



अखिल भारतीय आयुर्विज्ञान संस्थान, गोरखपुर
All India Institute of Medical Sciences, Gorakhpur

(स्वास्थ्य एवं परिवार कल्याण मंत्रालय भारत सरकार द्वारा स्थापित एक स्वायत्त निकाय)

(An autonomous organization under the Ministry of Health & Family Welfare, Govt. of India)

Ref. no: - AIIMS/GKP/Admin/2022-23/5132

dated: 19.01.2023

Subject: Proposal for the procurement of arcPartography for Department of Obs. and Gyane. AIIMS, Gorakhpur on proprietary basis.

The department of **Obs. and Gyane** is going to procure **arcPartography** on proprietary basis from M/S ADecTec, Applied Decision Technologies, INC having address 1810 Briergate Drive, Duluth.

The above mentioned document are being uploaded for open information to submit their objections comments, if any firm any manufacturer regarding proprietary nature of the equipment/ accessories/ item within 14 days from the date of issue/ uploading of the notification.

The comment should be received by office of administrative officer, Medical College at AIIMS, Gorakhpur, or Email ID: aofficeaiimgkp@gmail.com on or before 2nd Feb, 2023 up to 17:00 Hrs. failing which it will be presumed that any other vendor is having no comment to offer and case will be decided on merits.

S/D
(Bhupesh Chandra)
Administrative Officer
AIIMS Gorakhpur



CERTIFICATE OF UNIQUENESS

This is to certify that the arcPartography application is developed by Applied Decision Technologies, Inc. of USA and Optimization Software Technologies, LLC. of India (a concern of Applied Decision Technologies Inc.) The application is unique in its functionalities, technology used and usability options. Following details are provided to support this certification.

Specifications for arcPartograph Applications

About the application

arcPartograph is an unique, advanced, real-time and comprehensive labor monitoring system. It is a digital system and is available on both web and mobile platforms. It is built on World Health Organization (WHO) guidelines. It is comprehensive as it covers all stages - Prepartum, Partogram monitoring and Postpartum stages. It also incorporates country specific guidelines for maternal health. For example, LaCshya and DAKSHATA for India.

It enables complete monitoring of women in labor onsite and remotely. With this, one can view charts, get alerts, give directions to staff, stay connected and stay informed about the woman's health and labor conditions.

It is a novel and unique digital partograph application, following are specifications of the application.

1. Application structure
 - a. Application is web enabled.
 - b. It can be either hosted on a public or private cloud.
 - c. It is mobile compatible.
 - d. The application is not to be downloaded to be installed on any phone and or desktop. It is independent of local devices and accessible with just a standard web browser.
 - e. It is not a mobile app or desktop-based application. It is web accessible only. This is to safeguard patient information and obtain true mobility independent of any specific device.
2. Application Physical Scope
 - a. Application is available in two separate and independent instances. Each may be licensed separately.
 - i. Actual monitoring and tracking application to be used for health management of pregnant women in labour room in real-time
 - ii. Education and Training application- available for training and classroom teaching purposes.



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- b. For confidentiality and security reasons, these are two independent applications.
3. Application Integration Capabilities
 - a. The application provides Open APIs and/or database integration specific tables to interface with the external systems
 - b. Patient Registration and Discharge Report related APIs are available for interfacing.
4. Application Security
 - a. Application may be either deployed on a Hosted servers or on Cloud servers and should facilitate a SaaS model.
 - b. For performance reasons, the application uses a 3-tier architecture-based application with micro services pattern for improved maintainability and reliability.
 - c. Installation and Configuration: the application supports the SSL (Secure layer connection) accessible only on https. It is accessible only through the JWT token-based authentication server. All files and folders are protected by the Application Pool Identities. An application-level gateway (ALG) is provided as a firewall proxy which provides network security. It filters incoming node traffic to certain specifications which mean that only transmitted network application data is filtered. The application facilitates IPs and domain restriction. It should include Auditing and Logging.
5. Application Collaboration Features
 - a. Multiple user access in real-time – The application allows, with permission, multiple users to be able to log into the application and work on the same partograph simultaneously.
 - b. The application has the built-in feature for the users to share via built-in email facility to screenshots with notes and descriptions.
 - c. The application has a built-in feature to share Feedbacks via built in e-mail with the administrators.
6. Application Vertical Integration
 - a. The application provides “Vertical Integration” among healthcare facilities of different levels. Under the same organization, multiple healthcare facilities may be mapped; and the staff and user have permission-based access to the patient partographs of each of these facilities.
 - b. The user may include and/or exclude access to a facility for a user.
7. Application Functional Features
 - a. Registration – users is able to self-register into the application. A user may be able to register with different organizations with the same login.
 - b. Login – the user is able to log into the application with provided credentials. In case of multiple registrations, the user should be able to select the organization to log into.
 - i. The user is provided with the facility to recover password and change password.
 - c. Setup Wizard – The application provides an automated wizard to help user setup the application. The user may have the option to switch it off.
 - d. User Management – The application provides robust user management functionalities. The application administrator is able to



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- i. Add a new user
 - ii. Provide roles to the user
 - iii. Add the user as staff to hospitals of the organization
 - iv. Add or remove access to hospitals of the organization
 - v. Make a user active or inactive
- e. Module Role Permission – The application provides detailed module and page level permissions based on the roles assigned to the users. The application administrator should be able to create new roles and assign those to users.
- f. Special Preferences – The application administrator is be able to setup the behavior pages and application default settings using the Special Preferences. These are settings that are set at the application level. Such as number of rows to show by default in a page.
- g. Hospital Setup
 - i. The user is able to setup new hospitals by types for the account.
 - ii. The user is able to create Units for each hospital.
 - iii. The user is able to map different types of contacts such as Primary, Main, Local etc. for the hospitals.
 - iv. The user is able to define different types of addresses for the hospitals.
 - v. The user is able to make a hospital active or inactive
- h. Staff Setup
 - i. The user is able to setup new staff members for the hospitals
 - ii. The user is able to setup roles to the staff members
 - iii. The user is able to setup functions for the staff members
 - iv. The user is able to setup contacts for the staff members
 - v. The user is able to setup addresses for the staff members
 - vi. The user is able to make a staff active or inactive
- i. Partograph Management
 - i. Partograph Workbench
 - 1. The user is able to create, edit, activate, or inactivate a partograph
 - 2. The user is able to filter the partographs by different hospitals, status, doctors etc.
 - 3. The application supports keyword-based filtering
 - ii. Partograph Scenarios
 - 1. The application facilitates learnings and training with built in patient scenarios
 - 2. The students are able to create new partographs based upon the scenarios and provide their summary views on the case.
 - 3. The students are able to view the related questions and provide answers for these scenarios.
 - 4. The instructor is able to assign tasks to the students.
- j. User Alert Management



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- i. The alerts are configurable by the user administrator.
 - ii. The user is able to map roles, contacts and emails to which an alert should go.
 - iii. The user is able to configure the alert body using parameters and editor pad.
 - iv. The user is able to configure the solution being sent within the alert.
 - v. The user is able to turn on or off an alert.
 - k. Daily Notes
 - i. The user is able to write notes at hospital level
 - ii. The user is able to assign these notes as tasks to other staff members
 - iii. The user is able to add, edit, filter and delete these notes.
 - l. Task Assignments and Management
 - i. The user is able to create daily tasks for the other staff members and assign them
 - ii. The staff is able to view the tasks and provide resolution to those and mark them complete or in process or postponed.
 - m. Sticky Notes – Show Notes
 - i. To promote collaboration, users are able to leave page specific notes for other users
 - ii. The page shows count of urgent or regular notes
 - iii. The users are able to mark those read.
- 8. Dashboards
 - a. Patient Status Monitoring
 - i. The application provides descriptive dashboards to remotely monitor the patient conditions.
 - ii. The dashboards show reminders for the observations that needs to be taken for the patients.
 - b. Patient Analytics
 - i. The analytical dashboard shows – number of C-Sections versus normal deliveries, number of critical patients, Robscn’s groups selected and number of referred patients as charts.
 - ii. The user is able to configure these charts with filters.
 - iii. The charts auto refresh. The user should be able to set the refresh time interval for these charts.
- 9. Alerts
 - a. The application is able to automatically create and send alerts based upon the observations entered. These alerts are categorized based upon the condition of the patients. The following alerts are given
 - i. Critical Alerts
 - ii. Medium Alerts
 - iii. Reminder Alerts
 - b. Critical and Medium alerts are sent by email, SMS and on shown on the dashboard.
 - c. These is a place to indicate resolutions for each of these alerts.



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d. The user is able to view the history of these alerts.

10. Reports

- a. The application provides extensive reports and exports on the partographs and patient conditions. The application provides the following
- i. Complete Patient Treatment Booklet
 - ii. Individual page export
 - iii. Excel exports

11. Easy Navigation

- a. The application provides easy on-click navigation through the application. The navigation provides the following methods to access
- i. Menu based access – shows each module as part of the navigation
 - ii. Go to links-based access – shows name-based navigation by page.
 - iii. The navigation access is tightly controlled with permissions.

12. Modified Partograph Features - The Modified Partograph provides the following modules for managing patient information and monitoring the conditions. Each form is user customizable by allowing new parameters to track -

- a. Register Patient – is able to register the patient with all pertinent information
- i. Patient Information
 - ii. Registration Details
- b. Pre-partum care – this module contains the following patient details. Only the higher levels are identified here.
- i. Quality Guidelines
 - ii. Obstetrics Formula
 - iii. Patient History
 1. History of Present Illness
 2. Menstrual History
 3. Obstetric History
 4. Past History
 5. Family History
 6. Personal History
 - iv. Patient examination – the users are able enter the detailed examination observations by date.
 1. General Physical Examination
 2. Systemic – Bishop's Score
 3. Examination Advice
 - v. Patient Investigation – the users are able enter the detailed investigation observations by date.
 1. Date wise Investigation
 2. Upload Sonogram
 - vi. Patient Treatment
 1. Previous/Current Treatment



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2. Medication Chart
3. Distribution of Medicine
4. Monitoring of Admitted Patient With Obstetrics
- vii. Patient Medication Plan
- c. LR/OT Safety Checklists
 - i. Ability to customize
 1. Safe Birthing Checklist
 - a. On Admission
 - b. Just Before Pushing (Or Before Caesarean)
 - c. Soon After Birth (Within 1 Hour)
 - d. Before Discharge
 2. Surgical Checklist
 - a. Surgical Safety Checklist
 - d. Partograph Monitoring
 - i. Modified WHO Partograph
 1. Guidelines – Natural Progression of Labor
 2. Latent Phase – provides automatic charting of all charts of Latent Phase as specified by WHO
 3. Active Phase – provides automatic charting of all charts of Active Phase as specified by WHO
 4. 2nd Stage – provides automatic charting of all charts of 2nd stage as specified by WHO
 5. Intra Examination
 - a. General Physical Examination
 - b. Systemic
 - c. Examination Advice
 6. Intra Investigation date wise. Upload Sonograms
 7. Delivery Report – Robson Classification
 8. Guidelines – Bonding of Mother and Child
 9. Baby Report
 - ii. Post-Partum Care
 1. Fourth Stage – complete tracking of the fourth stage conditions
 2. Medication – complete tracking of medications provided
 3. Maternal Progress Report – complete tracking of maternal progress over multiple days.
 4. Baby Progress Report - complete tracking of baby progress over multiple days.
 5. Delivery Report
 - iii. WHO Labor Care Guide – provides capability to monitor patient conditions using the WHO Labor Care Guide.



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- iv. Multi-pregnancy tracking – both Modified Partograph and Labour Care Guide should facilitate tracking of multi-pregnancy conditions.
 - 1. Conditions of each baby is tracked separately.
- v. PRT Notes – this is a built-in note pad for the users to record their observations and summaries.
- e. Customization – Each form is customizable as appropriate with the ability to add new parameters to the page. Once added these become available for all other partographs of the client.
- f. Pre-defined Inputs – to make entering observations easy, pre-defined inputs are provided. This requires the users to select versus enter the observations.
- g. Chart Histories – Observation history for each chart is shown to the user. This indicates when and who entered each of the observations.
- h. Managing Observation Errors
 - i. In case an observation is entered in error, the user is able to mark that observation as Error.
 - ii. The errored data is removed from the chart.
 - iii. Detailed tracking is maintained for the error marking.
- i. Tracking audit history of data entry – detailed and easy to access tracking of observations entered is maintained. The user can view and export the reports.
- j. Document Uploads – the application allows the user to upload media – documents, images, videos related to a patient.

Language change – the application allows the users to change the language of the application to Hindi and English.

Certified by,

Ram Pandit

Ram Pandit, Ph.D.
Chief Executive Officer
Applied Decision Technologies, Inc.