Invitation of Expression of Interest for

Transfer of Technology for

"Product Suite for Efficient Screening of Cervical Cancer (CerviSCAN)"

(EOI invitation opens till 10th March 2026)

C-DAC Thiruvananthapuram would like to invite competent industrial partners for commercialization of **CerviSCAN** through **Transfer of Technology (ToT)**. This product is developed under funding from MeitY and Department of Health Research, MoHFW. The technology will be transferred on non-exclusive basis.

1. **Brief about C-DAC**

Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Ministry of Electronics and Information Technology (MeitY), Govt. of India for carrying out R&D in IT, Electronics and associated areas. C-DAC Thiruvananthapuram has been working in application oriented research, design and development for various industrial and customer requirements. Centre has acquired competency, expertise and extensive experience in the areas of Broadcast & Communications, Control & Instrumentation, Networking, Power Electronics, ASIC Design and Underwater Electronics.

2. **Brief description about the technology to be transferred**

The following technology is planned for Technology Transfer. More details are provided in enclosed brochure.

In India, one woman dies of cervical cancer every eight minutes, contributing to one fifth of global mortality caused by the disease. Cervical cancer is one of the few types of cancers that can be detected, treated, and cured before progressing to invasive cancer.

CerviSCAN automates manual operations followed in traditional cytology such as smear preparation, staining and diagnosis under the microscope by adopting robotic lab automation techniques. Moreover, AI assisted cloud based interface provided by CerviSCAN improves efficiency and accessibility of cytology services in comparison with traditional cytology

CerviSCAN product suite contain following products

1. ***DigiSmearAS20x*** **-** used to digitize cervical smears. DigiSmear has precise robotic control movement of slides in X, Y & Z direction with –micro-metre precision. High throughput imaging integrated with AI based auto-focus modules ensures that high quality images are acquired within a short span of time.
2. ***RotoStainer*** –automates the resource intensive Slide Staining procedure thereby standardizing staining output. It improves lab efficiency by staining 96 slides in one batch. It has the

provision for running water and User configurable staining parameters. Audio indications for specific functionalities and touch Screen display are other features of RotoStainer.

3. ***KytoSpin*** – Cervical smears collected from population screening programs or from hospitals shall be stored in vials and centrifuged using KytoSpin to prepare a mono-layered specimen.
4. ***KytoFunnel***-Indigenised mega funnel for preparing monolayer slides.
5. ***KytoClip*** - Indigenised Clip for preparing monolayer slides

Salient Features

1. ***DigiSmear AS20x***
   - Slide scanner with automated scan in X,Y and Z direction with micro-metre precision
   - AI Assisted Auto Focus
   - User configurable scan mode selection to optimize scan quality and scan time.
2. ***RotoStainer***
   - *Improves* stain efficiency by staining 96 slides in one batch.
   - Provision for running water
   - User configurable staining cycles with adjustable dip count and time parameters.
   - Audio indications for specific functionalities
   - Touch Screen HDMI display
   - STOP/PAUSE/RESTART options instantaneously while staining in progress
   - Manual mode for initiation of staining process from any reagent position
   - Provision for selective staining as per user requirement
3. ***KytoSpin***
   - *Rotor to centrifuge 8 Megafunnels.*
   - *Indigenised Centrifuge with user programmable option to set time and RPM.*
   - *Brushless DC motor to reduce maintenance.*
4. ***KytoFunnel***
   - *Indigenised Megafunnel design.*
   - *Increased specimen area of 23mm x 15mm and hence more analyzable cells.*
   - *Indigenized mono-layering technique with smear quality comparable to that of commercial Liquid Based Cytology systems.*
5. ***KytoClip***
   - *Indigenised Cyto Clip*

3. **Current Status:**

Developed a fully deployable unit. The system had undergone validation on over 10,000 cervical smears and in 4 apex cancer institute's of the country which are ICMR-National Institute of Cancer Prevention and Research (Noida) Regional Cancer Centre (Thiruvananthapuram), Dr. Bhubaneswar Borooah Cancer Institute (Guwahati) and Atal Bihari Vajpayee Regional Cancer Centre (Agartala). Additionally, the system is now undergoing extended evaluation at Wayanad District of Kerala as part of the project "Digitally Connected Tribal Colonies" project with support of Ministry of Electronics & IT, Govt. of India and State Tribal Development Department, Govt. of Kerala.

4. **List of deliverables as part of the Technology transfer**:

Sl. No.	Product	Deliverables
1	DigiSmear AS20x	• Components details • Fabrication drawings • Integration Manual • User manual
2	RotoStainer	• Components details • Fabrication drawings • Integration Manual • User manual
3	KytoSpin	• Components details • Fabrication drawings • Integration Manual • User manual
4	KytoFunnel	• Fabrication drawings • User manual
5	KytoClip	• Fabrication drawings • User manual

5. Scope of work & Facilities:

a. **Extent of Work:** The Expression of Interest (EOI) is for participation of competent industrial partners for facilitating clinical trials using the above mentioned product through transfer of technology of '**Product Suite for Efficient Screening of Cervical Cancer (CerviSCAN)**. The technology will be transferred on a non-exclusive basis. The scope of work includes manufacturing of suite of products for CerviSCAN, which includes sourcing, fabrication, assembly, Certification and testing. CDAC shall also impart training to the engineers of the ToT partner during different stages of the transfer of technology.

b**. Documentation**:

- CDAC shall provide its documentation for all sub-systems as per scope of work.

- The identified industry is expected to prepare detailed documents of fabrication, development &testing of various sub-systems in consultation with CDAC, however the final documentation is entirely the responsibility of bidder.

6. Expression of Interest:

a. Institution invites "Expression of Interest in the format given in Annexure-1 The industries will be shortlisted based on the information furnished in **EOI for Technology Transfer Format** and assessment by CDAC.

b. The submission of the EOI shall include all such documents that are specified herein to prove the authenticity of their offer and any claim made therein. The burden of proving such claims shall lie with the bidder.

c. All cost and expenses associated with submission of EOI shall be borne by the bidder while submitting the EOI and Institution shall have no liability, in any manner in this regard, or if it decided to terminate the process of short listing for any reason whatsoever.

d. The information to be furnished for Expression of Interest is given in Annexure-I. Interested parties can submit the EOI along with Annexure-I (Part A & B) duly filled in with all relevant supporting documents as mentioned in Annexure 1 Part -B

e. The EOI's submitted should be sealed properly and marked "EOI for Transfer of Technology (ToT) of CerviSCAN" so as to reach the following address.

   Section Head (Technology Promotion Centre), C-DAC, Vellayambalam,Trivandrum 695033.

   Alternatively, the EOI and all the requested documents can be mailed in pdf format to tpc@cdac.in. CDAC will acknowledge receipt of such emails immediately on receipt.

   The EOI shall be opened once it is received at CDAC Office.

f. Once document verification of the submitted EOI is complete, CDAC will share the draft MOA which contains TOT methodology, licensing terms and conditions, training, IP rights, payment terms etc. This MOA will be shared to the party within 7 days of Receipt of EOI at CDAC office.

g. Once the party express his willingness to accept the terms and conditions as specified in MOA, CDAC will sign the MOA with the party and will initiate TOT proceedings as specified in the MOA.

h. The EOI invitation will be available for interested parties to respond till 10th March 2026. However C-DAC may at its discretion- extend this EOI invitation

i. To assist in the examination, evaluation and comparison of EOI, C-DAC at its discretion can ask the party for the clarification of its EOI. The request for clarification and the response shall be in writing. However no post submission of EOI, clarification at the initiative of the party shall be entertained.

j. Parties, if they chose, may prior to submitting their Expression of Interest, visit CDAC with prior appointment.

k. Parties may be called for making a presentation before the ToT Committee.

l. C-DAC representatives may visit party's facilities for the assessment if required.

m. At any time before the submission of EOI, C-DAC may carry out amendment(s) to this EOI document and/ or the schedule. The amendment will be made available on the website (www.cdac.in) and will be binding on them.

n. CDAC authorities reserve the right to accept or reject any application without assigning any reason thereof.

o. EOI that are incomplete in any respect or those that are not consistent with the requirements as specified in this document or those that do not adhere to formats, wherever specified may be considered non-responsive and may be liable for rejection and no further correspondences will be entertained with such bidders.

p. Canvassing in any form would disqualify the applicant.

q. All cost and expenses associated with submission of EOI shall be borne by the bidder while submitting the EOI and C-DAC shall have no liability, in any manner in this regard, or if it decides to terminate the process of short listing for any reason whatsoever.

7. Who can Apply?

- Industries or Startups with experience or interest in Medical Electronics or Information and Communications Technology (ICT)
- Agencies willing to take up the local production of "CerviSCAN" by themselves, or in collaboration with Industry partner.

8. How to Apply?

Interested companies may send expression of interest with their details by filling the details along with supporting documents to:

Section Head (Technology Promotion Centre)
C-DAC, Vellayambalam, Thiruvananthapuram
Contact: 098470 69184/04712723333(450),

Or by email to tpc@cdac.in

9. Annexure

a. Annexure I - Part A & B
b. Annexure 2 –CerviSCAN Brochure
c. Annexure 3 – Product Specification

Annexure –I (Part-A)

The following details should be submitted along with EOI by the bidder.

A.	**Company Profile**
1.	Name of the Organization: Website:
2.	Name of the Contact Person: Address: Mobile: Landline: Fax: E-Mail:
3.	Year of Incorporation:
4.	Type of Organization a. Public Sector/ Limited/Private Limited/ Partnership/ Proprietary/ Society/ Any other b. Whether 'Foreign Equity Participation (Please give name of foreign equity participant and percentage thereof) c. Names of Directors of the Board/ Proprietors d. Name and address of NRI(s), if any
5.	Category of the firm: Large/Medium/Small scale unit / Others
6.	Address of the Registered Office: (Include Certificate of Registration)
7.	Number of Offices with addresses (Excluding Registered Office): India: …… Abroad: ……..
8.	Certificate of registration as a manufacturing unit
9.	Permanent Account Number
10.	GST Reg. No.
11.	Status of ISO9001 or 'Status of ISO9001 or ISO13485' or any equivalent Certification

Annexure – I (Part B)

Technical Collaborations of the bidder

B.	ESSENTIAL REQUIREMENTS
1.	The organization must be a reputed firm/company/SME/startup/R&D company incorporated in India. Registered institutes need to be having a standing of at least 2 years, except for startups. Startup need to submit Startup India Registration Certificate, issued by India's Department for Promotion of Industry and Internal Trade (DPIIT)
2.	The turnover(for last 2 years)is to be supported by financial statements of accounts/ Annual reports duly certified by a Chartered accountant/ Balance sheets of last 2years/ Income tax returns for the last 2years period. Institutes registered as Startups may submit mentioned certified documents for a duration not more than 2 years.
3.	Company profile, giving details of current activities and management/ personnel structure including evidence of incorporation. The company should be registered and ISO9001 or ISO13485 or equivalent certified.
4.	Details of absorption of technology for a product/knowhow if any that has been taken up on production scale in the past may also be given
5.	The man power strength (Technical: Mechanical, Electrical, Electronics, Software & Non-Technical etc.) at various levels to be furnished Technical: a. B.E./ B.TECH/PhD b. DIPLOMA c. SKILLED TECHNICIANS d. UNSKILLED Non-technical:
6.	The list of machine tools /equipment/software/facilities available related with work to be furnished.
7.	The in-house technological expertise available to be furnished
8.	The list of equipment available for inspection and quality control to be furnished.
9.	The industry should have adequate space for undertaking this work. Available space-Covered &Open and location details to be furnished.
10.	List of products/technologies worked with as regular activity in last two years. Give the list of products/technologies with general specifications and the customers.
11.	List of PSUs/Govt. customers – with contact details (Address, Telephone no., Contact Person)
12.	The details of sales, marketing and maintenance network to be furnished
13.	The list of technical collaborators for various ongoing products may be furnished
14.	The bidder shall provide details of the sub-vendors in case they propose to employ for Part-work.
C.	Expression of Interest: Spell out the extent of interest and envisaged market potential
D.	The ToT will be done stage-wise: The preferred stages may be furnished.

*Note: Data furnished above is by no means a qualification or disqualification. It facilitates comparison. NIL entries against any particular row can also be given and will be considered.

I hereby declare that the above information is true to the best of my knowledge.

Signature with Name &Seal:

Place: Date:

Annexure –II (CerviSCAN Brochure)

CerviSCAN

REDUCES SCREENING COST SIGNIFICANTLY AND IMPROVES THE SCREENING EFFICIENCY OF HUMAN EXPERT

CERVISCAN SUITE OF PRODUCT CONTAINS

DIGISMEAR AS20X
AI powered Slide Digitizer

DIGITAL CYTOLOGY FRAMEWORK
Smart Pathologist Workflow

AI-PAP
AI Assisted PAP smear analysis system

ROTOSTAINER
Robotic system for Slide Staining

KYTOFUNNEL, KYTOCLIP
Megafunnel for Specimen Preparation, Cyto Clip required for megafunnel preparation

KYTOSPIN
Mega Funnel Centrifuge

CerviSCAN

One woman dies of Cervical cancer every 8 minutes in India.

Absence of systematic PAP smear screening programs and lack of trained cytologists is the major cause of cancer deaths in the country.

CerviSCAN is an indigenized system for screening of cervical cancer using methodologies of AI and Robotics which makes population screening for Cervical Cancer feasible.

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Annexure –III (Product Specifications**)**

DigiSmear AS20x

Dimension of Glass Slide	: 75 x 25
Smear Preparation	: Monolayer smear
Smear Dimension	: 25mm x 15mm
XY Travel Range	: 50mm x 50mm
Z Travel Range	: 5mm
Minimum X,Y Resolution	: 5um
Minimum Z resolution	: 15nm
Scan time	: 14 minutes
Illumination	: White LED
Magnification	: 20x aberration corrected
Communication Interface	: USB
Image Sensor	: RGB
Frequency	: 40KHz
External Power input (DC)	: 3.5V DC to 6V DC (5V DC typical)
Operating Temperature	: 0℃to 70℃

RotoStainer

Compact 360° rotary table actuator with Repeatability of ±0.03°
Linear guided actuator with 150mm stroke length and Repeatability of ±0.05mm
Load capacity of 50N
Provision for running water.
Aluminum 6061T6 alloy structure
Clear Acrylic top cover
Touch Screen HDMI display

KytoSpin

Variable programming interface for RPM and time
Balanced motor to centrifuge 8 KytoFunnels at a time

KytoFunnel & KytoClip

Precision fabricated medical grade material with injection mould for production