



Kathmandu Institute of Child Health (KIOCH)

Budhanilkantha-7, Hepali Height, Kathmandu

RFP Document of Consulting Services

for

**Development of a web-based application for storing, managing and
viewing Echocardiography images**

(ID: 27-2080/2081)

Consultant's/Firm's Name:-

Address

June 2024

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Notice of Invitation

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2024 June 21 Friday

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Kathmandu Institute of Child Health (KIOCH)

Budhanilkantha Municipality, Ward No. 7, Hepali Height, Kathmandu
Phone: 01-4370373, email: info@kioch.org.np, web: kioch.org.np

Request for Proposal (RFP) for development of a web-based application for storing, managing and viewing Echocardiography images

(ID: 27-2080/2081)

Published Date: 21 June 2024

Kathmandu Institute of Child Health (KIOCH) working to build and operate Children's Hospital Network in Nepal with its vision to make pediatric care available, accessible, and affordable in Nepal plans to develop a web-based application for storing, managing and viewing echocardiography images (DICOM files). The institute requests proposal from legally registered, experienced, capacitated and interested company/ firm for the aforementioned task.

Who can Apply: The RFP is open to National Professional Organizations (Proposers) registered under the authorized agency of the Government of Nepal.

How to Apply: Eligible Proposers may download the detail RFP document from the institute's website. The proposal must be submitted along with all the required documents in accordance with the RFP document. The proposal should be submitted in hardcopy at the Admin. Section of the institute at Budhanilkantha Municipality-7, Hepali Height, Kathmandu or submitted through email: info@kioch.org.np.

Deadline of RFP: Proposals must be received no later than 1500 Hours on 5 July 2024.



Request Letter

Kathmandu Institute of Child Health (KIOCH)

Budhanilkantha Municipality – 7, Hepali Height, Kathmandu

Date: June 21, 2024

Request for Proposal (RFP)
(ID: 27-2080/2081)

Dear Sir/Madam,

Subject: **Development of a web-based application for storing, managing and viewing Echocardiography images**

1. You are requested to submit a proposal for the Development of a web-based application for storing, managing and viewing Echocardiography images as per enclosed Terms of Reference (TOR).
2. To enable you to submit a proposal, attached are:
 1. Instructions to Consulting Companies(Annex I)
 2. General Conditions of Contract(Annex II)
 3. Terms of Reference (TOR).....(Annex III)
 4. Proposal Submission Form(Annex IV)
 5. Price Schedule(Annex V)
3. Your offer comprising of technical and financial proposal, in a sealed envelope, should reach the following address no later than 1500 hrs on 5 June 2014.

Admin Section
Kathmandu Institute of Child Health
Budhanilkantha Municipality-7, Hepali Height, Kathmandu

4. If you request additional information, we would endeavour to provide information expeditiously, but any delay in providing such information will not be considered a reason for extending the submission date of your proposal.




Instructions to Consulting Companies

A. Introduction

1. General

KIOCH aims to have the highest quality of health care. In addition to providing quality health services, we aim to help develop new technologies through scientific research an innovation for improving the quality of care in Nepal. In this regard, KIOCH is leading an international echocardiography research project where a large number of echocardiography is being carried out in various sites in Nepal. In order to build better insights from this ongoing research and build a future potential for developing Artificial Intelligence (AI) based solutions to scale access to high-quality echocardiography to everyone, we aim to build the necessary data and software infrastructure.

2. Cost of proposal

The Consulting Company shall bear all costs associated with the preparation and submission of the Proposal, the KIOCH will in no case be responsible or liable for those costs, regardless of the conduct or outcome of the solicitation.

B. Request For Proposal Document

3. Contents of Request For Proposal Document

Proposals must offer services for the total requirement. Proposals offering only part of the requirement will be rejected. The Consulting Company is expected to examine all corresponding instructions, forms, terms and specifications contained in the Request For Proposal Document. Failure to comply with these documents will be at the Consulting Company's risk and may affect the evaluation of the Proposal.

4. Clarification of Request For Proposal Document

A prospective Consulting Company requiring any clarification of the Request For Proposal Document may notify the Admin Section of KIOCH in writing at info@kioch.org.np. KIOCH will respond in writing to any request for clarification of the Request For Proposal Document that it receives earlier than two weeks prior to the deadline for the submission of Proposals. Written copies of the organisation's response (including an explanation of the query but without identifying the source of inquiry) will be sent to all prospective Consulting Companies that has received the Request For Proposal Document.

The block contains a handwritten signature in black ink on the left and the official circular logo of KIOCH on the right. The logo features a blue border with the text 'Kathmandu Institute of Child Health' at the top and 'KIOCH' in the center, with '2017' at the bottom.

5. Amendments of Request For Proposal Document

At any time prior to the deadline for submission of Proposals, KIOCH may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Consulting Company, modify the Request For Proposal Document by amendment.

All prospective Consulting Companies that have received the Request For Proposal Document will be notified in writing of all amendments to the Request For Proposal Document.

In order to afford prospective Consulting Companies reasonable time in which to take the amendments into account in preparing their offers, KIOCH may, at its discretion, extend the deadline for the submission of Proposals.

C. Preparation of Proposals

6. Language of the proposal

The Proposals prepared by the Consulting Company and all correspondence and documents relating to the Proposal exchanged by the Consulting Company and KIOCH shall be written in the English language. Any printed literature furnished by the Consulting Company may be written in another language so long as accompanied by an English translation of its pertinent passages in which case, for purposes of interpretation of the Proposal, the English translation shall govern.

7. Documents comprising the proposal

The Proposal shall comprise the following components:

- a) Proposal submission form;
- b) Profile of the organization and copies of the annual report of last years
- c) Valid registration certificate
- d) VAT/PAN certificate
- e) Tax exemption certificate if applicable
- f) Tax Clearance certificate of Fiscal Year 2079/80
- g) Audit reports including income and expenditure statements for last years.
- h) List of projects related completed, donors/partners the institution/professional firm has worked with, and districts where those projects were implemented
- i) Signed CVs and commitment of the suggested personnel
- j) At least two names, contact phone numbers, emails of donor/INGO/national NGO with whom the institution/professional firm has worked in the past (Attach at least two recommendation letters)
- k) Operational and technical part of the Proposal, including documentation to demonstrate that the Consulting Company meets all requirements
- l) Time schedule of the project
- m) Price schedule, completed in accordance with clauses 8 and 9;




8. Proposal form

The Consulting Company shall structure the operational and technical part of its Proposal as follows:

(a) Management plan

This section should provide corporate orientation to include the year and state/country of incorporation and a brief description of the Consulting Company's present activities. It should focus on services related to the Proposal.

This section should also describe the organisational unit(s) that will become responsible for the contract, and the general management approach towards a project of this kind. The Consulting Company should comment on its experience in similar projects and identify the person(s) representing the Consulting Company in any future dealing with KIOCH.

(b) Resource plan

This should fully explain the Consulting Company's resources in terms of personnel (Project Coordinator, Project Associate, Admin Finance Associate and Community Mobilizer(s) and facilities necessary for the performance of this requirement. It should describe the Consulting Company's current capabilities/facilities and any plans for their expansion.

(c) Proposed methodology

This section should demonstrate the Consulting Company's responsiveness to the specification by identifying the specific components proposed, addressing the requirements, as specified, point by point; providing a detailed description of the essential performance characteristics proposed warranty; and demonstrating how the proposed methodology meets or exceeds the specifications.

The operational and technical part of the Proposal should not contain any pricing information whatsoever on the services offered. Pricing information shall be separated and only contained in the appropriate Price Schedules.

It is mandatory that the Consulting Company's Proposal numbering system corresponds with the numbering system used in the body of this RFP. All references to descriptive material and brochures should be included in the appropriate response paragraph, though material/documents themselves may be provided as annexes to the Proposal/response.

Information which the Consulting Company considers proprietary, if any, should be clearly marked "proprietary" next to the relevant part of the text and it will then be treated as such accordingly.

 

(d) Time Schedule

The Consulting Company should propose a time schedule in the format below. (*the numbers in the first row indicate week)

S N	Tasks/ Milestone	1	2	3	4	5	6	7	8	9	10	11	12
1													

(e) Prices Schedule

The Consulting Company shall indicate on an appropriate Price Schedule, in example format given below, the prices of services it proposes to supply under the contract.

S N	Task Group / Tasks	Unit	Rate	Cost
A	Human Resource			
1				
..			
B	Cloud Space			
1				
..			
D	Infrastructure			
1				
..			

9. Proposal currencies

All prices shall be quoted in NPR.

10. Period of validity of proposals

Proposals shall remain valid for 90 days after the date of Proposal submission prescribed by KIOCH, pursuant to the deadline clause. A Proposal valid for a shorter period may be rejected by KIOCH on the grounds that it is non-responsive.

In exceptional circumstances, KIOCH may solicit the Consulting Company's consent to an extension of the period of validity. The request and the responses thereto shall be made in writing. A Consulting Company granting the request will not be required nor permitted to modify its Proposal.

11. Format and signing of proposals

The Proposal shall be typed or written in indelible ink and shall be signed by the Consulting Company or a person or persons duly authorised to bind the Consulting Company to the contract. The latter of authorisation shall be indicated by written power-of-attorney accompanying the Proposal.

 

A Proposal shall contain no interlineations, erasures, or overwriting except, as necessary to correct errors made by the Consulting Company, in which case such corrections shall be initialled by the person or persons signing the Proposal.

12. Payment

KIOCH shall effect payments to the Consulting Company as per the schedule given in TOR.

D. Submission of Proposals

13. Sealing and marking of proposals

The Consulting Company shall seal the Proposal in and envelope as detailed below.

- addressed to –

Admin Section
Kathmandu Institute of Child Health
Budhanilkantha-7, Hepali Height, Kathmandu

- marked with –

RFP Document of Consulting Services for
Development of a web-based application for storing, managing and viewing
Echocardiography images
(ID: 27-2080/2081)

The envelope shall indicate the name and address of the Consulting Company. The envelope shall contain the information specified in Clause 8 (*Proposal form*) above.

14. Deadline for submission of proposals

Proposals must be received by KIOCH at the address specified under clause *Sealing and marking of Proposals* no later than **1500 hours of 5 June 2012**, local time.

KIOCH may, at its own discretion extend this deadline for the submission of Proposals by amending the Request For Proposal Document in accordance with clause *Amendments of Request For Proposal Document*, in which case all rights and obligations of KIOCH and Consulting Companies previously subject to the deadline will thereafter be subject to the deadline as extended.

15. Late Proposals

Any Proposal received by KIOCH after the deadline for submission of proposals, pursuant to clause *Deadline for the submission of proposals*, will be rejected.

 

16. Modification and withdrawal of Proposals

The Consulting Company may withdraw its Proposal after the Proposal's submission, provided that written notice of the withdrawal is received by KIOCH prior to the deadline prescribed for submission of Proposals.

The Consulting Company's withdrawal notice shall be prepared, sealed, marked, and dispatched in accordance with the provisions of clause Deadline for Submission of Proposals.

No Proposal may be modified subsequent to the deadline for submission of proposals.

No Proposal may be withdrawn in the Interval between the deadline for submission of proposals and the expiration of the period of proposal validity specified by the Consulting Company on the Proposal Submission Form.

E. Opening and Evaluation of Proposals

17. Opening of proposals

KIOCH will open the Proposals in the presence of a KIOCH Procurement Committee.

18. Clarification of proposals

To assist in the examination, evaluation and comparison of Proposals, the Purchaser may at its discretion, ask the Consulting Company for clarification of its Proposal. The request for clarification and the response shall be in writing and no change in price or substance of the Proposal shall be sought, offered or permitted.

19. Preliminary examination

The Purchaser will examine the Proposals to determine whether they are complete, whether any computational errors have been made, whether the documents have been properly signed, and whether the Proposals are generally in order.

Arithmetical errors will be rectified on the following basis: If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If the Consulting Company does not accept the correction of errors, its Proposal will be rejected. If there is a discrepancy between words and figures the amount in words will prevail.

Prior to the detailed Technical evaluation, the Purchaser will determine the substantial responsiveness of each Proposal to the Request for Proposals (RFP). For purposes of these Clauses, a substantially responsive Proposal is one which conforms to all the terms and conditions of the RFP without material deviations. The Purchaser's determination of a Proposal's responsiveness is based on the contents of the Proposal itself without recourse to extrinsic evidence.

A handwritten signature in black ink is positioned to the left of the KIOCH logo. The logo is circular with a blue border containing the text 'California Institute of Child Health' at the top and 'KIOCH' at the bottom, with '2017' at the very bottom. The center of the logo features a stylized blue graphic of a person and a building.

A Proposal determined as not substantially responsive will be rejected by the Purchaser and may not subsequently be made responsive by the Consulting Company by correction of the non- conformity.

20. Evaluation and comparison of proposals

The technical proposal is evaluated on the basis of its responsiveness and compliance with eligibility criteria mentioned in the Term of Reference (TOR).

The price proposal of all Consulting Companies, who are technically qualified will be compared.

“Lowest Bid Offered” refers to the lowest aggregate price offered by Consulting Companies.

The contract will be awarded to the Consulting Company that has qualified in Technical Evaluation and has the lowest price quoted.

F. Award of Contract

21. Award criteria, award of contract

KIOCH reserves the right to accept or reject any Proposal, and to annul the solicitation process and reject all Proposals at any time prior to award of contract, without thereby incurring any liability to the affected Consulting Company or any obligation to inform the affected Consulting Company or Consulting Companies of the grounds for the Purchaser’s action

Prior to expiration of the period of proposal validity, KIOCH will award the contract to the qualified Consulting Company whose Proposal after being evaluated is considered to be the most responsive to the needs of the organisation and activity concerned.

22. Purchaser’s right to vary requirements at time of award

The Purchaser reserves the right at the time of award of contract to vary the quantity of services and goods specified in the RFP without any change in price or other terms and conditions.

23. Signing of the contract

Within 7 days of receipt of the contract the successful Consulting Company shall sign and date the contract and return it to the Purchaser.

 

General Conditions of Contract

1. LEGAL STATUS

The Consulting Company shall be considered as having the legal status of an independent Consulting Company vis-à-vis KIOCH. The Consulting Company's personnel and Sub-Contractor shall not be considered in any respect as being the employees or agents of KIOCH.

2. SOURCE OF INSTRUCTIONS

The Consulting Company shall neither seek nor accept instructions from any authority external to KIOCH in connection with the performance of its services under this Contract. The Consulting Company shall refrain from any action which may adversely affect KIOCH and shall fulfil its commitments with the fullest regard to the interests of KIOCH.

3. CONSULTING COMPANY'S RESPONSIBILITY FOR EMPLOYEES

The Consulting Company shall be responsible for the professional and technical competence of its employees and will select, for work under this Contract, reliable individuals who will perform effectively in the implementation of this Contract, respect the local customs, and conform to a high standard of moral and ethical conduct.

4. ASSIGNMENT

The Consulting Company shall not assign, transfer, pledge or make other disposition of this Contract or any part thereof, or any of the Consulting Company's rights, claims or obligations under this Contract except with the prior written consent of KIOCH.

5. SUB-CONTRACTING

Sub-Contracting is not allowed.

6. OFFICIALS NOT TO BENEFIT

The Consulting Company warrants that no official of KIOCH has received or will be offered by the Consulting Company any direct or indirect benefit arising from this Contract or the award thereof. The Consulting Company agrees that breach of this provision is a breach of an essential term of this Contract.

7. INDEMNIFICATION

The Consulting Company shall indemnify, hold and save harmless, and defend, at its own expense, KIOCH, its officials, agents, servants and employees from and against all

 

suits, claims, demands, and liability of any nature or kind, including their costs and expenses, arising out of acts or omissions of the Consulting Company, or the Consulting Company's employees, officers, agents or Sub-Contractor, in the performance of this Contract. This provision shall extend, inter alia, to claims and liability in the nature of workmen's compensation, products liability and liability arising out of the use of patented inventions or devices, copyrighted material or other intellectual property by the Consulting Company, its employees, officers, agents, servants or Sub-Contractor. The obligations under this Article do not lapse upon termination of this Contract.

8. TITLE TO EQUIPMENT

Title to any equipment and supplies that may be furnished by KIOCH shall rest with KIOCH and any such equipment shall be returned to KIOCH at the conclusion of this Contract or when no longer needed by the Consulting Company. Such equipment, when returned to KIOCH, shall be in the same condition as when delivered to the Consulting Company, subject to normal wear and tear. The Consulting Company shall be liable to compensate KIOCH for equipment determined to be damaged or degraded beyond normal wear and tear.

9. COPYRIGHT, PATENTS AND OTHER PROPRIETARY RIGHTS

KIOCH shall be entitled to all intellectual property and other proprietary rights including but not limited to patents, copyrights, and trademarks, with regard to products, or documents and other materials which bear a direct relation to or are produced or prepared or collected in consequence of or in the course of the execution of this Contract. At the KIOCH's request, the Consulting Company shall take all necessary steps, execute all necessary documents and generally assist in securing such proprietary rights and transferring them to KIOCH in compliance with the requirements of the applicable law.

10. USE OF NAME, EMBLEM OR OFFICIAL SEAL OF KIOCH

The Consulting Company shall not advertise or otherwise make public the fact that it is a Consulting Company with KIOCH, nor shall the Consulting Company, in any manner whatsoever use the name, emblem or official seal of KIOCH, or any abbreviation of the name of KIOCH in connection with its business or otherwise.

11. CONFIDENTIAL NATURE OF DOCUMENTS AND INFORMATION

11.1 All maps, drawings, photographs, mosaics, plans, reports, recommendations, estimates, documents and all other data compiled by or received by the Consulting Company under this Contract shall be the property of KIOCH, shall be treated as confidential and shall be delivered only to KIOCH authorized officials on completion of work under this Contract.

11.2 The Consulting Company may not communicate at any time to any other person, Government or authority external to KIOCH, any information known to

 

it by reason of its association with KIOCH which has not been made public except with the authorization of KIOCH; nor shall the Consulting Company at any time use such information to private advantage. These obligations do not lapse upon termination of this Contract.

12. FORCE MAJEURE; OTHER CHANGES IN CONDITIONS

- 12.1 Force majeure, as used in this Article, means acts of God, war (whether declared or not), invasion, revolution, insurrection, or other acts of a similar nature or force which are beyond the control of the Parties.
- 12.2 In the event of and as soon as possible after the occurrence of any cause constituting force majeure, the Consulting Company shall give notice and full particulars in writing to KIOCH, of such occurrence or change if the Consulting Company is thereby rendered unable, wholly or in part, to perform its obligations and meet its responsibilities under this Contract. The Consulting Company shall also notify KIOCH of any other changes in conditions or the occurrence of any event which interferes or threatens to interfere with its performance of this Contract. The notice shall include steps proposed by the Consulting Company to be taken including any reasonable alternative means for performance that is not prevented by force majeure. On receipt of the notice required under this Article, KIOCH shall take such action as, in its sole discretion, it considers to be appropriate or necessary in the circumstances, including the granting to the Consulting Company of a reasonable extension of time in which to perform its obligations under this Contract.
- 12.3 If the Consulting Company is rendered permanently unable, wholly, or in part, by reason of force majeure to perform its obligations and meet its responsibilities under this Contract, KIOCH shall have the right to suspend or terminate this Contract on the same terms and conditions as are provided for in Article 15, "Termination", except that the period of notice shall be seven (7) days instead of thirty (30) days.

13. TERMINATION

- 13.1 Either party may terminate this Contract for cause, in whole or in part, upon 35 days' notice, in writing, to the other party. The initiation of arbitral proceedings in accordance with Article 16 "Settlement of Disputes" below shall not be deemed a termination of this Contract.
- 13.2 KIOCH reserves the right to terminate without cause this Contract at any time upon 15 days' prior written notice to the Consulting Company, in which case KIOCH shall reimburse the Consulting Company for all reasonable costs incurred by the Consulting Company prior to receipt of the notice of termination.
- 13.3 In the event of any termination by KIOCH under this Article, no payment shall be due from KIOCH to the Consulting Company except for work and services

 

satisfactorily performed in conformity with the express terms of this Contract. The Consulting Company shall take immediate steps to terminate the work and services in a prompt and orderly manner and to minimize losses and further expenditures.

- 13.4 Should the Consulting Company be adjudged bankrupt, or be liquidated or become insolvent, or should the Consulting Company make an assignment for the benefit of its creditors, or should a Receiver be appointed on account of the insolvency of the Consulting Company, KIOCH may, without prejudice to any other right or remedy it may have, terminate this Contract forthwith. The Consulting Company shall immediately inform KIOCH of the occurrence of any of the above events.

14. SETTLEMENT OF DISPUTES

14.1 Amicable Settlement

The Parties shall use their best efforts to settle amicably any dispute, controversy or claim arising out of, or relating to this Contract or the breach, termination or invalidity thereof.

14.2 Arbitration

Unless, any such dispute, controversy or claim between the Parties arising out of or relating to this Contract or the breach, termination or invalidity thereof is settled amicably under the preceding paragraph of this Article within sixty (60) days after receipt by one Party of the other Party's request for such amicable settlement, such dispute, controversy or claim shall be referred by either Party to the provisions on applicable law.

15. CHILD LABOUR

- 15.1 The Consulting Company represents and warrants that neither it, nor any of its suppliers is engaged in any practice inconsistent with the rights set forth in the Convention on the Rights of the Child, including Article 32 thereof, which, inter alia, requires that a child shall be protected from performing any work that is likely to be hazardous or to interfere with the child's education, or to be harmful to the child's health or physical mental, spiritual, moral or social development.

- 15.2 Any breach of this representation and warranty shall entitle KIOCH to terminate this Contract immediately upon notice to the Consulting Company, at no cost to KIOCH.

16. CHILD RIGHTS AND PROTECTION FROM SEXUAL EXPLOITATION AND ABUSE

- 16.1 The Consulting Company represents and warrants that it, employees, partners, any of its suppliers will comply with the Child Rights policy and Protection from Sexual Exploitation and Abuse policy of KIOCH available in its website: <https://kioch.org.np/kioch-policies-and-guidelines> .




17. AUTHORITY TO MODIFY

No modification or change in this Contract, no waiver of any of its provisions or any additional contractual relationship of any kind with the Consulting Company shall be valid and enforceable against KIOCH unless provided by an amendment to this Contract signed by the authorized official of KIOCH.

The logo of the Kalamandir Institute of Child Health (KIOCH) is circular. It features a central illustration of a child and a woman, possibly a caregiver or parent, in a nurturing interaction. The text "Kalamandir Institute of Child Health" is written around the top inner edge of the circle, and "KIOCH" is written in the center. The year "2017" is at the bottom.

Terms of Reference (ToR)

Project Specifications for Development of a web-based application for storing, managing and viewing Echocardiography images

A. Context

KIOCH aims to have the highest quality of health care. In addition to providing quality health services, we aim to help develop new technologies through scientific research and innovation for improving the quality of care in Nepal. In this regard, KIOCH is leading an international echocardiography research project where a large number of echocardiography is being carried out in various sites in Nepal. In order to build better insights from this ongoing research and build a future potential for developing Artificial Intelligence (AI) based solutions to scale access to high-quality echocardiography to everyone, we aim to build the necessary data and software infrastructure.

B. Project Overview

The project is to develop a web-based application for storing, managing, and viewing echocardiography images (DICOM files). The application will allow doctors and other medical professionals to access these images remotely, review them, create reports, and annotate images for machine learning purposes. The system will also include robust user management features to ensure role-based access control.

C. Functional Requirements

1. User Management

- **User Roles:** Define user roles such as Admin, Radiologist, Cardiologist, Technician, Viewer, and Annotator, etc.
- **User Authentication:** Implement secure login functionality using email/password
- **Role-Based Access Control:** Ensure users can only access functionalities and data permitted by their role.
- **User Registration:** Allow admins to add and manage users.
- **Profile Management:** Allow users to update their profile information and change passwords.

2. DICOM File Management

- **Upload DICOM Files:** Enable uploading echocardiography DICOM files from the imaging modalities to a VNA (vendor neutral archive) given required settings in the imaging modalities are enabled.
- **Storage:** Store DICOM files in a centralized, secure, and scalable storage solution.
- **Metadata Extraction:** Extract and store relevant metadata from DICOM files for easy searching and indexing.
- **Secure Access:** Ensure that DICOM files are stored securely with access controls.



3. Viewing and Reporting

- **DICOM Viewer:** Integrate or develop a DICOM viewer that allows users to view echocardiography images with essential tools (e.g., zoom, pan, measure).
- **Study Management:** Allow users to search, filter, and sort studies based on various criteria (e.g., patient name, date, study type).
- **Report Generation:** Enable doctors to create, edit, and save reports for each study. Include templates for common report formats.
- **Annotations and Measurements:** Allow users to annotate images and make measurements within the DICOM viewer.

4. Annotation Feature for Machine Learning

- **Annotation Tools:** Provide tools for annotators to label images, including drawing bounding boxes, polygons, and points.
- **Annotation Storage:** Save annotations in a structured format that can be easily exported for machine learning purposes.
- **Annotation Review:** Allow other users to review and validate annotations.
- **Export Annotations:** Enable the export of annotated data in standard formats (e.g., JSON, XML) for use in machine learning models.

D. Non-Functional Requirements

1. Scalability

- The system should be able to handle a large number of concurrent users and a growing database of DICOM files without performance degradation.

2. Performance

- Ensure quick loading times for the DICOM viewer and fast retrieval of studies.

3. Usability

- Design a user-friendly interface that is intuitive for medical professionals and annotators.

4. Reliability

- Implement robust error handling and ensure high availability of the application with minimal downtime.

5. Interoperability

- Ensure compatibility with different DICOM file sources and support standard DICOM protocols.

E. Eligibility Criteria

The company bidding must have following requirements met:

- The company should have work experience of least one fiscal year.
- The company must be legally registered.

A handwritten signature in black ink is positioned to the left of a circular blue logo. The logo features a stylized figure and the text 'KIOCH' in the center, with 'California Institute of Child Health' around the top edge and '2017' at the bottom.

- Must provide a valid company registration certificate.
- Must provide tax clearance certificate of Fiscal year 2079/80.
- Should have one team member with at least five years of experience OR two team members with at least three years of experience, working in the field of Medical Imaging Analysis.
- Should have one team member with at least five OR two team members with at least three, peer-reviewed international scientific research publications on AI in Medical Ultrasound Images.
- The company/ firm has delivered and successfully deployed a working medical imaging platform, where images are archived, can be accessed through role-based access control, can be annotated for AI models, and has the feature for quality control.
- The company/ firm has carried out projects with similar deliverables or outcomes.
- The company/ firm should provide Commitment of availability of necessary resources and personnel throughout the project duration.

F. Payment :

The client will pay the cost to the consulting company as per the following schedule:

- 40% of the total agreed cost after signing the agreement against the bank guarantee provided by the Consulting Company of the same amount of advance to Kathmandu Institute of Child Health from an "A" class commercial bank with a validity period of 150 days from the date of signing the contract.
- 60% of the total agreed cost after the submission of the final product and acceptance by KIOCH under the recommendation of the technical evaluation committee.

G. Defect Liability Period, Performance Bond and AMC:

The consultant shall provide technical support for effective implementation of the product for one year (Defect Liability Period), after successfully commissioning and installation of the product. The Consulting Company shall provide error correction (bug fixing) and support in operating the system in this period without any additional cost. The selected Consulting Company shall have to furnish a Performance Bond in the form of a Bank guarantee from an 'A' class Commercial Bank equivalent to five percent (5%) of the agreed project cost with the validity period of at least 365 days from the date of acceptance of final product. The client will enter into Annual Maintenance Contract (AMC) with the consulting company at the end of one year of the DL period. The cost of AMC shall not exceed ten percent (10%) of the total agreed project cost.

H. Conclusion

This project aims to create a robust, secure, and user-friendly application for storing, viewing, and annotating echocardiography images. By leveraging modern web technologies and cloud services, the system will provide remote access to medical professionals, facilitate efficient study management and reporting, and support the creation of annotated datasets for machine learning models.



The image shows a handwritten signature in black ink on the left and a circular blue logo for Kathmandu Institute of Child Health (KIOCH) on the right. The logo contains the text 'Kathmandu Institute of Child Health' around the top edge, 'KIOCH' in the center, and '2017' at the bottom.

PROPOSAL SUBMISSION FORM

Dear Sir / Madam,

Having examined the Request For Proposal Document, the receipt of which is hereby duly acknowledged, we, the undersigned, offer to provide Professional Consulting services for the aforementioned project for the sum as may be ascertained in accordance with the Price Schedule attached herewith and made part of this Proposal.

We undertake, if our Proposal is accepted, to commence and complete delivery of all services specified in the contract within the time frame stipulated.

We agree to abide by this Proposal for a period of 120 days from the date fixed for opening of Proposals in the Invitation for Proposal, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.

We understand that you are not bound to accept any Proposal you may receive.

Date:

Signature

(In the capacity of)<title>

Duly authorised to sign Proposal for and on behalf of
<name of company/ firm>

 

PRICE BID

SN	Particulars-	Quantity	Rate		Amount	Remarks
			Figure	Words		
1	Development of a web based application for storing, managing and viewing Echocardiography images (Complete Package as per the TOR and specification)	1				
	VAT					
	Total					

Name of the Bidder's Firm:-

Name of Authorized person:-

Address:-

Telephone Number:-

Office Stamp:-

 