

Invitation for Expression of Interest (Eoi)
for
Transfer of Technology (ToT) Of “CoLOSENS”, Product Developed by
C-DAC Kolkata

No: C-DAC(K)/MMG/PUR/EOI/02/AEE/2023/

dated 25 September 2023

C-DAC Kolkata has developed a product, namely, “CoLOSENS” – an affordable colorimetric diagnostic instrument for bacterial diarrhoea screening”. Brief write-up of “CoLOSENS” is given below in this document.

Applications for Expression of Interest (Eoi) are invited for the purpose of Transfer of Technology (ToT) / commercialization of the above-mentioned product from organizations with relevant experience.

1. Interested bidders are requested to provide necessary information in a format mentioned under Annexure-I (Part-A and Part-B) below as part of their Eoi bid/application along with all relevant supporting documents.
2. Eoi bids need to be submitted in a sealed envelope with marking on top “Eoi for ToT of CoLOSENS” and it should reach the following address on or before **27/10/2023 by 5:00 P.M.**

The Director
Centre for Development of Advanced Computing (C-DAC), Kolkata
Plot - E 2/1, Block - GP, Sector - V, Salt Lake Electronics Complex,
Bidhan Nagar, Kolkata – 700091.
Phone No: 033 2357 3581 / 5989 / 9846

Eoi bids shall be opened on **31/10/2023 at 11:30 A.M.**

3. C-DAC Kolkata reserves the right to extend above mentioned bid submission deadline, in which case, all rights and obligations of C-DAC Kolkata and the bidders relevant to the previous bid submission deadline shall remain same for the extended deadline.
4. C-DAC Kolkata also reserves the right to amend the Eoi bid documents already published which would be binding on all the interested bidders. The amendment will be made available on C-DAC’s website, i.e., www.cdac.in well in advance.
5. During evaluation process of the submitted Eoi bids, C-DAC Kolkata may ask the concerned bidder to provide clarifications, if any, on its submitted Eoi bid. The request for clarification from C-DAC Kolkata and the response from the bidder/s shall be in writing. No post-submission of Eoi bids and/or clarification/s at the initiative of the bidder shall be

entertained.

6. Bidders of the received EoI bids may be called for making a presentation before C-DAC Kolkata's ToT Committee for their business plan.
7. Representative/s of C-DAC Kolkata may visit bidder's premises, with prior information, to inspect and assess their facilities mentioned in their EoI bids.
8. After evaluation process of the received EoI bids, C-DAC Kolkata will invite submission of sealed Financial Bids from the technically selected bidders only.
9. C-DAC Kolkata reserves the right to reject all or any application without assigning any reason thereof.
10. EoI bids that are incomplete in any respect or those that are not consistent with the requirements as specified in this EoI document or those do not adhere to the format given below under Annexure-I (Part-A and Part-B), may be liable for rejection and no further correspondences will be entertained with such bidders.
11. Canvassing in any form would summarily disqualify the bidder.
12. All cost and expenses associated with submission of EOI bids shall be borne by the bidders while submitting the EOI; and C-DAC Kolkata 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.
13. Contact person on behalf of C-DAC Kolkata for any clarifications on the above mentioned EoI bid document:

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Project Manager

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Dr. Souvik Pal

Sr. Project Engineer

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Competent authority
C-DAC Kolkata

Technical Information

1.0 About C-DAC

Centre for Development of Advanced Computing (C-DAC) is the premier R&D organization of the Ministry of Electronics & Information Technology (MeitY), Government of India for carrying out R&D in IT, Electronics and associated areas. Different areas of C-DAC, had originated at different times, many of which came out as a result of identification of opportunities.

C-DAC is working on strengthening national technological capabilities in the context of global developments in the field and responding to change in the market need in selected foundation areas. In that process, C-DAC represents a unique facet working in close junction with MeitY to realize nation's policy and pragmatic interventions and initiatives in Information Technology. As an institution for high-end Research and Development (R&D), C-DAC has been at the forefront of the Information Technology (IT) revolution, constantly building capacities in emerging/enabling technologies and innovating and leveraging its expertise, caliber, skill sets to develop and deploy IT products and solutions for different sectors of the economy, as per the mandate of its parent, the Ministry of Electronics and Information Technology (MeitY), Government of India and other stakeholders including other funding agencies, collaborators, users and the market-place.

C-DAC, Kolkata is one of the 12 Centres of C-DAC in India and situated at most privileged and strategic location at Kolkata, India for pursuing R&D activities in the area of electronics & IT.

C-DAC Kolkata's laboratory infrastructure and manpower have got unique strength of pursuing R&D activities in the fields blended with electronics & sensing system, machine olfaction, advanced instrumentation, software development and soft computing.

2.0 Brief Description of the Product to be transferred

'CoLOSENS' is the output of a Ministry of Electronics and Information Technology (MeitY), Govt. of India funded project titled "CoLOSENS An Affordable Colorimetric Diagnostic Instrument and Field Validation at Imphal, North-East India". It is a high-throughput field portable miniaturized device integrated with stabilized bioreceptors toward cost-effective diarrhoea prognosis. It allows the prediction of bacterial cause of diarrhoea, thus minimizes the unnecessary use of antibiotics. Furthermore, it has point-of use abilities. 'CoLOSENS' can empower rural healthcare wherein expensive instrumentations are either scarce or not affordable.

Presently the sensing system has been developed and deployed at ICH, Kolkata and RIMS, Imphal towards extensive field trial.

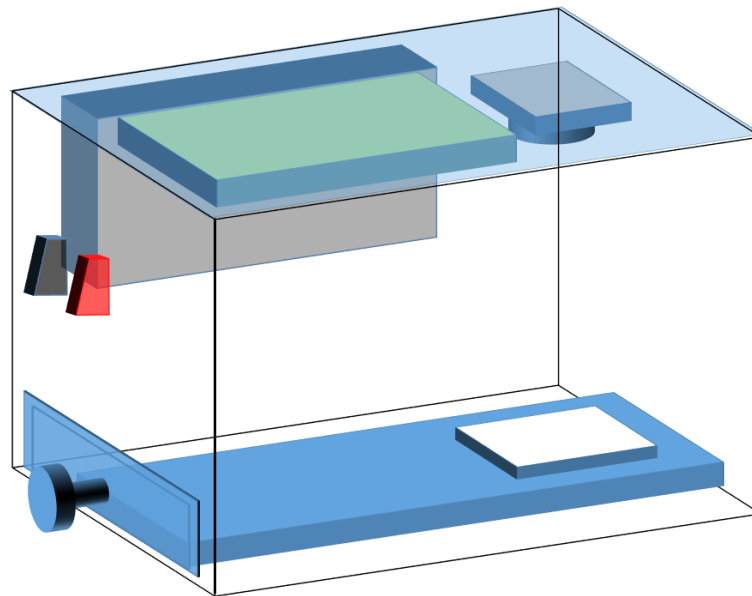


Fig: Graphical image of 'CoLOSENS' Sensing System.*

* Indicate picture, as application of patent is in process.

Present Day Technological Relevance:

India is one of the hotspots of child diarrhoea prevalent regions of the globe, reported by WHO. It is difficult to differentiate between different causative agents of diarrhoea, mostly bacteria and virus without proper lab based microbiological techniques. Thus, unnecessary usage of antibiotics against diarrhoeal disease without knowing the causative agent is increasing antibiotic resistance in children below five. So, there is an utmost need of diarrhoeal pathogen screening to confirm the causative agents to be bacteria or not. Presently no indigenous, cost effective, rapid solution is available at commercial scale.

To address the problem C-DAC, Kolkata took initiative to develop Bio-Sensing System for screening of bacterial diarrhoea. Biosensors can be defined as an analytical tool or system consisting of an immobilized biological material in intimate contact with a suitable transducer. The effort has been culminated to a prototype Biosensing system towards screening of bacterial diarrhoea with a disease-causing limit of 10^6 CFU/mL in stool sample.

Through the mobile dashboard application, real time data monitoring at multiple locations is possible.

Present Status of the Product:

The instrument has been successfully field tested jointly with RIMS, Imphal with limited samples and conditions.

C-DAC, Kolkata in collaboration with RIMS, Imphal have arranged two workshops to increase the awareness in society. They are:

- Awareness program in RIMS, Imphal arranged on 29.09.2022.
- Workshop cum seminar arranged in BCC&I, Kolkata on 14.12.2022.

During this stage, C-DAC, Kolkata is facilitating the technology transfer of the 'CoLOSENS' system. The ToT partner will take the responsibility and necessary actions towards market survey, clinical validation, form factor customization, certifications and other associated activities to take the ColoSENS sensing system at market and successful commercialization.

3.0 Scope of the ToT Process

The Transfer of Technology (ToT) would be made on non-exclusive basis and on sole discretion of C-DAC Kolkata. C-DAC Kolkata's ToT package may contain following:

- Technical Documentation of the product
- Licenses of the software: The proprietary source code of the software will remain under the guardianship of C-DAC, Kolkata. As part of the royalty-based arrangement, the software will be handed over to the esteemed commercialization partner on a storage device during their sales events.
- Bill of Materials of the total system
- Test plan and procedure
- User manual
- Signing of ToT Agreement
- Provision for imparting training to the technology recipients
- Handholding support following ToT

ANNEXURE- I
Eol of CoLOSENS for ToT

The following details should be submitted along with Eol.

Part - A

A.	Company Profile	
1.	Name of the Organization: Website:	
2.	Details of Contact Person: Name: Address: Telephone: 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	
6.	Address of the Registered Office:	

7.	Number of Offices with address (Excluding Registered Office): India Abroad	
8.	Certificate of registration as a manufacturing unit	
9.	Permanent Account Number	
10.	Sales Tax Number/VAT	
11.	Status of ISO 9001, ISO 13485 and other Certifications	
12.	Plan for certification of ColoSENS Device for compliance with regulatory requirements	
13.	Annual Turnover for last 3 years:	

Part-B

B.	ESSENTIAL REQUIREMENTS	
1.	The organization must be a reputed firm/Company/SME/ Start-up/R&D company incorporated in India with standing of at least 3 years.	
2.	The turnover is to be supported by financial statements of accounts/Annual reports duly certified by a Chartered accountant/Balance sheets of last 3 years/Income tax returns for the last 3 years period.	
3.	Company profile, giving details of current activities and management/personnel structure including evidence of incorporation. The company should be registered and ISO 9001 or equivalent certified.	
4.	Details of absorption of	

	technology for a product/knowhow that has been taken up on production scale in the past may also be given.	
5.	The manpower 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/equipments/software/facilities available related with work to be furnished.	
7.	The in-house technological expertise available to be furnished.	
8.	The list of equipments available for inspection and quality control to be furnished.	
9.	The industry should have adequate space for undertaking this work. Available space - Covered & Open to be furnished.	
10.	List of products/technologies worked with as regular activity in last 3 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	

	collaborations 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. These are meant to facilitate technical comparison of the EoI bids. "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: