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**Expression of Interest (EOI)**

**seeking**

**Detailed Project Report on**

1. **Virtual Classroom Solution**

 **and**

1. **Workstation for Computer lab**

*For*

*Project entitled*

“*Smart Curricula Delivery through Virtual Classrooms as Communication Linked Interface for Cultivating Knowledge and Online Courses*”

**FUNDED UNDER**

**NATIONAL AGRICULTURAL HIGHER EDUCATION PROJECT**

**INDIAN COUNCIL OF AGRICULTURE RESEARCH**

**NEW DELHI**

UTTAR BANGA KRISHI VISWAVIDYALAYA

P.O. PUNDIBARI, DIST. COOCH BEHAR, WEST BENGAL- 736165

Ref No. UBKV/NAHEP-IG/11 Date: 01.10.2019

***Abridged Expression of Interest (EOI)***

EOI is hereby invited seeking proposal for Establishment of Virtual Classroom and Workstation for Computer Lab at Uttar Banga Krishi Viswavidyalaya from reputed and experienced Organisation / Agency having experience of handling / developing similar infrastructures at Govt. Organization / Institute of Higher Learning / Research Institute of repute. Last date of submission of EOI is ***24.10.2019*.** For details log on to University website [www.ubkv.ac.in](http://www.ubkv.ac.in)

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Principal Investigator

NAHEP-IG



***Detail Expression of Interest (EOI)***

***For***

**(1) *Virtual Classroom Solution and* (2) *Workstation for Computer Lab***

EOI is hereby invited, for establishment of two state-of-art virtual classroom facility and two workstation for computer lab; one at each academic campuses of Uttar Banga Krishi Viswavidyalaya in **turn-key** basis, from reputed and experienced Organisation / Agency having experience of developing similar infrastructures at Govt. Organization / Institute of Higher Learning / Research Institute of repute. Last date of submission of EOI is ***24.10.2019*.**

**DISCLAIMER:**

Uttar Banga Krishi Viswavidyalaya has prepared this document based on the sanction received under sub-project of NAHEP-IG, ICAR, Government of India to provide background information for the project entitled “*Smart Curricula Delivery through Virtual Classrooms as Communication Linked Interface for Cultivating Knowledge and Online Courses*” hereafter referred as the “**Project”**.

This document is neither an agreement nor an offer to any party / agency. The purpose of this document is to provide interested parties with basic information on requirement to assist the formulation of their Proposal. The information is not intended to be exhaustive. Interested agencies are required to make their own enquiries and respondents will be required to confirm that they have done so and they do not rely solely on the information provided in this document.

The information is provided on the basis that it is non-binding on UBKV, any of their respective officers, employees. UBKV reserves the right not to proceed with the project or to change the configuration / lay-out of the project, to alter the timetable reflected in this document or to change the process or procedure to be applied. While UBKV have taken due care in the preparation of information contained herein and believe it to be accurate, neither UBKV nor any of their respective officers, employees gives any warranty or make any representations, express or implied as to the completeness or accuracy of the information contained in this document or any information which may be provided in association with it. **No reimbursement of cost of any type will be paid to persons or entities submitting their** **proposal.**

**BRIEF DESCRIPTION OF THE PROJECT**

Indian Council of Agricultural Research (ICAR) has sanctioned a sub project entitled “*Smart Curricula Delivery through Virtual Classrooms as Communication Linked Interface for Cultivating Knowledge and Online Courses*” under the National Agricultural Higher Education Project (NAHEP). The project shall be implemented by Uttar Banga Krishi Viswavidyalaya, Pundibari, Coochbehar, West Bengal with provision of establishment of two Virtual Classrooms and two workstation for computer lab; one at each academic campuses i.e., at Pundibari, Cooch Behar and Majhian, Dakshin Dinajpur

 Uttar Banga Krishi Viswavidyalaya intends to develop the Project through the interested organization / agency having sound knowledge and expertise in virtual classroom solution based on the basic requirement of the project as set by the project implementing team of UBKV. The nature of services to be provided by the interested agencies will include, but not be limited to, visiting sites, carry out site survey, preparation of surveyed site plan, preparing interior Design and Details, Lay out plan, planning of all required components / services viz. electrical arrangement, network connectivity, and other necessary components based on the tentative lay-out plan supplied by the UBKV, preparation of Cost Estimates including detailed specification etc. Any other services or work not specifically mentioned herein but required for the proper and successful implementation of the project may also be included.

1. **BRIEF SCOPE OF WORK OF THE PROPOSED VIRTUAL CLASSROOM**

Two virtual classrooms, one each at two different campuses to be established with sitting capacity of 70 students in each class room.

* **Functionality required**
1. Lecture delivered in one virtual classroom shall run live in another remotely located virtual classroom.
2. Lecture delivered by remotely located faculty with minimum facility of a laptop with webcam shall be attended by students in different virtual classroom simultaneously within the university (live lecture Sharing)
3. The lecture should truly be interactive with students attending the lecture from different locations shall be able to interact with teacher in real time
4. The software should preferably get installed remotely and the lecture delivered by remotely located faculty shall by-default get stored/saved on the institute server/cloud only.
5. The lectures delivered either in Virtual classroom or from a remote location shall preferably be recorded and stored automatically and shall also be broadcasted/webcasted live.
6. Recorded lecture should be made available in university website through student login with user-friendly search option
* **Equipment required**

**To deliver the above functionality, the following equipment should be provided**

1. High End Visualizer
2. Mixer Amplifier s
3. Microphone/Gooseneck Microphone for student desk
4. Cordless Collar Microphone and Cordless handheld Microphone
5. Controller for Projector. Motorised Screen etc.
6. Short Throw Projector with 3500lms
7. Document camera
8. Digital Podium
9. Desktop PC
10. Offline UPS
11. Separate space for Desktop PC
12. Separate space for Amplifier Mixer, Controller and other equipment.
13. Tracking Cameras and PTZ Cameras
14. Interactive White Board-Smart Board 95 inch
15. Interactive Pen and Touch display
16. LED TV 70inch
17. Required Cables , Connectors Power Plugs
18. **Basic Civil & Electrical work required for upgrading the existing room (room size: 18325mm x 8075mm) into a Virtual Class Room**

 **Brief technical description of items to be used for interior works / acoustics etc.**

1. **Acoustical False Ceiling**: Mineral fibre false ceiling Ecophon ceiling tiles 595 x 595 x15mm thick which is high performance ceiling tiles for specific application like reducing noise in indoor spaces and extreme high decibel areas.
2. **Plain False Ceiling**: Standard board product made of Gypsum mainly use for plain false ceiling having grey face**.**
3. **Wall Panelling**: All four sides tapered perforated gypsum acoustic board having eight quadrants of square shaped perforations of 3mm x 3mm and backed by an acoustical fleece with 50mm thick poly wool backing having 0.7 NRC.
4. **Dado work**: Dado work to be done on walls with a height of 900 mm approximately from the floor level by a frame work made of 50 mm thick metal stud section as per requirement. The frame work to be covered by 9 mm thick ply (BWR grade) with nails & adhesive. Then 01 mm laminate to be pasted on 9 mm ply with adhesive. The bottom level of the dado to be covered with 100 mm W x 12 mm thick wooden skirting to be fixed on top of the laminate with adhesive.
5. **Absorb Wool**: This product is known as acoustic polyester wool. Polyester wool is made of 100% polyester fibre. The product is light weight, water proof, Eco friendly and having excellent sound absorption/thermal insulation properties. It helps to create a quiet and comfortable environment with fire retardant characteristics in a confined area.
6. **Slats**: Wooden Slats fire retardant grade made of exterior grade MDF backed with acoustical fleece providing sound absorption of 0.88 NRC. The panels come with tongue and groove for seamless patterns and made from acoustical fibreboard with linear perforations for excellent uniformity with sound absorption character when backed with absorb wool.
7. **Revolving Chair**: 5-Leg Revolving tilting Chair with hydraulic height adjustment. PPCP moulded housing for cushion & back rest and waterfall PU arm rest.
8. Continuous front Desk for audience as well as for Dias: Wooden Desk made of 19mmBWP ply of Green, Century make finished with laminates with a provision of running shelf and 15Amp Socket and Switch complete with edge lipping and polishing.
9. **Flooring work:** Supply, Providing and fixing 1.3 mm thick, heavy duty, slip resistance, fire resistance, fungi bacteria resistance, abrasion resistance, durable, vinyl floor mat by means of adhesion on old cement concrete floor of an office with good quality adhesive, which conforms to Indian Standard code required surface preparation for laying new mat. Job all complete in all respects including cost of materials, labour, transportation charges, every tools & tackles required for execution.
10. **Construction of Auditorium Steps / Gallery:** Supply & installation of steps / gallery with about 2600mm wide treads & 100mm rises 04 nos made of 25mm solid BWR ply to be fixed on 50mmX50mmX 6mm & 40mmX40mmX6mm 600mm c/c Ms angle frame, which will be welded on 50mmX50mmX3mm thick square tube (TATA / Nizon / Jindal make) as piller and piller will be welded with 100mmX100mmX6mm base plate. The entire frame work to be painted with black synthetic enamel paint on red oxide base.
11. **General Electrical arrangement:**
* Proper illumination by LED panel lighting at False Ceiling, power socket for AC,TV, Computer as required, power supply for sound system & camera.
* Main power supply to be drawn from existing panel located approximately 60 mtr apart from the proposed Virtual Class Room.
* Fire protection system
* Installation of MCB, PDB, MCB-DB of required capacity for distribution of Electrical Load by 3-phase system.
* Appropriate HVAC Work
1. **BRIEF SCOPE OF WORK OF THE PROPOSED WORKSTATION FOR COMPUTER LAB:**

Computer Workstation 3-Seater /2-seater with CPU Trolley and Key Board Pullout Trey shall have to be designed and arranged at the space provided in the attached drawing for our Majhian and Pundibari campus. Necessary electrical Sockets and electrical wiring shall have to be incorporated in the DPR including cost implication

**INSTRUCTION TO THE APPLICANTS BEFORE APPLY:**

* Intending applicants are required to submit their proposal giving details about their organization, experience, technical personal in their organization, proven competence to handle similar major works, etc.
* The prospective applicant should visit the work site to understand the nature and scope of work with prior intimation to UBKV authority, Pundibari, Cooch Behar, West Bengal.
* The validity of the EOI shall be for a period of 120 days from last date of submission.
* Agencies may participate in both or any one of the proposed work.

The complete documents in softcopy is to be sent by email to prodyut24@yahoo.com with subject ***“DPR* on Establishment of *Virtual Classrooms /Workstation for Computer Lab”*** and should reach on or before ***October 24, 2019***. Agencies will be invited for presentation tentatively in the month of November. Communication to shortlisted agencies regarding the date of presentation will be communicated in due course of time.

***The Principal Investigator***

***National Agricultural Higher Education Project***

***Uttar Banga Krishi Viswavidyalaya***

***Pundibari, Cooch Behar***

***Pin: 736165***

***West Bengal***

For any other quarries, please contact through mail to:

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2. Er. Suman Dey, In-charge, Works Department-UBKV and Nodal Officer for Procurement, NAHEP-IG: ***sdey1119@gmail.com***