## ICAR-CENTRAL INSTITUTE OF POST-HARVEST ENGINEERING & TECHNOLOGY

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REGID POST

Dated: 03.04.2024

F. No. 90-5/P&S-II/2023-24

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Sub: Limited Tender Enquiry for Mobile Application for real time data entry and monitoring reg. Sir,

For and on behalf of the Secretary, ICAR, the Director, ICAR-CIPHET invites sealed tenders under Two Bid Systems (Technical and Financial Bid) for Mobile Application for real time data entry and monitoring as detailed in this Annexure-I to tender, The cover containing tender should be superscripted as "Limited Tender for Mobile Application for real time data entry and monitoring with tender No. & date.

Last Date of the Receipt of the Limited Tender is 24.04.2024 up to 1.00 pm Date of Opening of Limited Tender as 24.04.2024 at 2:30 pm onwards at ICAR-CIPHET Committee Room.

Tender received after prescribed date will not be considered.

## Tender shall satisfy the following conditions:

1. Technical and financial bids are to be prepared separately as Part (A) and Part (B)

Part (A) of the tender document should contain tender document duly signed and stamped, tender fee of Rs. 500 in the form of Demand Draft drawn in favour of Director ICAR-CIPHET, covering letter, bidder's Profile and EMD 3%. DD of tender fee should not be merged with DD for EMD. Tender fee & EMD in the form of cheque will not be entertained.

Part B (Financial Bid) of the tender document should mention the flat discount rate offered by the bidder in following format

	Mobile Application for real time data entry and monitoring	Amount	Discount (%)	Net payable Amount
and s	hould be duly signed and stars all	.1 1:11	<del>-  </del>	

and should be duly signed and stamped by the bidder and placed in sealed envelopes. The envelopes should then be placed in one single envelop clearly indicating the tender No. & Date.

- 2. The Tender document should be submitted by the vendor with seal and signature on every page. The bidders may keep a photocopy of the same for their own records.
- 3. Tender must be accompanied with EMD/ Bid Security @ 3% of the estimated value of the item, in the shape of Demand Draft drawn in favour of Director, ICAR-CIPHET, Ludhiana.
- 4. Tenders received without tender document, tender fee and the required EMD will be rejected without any communication to Bidder.
- 5. The Bidder should write the Name of the Firm & the word "Mobile Application for real time data entry and monitoring "against which the E.M.D is being submitted clearly at the Back side of the Draft.
- 6. Discount rates offered by the firms shall not be linked with the quantum of the purchase order.
- 7. The rates quoted shall be valid for a period of 90 days from the last date fixed for the receipt of Tender
- 8. The rates quoted shall be for free delivery at ICAR- CIPHET. Ludhiana 141 004.
- 9. The EMD shall be refunded to the unsuccessful bidders after finalization of the Tender.

10. Payment will be made by mode of e-payment to the supplier/firm after satisfactory completion of work and receipt of pre-receipt bills in triplicate.

11. Sealed Tender should be Submitted in the office of Director, ICAR-CIPHET or sent through registered

post/speed post/courier.

12. TIN/VAT/PAN/C.S.T. No. may be given on the Tender and copy of relevant proofs should be enclosed with tender.

13. The Director, ICAR-CIPHET, Ludhiana does not bind himself to accept the lowest Tender or any other Tender and reserves the right to cancel any Tender or all Tender without any notice. The decision of the Director, ICAR-CIPHET, Ludhiana is final.

14. The firm must have trade registration certificate.

15. The Supplier shall supply the materials within 30 days the period from the date as specified in the purchase order. If the supply is not received within the stipulated time, the Director, ICAR-CIPHET reserves the right to cancel either the entire order or part thereof without any further notice/reminder. In case, the supplier needs some more time for supply, he/she should seek in writing on sound grounds, further time from the concerned officer at least four days before supply date expires.

16. The tender from principal firm and authorized agent/dealer will not be accepted together.

- 17. The dispute arising out of this contract shall be subject to the jurisdiction of Indian laws & court at Ludhiana. Sole arbitrator is appointed by the Secretary, ICAR, New Delhi. The decision of arbitrator will be final and binding to both parties (Supplier and Purchaser)
- 18. The technical & financial bids are to be prepared and placed in different sealed envelopes. The envelopes should then be placed in one single envelop. The envelope shall be addressed to the Director, ICAR-CIPHET, Ludhiana and it should also bear the tender enquiry number date and the words "Mobile Application for real time data entry and monitoring". Do not open before 24.04.2024 at 2:30 PM. This envelope should then be put inside another envelope, which will also be duly sealed. The outer envelope will bear the full address of the purchaser. The supplier must ensure that its tender, duly sealed as above, reached the purchaser on or before 24.04.2024 at 1:00 PM.
- 19. The supplier may, at its choice, send the tender by registered post, speed post. However, ICAR-CIPHET will not be responsible for any postal delay. Alternatively, the supplier may also hand deliver the tender into the tender box available in the office of the institute.
- 20. Unsealed tender or having overwriting and cutting without proper attestation and signature will not be considered.
- 21. Tender not complying with the above conditions are liable to be rejected.
- 22. The Director, ICAR-CIPHET reserves the right to reject any or all Bids/Offers without assigning any reason or cancel the process at any time.
- 23. The Firm must attach a List of Government Institutions to which they have supplied Mobile Application for real time data entry and monitoring in the last three years along with proof.

24. The firm should ensure before submitting tender that

A. Complete tender documents have been enclosed, after signature & stamping on ALL pages. Cost of Tender has been enclosed with tender document, if downloaded from website, if not, then supporting document proving exemption to this enclosed

I/c Purchase & Store

Copy to:

I/c AKMU, CIPHET, Ludhiana with the request to upload on institute website.

# Development of Mobile Application for Data Collection under ICAR DoCA Pulse Storage Project

#### Brief Introduction and Concept of work -

ICAR-CIPHET, Ludhiana (Lead Centre) has initiated a project related to storage of pulses. the project will be coordinated through 10 centres spread throughout the country.

The project involves periodical recording (after every 15 days) of different observations/ readings (numerical values as well as observations) from pulse storage sites spread across the country. Recording of the location specific observations from actual sites is of essence to ensure the authentication of the data. It is proposed to develop a user-friendly mobile interface/App to ensure hassle-free recording of the data from field by highly skilled employees of the collaborating centres. Main Idea behind this initiative is to have a centralized system where crucial experimental/ monitoring data from various centers could be collected online and display to authorized users at respective level.

ICAR-CIPHET, Ludhiana (Lead Centre) has initiated a project related to storage of pulses. the project will be coordinated through 10 centres spread throughout the country.

It is desired that the app should have following characteristics/features:

#### System Scope

It is proposed to develop a user-friendly mobile interface/App and web interface to ensure hassle-free recording of the data from field and from laboratory by our employees/contractors of the collaborating centers, along with the captured data is to be shown on web dashboard where authorized user can download/filter the data as per various search criteria for further analysis.

#### The System should have following facilities -

- User Role Configurable user role which could restrict and allow the access in system as per assigned role.
- 2. Designation hierarchy So respective designated user in system can view the data based on center he/she is linked with and respective hierarchy in the respective organization. Viz. A user from ICAR-CIPHET, Ludhiana can view the data recorded by respective sub centers which are under it, but user from respective center can view data only related to their respective centers.

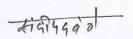
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- 3. Configurable Users System should allow add/remove users through interface and also, user should have facility to set passwords and view details.
- 4. Collaborating Centers System should have facility for adding sub-collaborative centers which can be associated with users for capturing data and monitoring.
- 5. Project Creation Admin users can create project. Information may include project title, objectives, collaborating centers, role and contact details of all the persons involved in the project, etc. The limited access information may include methodologies/ SOPs/ protocols/ questionaries being used during the study.
- 6. Registration of warehouse/Godown Respective project admin can add respective warehouse/godown. Information that needs to be captured is attached in Annexure 1. We may need to add multiple warehouses for working.
- 7. Information of Stacking/Procurement of Pulse –Five different Pulses are being considered for experiments and are to be added in stack. The information regarding pulse stacks to be recorded is as per Annexure 2. One warehouse will have multiple stack and may have multiple pulses.
- 8. Mobile app will be used for recording of data. Every time the recorded data should have geolocation of the area where the data is recorded. For one stack, the data will be uploaded by two users i.e. from field/stack location by Young Professional) followed by from laboratory (by SRF) after analysis of collected samples.
- 9. Web Interface There should be web interface for the application. This web interface will be used by Cooperating Centre PIs (for viewing respective centre data only), and by lead center for all the data. Web interface should show processed data output, trends, graphs etc. This level needs to be compatible for accessing from Desktop computer/web browser to provide flexibility and ease of processing the data.

#### 10. Data Recording –

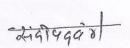
- a. Identification of warehouse/godown: one time information to be recorded by cooperating centre PIs (Annexure-1). This information needs to be available in form of dropdown list for collection of data in subsequent visits to respective warehouses.
- b. At time of Stacking one time information at the time of stack formation, (Annexure-2).
- c. Identification of stacks: stack number/ identification ID needs to be in form of dropdown list (Annexure-3).



- d. Sample ID: information (Annexure-4) for identification of samples collected during stacking/fortnightly visit/liquidation of particular stack, Sample ID will be unique for all the samples. The data shall be retrievable using sample ID as well.
- e. Fortnightly observations: Observations (Annexure-5) of each stack will be recorded at 15 days interval. The data includes on-field observations (Annexure-5) and laboratory analysis data (Annexure-6) of same sample ID collected during field visits. Formed stacks will have some field inspections carried out by our staff. System should facilitate recording the laboratory observations by user. This is periodic activity to be done after equal intervals of 15 days for each stack.
- f. Liquidation of stacks: stacks will be released for use by warehouse and data as per (Annexure-7) will be recorded under liquidation Process.
- 11. Project Information and Recorded data should be accessible to field functionaries/employee for entering the observations. The readings/observations will include a questionary, feedback, numerical values (Temperature, humidity, weight etc.).
- 12. The project involves periodical recording (after every 15 days) of the readings (numerical values as well as observations) on the field/sites. Recording of the location specific observations from actual sites is of essence to ensure the authentication of the data.
- 13. Field functionaries will enter the data from field/lab and will not be able to change the data without permission of the supervisor. These requests, permissions, and changes thereof will be duly noted/highlighted/communicated (by means of flag for raw data and edited data, if any) to the admins/respective superiors.

### Specific Requirements

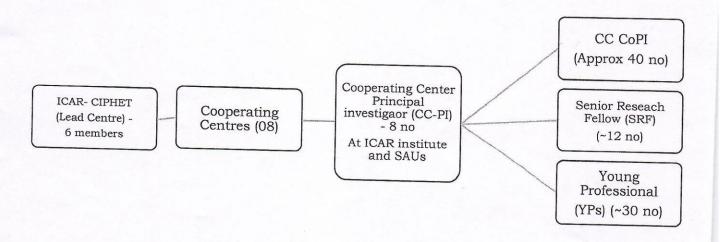
- 1. Data retrieval should be possible by one or multiple parameters including warehouse/godown ID, sample ID, Cooperating centre name, data collection date etc.
- The data export mechanism should be compatible with the generic office software (e.g. MS Office) and statistical packages.
- 3. All requests will be monitored and authorized by center PIs and Lead center, as and when required. IP address or MAC addressee of mobiles should be monitored for those who are accessing the system/App.
- 4. Web Interface should have various searchable facilities which could ease scientist/user to filter the data as per needs and can have better view for analysis.
- 5. System should have security certificates.
- 6. Role based access is needed in system.



#### **Technology Stack**

- 1. As per the Government of India directives and MeITY guidelines, the used technology for the application needs to be open source.
- 2. The data and application to be hosted will be stored in the cloud space or Preferably ICAR Servers, based on the decision of ICAR-CIPHET, Ludhiana.
- 3. Mobile App should be compatible with Android/Apple mobiles.
- 4. All procurement of licenses will be done by vendor if any. No extra cost will be paid for licensing for it.

#### **Organization Structure**



#### **Technical Support:**

This will include maintenance, troubleshooting, need based updating and changes in Mobile App structure as and when communicated by ICAR-CIPHET for the period of at least 03 years.

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