matters or data, employee/agent/consultant/officer/director related personal or sensitive data and any information which might reasonably be presumed to be proprietary or confidential in nature) excluding any such information which (i) is known to the public (through no act or omission of the successful bidder in violation of this Agreement)
  - i. is lawfully acquired by the successful bidder from an independent source having no obligation to maintain the confidentiality of such information

- ii. was known to the successful bidder prior to its disclosure under this Agreement
  - iii. was or is independently developed by the successful bidder without breach of this Agreement  
(or)
  - iv. is required to be disclosed by governmental or judicial order, in which case successful bidder shall give the TVA prompt written notice, where possible, and use reasonable efforts to ensure that such disclosure is accorded confidential treatment and also to enable the TVA to seek a protective order or other appropriate remedy at TVA' s sole costs.
- b. Confidential Information disclosed orally shall only be considered Confidential Information if: (i) identified as confidential, proprietary or the like at the time of disclosure, and (ii) confirmed in writing within Seven (7) days of disclosure.

### 3) No Licenses

- a. This Agreement does not obligate either party to disclose any particular proprietary information; to purchase, sell, license, transfer, or otherwise dispose of any technology, services, or products; or to enter into any other form of business, contract, or arrangement. Furthermore, nothing contained hereunder shall be construed as creating, conveying, transferring, granting or conferring by one party on the other party any rights, license or authority in or to the Confidential Information disclosed under this Agreement.

### 4) Disclosure

- a. Successful bidder agrees and undertakes that it shall not, without first obtaining the written consent of the TVA, disclose or make available to any person, reproduce or transmit in any manner, or use (directly or indirectly) for its own benefit or the benefit of others, any Confidential

Information save and except both parties may disclose any Confidential Information to their Affiliates, directors, officers, employees or advisors of their own or of Affiliates on a "need to know" basis to enable them to evaluate such Confidential Information in connection with the negotiation of the possible business relationship; provided that such persons have been informed of, and agree to be bound by obligations which are at least as strict as the recipient's obligations hereunder. For the purpose of this Agreement, Affiliates shall mean, with respect to any party, any other person directly or indirectly Controlling, Controlled by, or under direct or indirect common Control with, such party. "Control", "Controlled" or "Controlling" shall mean, with respect to any person, any circumstance in which such person is controlled by another person by virtue of the latter person controlling the composition of the Board of Directors or owning the largest or controlling percentage of the voting securities of such person or by way of contractual relationship or otherwise.

- b. The successful bidder shall use the same degree of care and protection to protect the Confidential Information received by it from the TVA as it uses to protect its own Confidential Information of a like nature, and in no event such degree of care and protection shall be of less than a reasonable degree of care.
- c. TVA shall not be in any way responsible for any decisions or commitments made by successful bidder in relying on TVA's Confidential Information.

#### 5) Return or Destruction of Confidential Information

- a. The parties agree that upon termination/expiry of this Agreement, or at any time during its currency, at the request of the TVA, the successful bidder shall promptly deliver to the TVA the confidential information and copies thereof in its possession or under its direct or

indirect control, and shall destroy all memoranda, notes and other writings prepared by the successful bidder or its affiliates or directors, officers, employees or advisors based on the Confidential Information and promptly certify such destruction.

6) Independent Development and Residuals

- a. Both parties acknowledge that the Confidential Information coming to the knowledge of the other may relate to and/or have implications regarding the future strategies, plans, business activities, methods, processes and or information of the parties, which afford them certain competitive and strategic advantage. Accordingly, nothing in this Agreement will prohibit the successful bidder from developing or having developed for it products, concepts, systems or techniques that are similar to or compete with the products, concepts, systems or techniques contemplated by or embodied in the Confidential Information provided that the successful bidder does not violate any of its obligations under this Agreement in connection with such development.

7) Injunctive Relief

- a) The parties hereto acknowledge and agree that in the event of a breach or threatened breach by the other of the provisions of this Agreement, the party not in breach will have no adequate remedy in money or damages and accordingly the party not in breach shall be entitled to injunctive relief against such breach or threatened breach by the party in breach.

8) Non-Waiver

- a) No failure or delay by either party in exercising or enforcing any right, remedy or power hereunder shall operate as a waiver thereof, nor shall any single or partial exercise or enforcement of any right, remedy

or power preclude any further exercise or enforcement thereof or the exercise of enforcement of any other right, remedy or power.

- 9) This Contract shall remain in force during the Contract period of 42 months as per the Deliverables and Scope of work from the date of signing of this contract. TVA may renew/extend the contract for another 24 months as per the price discovery submitted by the bidder. This may be agreed to by both the parties after completion of initial contract period.
- 10) The successful bidder agrees to deliver the services as per the scope (indicated in section 8) of the tender within the stipulated period prescribed by TVA at the cost arrived at in the PRICE BID. This cost is firm and not subject to enhancement.
- 11) The Contract or any part share of interest in it shall not be transferred or assigned by the successful bidder directly or indirectly to any person or persons whomsoever without the prior written consent of TVA.
- 12) Neither TVA nor the successful bidder shall be liable to the other for any delay or failure in the performance of their respective obligations due to causes, contingencies beyond their reasonable control such as:
  - a) Natural phenomena including but not limited to earthquakes, floods, and epidemics.
  - b) Acts of any Government authority domestic or foreign including but not limited to war declared or undeclared.
  - c) Accidents or disruptions including, but not limited to fire and explosions.
- 13) The RFP document in relation with this RFP shall be deemed to form and be read and construed as part of this Contract. The tender enclosures, the offer submitted by the successful bidder, the finalized Terms and Conditions and the LoA/Work Order respectively will form

part of this contract. Wherever the offer conditions furnished by the successful bidder are at variance with conditions of this contract or conditions stipulated in the RFP document, the final negotiated offer conditions shall prevail over the tender conditions furnished by the successful bidder.

- 14) Liquidated Damages (LD) – as per section 7.9 of this RFP
- 15) Service Level Agreement – as per section 11 of this RFP
- 16) Implementation Timeline– as per section 10 of this RFP
- 17) Intellectual Property Rights (IPR) – as per section 13 of this RFP
- 18) Payment Terms – as per section 17 of this RFP
- 19) The successful bidder shall be liable and/or responsible for the compliance of all Statutory Provisions, especially those relating to Labour Laws in respect of this Contract.
- 20) Any notice from one party to the other given or required to be given hereunder shall be given by either:
  - a) Mailing the same by registered mail, postage prepaid, return receipt requested; or
  - b) Having the same delivered by courier with receipt acknowledged at the address set forth above or with other addresses and to the attentions of such other person or persons as may hereafter be designated by like notice hereunder and any such notice shall be deemed to have been served if sent by post on the date when in the ordinary course of post, it would have been delivered at the addresses to which it was sent or if delivered by courier on the date of acknowledgement of receipt.
- 21) In case of breach of any of the conditions of the contract by the successful bidder during the contract period, TVA reserves the right to recover costs/liabilities arising directly due to such breach from

the successful bidder.

22) Termination of Contract – as per section 7.6 of this RFP

23) Any notice to the Successful Bidder shall be deemed sufficiently served if given or left in writing at their usual or last known place of abode or business.

IN WITNESS WHEREOF the Parties have by duly authorized Representatives set their respective hands and seal on the date first above

Signed by:

(Name and designation) For and on behalf of TVA

(FIRST PARTY)

Signed by:

(Name and designation) For and on behalf of Implementation Partner

(SECOND PARTY)

WITNESSES:

1. (for FIRST PARTY)

2. (for SECOND PARTY)

## ANNEXURE III: Non-Disclosure Agreement

[Company Letterhead]

This AGREEMENT (hereinafter called the “Agreement”) is made on the [day] day of the month of [month], [year], between, Tamil Virtual Academy, on the one hand, (hereinafter called the “Department”) and, on the other hand, [Name of the bidder] (hereinafter called the “bidder”) having its registered office at [Address]

### **WHEREAS**

- 1) The “Department” has issued a public notice inviting various organizations for provision of services under the Total Solution for implementation of e-Governance Project (hereinafter called the “Project”) of the Department;
- 2) The bidder, having represented to the “Department” that it is interested to bid for the proposed Project,
- 3) The Department and the bidder agree as follows:
  - a) In connection with the “Project”, the Department agrees to provide to the bidder a detailed document on the Project vide the Request for Proposal contained in three volumes. The Request for Proposal contains details and information of the Department operations that are considered confidential.
  - b) The bidder to whom this information (Request for Proposal) is disclosed shall:
  - c) Hold such information in confidence with the same degree of care with which the bidder protects its own confidential and proprietary information.
  - d) Restrict disclosure of the information solely to its employees, agents, and contractors with a need to know such information and advice

those persons of their obligations hereunder with respect to such information.

- e) Use the information only as needed for the purpose of bidding for the Project.
- f) The bidder shall have no obligation to preserve the confidential or proprietary nature of any information which:
  - g) Was previously known to the bidder free of any obligation to keep it confidential at the time of its disclosure as evidenced by the bidder's written records prepared prior to such disclosure; or
  - h) Is or becomes publicly known through no wrongful act of the bidder; or
  - i) Is independently developed by an employee, agent or contractor of the bidder not associated with the Project and who did not have any direct or indirect access to the information.
- j) The Agreement shall apply to all information relating to the Project disclosed by the Department to the bidder.
- k) The Department will have the right to obtain an immediate injunction enjoining any breach of this Agreement, as well as the right to pursue any and all other rights and remedies available at law or in equity for such a breach.
- l) Nothing contained in this Agreement shall be construed as granting or conferring rights of license or otherwise, to the bidder, on any of the information. Notwithstanding the disclosure of any information by the Department to the bidder, the Department shall retain title and all intellectual property and proprietary rights in the information. No license under any trademark, patent or copyright, or application for same that are now or thereafter may be obtained by the Department is either granted or implied by the conveying of information. The bidder shall not alter or obliterate any trademark, trademark notice,

copyright notice, confidentiality notice or any notice of any other proprietary right of the Department on any copy of the information and shall reproduce any such mark or notice on all copies of such information.

- m) This Agreement shall be effective from the date of signing of this agreement and shall continue perpetually.
- n) Upon written demand of the Department, the bidder shall (i) cease using the information, (ii) return the information and all copies, notes or extracts thereof to the Department forthwith after receipt of notice, and (iii) upon request of the Department, certify in writing that the bidder has complied with the obligations set forth in this paragraph.
- o) This Agreement constitutes the entire Agreement between the Department and the bidder relating to the matters discussed herein and supersedes any and all prior oral discussions and/or written correspondence or agreements between the two parties. This Agreement may be amended or modified only with the mutual written consent of the parties. Neither this Agreement nor any right granted hereunder shall be assignable or otherwise transferable.
- p) Confidential information is provided "As-Is". In no event shall the Department be liable for the accuracy or completeness of the confidential information.
- q) This agreement shall benefit and be binding upon the Department and the bidder and their respective subsidiaries, affiliate, successors, and assigns.
- r) This agreement shall be governed by and construed in accordance with the Indian laws.

For and on behalf of the bidder

(Signature)

RFP for Design, Development and Maintenance of TVA- Integrated Digital Archival Management System & Portal including Hybrid Mobile App

(Name of the authorized Signatory)

Designation:

Date:

Time:

Seal:

Business Address:

ANNEXURE IV: Self-Assessment of Minimum Eligibility Criteria

(Note: Under the column 'The proof submitted', please write which of the required documentary proofs you are submitting. It is not a Yes/No answer.)

Item No.	Criteria	Description	Documentary proof(s) to be submitted	Compliance (Yes/No)	The proof submitted
4.1.1	Legal Entity	The bidder should be a registered <b>Company</b> (registered under Indian Companies Act, 1956 or Indian Companies Act, 2013) and must have at least 3 years of operations in India as on the date of submission of the bid.	1. Copy of Letter of Incorporation/ Certificate of Registration attested by the Authorized Signatory of the company  2. Certificate issued by the CA (with CA's Registration Number/ Seal) regarding the company having operations in India for the last three years as on the date of submission of the bid.		
4.1.2	Nature of the	The bidder should be software development firm and should be	Work Orders / Client		

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Item No.	Criteria	Description	Documentary proof(s) to be submitted	Compliance (Yes/No)	The proof submitted
	firm	in operation in successful software development, software customization & implementation anywhere in India during the last 3 years as of 01.04.2022.	Certificates confirming proof of delivery per scope of work order.		
4.1.3	Turnover	The bidder should have an average annual turnover of INR <b>2 crore or above</b> in the last three financial years, i.e., FY 2019-20, FY 2020-21, and FY 2021-22.	Audited and certified Balance Sheet & Profit/Loss Account statement for last 3 financial years, i.e., FY 2019-20, FY 2020-21, and FY 2021-22.		
4.1.4	Web Application Development & Implementation Experience	The bidder must have Web Application Development & Implementation experience in India related to any Government/PSU/Private sector entity with a minimum project value of <b>INR 50 lakhs</b> and the scope including:  1. Solution design & development	1. Work Order/Project Contract document with details of project value, scope  2. Satisfactory completion certificate		

RFP for Design, Development and Maintenance of TVA– Integrated Digital Archival Management System & Portal including Hybrid Mobile App

Item No.	Criteria	Description	Documentary proof(s) to be submitted	Compliance (Yes/No)	The proof submitted
		<p>2. Web Application software design and development</p> <p>3. Content Management System Implementation and Customization</p> <p>4. Hardware sizing and commissioning</p> <p>The project should have been successfully implemented and operational in last 3 years as on 01-04-2022.</p>	<p>from the client/ Payment receipt/ UAT sign-off/Implementation certificate.</p>		
4.1.5	Office location	<p>The bidder should have an office in Chennai else bidder should submit a letter of undertaking to open an office in Chennai within 15 days from the date of issue of work order if they are awarded the work.</p>	<p>Property tax bill / Electricity Bill / Telephone Bill / G.S.T.-C.S.T. Registration / Lease agreement / Undertaking Letter</p>		

ANNEXURE V: Self-Assessment of Technical Evaluation Criteria

(Note: In the column 'The Supporting document(s) Submitted', please write which permitted supporting documents you are submitting. It is not a Yes/No answer.)

<b>Item No.</b>	<b>Criteria</b>	<b>Description</b>	<b>Self Assessment Marks</b>	<b>Maximum Marks</b>	<b>The Supporting document (s) Submitted</b>
4.2.1	Company Profile - Turnover	<p>The average annual turnover for the last 3 financial years, i.e., FY 2019-20, FY 2020-21, and FY 2021-22.</p> <p><b><u>Supporting documents to be provided:</u></b></p> <p>Audited and certified Balance Sheet &amp; Profit/Loss Account statement for last 3 financial Years, i.e., FY 2019-20, FY 2020-21, and FY 2021-22.</p>		10	
4.2.2	Certifications	<p>The bidder holds certification(s) recognized in the industry for following quality management standards, information security standards etc. The following certifications are considered relevant for this RFP:</p> <p>3. ISO 9001 (quality management systems)</p> <p>4. ISO 27001 (for information security) or equivalent</p>		5	

		<p><b><u>Supporting documents to be provided:</u></b></p> <p>Copy of valid certificate(s) (the certification should be valid as on the date of submission of the bid document).</p>			
4.2.3	Web Application Development & Implementation	<p>The bidder must have web application development &amp; implementation experience in India related to any Government/PSU/Private sector entity with project value equal to or greater than <b>INR 50 lakhs</b> and the scope including:</p> <ol style="list-style-type: none"> <li>1. Solution design &amp; development</li> <li>2. Web Application software design and development</li> <li>3. Content Management System Implementation and Customization</li> <li>4. Hardware sizing and commissioning</li> <li>5. O&amp;M for software</li> </ol> <p>All the projects should have been successfully implemented and operational in last 3 years as on 01-01-2022.</p> <p><b><u>Supporting Documents to be provided:</u></b></p> <ol style="list-style-type: none"> <li>1. Work Order/Project Contract Document</li> </ol>		35	

		<p>with details of project value, scope;</p> <p>2. Satisfactory completion certificate from the client/ Payment receipt/UAT sign-off/Implementation certificate.</p> <p>3. Case study/presentation with details such as project value, scope, solution details etc.,</p>			
4.2.4	Profile of Key Resources	<p>The bidder should submit detailed profiles/resumes of key resources of the development team planned by the bidder for undertaking the project, which should include the following key capacities:</p> <p><b>Project Manager</b></p> <p>1. Should have B.Tech/ B.E or equivalent degree in Computer Science /Information Technology/ Any other Engineering discipline</p> <p>2. At least 60% marks in undergraduate (and graduate degree if applicable)</p> <p>3. At least 8 years of experience as a Project Manager managing large multi-year projects</p>		15	

		<p><b>Technical Lead</b></p> <ol style="list-style-type: none"> <li>1. Should have B.Tech/ B.E or equivalent degree in Computer Science /Information Technology/ Any other Engineering discipline</li> <li>2. At least 60% marks in undergraduate (and graduate degree if applicable)</li> <li>3. Overall Experience of 8 years in software conceptualization, design, development, testing &amp; implementation</li> <li>4. At least 6 years of experience with content management systems, web app development</li> <li>5. Experience leading team with diverse levels of technical / business domain experience</li> </ol> <p><b>Front end developer</b></p> <ol style="list-style-type: none"> <li>1. Should have B.Tech/ B.E or equivalent degree in Computer Science / IT / Any other Engineering discipline</li> <li>2. At least 60% marks in undergraduate (and graduate degree if applicable)</li> <li>3. Overall Experience of 6 years in IT</li> </ol>			
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		<p>4. Experience of 4 years or more in front end development</p> <p><b>Backend developer</b></p> <ol style="list-style-type: none"> <li>1. Should have B.Tech/ B.E or equivalent degree in Computer Science / IT / Any other Engineering discipline</li> <li>2. At least 60% marks in undergraduate (and graduate degree if applicable)</li> <li>3. Overall Experience of 6 years in IT</li> <li>4. Experience of 4 years or more in API/back end development, design, development, testing, and implementation of databases, APIs</li> <li>5. Experience of 3 years or more with content management systems</li> </ol> <p><b>UI/UX Developer / Designer</b></p> <ol style="list-style-type: none"> <li>1. Experience of 6 years working in a UI/UX in the IT industry with experience in complete UI/UX design and development lifecycle of many successful web applications</li> <li>2. Experience of at least 4 years leading UI/UX efforts in software</li> </ol>			
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		<p>development</p> <p>3. Mastery of UX interaction and design principles and deliverables including rapid prototyping, concept diagrams, user scenarios, wireframes, flows, experience maps, design patterns and annotated comps.</p> <p><b><u>Supporting documents to be provided:</u></b> Detailed CV / resume for each of the above-mentioned roles</p>			
4.2.5	Demonstration of understanding of the business requirements, solution approach and methodology	<p>The demonstration of understanding of project requirements, technology strategy and support strategy for meeting the scope of this RFP.</p> <p><b><u>Supporting documents to be provided:</u></b></p> <p>1. Document describing the proposed solution, development strategy, implementation plans, timelines, risks, and mitigations etc.,</p> <p>2. The bidder will have to carry out a technical presentation/demo on the same.</p>		15	
4.2.6	Architecture, Design &	The technical aspect of the bidder's proposed solution		20	

RFP for Design, Development and Maintenance of TVA- Integrated Digital Archival Management System & Portal including Hybrid Mobile App

	<p>Functionality</p>	<p>architecture, design, and system functionality.  <b><u>Supporting documents to be provided:</u></b>            1. Document describing the proposed solution architecture, design considerations, major features/functionalities, etc.            2. The bidder will have to carry out a technical presentation/demo on the same.</p>			
<p><b>Total Self-assessment marks out of 100:</b></p>					

## ANNEXURE VI: Bill of Quotation (BoQ) – Integrated Digital Archival Management System & Portal including Hybrid Mobile App

Name of the Bidder: \_\_\_\_\_

*Table 6 Bill of Quotation (BOQ) – Integrated Digital Archival Management System & Portal including Hybrid Mobile App and free warranty*

<b>S. No</b>	<b>Component</b>	<b>Unit</b>	<b>Price per unit</b>	<b>Quantity</b>	<b>Total</b>
1	Cost for Software Development (up to final Go-live) and Free Warranty for a period of 12 months	Lump sum		1	
2	O & M for a period of 24 months after Free Warranty period	Lump sum		1	
	<b>Total (1+2)</b>				

ANNEXURE VII: Price Discovery – Integrated Digital Archival Management System & Portal including Hybrid Mobile App

Table 7 Price Discovery

S.No	Component	Unit	Price per unit	Quantity	Total
1	O & M contract extension	Lump sum per year		1	
2	Technical manpower cost for Change Request / New feature Development	Man-day		100	
	<b>Total</b>				

Authorized Signatory Name:

Date:

Place:

Company Seal:

Important Note:

- 1) The rates quoted should be as per industry standards for the prescribed experience.
- 2) Bids quoting zero will be rejected and the EMD submitted by those bidders will be forfeited.
- 3) The rates finalized will not be changed throughout the period of empanelment/extended empanelment.
- 4) The empaneled agencies will provide service all over Tamil Nadu.
- 5) GST at the rate specified as per applicable Law will be paid extra.
- 6) Prices should be quoted in Indian Rupee only and indicated both in figures and words.
- 7) Each Job assignment will be done at the cost finalized depending on Project Execution Model used in TOR.

## ANNEXURE – VIII: Consortium Declaration

I/We agree to adhere with the schedule of implementation and deliver the items as specified in the tender.

I/We agree to submit the Consortium Agreement duly stating the Primary partner and the Secondary partner

I/We agree to that the Primary partner will be held accountable by TVA for all the delivery and tender conditions and will be held responsible for breach of conditions, agreements, SLAs as stated in this tender document

I/We agree that TVA would release payment only to the Primary partner

I/We agree to submit any other agreements with the bidding consortium partner that conflict with the terms and conditions of this tender document. I/We agree that our bid might be summarily rejected in case the Tender Evaluation committee finds any such agreement to effect the execution of the terms of this tender.

If there is any prior agreement between Primary and the Secondary partner which conflicts with any of the clauses of this tender document, I/We agree that it is the responsibility of the Primary partner to ensure that the prior agreement is modified so that it is compliant with the tender conditions

Primary Partner Name:

Signature:

Signing Authority Name:

Designation:

Secondary Partner Name:

Signature:

Signing Authority Name:

Designation:

Seal of the Primary Partner:

Seal of the Secondary Partner: