

OCAC invites Request for Proposal (RFP) for selection of CPSU/SPSU for Supply and Installation of Robotic Lab in Secondary Schools in Odisha. For details please visit websites www.ocac.in & www.odisha.gov.in. The bid shall be submitted in electronic mode only in the portal https: // enivida.odisha.gov.in latest by 22.05.2023, 3.00 PM. OCAC reserves the right to accept/ reject any/ all bids without assigning any reason thereof.

General Manager(Admin), OCAC, Plot No.-N-1/7-D, Acharya Vihar, P.O.-RRL, Bhubaneswar-751013, Ph.-2567280/ 2567064/ 2567295

# Request for Proposal (RFP) for Selection of CPSU/ SPSU for Supply and Installation of Robotic Lab in Secondary Schools in Odisha

RFP No.-OCAC-SEGP-INFRA-0025-2023-23028 Dated 24-04-2023



Odisha Computer Application Centre (Technical Directorate of E&IT Department, Government of Odisha), N-1/7-D, Acharya Vihar, PO- RRL, Bhubaneswar – 751013, EPBX: 0674-2567280 / 2567064 / 2567295 / 2567283

### **1** Disclaimer

The information contained in this Request for Proposal (hereinafter referred to as "RFP") document provided to the Bidders, by the Odisha Computer Application Centre (OCAC) Odisha, or any of it's employees, is provided to the Bidder(s) on the terms and conditions set out in this RFP document and all other terms and conditions subject to which such information is provided.

The purpose of this RFP document is to provide the Bidder(s) with information to assist in the formulation of Proposals. This RFP document does not aim to hold all the information each Bidder may require. This RFP document may not be appropriate for all persons, and it is not possible for the Odisha Computer Application Centre (OCAC) Odisha and it's employees to consider the business/investment objectives, financial situation and particular needs of each Bidder who reads or uses this RFP document. Each Bidder should conduct its own investigations and analysis and should check the accuracy, reliability and completeness of the information in this RFP document and where necessary obtain independent advice from appropriate sources. Odisha Computer Application Centre (OCAC) Odisha and it's employees make no representation or warranty and shall incur no liability under any law, statute, rules or regulations as to the accuracy, reliability or completeness of the RFP document. Client Department also accepts no liability of any nature whether resulting from negligence or otherwise howsoever caused arising from reliance of any Bidder upon the statements contained in the Bidding Documents.

Information provided in the RFP Document to the Bidder(s) is on a wide range of matters, some of which may depend upon interpretation of law. The information given is not intended to be an exhaustive account of statutory requirements and should not be regarded as a complete or authoritative statement of law. OCAC/Client Department accepts no responsibility for the accuracy or otherwise for any interpretation or opinion on law expressed herein.

The issue of this RFP Documents does not imply that the OCAC/Client Department is bound to select a Bidder or to appoint the Selected Bidder or Service Provider for the Project and the OCAC/Client Department reserves the right to reject all or any of the Bidders or Bids without assigning any reason whatsoever.

The Bidder shall bear all its costs associated with or relating to the preparation and submission of its Bid including but not limited to preparation, copying, postage, delivery fees, uploading, expenses associated with any demonstrations or presentations which may be required by OCAC/Client Department or any other costs incurred in connection with or relating to its Bid. All such costs and expenses will remain with the Bidder and the OCAC/Client Department shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder in preparation or submission of the Bid, regardless of the conduct or outcome of the Selection process. OCAC may, in its absolute discretion, but without being under any obligation to do so, update, amend or supplement the information in this RFP document.

### 2 Table of Contents

1 Disclaimer	2
3 Instruction to Bidders for Online Bid Submission	5
3.1 Guidelines for registration:	5
3.2 Searching for tender documents	5
3.3 Preparation of bids	6
3.4 Submission of bids	6
4 Important Dates & Information	8
5 Notice Inviting RFP	9
6 Fact Sheet	10
7 Invitation for Bids	11
8 Project Background Information	11
8.1 Proposed Solution	12
9 Brief scope of work	14
9.1 Requirement, Scope of Work, Deliveries & Timelines	15
9.2 Detailed Requirement under this Project	15
9.3 Detailed Scope under this Project	16
9.4 Warranty & Support	17
9.5 Training & Handholding	17
9.6 Helpdesk and Onsite support	18
9.7 Helpdesk	18
9.8 Onsite Support	19
10 Pre-Qualification/Eligibility Criteria	20
11 Technical Evaluation Criteria	23
12 Project Deliverables, Milestones & Time Schedule	25
13 Service Levels and Penalty Terms	27
13.1 During Project Deployment	27
13.2 During Warranty & Support Duration	27
14 Payment Terms	28
14.1 Payment of Goods & Services Tax	30
14.2 Penalty	30
15 Submission of Bids	30
15.1 Deadline Submission of Bids	31
15.2 Venue for Submission of Bids	31
15.3 Mode of Submission of Bids	32
15.4 Withdrawal, Substitution, and Modification of Bids	32
15.5 Opening of Bids	32
16 RFP Evaluation	33
16.1 Evaluation & Tabulation of Pre-qualification Bid	33
16.2 Evaluation & Tabulation of Technical Bid	34
16.3 Evaluation & Tabulation of Financial Bids	34
17 Acceptance of the successful Bid and award of Project	35

17.1 Award Criteria	35
17.2 Right to Accept Any Proposal and To Reject Any or All Proposal(s)	35
17.3 Purchaser's Procurement Rights	35
17.4 Notification of Award	35
17.5 Issuance of Purchase Order	36
17.6 Performance Guarantee	36
17.7 Issuance of Purchase Order	36
17.8 Failure to Agree with the Terms and Conditions of the RFP	37
17.9 Confidentiality	37
18 General Terms and Conditions of RFP	38
18.1 Definitions	38
18.2 Language	38
18.3 Notices	39
18.4 Governing Law	39
18.5 Scope of Supply	39
18.6 Project Value	40
18.7 Recoveries from Supplier/ Agency	40
18.8 Taxes & Duties	40
18.9 Packing and Documents	41
18.10 Insurance	41
18.11 Transportation	41
18.12 Extension in Delivery Period and Liquidated Damages (LD	)42
18.13 Warranty	43
18.14 Termination	43
18.15 Settlement of Disputes	43
19 Annexure	45
19.1 Annexure 1: Pre-Qualification Bid Cover Letter	45
19.2 Annexure- 2: Particulars of the Bidders	46
19.3 Annexure 3 - Bid Security Declaration	47
19.4 Annexure 4: Self-Declaration	48
19.5 Annexure-5: Project Citation Format	49
19.6 Annexure-6: Manufacturer's Authorization Form (MAF)	50
19.7 Annexure 7: Technical Bid Cover Letter	51
19.8 Annexure-8: Financial Bid Cover Letter	52
19.9 Annexure 9: Financial Bid	54
19.10 Annexure 10: Pre-Bid Queries Format	56
19.11 Annexure 11: Details of documents to be submitted by the Bidde	er 56
19.12 Annexure 12: List of Schools	59
19.13 Annexure 13 – Specifications of Robotic Kits and Equipment.	60

### **3** Instruction to Bidders for Online Bid Submission

e-Nivida is the complete process of eTendering, from publishing of tenders online, inviting online bids, evaluation and award of contract using the system. You may keep a watch of the tenders floated under https://enivida.odisha.gov.in Bidder Enrollment can be done using "Bidder Enrollment".

The instructions given below are meant to assist the bidders in registering on the e-Nivida Portal, and submitting their bid online on the portal as per uploaded bid. More information useful for submitting online bids on the envied Portal may be obtained at:

https://enivida.odisha.gov.in

#### 3.1 Guidelines for registration:

- Bidders are required to enroll themselves on the e-Nivida Portal https://enivida.odisha.gov.in or click on the link "Bidder Enrollment" available on the home page of e-tender Portal by paying the Registration fee of Rs.2,500/- + Applicable GST
- 2. As part of the enrolment process, the bidders will be required to choose a unique username and assign a password for their accounts.
- 3. Bidders are advised to register their valid email address and mobile numbers as part of the registration process. These would be used for any communication with the bidders.
- 4. Upon enrolment, the bidders will be required to register their valid Digital Signature Certificate (Only Class III Certificates with signing + encryption key usage) issued by any Certifying Authority recognized by CCA India (e.g. Sift / TCS / node / euchre etc.), with their profile.
- 5. Only valid DSC should be registered by a bidder. Please note that the bidders are responsible to ensure that they do not lend their DSC's to others which may lead to misuse.
- 6. Bidder then logs in to the site through the secured log-in by entering their user ID /password and the password of the DSC / e-Token.
- 7. The scanned copies of all original documents should be uploaded in pdf format on e-tender portal.
- After completion of registration payment, bidders need to send their acknowledgement copy on our help desk mail id odishaenivida@gmail.com, for activation of the account.

#### **3.2 Searching for tender documents**

1. There are various search options built in the e-tender Portal, to facilitate bidders to search active tenders by several parameters.

2. Once the bidders have selected the tenders they are interested in, then they can pay the Tender fee and processing fee (NOT REFUNDABLE) by net-banking / Debit / Credit card then you may download the required documents / tender schedules, Bid documents etc. Once you pay both fee tenders will be moved to the respective 'requested' Tab. This would enable the e- tender Portal to intimate the bidders through SMS / e-mail in case there is any corrigendum issued to the tender document.

### 3.3 Preparation of bids

- 1. Bidder should consider any corrigendum published on the tender document before submitting their bids.
- 2. Please go through the tender advertisement and the tender document carefully to understand the documents required to be submitted as part of the bid.
- 3. Bidder, in advance, should get ready the bid documents to be submitted as indicated in the tender document / schedule and generally, they can be in PDF formats. Bid Original documents may be scanned with 100 dpi with Color option which helps in reducing size of the scanned document.
- 4. To avoid the time and effort required in uploading the same set of standard documents which are required to be submitted as a part of every bid, a provision of uploading such standard documents (e.g., PAN card copy, GST, Annual reports, auditor certificates etc.) has been provided to the bidders. Bidders can use "My Documents" available to them to upload such documents.
- 5. These documents may be directly submitted from the "My Documents" area while submitting a bid, and need not be uploaded again and again. This will lead to a reduction in the time required for bid submission process. Already uploaded documents in this section will be displayed. Click "New" to upload new documents.

#### 3.4 Submission of bids

- 1. Bidder should log into the website well in advance for the submission of the bid so that it gets uploaded well in time i.e., on or before the bid submission time. Bidder will be responsible for any delay due to other issues.
- 2. The bidder has to digitally sign and upload the required bid documents one by one as indicated in the tender document as a token of acceptance of the terms and conditions laid down by Department.
- 3. Bidder has to select the payment option as per the tender document to pay the tender fee / Tender Processing fee & EMD declaration as applicable and enter details of the instrument.
- 4. In case of BG bidder should prepare the BG as per the instructions specified in the tender document. The BG in original should be posted/couriered/given in person to the concerned official before the Online Opening of Financial Bid.

In case of non-receipt of BG amount in original by the said time, the uploaded bid will be summarily rejected.

- 5. Bidders are requested to note that they should necessarily submit their financial bids in the format provided and no other format is acceptable. If the price bid has been given as a standard BOQ format with the tender document, then the same is to be downloaded and to be filled by all the bidders. Bidders are required to download the BOQ file, open it and complete the yellow Colored (unprotected) cells with their respective financial quotes and other details (such as name of the bidder). No other cells should be changed. Once the details have been completed, the bidder should save it and submit it online, without changing the filename. If the BOQ file is found to be modified by the bidder, the bid will be rejected.
- 6. The server time (which is displayed on the bidders' dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission.
- 7. The uploaded bid documents become readable only after the tender opening by the authorized bid openers.
- 8. Upon the successful and timely submission of bid click "Complete" (i.e. after Clicking "Submit" in the portal), the portal will give a successful Tender submission acknowledgement & a bid summary will be displayed with the unique id and date & time of submission of the bid with all other relevant details.
- 9. The tender summary has to be printed and kept as an acknowledgement of the submission of the tender. This acknowledgement may be used as an entry pass for any bid opening meetings.

#### For any clarification in using e-Nivida Portal:

- 1. Any queries relating to the tender document and the terms and conditions contained therein should be addressed to the Tender Inviting Authority for a tender or the relevant contact person indicated in the tender.
- 2. Any queries relating to the process of online bid submission or queries relating to e-tender Portal in general may be directed to the Helpdesk Support.
- 3. Please feel free to contact e-Nivida Helpdesk (as given below) for any query related to e- tendering.

Phone No. 011-49606060 Mail id: - <u>odishaenivida@gmail.com</u>

# 4 Important Dates & Information

Information	Details	
Bid Inviting Authority	Odisha Computer Application Center (OCAC) (Technical Directorate of I.T. Dept, Govt. of Odisha)	
Correspondence Address	The General Manager (Admin) Odisha Computer Application Centre (OCAC) (Technical Directorate of I.T. Dept, Govt. of Odisha) N-1/7-D, Acharya Vihar, P.O RRL, Bhubaneswar -751013	
RFP Name	RFP for Selection of CPSU/ SPSU for Request for Proposal (RFP) for Selection of CPSU/ SPSU for Supply and Installation of Robotic Lab in Secondary Schools in Odisha.	
Bid Reference No. and Date	OCAC-SEGP-INFRA-0020-2021-23028, Dated 24-04-2023	
Non-Refundable RFP Document Fee	₹ 11,200/- (inclusive of 12% GST) Eleven Thousand Two Hundred Only in the form of Demand Draft drawn on any Nationalized Bank or Scheduled Commercial Bank in favor of "Odisha Computer Application Centre ", payable at Bhubaneswar.	
EMD	The bidder must have submitted the EMD of <b>₹ 1 Crore</b> in the shape of Bank Guarantee/Account Payee Demand Draft from any Nationalized / Scheduled Commercial Bank in favor of Odisha Computer Application Centre (OCAC) payable at Bhubaneswar. The EMD should be valid for a minimum period of 90 days from the last date of submission of the Bid.	
Availability of Bid Document in the website <u>(www.ocac.in</u> <u>www.odisha.gov.in</u> )	24-04-2023 To 22-05-2023 at 03:00 PM	
Last date for receiving queries	01-05-2023 by 11:00 AM	
Date and Time of Pre-bid Conference	01-05-2023 at 12:30 PM	
Issue of Corrigendum (if Required)	06-05-2023	
Last Date and Time for Submission of Bid document through https://enivida.odisha.gov.i.	22-05-2023 by 03:00 PM	
Date and Time of opening of Pre- Qualification Bids (PQ)	22-05-2023 at 04:30 PM	
Date and Time of opening of Technical Bids (TB)/Financial Bid	To be informed later	

### **5** Notice Inviting RFP

OCAC invites proposals from reputed CPSU/ SPSU, for execution of Robotics Lab as detailed in the Scope of Work in this RFP.

The RFP document can be downloaded from the OCAC websites <u>https://ocac.in,</u> <u>https://enivida.odisha.gov.in and https://www.odisha.gov.in</u> Response to this Request for Proposal (RFP) shall be deemed to have been done after careful study and examination of this document with full understanding of its implications. This and subsequent sections provide general information about the Issuer, important dates for RFP processing, addresses for communication and correspondence, and the overall eligibility, Technical evaluation criteria and related terms for the interested bidders.

OCAC reserve the right to cancel any or all the bids without assigning any reason thereof.

#### <u>Issuer</u>

The General Manager (Admn.) Odisha Computer Application Centre (OCAC) OCAC Building, Plot No.-N-1/7-D, Acharya Vihar Square RRL Post Office, Bhubaneswar -751013 (Odisha)

# 6 Fact Sheet

This Fact Sheet comprising important factual data of the tender is for quick reference of the Bidder.

Clause Reference	Торіс
The Proposal	OCAC invites proposals from reputed CPSU/ SPSU, for execution of Robotics Lab in schools of Odisha.
Method of Selection	<ul> <li>Least Cost Selection (LCS) i.e., L1 method shall be used to select the bidder. The bidder is required to submit the bids General (Pre-qualification), Technical &amp; Financial bid in eNivida portal (https://enivida.odisha.gov.in). Technical bid of those bidders who qualify in General Bid shall be opened. Financial bid of those bidders who qualify in Technical Bid by scoring 80% mark or above shall be opened.</li> <li>OCAC reserves the right to award the contract to more than one bidder, at L1 price in the interest of speedy implementation of the Project.</li> </ul>
RFP Document Fee	The RFP document can be downloaded from the website www.odisha.gov.in or www.ocac.in or https://enivida.odisha.gov.in/. The bidders are required to submit the RFP document fee of Rs 11,200/- inclusive of 12% GST) Eleven Thousand Two Hundred Rupees Only in shape of Bank Draft in favour of Odisha Computer Application Centre and payable at Bhubaneswar from any of the scheduled commercial banks along with the proposal (General Bid) documents.
Earnest Money Deposit (EMD)	The bidder must have submitted the EMD <b>₹ 1 Crore</b> in the shape of Bank Guarantee/Account Payee Demand Draft from any Nationalized / Scheduled Commercial Bank in favor of Odisha Computer Application Centre (OCAC) payable at Bhubaneswar. The EMD should be valid for a minimum period of 90 days from the last date of submission of the Bid.
Performance Bank Guarantee (PBG)	Performance Bank Guarantee ( <b>PBG</b> ) @ <b>3%</b> of the cost of the project from any Nationalized/Scheduled Commercial Bank in the prescribed format in favour of the Odisha Computer Application Centre shall be submitted by the successful bidder within <b>30 days</b> of issue of work order.
Scope of Work	Selected Bidder is expected to deliver the equipment and services listed in Scope of Work as mentioned in this RFP.

Number of Schools to be Covered	500 Schools
Currency	The bidder should quote in Indian Rupees only. The total price inclusive of taxes, levies and duties will be considered for evaluation. So, the bidder must mention the base price and the tax component separately.
Validity Period	Proposals/bid must remain valid for minimum 180 days from the last date of bid submission.
Bid to be submitted on or before last date of submission at:	The proposal must be submitted to: The General Manager (Admn.) Odisha Computer Application Centre (OCAC) OCAC Building, Plot NoN-1/7-D, Acharya Vihar Square, RRL Post Office, Bhubaneswar-751013 (INDIA) Proposals must be submitted on or before XX-XX-2023 by 03:00 PM through electronic mode only.

### **7** Invitation for Bids

Odisha Computer Application Centre (OCAC) invites bids from eligible bidders who have the necessary qualifications for Procurement, Supply, Installation and Commissioning of Five Hundred (500) numbers of Robotics Labs for in Secondary Schools for School & Mass Education Department (S&ME), Government of Odisha for a period of FIVE (05) Years, including Three(03) Year Warranty Support Period & TWO (02) Years Comprehensive Annual Maintenance Support Period (CAMS) as per the "Scope of Work" described in this RFP. The detail school list is attached in this RFP.

The Bid document has been published in the official website of OCAC <u>www.ocac.in</u>, <u>https://enivida.odisha.gov.in</u> and <u>http://www.odisha.gov.in</u>.The tender advertisement has also been published in leading newspapers for wide circulation. Bidders are requested to go through the Bid document carefully and participate in the bidding process with all necessary details as required.

This RFP is issued by OCAC, which is the sole point of contact during the selection process. The Nodal Officer responsible for entire process is General Manager (Admin).

### 8 Project Background Information

Flagship schemes of the Government have been instrumental in setting up the necessary structures to get children into school. Sustained gains in enrollment and attendance rates at the elementary school level have contributed to substantial improvements in the secondary gross enrollment ratio (GER) across all school types

(government, government aided, and private), increasing from 58 percent in 2009-10 to 80 percent in 2015-16. Accelerated recruitment efforts by states have resulted in declining teacher vacancies, from 26 percent to 17 percent between 2012-13 and 2015-16. There also has been a growing emphasis on the importance of monitoring learning outcomes across all levels of schooling, as evidenced by significant improvements in the national education management information system, which has expanded to include data on school education; the implementation of a standardized national assessment for grades 3, 5, 8, and 10 - National Achievement Survey (NAS); and the introduction of State Learning Achievement Surveys (SLAS) by all states. There are several challenges for improving the quality of school education in India. First, there needs to be an enhanced focus on education in the early years so that children enter formal schooling prepared to learn. Second, teacher availability and preparation need to be strengthened. Third, there is a need for greater focus on systematic, continuous, and effective remediation support, beginning at the primary level and continuing through school education. Fourth, there is a need to strengthen the linkages between school planning, management, and accountability. Finally, there is a need to strengthen systems for measuring and tracking learning in schools over time as well as supervision and monitoring at state, district, and sub district levels.

These improvements in school education will likely also require a differentiated approach - leveraging the capability of well-performing states and encouraging them to test innovative approaches that can be shared with other states; and drawing on the experiences and practices of well-performing states to strengthen implementation capacity and governance in weaker states.

The World Bank's support to MoE via Strengthening Teaching-Learning and Results for States (STARS) project will focus on incentivizing six identified States i.e. Himachal Pradesh, Maharashtra, Odisha, Rajasthan, Madhya Pradesh and Kerala for improving the quality of education.

MoE, with World Bank assistance, is planning to implement STARS - a school education improvement project that seeks to support a few states in implementing localized, state context- aligned activities and innovations for improving the quality of education in their government schools. The specific components that the project will support are as follows:

- Early Childhood Education
- Learning Assessment Systems
- Classroom instruction and remediation through teacher development and school leadership
- Governance and decentralized management for improved service delivery; including partnerships with non-state actors
- School to work/ higher education transition

#### 8.1 Proposed Solution:

Robotic Research Centre is a model laboratory for the model schools where students get an exposure to robotic, IOT and Al/ML. The lab is comprising of four robots, multiple DIY robotic kits, various mechanical electronics components, computers, basic infrastructure and a state of fabrication/prototyping facility. In the fabrication facility we are deploying a 3D printer where students can prototype their ideas into a physical product. Students can use this laboratory and can learn more than 100 robotics, IOT and Al/ML projects. This facility will enable the students to learn coding at an early stage. We have designed innovative curriculum mapped with the school curriculum. Robotics and hands-on learning solutions help Students Bridge the gap between key theoretical concepts and their real-world applications.

Objective:

- Robotics (multi-disciplinary subject) for school students.
- Critical and Creative thinking in Collaboration.
- Coding for school students.
- Authentic Problem solving.
- Team Work and Team Player.
- Transforming Students to Innovator.
- Idea to prototype, prototype to product & Patent.

### **9** Brief scope of work

Bidder has to supply the followings Robotic Kits to deliver the Robotic Education in schools

DIY Robot KIT 6.0	Project Name's (Without Programming)	
DIY Robot Kit 6.0 (10	<ul><li>Light activated Robot</li><li>Shadow follower robot</li></ul>	
Robots for 6 <sup>th</sup> Standard)	<ul> <li>Fire activated robot</li> </ul>	
	<ul> <li>Obstacle avoidance robot</li> </ul>	
	<ul> <li>Object follower robot</li> </ul>	
	<ul> <li>Edge avoidance robot</li> </ul>	
	<ul> <li>Sound activated robot</li> </ul>	
	Black line follower robot	
	<ul> <li>Hand movement following robot</li> </ul>	
	Wall following robot	

#### **Robotics Course Curriculum Standard 6:**

#### **Robotics Course Curriculum Standard 7:**

DIY Robot KIT 7.0	Project Name's (Without Programming)
DIY Robot Kit 7.0 (10 Robots for 7 <sup>th</sup> Standard)	<ul> <li>Sound activated, different color flashing robot Single sensor-based obstacle avoidance robot</li> <li>Multi sensor obstacle avoidance robot</li> <li>Fire detecting and alarming robot</li> <li>Vibration activated robot</li> <li>Touch activated robot</li> <li>Light following robot</li> <li>Manual firefighting robot</li> <li>Clap activated robot</li> <li>Line follower robot</li> </ul>

#### **Robotics Course Curriculum Standard 8:**

DIY Robot KIT 8.0	Project Name's (With Programming)	
DIY Robot Kit 8.0(10 Robots for 8th Standard)	<ul> <li>Robot Controlled with Joystick</li> <li>Motion following robot</li> <li>Smart firefighting robot</li> <li>Advanced wall follower robot</li> <li>Maze solving robot</li> <li>Bluetooth controlled robot</li> <li>Magnet detector robot with alarm</li> <li>Voice controlled Robot</li> <li>Path planning Robot</li> <li>Dual color line follower robot</li> </ul>	

#### **Robotics Course Curriculum Standard 9:**

DIY Robot KIT 9.0	Project Name's (With Programming)	
DIY Robot Kit 9.0(10 Robots for 9th Standard)	<ul> <li>Smart Robotics dustbin</li> <li>Automatics floor cleaning robot</li> <li>Shock detector robot</li> <li>Anti-theft smart robot with alarm</li> <li>Gas leakage detector robot with alarm</li> <li>Smart phone-controlled robot</li> <li>Human detection robot</li> <li>Soccer Robot</li> <li>Pit detection and avoidance robot with alarm</li> <li>Advance obstacle avoidance robot.</li> </ul>	

#### **Robotics Course Curriculum Standard 10:**

DIY Robot KIT 10.0	Project Name's (With Programming)
DIY Robot Kit 10.0 (10 Robots for 10th Standard)	<ul> <li>Wi-Fi Controlled robot</li> <li>Soil moisture monitoring robot</li> <li>Automatic rain sensing robot</li> <li>Automatic plant watering robot</li> <li>Tilt sensor activated robot</li> <li>Autonomous Pick and place robot</li> <li>Earth quake detection and alarm robot</li> <li>Human detection &amp; avoidance Robot</li> <li>Smart environment monitoring and display robot</li> <li>Automated guided robot.</li> </ul>

#### 9.1 Requirement, Scope of Work, Deliveries & Timelines

The scope of work primarily focuses on Implementation of Robotics LABs in the selected schools of School & Mass Education Department (S&ME), Government of Odisha which includes procurement, supply, installation, commission, operation & maintenance support of Robotics LABs for a period of FIVE (05) Years which includes THREE (03) Year Warranty Support Period from the date of Final Acceptance Test (FAT) of the Project and TWO (02) Years Comprehensive Annual Maintenance Support (CAMS) after completion of initial THREE Year Warranty Support Period.

#### 9.2 Detailed Requirement under this Project

a) Procurement, Supply, Installation, Commission and Maintenance of Robotics LABs.

b) All the software and hardware required to meet the required functionalities should be supplied by the selected bidder.

c) The product specifications are mentioned in detail in the **Annexure-3** under minimum technical specification. Please refer to the same for required sizing.

Bidder should propose products in order to comply the requirement.

### 9.3 Detailed Scope under this Project

The major components factored for the project are listed below: -

a.) Site survey & feasibility is to be undertaken for identification of the classrooms at each school for the establishment of Robotics LABs at respective site.

b.) Handing/taking over the site for physical possession.

c.) Procurement, Supply and installation of Robotics LABs hardware, application software etc. in the selected schools.

d.) Configuration & Set up of Robotics LABs including hardware and software.

e.) The bidder while designing and implementing the LABs, needs to take into consideration that, the Robotics space should be one single room having 350 Sqft area with maximum open space such that one section can be designated for lecturing and mentoring, while another section can simultaneously be used for collaborative project work. The LAB should be located in proximity to the main building of the school.

f.) One entry/exit points (including emergency points) must be clearly identified and labeled within the Robotics LAB.

g.) The Bidder shall ensure the safe delivery of the equipment up to the designated place of installation. Any transit insurance, labor, road permits etc., if required for the same, shall be arranged by the Bidder at no extra cost to OCAC/Client Department.

h.) Testing of the equipment commissioned and ensuring proper functioning at all levels.

i.) Training of teachers for the operation of LAB will be conducted at the school level.

j.) The bidder needs to submit the successful completion of training along with the attendance sheet and acknowledgment of the teachers.

k.) The proposed solution should have latest technology features and standards.

I.) Overall operation and management of the entire project for a period of 5 years including Three (03) Year Warranty Support Period & Two (02) Years Comprehensive Annual Maintenance Support Period (CAMS).

m.) Deployment of requisite manpower with requisite qualification & experience for the operation support of Robotics LAB.

n.) The Bidder will be required to operate and maintain the entire Robotic Equipment with its associated software and is responsible for entire Operation & Management Support of the project during the contract period for 5 years. However, the school's premises upkeep, safety and the electrical maintenance will be the responsibility of the school authorities.

o.) The Bidder must ensure that the IT equipment and accessories supplied and delivered by them to each school are in good condition. Each IT equipment and accessories shall be packed in a non- hazardous packing of appropriate size. If any defect is found pursuant to the post-supply test in respect of the supplied quantity of the IT equipment and accessories, the Bidder shall replace the rejected equipment and accessories for the particular School with the new ones as per the instructions of OCAC Management.

p.) The bidder is responsible to maintain documentation on the progress of the Robotics LAB work and will have to update the same on regular basis to OCAC

Management Team.

q.) At least 2 fire extinguishers must be placed at strategic locations inside the Robotics LAB.

r.) Training for teachers on how to use the LAB.

s.) Bidder has to supply content for ROBOTICS LAB. Bidder shall provide the study material for students.

t.) Helpdesk and onsite support for repair and maintenance of Robotics LAB hardware and software.

#### 9.4 Warranty & Support

• The bidder has to provide Three (03) Year Warranty Support Period from the date of Final Acceptance Test (FAT) of the Project and Two (02) Years Comprehensive Annual Maintenance Support (CAMS) after completion of initial ONE Year Warranty Support Period. The bidder should cover the warranty for 5 years from date of Go-Live.

• The bidder should ensure the smooth functioning of all the equipment supplied for Robotics LAB during the warranty & support period and to achieve the highest uptime on the offered solution.

•The bidder shall ensure that the equipment supplied shall not be declared as End of Support / End of Service for a period of five years and the software upgrades if any shall be available for at least five years from the date of commissioning of the device.

• Advanced replacement/repair of hardware. If the school requires repairing of an Robotic equipment, then the bidder should provide a replacement till the time the equipment is fully repaired.

- Software updates and upgrades at no cost to OCAC/Client Department.
- On-site warranty support from the Bidder.
- The bidder needs to develop the supply chain in district wise to supply the required consumable of the quoted equipment.
- Bidder shall provide preventive maintenance services on quarterly/half-yearly basis or as and when required to ensure that all the equipment's are functioning properly till the completion of the project.
- Warranty shall not be applicable in following cases:
  - Defects or malfunction caused intentionally
  - $\circ~$  Defects or malfunction caused due to Power or Voltage Fluctuation in schools or equipment.
- Defects or malfunction caused by misuse, abuse or improper maintenance, failure to follow operating instructions, or use with equipment with which it is not intended to be used.
  - $_{\odot}~$  It doesn't cover cosmetic or incidental damages.
  - $_{\odot}\,$  Also. the warranty will not apply to damage caused by unauthorized alteration, modification or repair of the product at the school.

### 9.5 Training & Handholding

Key training requirements of the Bidder are listed below: -

i. Conduct training need assessment and prepare a detailed training strategy. Such strategy shall provide training set-up details, training approach and methodology,

training plan etc.

ii. Training Materials, Applications, User Manual and Completion Reports.

iii. Bear the expenses towards training, quoted as part of the Financial Proposal submitted. iv. Provide hands-on training on the hardware, software application such that users are conversant with the functionalities, features and processes built in the solution.

v. Submit Attendance Record of the attendees (in Hard copy) along with the session plan for the day.

vi. Deploy adequate training resources.

vii. Deployed trainers should be fluent in speaking Hindi, English & Odia.

viii. The Bidder shall responsible for training and handholding of the school teachers/headmaster so they can further train the other teachers accordingly.

ix. The Bidder has to develop a training manual for each of the Robotics LAB activity for the teachers which should act as a ready reckoner for reference by the teachers at school level.

x. Bidder has to train minimum three teachers at each school. Training to the teacher shall be conducted in batches at centralized location or at respective site school.

#### 9.6 Helpdesk and Onsite support

The Bidder shall be required to set up a centralized Helpdesk support at OCAC Bhubaneswar office for logging issues and complaints from various stakeholders and resolving them in time bound manner.

The Bidder shall deploy adequate manpower including IT Coordinators / operators and IT Managers who would provide day to day operation & management support.

Bidder shall deploy manpower at schools at field level (Robo Trainer). Minimum qualification for manpower shall be any ITI/Diploma with good Computer, Hardware, Electronics, Robots and communication skills (both Hindi, English & Odia) who can manage LAB hardware and software components on site and provide training as well as hand holding to different stakeholders. List of all Manpower to be submitted within 30 working days from the date of issuance of Work Order.

#### 9.7 Helpdesk

The helpdesk service will serve as a single point of contact for all the support related to Robotics LAB. The Helpdesk shall undertake the following activities: -

1.Log issues /Complaints/Grievances related to Robotics LAB components including Hardware, Software & Application etc. at each location identified by the department, 2.Track each issue/complaint/Grievance to resolution.

3.Escalate the issue/complaints/Grievances to OCAC/Department Authorities if necessary, as per the escalation matrix defined in discussion with the department 4.Provide feedback and resolution to the callers.

5.Helpdesk Phone Numbers to be provided by the department and Specific e-mail account for day to day support to be set up by the Department/OCAC.

It is required that IT Managers are deployed at the Helpdesk center, who will be responsible for handling all Level-1 IT and Hardware issues related to the different components of Robotics LAB. The IT manager shall be responsible for providing remote assistance to schools if required, and further assigning the call to district level IT support team, for personal visit in cases where the remote assistance is not possible to resolve the issue. On getting the required information about the issue from the IT manager, the district level Field Engineer should provide all necessary assistance in resolving the IT issues onsite and log the status update with the Helpdesk for closure.

#### 9.8 Onsite Support

Bidder will provide Three (03) Year Warranty Support Period from the date of Final Acceptance Test (FAT) of the Project and Two (02) Years Comprehensive Annual Maintenance Support (CAMS) after completion of initial THREE-Year Warranty Support Period at respective school. In addition, the Bidder shall ensure the following:

1. Set up Service Centers one in the state which would be responsible for any kind or repair, configuration, installation, replacement of parts or whole, etc. to all LAB components that may be brought by the Resident Field Engineer.

2. Deploy Five Hundred (500) Nos of Robo Trainers (1 for each School) for all Schools who shall be responsible for providing support and training to all schools within their School for any kind of after sales support, in coordination with centralized Helpdesk support team.

3. Any kind of handholding, orientation, training support, as needed by the intended users. It is planned that all such sessions shall be conducted at the school level however the IT Coordinators should be able, willing and flexible to visit any government school if required.

4. If manpower cost is non-exclusive of any statutory stipulation it will be treated as non-responsive bid.

Bidder shall also arrange to repair / replace the defective device as per defined Response and Resolution times of placing a call. At least 5% of critical hot spares should be maintained till the completion of the warranty contract period.

Manpower	Qualifications	Duration
Project Manager	Minimum Qualification: BCA	Deployment +
	/ B.Sc (Computers)/ B.E. / B-	Warranty
	Tech / MBA	
	Minimum Experience	
	Required: - 5 Years of	
	Extensive High-Level	
	Professional Experience & Skills	
	in the fields of IT Infrastructure	
	Management / Program or	
	Project Management in Govt. /	
	PSU / Private Sector in India.	

Training and Change Management Expert	Minimum Qualification: BCA/ B.Sc (Computers)/ B.E. / B-Tech / MBAMinimumExperienceRequired: - 5 Years ofExtensiveHigh-LevelProfessional Experience & Skillsin the fields of impartingtraining to the users on ITInfrastructure/HardwareEquipment/SoftwareApplication in Govt. / PSU/Private in India.	Training Phase
Central Helpdesk Support Staff	Graduate/Diploma in any discipline with proficiency in English, Hindi and Odia and shall have minimum 2 to 3 years and above experience in STEM Support Service Centre.	Warranty Duration
Robo Trainer	Any Diploma/ITI Robotics skilled certified Personal.	Project Duration

### 10 Pre-Qualification/Eligibility Criteria

Following table describe the pre-qualification criteria. A bidder participating in the bidding process shall possess the following minimum pre-qualification/ eligibility criteria. Any bidder failing to meet the stated criteria shall be summarily rejected and will not be considered for Technical Evaluation.

	Pre-Qualification Evaluation Criteria					
SI. No.	PQ Criteria	Description of the Criteria	Documents to be Submitted			
1	Legal Entity	As specified under GFR 2017, the bidder must be a Public Sector Undertaking set up by the Centre or State Govt. to carryout I.T. related activities or any Central/State Govt. Organization/PSU which may be notified by the MeitY / MoE / or any other Ministry in the field of IT for such purpose. Relevant supporting documents may be furnished. <b>Note: -</b> Consortium of any kind shall not be acceptable for this project. Any deviation would lead to disqualification or termination of the same. However, as per the State ICT Policy 2022, Clause 8.18, to ensure mandatory local participation. The bidder needs to make collaborative arrangement with local enterprises with minimum 25% for deployment and maintenance components for implementation having adequate experience. The local enterprise should have developed and implemented software projects in the state preferably in Government/PSU sector. The minimum worth of the software projects execute by the local enterprise in last five financial years should be Rs.5.00 crores.	<ul> <li>a. Valid copy of certificate of incorporation and registration certificates.</li> <li>b. Copy of GST registration.</li> <li>c. Copies of relevant Certificates of registration Income Tax / PAN Number from the respective Government Department.</li> <li>d. Documents of local bidder to be submitted as per formats attached on 8.1.3 FORM PQ-4.</li> <li>Along with Work Order + Project completion certificate</li> <li>/ Partial completion Certificate (Milestone completion Certificate)</li> </ul>			
2	Turnover	The Bidder/Agency should have average annual financial turnover of Rs. 200 crores in IT/ITES related activities during last three consecutive balance sheet (i.e. FY19-20, 20-21 & 21-22) duly audited by competent authority. Relevant supporting documents i.e. CA Certificate must be furnished.	<ul> <li>Audited Balance</li> <li>Sheets</li> <li>CA Certificate</li> </ul>			

3	Net Worth	The net worth of the company must be	- Certificate from CA
3	Net wortn	The net worth of the company must be positive in last three financial years ending at 31st March 2022.	- Certificate from CA
4	Technical Capability	The bidder must have successfully completed at least two smart classroom/ Robotics Lab project of value not less than the amount ₹30,00,00,000/- (Thirty Crores Only) in Central govt/ State govt. in India in education domain only during last five years preceding from tender release date.	Copy of the Work Order & Completion Certificates
5	Bidder Quality Certification	The bidder must have valid ISO 9001, ISO 20001 & ISO 27001 Certificate as on date of submission of this RFP.	Copies of the valid certificates.
7	Blacklisting	The bidder should not be under a declaration of Ineligibility for corrupt and fraudulent practices issued by any Government or PSU in India.	Self- declaration Annexure- 4
8	OEM Authorization	The bidder must attach Manufactures Authorization certificate specific to this tender & Back-to- back support letter from OEMs for providing Comprehensive on-site support and services covered under this RFP. <b>OR</b> The Authorized Partner of OEM in India in case the OEM has no registered office in India.	OEM MAF Annexure- 6
9	Local Presence	The bidder should have an office in Odisha. However, if the presence is not there in the state, the bidder should give an undertaking for establishment of a project office, within one month of award of the contract.	Relevant Documents supporting office addresses/ Undertaking.
10	RFP fee	The bidder must have made a payment of ₹5,600.00 (Five Thousand Six Hundred Only) towards RFP document fee.	The RFP document fee must be in favor of Odisha Computer Application Centre from any Nationalized / Scheduled Commercial Bank payable at

Computer Application Centre (OCAC) payable at Bhubaneswar. The EMD should
--

*Purchase Order (PO) provided for Prequalification and Technical Evaluation should be in the name of bidder only. Consortium Purchase orders will not be considered.* 

### **11.** Technical Evaluation Criteria

In order to facilitate the technical proposal evaluation, the technical criteria laid down along with the assigned weights have been presented in subsequent section. The marking scheme presented here is an indication of the relative importance of the evaluation criteria. Bidders securing a minimum of 80% marks in the technical evaluation will only be considered for further financial bid evaluation. Bids or Tenders which do not secure the minimum specified technical score will be considered technically non-responsive and hence debarred from being considered for financial evaluation.

SI. No.	Technical Eligibility		Max Marks
	The bidder must have Average Annual Turnover in last 3 financial years		15
1	More than 300 Cr.	15	
	More than 200 Cr.	10	
	More than 150 Cr.	5	
2	The bidder must have successfully completed at least two smart/Digital classroom/Robotics Lab project of value not less than the amount ₹30,00,00,000/- (Thirty Crores Only) in Central govt/ State govt. in India in education domain only during last five years preceding from tender		10

	release date.		
	Number of Projects= 3 or more	10	
	Number of Projects= 2 or more	5	
3	The bidder must have Experience in supply and installation of Smart / Digital Classroom/Robotics labs (single PO of 1500 units) in Govt. Schools under State Govt. Department/Central Govt. in education domain only during last five years preceding from tender release date.		10
	Number of Projects = 2 projects or more	10	
	Number of Projects = 1 projects or more	5	
4	The bidder must have implemented a minimum of 6000 Smart / Digital Classroom/Robotics labs in govt. Schools under State Govt. Department/Central Govt. Department in education domain only during last seven years preceding from tender release date.		10
	Total Classrooms – More than 10000	5	
	Total Classrooms – More than 6000	5	
4	The bidder must have below certificates:		5
	ISO 9001	1	
	ISO 20001	2	
	ISO 27001	2	
6	The bidder has to provide demonstration of robots and their features.		20
7	Presentation on the proposed solution capturing the major features: a. Understanding of the project b. Detailed work-plan and methodology		30

TOTAL	100
<ul> <li>c. Proposed Mechanism of Project Monitoring</li> <li>d. Operation &amp; Maintenance Support plan Demonstration of previously executed projects i.e., 'Monitoring/Ticketing tool, incident tracking system, incident closure mechanism, for evaluation of the Bidder's capability on Operations &amp; Management.</li> </ul>	

Note: - All the bidders who secure a Technical Score of 80 marks out of total 100 marks i.e. 80% of total marks or more will be declared as technically qualified and are eligible for financial bid opening.

### 12. Project Deliverables, Milestones & Time Schedule

The milestones, deliverables and time schedule for the implementation of project shall be as follows: -

- 1. The time specified for delivery and other activities as mentioned in the table below shall be deemed to be the essence of the contract and the successful bidder shall arrange supplies and provide the required services within the specified period.
- 2. It should be noted that any delay in the project timelines shall attract Liquidated Damages to the Agency.

SI.	Milestone	Deliverables	Timeline
No			(in weeks)
1	Delivery of Kits and Other equipment at centralized district location	<ul> <li>Delivery of Robotic Kits         <ul> <li>And Other equipment for</li> <li>LAB at centralized</li> <li>district location in all</li> <li>location</li> <li>Sign-off for delivery</li> <li>from District Education</li> <li>Officer</li> </ul> </li> </ul>	12 Weeks
2	Commissioning and Installation of	<ul> <li>Commissioning and Installation of</li> </ul>	8 Weeks
	Equipment at schools	Equipment at schools	

		from Centralized District Location Sign-Off from school in-charge	
3	Training to the teachers/ Capacity Building	<ul> <li>Training to the teachers at centralized location.</li> <li>Attendance record, training material</li> </ul>	8 Weeks
4	Go-Live and Sign Off	<ul> <li>Sign-off from the schools.</li> </ul>	4 Weeks (G is Go- Live)

Note: Total time for completion of the contract / project is 32 weeks.

# **13. Service Levels and Penalty Terms**

#### **13.1 During Project Deployment**

The bidder must be careful in maintaining the quality of work as well as adhering to the prescribed time schedule for the activity. If at any time during performance of the Contract, the party fails to maintain the prescribed time schedule then they should promptly notify in writing of the fact of the delay, it's likely duration and its cause(s). Within a reasonable time after receipt of the notice, Education Department, Government of Odisha will evaluate the situation and may, at its discretion, extend the time for performance in which case the extension shall be ratified by the parties in writing.

Project De	Project Delivery Service levels				
Service Category	Target	Penalty			
Milestone completion as per the plan	12 Weeks from the date of award	Slippage of any milestone by 30% of the allocated timelines as per mutually agreed project plan submitted as a part of the contract draws a penalty of 0.25% of that milestone payment. However, this shall be waived off, if there is no slippage in overall delivery / Go- Live.			
		<i>For the Project Deployment Phase total penalty is capped at 5% of the Hardware Cost</i>			

#### **13.2 During Warranty & Support Duration**

SI. No.	Service Description	Measurement parameter	Target	Penalty
1	Repair /	Downtime of an	<= 3 Working	NA
	Replacement of Failure	equipment	Days	

		r
hardware	> 3 - 10	Penalty of
device by	Working days	Rs. 50 per
System		school from
Integrator		4th
		Working
		day
		onwards till
	> 10 Working	Penalty of
	days	Rs. 100 per
	,	school from
		11th
		Working
		day
		onwards till
		problem is
		resolved.
		<ul> <li>Bidder</li> </ul>
		must
		ensure that
		resolution
		time per
		school
		should not
		be more
		than 30
		days. All
		the lodged

### 14. Payment Terms

- 1. The Supplier's request for payment shall be made to the Purchaser in writing, accompanied by an invoice describing, as appropriate, Delivered, Installed, and Operationally Report, training period and material by documents submitted to fulfillment of obligations stipulated in the Contract.
- 2. All payments shall be made in Indian Rupees.
- 3. Payment shall be released as per report of supply and operational of the activity.

SI. No.	Milestone	Deliverables	Timeline (in weeks)	Payment Terms
1	Delivery of Kits and Other equipment at centralized district location	<ul> <li>Delivery of Robotic Kits and Other equipment for LAB at centralized district location in all location</li> <li>Sign-off for delivery from District Education Officer</li> </ul>	T + 12	70 % of Hardware Cost
2	Commissioning and Installation of Equipment at schools	<ul> <li>Commissioning and Installation of Equipment at schools from Centralized District Location</li> <li>Sign-Off from school in-charge</li> </ul>	T + 16	20 % of Hardware Cost
3	Training to the teachers/ Capacity Building	<ul> <li>Training to the teachers at centralized location.</li> <li>Attendance record, training material</li> </ul>	T + 18	100 % of Training Cost
4	Go-Live and Sign Off	<ul> <li>Sign-off from the schools.</li> </ul>	T + 20 (G is Go- Live)	10% of Hardware Cost (Entire milestone payment shall be released on covering 90% of location)

\* Payment Milestone: Hardware Payment is divided in 3 zones as per locations (Annexure-12). After completion of every Zone the bidder can raise payment for Hardware cost.

#### 14.1 Payment of Goods & Services Tax

GST shall be shown extra by the bidder in their invoices for the items applicable. The same shall be paid by OCAC as per actual after verification If there is any tax savings, the same shall be reduced from the payable amount. In case of any new incidence of tax or increase in existing tax rates taking place during the Project Period, that shall be borne and payable by the OCAC over and above the agreed price for each item as may be applicable as per the Invoice raised by the agency on the OCAC. Similarly, any reduction in taxes shall be to the benefit of OCAC.

#### 14.2 Penalty

Penalty will be charged @ 0.5% of the Project value per week subject to maximum of 5% of total order value, in case of delayed in supply of stipulated time period. Similarly, 0.5% will be deducted from the PBG on each time there is a delay in providing support in terms of Repair/replace of equipment's per hour beyond the minimum support assistance response period of 48 Hrs.

#### 14.3 Submission of Bids

a) The bidders should submit their responses as per the format given in this RFP in the following manner.

- Prequalification Proposal- in first File
- Technical Proposal- in second File
- Commercial/ Financial Proposal in third File

b) The Response to Pre-Qualification criteria, Technical Proposal and Commercial Proposal (as mentioned in previous paragraph) should be submitted through online mode only in e-Nivida Portal.

c) Please Note that Prices should not be indicated in the Pre-Qualification Proposal or Technical Proposal but should only be indicated in the Commercial Proposal.

d) The three envelopes containing Pre-Qualification Proposal, Technical Proposal and Commercial Proposal should be marked as **"Request for Proposal (RFP) for Selection of CPSU/ SPSU for Supply and Installation of Robotic Lab in Secondary Schools in Odisha, RFP Ref. No. OCAC-SEGP-INFRA-0025-2023-23028, Dated 24-04-2023.** 

e) All the pages of the proposal must be sequentially numbered and must contain the list of contents with page numbers. Any deficiency in the documentation may result in the rejection of the Bid.

f) All pages of the bid shall be signed and stamped by the authorized person or persons who sign the bid.

#### 14.4 Deadline Submission of Bids

- a) Bidder must ensure to submit their response on or before the deadline date as mentioned in "Important Dates & Information" section of this RFP.
- b) Normally, the date of submission and opening of Bids will not be extended. In exceptional circumstances or when the bidding documents are required to be substantially modified as a result of discussions in pre-bid meeting/ conference or otherwise and the time with the prospective bidders for preparation of Bids appears insufficient, the date may be extended by the procuring entity. In such case the publicity of extended time and date shall be given in the manner, as was given at the time of issuing the original Bidding Document.
- c) It shall be ensured that after issue of corrigendum, reasonable time is available to the bidders for preparation and submission of their Bids. Department shall also publish such modifications in the bidding document in the same manner as the publication of initial bidding document. If the last date of submission or opening of Bids is a non- working day, the Bids shall be received or opened on the next working day.

#### 14.5 Venue for Submission of Bids

Response to Bid, in its complete form in all respects as specified in the RFP, must be submitted to OCAC at the address specified below:

Address To	General Manager (Admin) Odisha Computer Application Centre
	N-1/7-D, Acharya Vihar Square, Bhubaneswar – 751013 Odisha

Telephone	0674-2567280/ 2567064/ 2567295
Fax	0674-2567842
Email id	gm_ocac@ocac.in

#### 14.6 Mode of Submission of Bids

The bid documents as asked in this RFP shall submitted only through online mode in e-Nivida Portal.

#### 14.7 Withdrawal, Substitution, and Modification of Bids

a) If permitted by the Department, a Bidder may withdraw its Bid or re-submit its Bid as per the instructions/ procedure prescribed by the Department.

b) Bids withdrawn shall not be opened and processed further.

#### 14.8 Opening of Bids

- a) The Bids shall be opened by the Evaluation Committee in the presence of the bidders or their authorized representatives who choose to be present.
- b) The committee may co-opt experienced persons in the committee to conduct the process of Bid opening.
- c) The committee shall prepare a list of the bidders or their representatives attending the opening of Bids and obtain their signatures on the same. The list shall also contain the representative's name and telephone number and corresponding bidders" names and addresses. The authority letters, if any, brought by the representatives shall be attached to the list. The list shall be signed by all the members of Bid opening committee with date and time of opening of the Bids.
- d) The committee shall conduct a preliminary scrutiny of the opened technical Bids
- e) To assess the prima-facie responsiveness and ensure that the: -
- Bid is accompanied by bidding document fee, bid security or bid securing declaration, and processing fee (if applicable).
- Bid is valid for the period, specified in the bidding document.
- Bid is unconditional and the bidder has agreed to give the required performance security and other conditions, as specified in the bidding document are fulfilled.

- Any other information which the committee may consider appropriate.
- f) No Bid shall be rejected at the time of Bid opening except the Bids not accompanied with the proof of payment or instrument of the required price of bidding document, processing fee and bid security.
- g) The Financial Bid cover shall be kept unopened and shall be opened later on the date and time intimated to the bidders who qualify in the evaluation of technical Bids.
- h) Financial quote against manpower should meet all the statutory stipulations like minimum wage, PF etc otherwise the bid will be considered unresponsive.

### **15 RFP Evaluation**

#### 15.1 Evaluation & Tabulation of Pre-qualification Bid

- a) Determination of Responsiveness: The designated committee of the Department shall determine the responsiveness of a Bid on the basis of bidding document and the provisions of prequalification/ eligibility criteria of the bidding document.
- b) A responsive Bid is one that meets the requirements of the bidding document without any material deviation, reservation, or omission where: -
- "Deviation" is a departure from the requirements specified in the bidding document.
- "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and
- "Omission" is the failure to submit part or all of the information or documentation required in the bidding document.
- c) A material deviation, reservation, or omission is one that, if accepted, shall:-
- Affect in any substantial way the scope, quality, or performance of the subject matter of procurement specified in the bidding documents; or
- Limits in any substantial way, inconsistent with the bidding documents, the procuring entity's rights or the bidder's obligations under the proposed contract; OR
- If rectified, shall unfairly affect the competitive position of other bidders presenting responsive Bids.

d) The designated committee of department shall examine the technical aspects of the Bid in particular, to confirm that all requirements of bidding document have been met without any material deviation, reservation or omission.

#### 15.2 Evaluation & Tabulation of Technical Bid

The Technical evaluation committee will evaluate the technical response submitted by the Bidder. The Technical bid response includes the below details:-

- a) The Technical Bid response will be initiated with the Technical Bid Cover letter in specified format as mentioned in the RFP
- b) Detailed Compliance Sheet of the Technical Specification asked in the RFP dully signed in Company Letter Head.
- c) In case of deviation while evaluating the Technical Bid response based upon the criteria, the bid will be subjected for rejection.
- d) All supporting documents as mentioned in the RFP document.

#### **15.3 Evaluation & Tabulation of Financial Bids**

- a) The Financial Bids of the technically qualified bidders (those have secured equal or more than 80% of mark in technical evaluation) will be opened on the prescribed date in the presence of bidders' representatives.
- b) The bid with lowest Financial (L1) i.e. "lowest price quoted" will be awarded the contract.
- c) Only fixed price financial bids indicating total price for all the deliverables and services specified in this bid document will be considered.
- d) The bid price will be inclusive of all taxes and levies and shall be in Indian Rupees.
- e) Any conditional bid would be rejected
- f) Errors & Rectification: Arithmetical errors will be rectified on the following basis: "If there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected. If there is a discrepancy between words and figures, the amount in words will prevail".

### 16 Acceptance of the successful Bid and award of Project

#### 16.1 Award Criteria

Department will award the Project to the successful bidder whose proposal has been determined to be substantially responsive and has been determined as the most responsive bids as per the process outlined above.

#### 16.2 Right to Accept Any Proposal and To Reject Any or All Proposal(s)

Department reserves the right to accept or reject any proposal, and to annul the tendering process / Public procurement process and reject all proposals at any time prior to award of contract, without thereby incurring any liability to the affected bidder or bidders or any obligation to inform the affected bidder or bidders of the grounds for such action.

#### **16.3 Purchaser's Procurement Rights**

Without incurring any liability, whatsoever to the affected bidder or bidders, the Purchaser reserves the right to:-

- Amend, modify, or cancel this tender and to reject any or all proposals without assigning any reason.
- Change any of the scheduled dates stated in this tender.
- Reject proposals that fail to meet the tender requirements.
- Increase or decrease the quantity of the hardware items
- Remove any of the items at the time of placement of order.
- Increase or decrease no. of resources supplied under this project.
- Should the Purchaser be unsuccessful in negotiating a contract with the Agency, the Purchaser will begin contract negotiations with the next best value bidder in order to serve the best interest.
- Make typographical correction or correct computational errors to proposals
- Request bidders to clarify their proposal.

#### **16.4 Notification of Award**

Prior to the expiry of the validity period, department will notify the successful bidder in writing or by fax or email, that its proposal has been accepted. In case the tendering process / public procurement process has not been completed within the stipulated period, department may like to request the bidders to extend the validity period of the bid. The notification of award will constitute the formation of the contract. Upon the successful bidder's furnishing of Performance Bank Guarantee, department will notify each unsuccessful bidder.

#### 16.5 Issuance of Purchase Order

The department shall reserve the right to negotiate with the bidder(s) whose proposal has been ranked best value bid on the basis of Technical and Commercial Evaluation to the proposed Project. On this basis the Purchase order would be issued.

#### **16.6 Performance Guarantee**

The department will require the Agency to provide a Performance Bank Guarantee, within 30 days from the Notification of award, for a value equivalent to 3% of the total cost of ownership i.e. total order value excluding taxes. The Performance Guarantee should be valid for a period of 5 Years and 3 months. The Performance Guarantee shall be kept valid till completion of the project and Warranty period. The Agency shall be responsible for extending the validity date and claim period of the Performance Guarantee as and when it is due on account of non-completion of the project and Warranty period. In case the Agency fails to submit performance guarantee within the time stipulated, the department at its discretion may cancel the order placed on the Agency after giving prior written notice to rectify the same. department shall invoke the performance guarantee in case the selected Service Provider fails to discharge their contractual obligations during the period or department incurs any damages due to Service Provider's negligence in carrying out the project implementation as per the agreed terms & conditions.

#### **16.7 Issuance of Purchase Order**

After the department notifies the successful bidder that its proposal has been accepted, department shall issue a Purchase Order to the successful bidder taking into account the relevant clauses of RFP, pre-bid clarifications, Corrigenda, the proposal of the bidder in addition to other agreed clauses.

# 16.8 Failure to Agree with the Terms and Conditions of the RFP

Failure of the successful bidder to agree with the Terms & Conditions of the RFP and the Proposal submitted by the successful bidder, despite the deviations submitted by the Bidder are adequately considered and mutually agreed, shall constitute sufficient grounds for the annulment of the award, in which event department may award the Project to the next best value bidder or call for new proposals from the interested bidders.

## **16.9 Confidentiality**

- a) Notwithstanding anything contained in this bidding document but subject to the provisions of any other law for the time being in force providing for disclosure of information, a procuring entity shall not disclose any information if such disclosure, in its opinion, is likely to: -
- Impede enforcement of any law;
- Affect the security or strategic interests of India;
- Affect the intellectual property rights or legitimate commercial interests of bidders;
- Affect the legitimate commercial interests of the procuring entity in situations that may include when the procurement relates to a project in which the procuring entity is to make a competitive bid, or the intellectual property rights of the procuring entity.
- b) The procuring entity shall treat all communications with bidders related to the procurement process in such manner as to avoid their disclosure to competing bidders or to any other person not authorized to have access to such information.
- c) The procuring entity may impose on bidders and sub-contractors, if there are any for fulfilling the terms of the procurement contract, conditions aimed at protecting information, the disclosure of which violates (a) above.
- d) In addition to the restrictions specified above, the procuring entity, while procuring a subject matter of such nature which requires the procuring entity to maintain confidentiality, may impose condition for protecting confidentiality of such information.

# **17** General Terms and Conditions of RFP

Bidders should read these conditions carefully and comply strictly while submitting their bids.

# **17.1 Definitions**

For the purpose of clarity, the following words and expressions shall have the meanings hereby assigned to them: -

a) "Request for Proposal (RFP)", means this detailed notification seeking a set of solution(s), services(s), materials and/or any combination of them.

b) "OCAC", shall mean the Odisha Computer Application Centre, the Designated Technical Directorate of Information Technology Department, Government of Odisha.

c) "GM" shall mean the General Manager of Odisha Computer Application Centre or any authorized officer to act on his behalf for a specified work.

d) "Authorized Representative" shall mean any person authorized by either of the parties.

e) "Agency/Vendor/Bidder" means any firm offering the solution(s), service(s) and /or materials required in the RFP. The word Vendor/Bidder when used in the pre-award period shall be synonymous with Bidder, and when used after award of the Work shall mean the successful Bidder or Agency to whom OCAC issues the Purchase Order for rendering of sales & services.

f) "Service" means provision of Contracted service as per this RFP.

g) "Site" shall mean the location(s) for which the Order has been issued and where the service shall be provided as per Scope mentioned in the RFP.h) "Termination Notice" means the written notice of termination of the Purchase Order issued by one Party to the other in terms hereof.

# 17.2 Language

a) The Proposal should be filled by the bidders/Agency in English language only. For purposes of interpretation of the documents, the English translation shall govern. All Proposals and accompanying documentation will become the property of OCAC and will not be returned.

b) The Purchase Order as well as all correspondence and documents relating to the Project exchanged by the successful/ Agency and the Purchaser, shall be written in English language only. Supporting documents and printed literature that are part of the Project may be in

another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the special conditions of the contract, in which case, for purposes of interpretation of the Project, this translation shall govern.

c) The successful Bidder/Agency shall bear all costs of translation to the governing language and all risks of the accuracy of such translation.

#### **17.3 Notices**

a) Any notice given by one party to the other pursuant to the Project shall be in writing to the address specified in the Purchase Order. The term "in writing" means communicated in written form with proof of dispatch and receipt.

b) A Notice shall be effective when delivered or on the Notice"s effective date, whichever is later.

#### 17.4 Governing Law

The Project shall be governed by and interpreted in accordance with the laws of the Govt. of Odisha/Govt. of India unless otherwise specified in the Purchase Order.

# 17.5 Scope of Supply

a) Subject to the provisions in the bidding document and Purchase Order, the Goods/Equipment and related services to be supplied shall be as specified in the bidding document (RFP).

b) Unless otherwise stipulated in this document, the quantity and specifications are for minimum quantity and configuration respectively. The bidder may supply higher configuration.

c) Unless otherwise stipulated in the Purchase Order, the scope of supply shall include all such items not specifically mentioned in the Purchase order but that can be reasonably inferred from the Contract as being required for attaining delivery and completion of the goods and related services as if such items were expressly mentioned in the Contract.

d) The bidder shall not quote and supply hardware/ software that is likely to be declared as End of Sale and End of Service/ Support for the period as mentioned in BoM **(Annexure -2)** from the last date of bid

submission. OEMs are required to mention this in the MAF for all the quoted hardware/ software. If any of the hardware/ software is found to be declared as End of Sale/Service/ Support, then the bidder shall replace all such hardware/ software with the latest ones having equivalent or higher specifications without any financial obligation to the purchaser.

# 17.6 Project Value

a) The Project value (PO Amount) shall be paid as specified in the Purchase Order subject to any additions and adjustments thereto, or deductions there from, as may be made pursuant to the Project.

b) Prices charged by the Supplier/ Agency for the Goods delivered and the Related Services performed under the Project shall not vary from the prices quoted by the Supplier/ Agency in its bid, with the exception of any price adjustments authorized in the special conditions of the Project.

# **17.7 Recoveries from Supplier/ Agency**

a) Recovery of liquidated damages, short supply, breakage, rejected articles shall be made ordinarily from bills.

b) OCAC shall withhold amount to the extent of short supply, broken/ damaged or for rejected articles unless these are replaced satisfactorily. In case of failure to withhold the amount, it shall be recovered from performance security deposit of AGENCY available with OCAC.

c) The balance, if any, shall be demanded from the Supplier/ Agency and when recovery is not possible, OCAC shall take recourse to law in force.

## 17.8 Taxes & Duties

a) The GST if applicable shall be deducted at source.

b) For goods/Equipment supplied from outside India, the successful/ Agency shall be entirely responsible for all taxes, stamp duties, license fees, and other such levies imposed outside the country. c) For goods/Equipment supplied from within India, the successful Agency shall be entirely responsible for all taxes, duties, license fees, etc., incurred until delivery of the contracted Goods to the Purchaser.

d) If any tax exemptions, reductions, allowances or privileges may be available to the successful Agency in India, OCAC shall use its best efforts to enable the successful Agency to benefit from any such tax savings to the maximum allowable extent.

#### **17.9 Packing and Documents**

a) The Agency shall provide such packing of the Goods as is required to prevent their damage or deterioration during transit to their final destination, as indicated in the Purchase Order. During transit, the packing shall be sufficient to withstand, without limitation, rough handling and exposure to extreme atmospheric temperatures, salt and precipitation, and open storage. Packing case size and weights shall take into consideration, where appropriate, the remoteness of the final destination of the Goods and the absence of heavy handling facilities at all points in transit.

b) The packing, marking, and documentation within and outside the packages shall comply strictly with such special requirements as shall be expressly provided for in the Project, including additional requirements, if any, specified in the Purchase Order, and in any other instructions ordered by OCAC.

#### 17.10 Insurance

The Agency should be responsible for undertaking comprehensive insurance including liability insurance, system and facility insurance and any other insurance for the personnel, Assets, data, software, etc relating to this assignment.

#### **17.11 Transportation**

The Agency shall be responsible for transport by sea, rail and road or air and delivery of the material in the good condition to the consignee at project locations. In the event of any loss, damage, breakage or leakage or any shortage the bidder shall be liable to make good such loss and shortage found at the checking/ inspection of the material by the consignee. No extra cost on such account shall be admissible.

# 17.12 Extension in Delivery Period and Liquidated Damages (LD)

a) Except as provided under clause "Force Majeure", if the supplier/ selected bidder fails to deliver the related Services within the period specified in the Purchase Order, the Purchaser may without prejudice to all its other remedies under the Contract, deduct from the Purchase Order Price, as liquidated damages, a sum equivalent to the percentage specified in Section "Service Level Standards" for each week or part thereof of delay until actual delivery or performance, up to a maximum deduction of the percentage specified in the bidding document and/ or Purchase Order. Once the maximum is reached, the Purchaser may cancel the Purchase Order pursuant to clause "Termination".

b) The time specified for delivery in the bidding document shall be deemed to be the essence of the Project and the supplier/ selected bidder shall arrange goods supply and related services within the specified period.

c) Delivery period may be extended with or without liquidated damages, if the delay in the supply of goods or service is on account of hindrances beyond the control of the selected bidder:

i. The selected bidder/Agency shall request in writing to the Purchaser giving reasons for extending the delivery period of service, if he/she finds himself/herself unable to complete the supply of goods or service within the stipulated delivery period or is unable to maintain prorate progress in the supply of goods or service delivery. This request shall be submitted as soon as a hindrance in delivery of goods and service occurs or within 15 days from such occurrence but before expiry of stipulated period of completion of delivery of goods and service after which such request shall not be entertained.

ii. The Purchaser shall examine the justification of causes of hindrance in the delivery of goods and service and the period of delay occurred due to that and recommend the competent authority on the period of extension which should be granted with or without liquidated damages.

Normally, extension in delivery period of service in following circumstances may be considered without liquidated damages:

• When delay has occurred due to delay in approval by OCAC.

• When the delay has occurred in providing space or any other infrastructure, if OCAC was required to provide the same as per the terms of the Bid.

iii. If the competent authority agrees to extend the delivery period/ schedule, an amendment to the Purchase Order with suitable denial clauses and with or without liquidated damages, as the case may be, shall be issued. The amendment letter shall mention that no extra price or additional cost for any reason, what so ever beyond the contracted cost shall be paid for the delayed supply of goods and service.

# 17.13 Warranty

a) The bidder must execute back-to-back support contract with OEM for the period of five years from the date of UAT.

b) The bidder shall either repair or replace the defective goods or parts thereof with brand new genuine/ authentic ones having similar or higher specifications from the respective OEM as per the time period specified.

# 17.14 Termination

OCAC may at any time terminate the Purchase Order by giving written notice to the Bidder if the Bidder becomes bankrupt or otherwise insolvent. In this event, termination will not prejudice or affect any right of action or remedy, which has accrued or will accrue thereafter to OCAC. OCAC reserves the right to cancel the Purchase Order in the event of happening one or more of the following Conditions:-

a) Failure of the successful bidder to accept the contract.

b) Delay in delivery beyond the specified period.

c) In addition to the cancellation of the contract, OCAC reserves the right to appropriate the damages through encashment of Bid Security / Performance Guarantee given by the Bidder.

d) OCAC would not be liable to pay any damages to the Agency in cases comprising termination for default.

# **17.15 Settlement of Disputes**

a) General: If any dispute arises between the supplier/ Agency and OCAC during the execution of a Project that should be amicably settled by mutual discussions. However, if the dispute is not settled by mutual discussions, a written representation will be obtained from

the supplier/ Agency on the points of dispute. The representation so received shall be examined by the concerned Committee which sanctioned the tender. The Procurement Committee may take legal advice of a counsel and then examine the representation. The supplier/ Agency will also be given an opportunity of being heard. The Committee will take a decision on the representation and convey it in writing to the supplier/ Agency.

Standing Committee for Settlement of Disputes: If a question, difference or objection arises in connection with or out of the Order issued or the meaning of operation of any part, thereof or the rights, duties or liabilities of either party have not been settled by mutual discussions or the decision of tender sanctioning Procurement Committee, it shall be referred to the empowered standing committee for decision.

# **18Annexure**

# **18.1** Annexure 1: Pre-Qualification Bid Cover Letter

Τo,

The General Manager (Admn.) Odisha Computer Application Centre (OCAC) OCAC Building, Plot No.-N-1/7-D, Acharya Vihar Square, RRL Post Office, Bhubaneswar-751013 (INDIA)

# Subject: Pre-Qualification Bid for Request for Proposal (RFP) for Selection of CPSU/ SPSU for Supply and Installation of Robotic Lab in Secondary Schools in Odisha.

Dear Sir,

We, the undersigned, offer to provide our services against your RFP enquiry no. <Insert RFP no> dated <insert date>. We are hereby submitting our Proposal, which includes this Pre-Qualification Bid sealed in the envelope.

We hereby declare that all the information and statements made in this bid are true and accept that any misinterpretation contained in it may lead to our disqualification.

We agree to abide by all the terms and conditions of the tender document. We would hold the terms of our bid valid for 180 days as stipulated in the RFP document.

We also agree that you reserve the right in absolute sense to reject all or any of the products / services specified in the bid response without assigning any reason whatsoever.

It is hereby confirmed that I/We are entitled to act on behalf of our corporation/company /firm/organization and empowered to sign this document as well as such other documents which may be required in this connection.

Thanking you, Name of the Bidder: ..... Authorized Signatory: .... Signature: Seal: Date: Place:

SI. No.	Information Sought	Details to be Furnished
1	Name of the bidding Company	
2	Address of the Company	
3	Incorporation status of the firm (Public limited / Private limited, etc.)	
4	Year of Establishment	
5	Date of registration	
6	RoC Reference No.	
7	Details of company registration	
8	Details of registration with appropriate authorities for GST	
9	Name, Address, e-mail ID, Phone nos. and Mobile Number of Contact Person	
10	Roles & Responsibilities	

# **18.2 Annexure- 2: Particulars of the Bidders**

#### **18.3 Annexure 3 - Bid Security Declaration**

Τo,

The General Manager (Admn.) Odisha Computer Application Centre (OCAC) OCAC Building, Plot No.-N-1/7-D, Acharya Vihar Square, RRL Post Office, Bhubaneswar-751013 (INDIA)

Whereas << name of the bidder >> (hereinafter called the Bidder) has submitted the bid for Submission of RFP # << RFP Number >> dated << insert date >> for << name of the assignment >>(hereinafter called "the Bid") to Education Department, Government of Odisha.

Know all Men by these presents that we <<>> having our office at << Address >> (hereinafter called "the Bank") are hereby submitting the Bid Security Declaration letter to the Education Department (hereinafter called "the Purchaser") which binds our organization, its successors and assigns by these presents under the following obligations.

The conditions of this obligation are:

- 1. Fails to submit PBG.
- 2. Withdraws his participation from the bid during the period of validity of bid document; or
- 3. Modify the bid during period of bid validity.

We undertake to accept the suspension for a specific period as decided by the Purchaser due to it owing to the occurrence of one or both of the two conditions, specifying the occurred condition or conditions.

(Authorized Signatory of the Bidder) Seal: Date:

#### **18.4 Annexure 4: Self-Declaration**

(Non-blacklisted in company Letter Head)

To, The General Manager (Admn.) Odisha Computer Application Centre (OCAC) OCAC Building, Plot No.-N-1/7-D, Acharya Vihar Square, RRL Post Office, Bhubaneswar-751013 (INDIA)

Dear Sir,

In response to the RFP Ref. No: OCAC-SEGP-INFRA-0025-2023/23028, dated 24-04-2023, for RFP titled "Request for Proposal (RFP) for Selection of CPSU/ SPSU for Supply and Installation of Robotic Lab in Secondary Schools in Odisha", as an owner/ partner/ Director of (organization name) I/ We hereby declare that presently our Company/ firm is not under declaration of ineligible for corrupt & fraudulent practices, blacklisted either indefinitely or for a particular period of time, or had work withdrawn, by any State/ Central government/ PSU.

I/We further declare that there is no past / ongoing legal trial in name of any of the Owner / Partner / Director of the bidding company as on the tender submission date.

If this declaration is found to be incorrect then without prejudice to any other action that may be taken, my/ our security may be forfeited in full and the tender if any to the extent accepted may be cancelled.

Thanking you, Name of the Bidder: ..... Authorized Signatory: ..... Signature: Seal: Date: Place:

# **18.5 Annexure-5: Project Citation Format**

(To be filled by the Bidder)

Relevant Project Experience	
General Information	
Name of the project	
Client for which the project was executed	
Name and contact details of the client	
Project Details	
Description of the project	
Scope of services	
Other Details	
Total cost of the project	
Duration of the project (no. of months, start	
date, completion date, current status)	

# 18.6 Annexure-6: Manufacturer's Authorization Form (MAF)

Τo,

The General Manager (Admn.) Odisha Computer Application Centre (OCAC) OCAC Building, Plot No.-N-1/7-D, Acharya Vihar Square, RRL Post Office, Bhubaneswar-751013 (INDIA)

# Sub: OEM Authorization Letter for Request for Proposal (RFP) for Selection of CPSU/ SPSU for Supply and Installation of Robotic Lab in Secondary Schools in Odisha.

Dear Sir,

We, who are established and reputable \_\_\_\_\_\_having factories / development facilities at (address of factory / facility) do hereby authorize M/s (Name and address of Bidder) to submit a Bid, and accept the Purchase Order against the above Bid Invitation.

We hereby extend our full guarantee and warranty for the Solution, Products and services offered by the above firm against this Bid Invitation. We further undertake that we will support the supplier will all related spares and maintenance during the entire contract period.

We duly authorize the said firm to act on our behalf in fulfilling all installations, Technical support and maintenance obligations required by the Project.

Yours faithfully,

(Name)

Seal

Note: This letter of authority should be on the letterhead of the OEM and should be signed by a person competent and having the power of attorney to bind the manufacturer.

## **18.7** Annexure 7: Technical Bid Cover Letter

#### Τo,

The General Manager (Admn.) Odisha Computer Application Centre (OCAC) OCAC Building, Plot No.-N-1/7-D, Acharya Vihar Square, RRL Post Office, Bhubaneswar-751013 (INDIA)

# Subject: Technical Proposal for Request for Proposal (RFP) for Selection of CPSU/ SPSU for Supply and Installation of Robotic Lab in Secondary Schools in Odisha.

Dear Sir,

We, the undersigned, offer to provide our services against your RFP enquiry no. <Insert RFP no> dated <insert date>. We are hereby submitting our Proposal, which includes this Technical Bid sealed in the envelope.

We hereby declare that all the information and statements made in this Technical bid are true and accept that any misinterpretation contained in it may lead to our disqualification.

We agree to abide by all the terms and conditions of the tender document. We would hold the terms of our bid valid for 180 days as stipulated in the RFP document.

We also agree that you reserve the right in absolute sense to reject all or any of the products / services specified in the bid response without assigning any reason whatsoever.

It is hereby confirmed that I/We are entitled to act on behalf of our corporation/company /firm/organization and empowered to sign this document as well as such other documents which may be required in this connection.

Thanking you,
Name of the Bidder:
Authorized Signatory:
Signature:
Seal:
Date:
Place:

# **18.8** Annexure-8: Financial Bid Cover Letter (To be filled by the bidder and signed in Company Letter Head)

#### Τo,

The General Manager (Admn.) Odisha Computer Application Centre (OCAC) OCAC Building, Plot No.-N-1/7-D, Acharya Vihar Square, RRL Post Office, Bhubaneswar-751013 (INDIA)

# Subject: Financial Proposal for Request for Proposal (RFP) for Selection of CPSU/ SPSU for Supply and Installation of Robotic Lab in Secondary Schools in Odisha.

Dear Sir/Madam,

We, the undersigned, offer to submit our financial proposal for Request for Proposal (RFP) for Selection of CPSU/ SPSU for Supply and Installation of Robotic Lab in Secondary Schools in Odisha. Our attached Financial Proposal is for the sum of <<Amount in words and figures>>inclusive of all duties.

#### 1. Price and Validity

All the prices mentioned in our RFP are in accordance with the terms as specified in the RFP documents. We declare that our Bid Price is for the entire scope of the work as specified in the appropriate section in the RFP. All the prices and other terms and conditions of this Bid are valid minimum for a period 180 days from the date of opening of the Bid. Subject to further extended period as mutually agreed upon.

We understand that the actual payment would be made as per the existing tax rates during the time of payment.

#### 2. Unit Rates

We have indicated in the relevant forms enclosed, the unit rates for the purpose of on account of payment as well as for price adjustment in case of any increase to / decrease from the scope of work under the contract.

#### 3. Qualifying Data

We confirm having submitted the information as required by you in your Instruction to Bidders. In case you require any other further information/documentary proof in the department this regard before evaluation of our bid, we agree to furnish the same in time to your satisfaction.

#### 4. Bid Price

We declare that our Bid Price is for the entire scope of the work as specified in the RFP. These prices are indicated at Price Bid attached with our bid as part of the Bid. We understand you are not bound to accept any tender you receive.

We hereby declare that our bid is made in good faith, without collusion or fraud and the information contained in the bid is true and correct to the best of our knowledge and belief.

We understand that our bid is binding on us and that you are not bound to accept a bid you receive.

Thanking you, Yours sincerely, Authorized Signature: Name and Title of Signatory: Name of Firm: Address:

# 18.9 Annexure 9: Financial Bid

		Form 9	: Financia	l Bid		
SI. No.	Items/Activities	Quantity (a)	Unit Cost (in ₹.) (b)	Taxes (in ₹.) (c)	Total Cost (in ₹.) (d = b + c)	Total Amount (in ₹.) (e = a x d)
A: Rob	<u>,</u> 1					
1	Hybrid Humanoid Robot	1				
2	Robotic Arm	1				
3	Interactive Intelligent Robot	1				
4	Hexapod Robot	1				
	Total Cost includ	i <mark>ng GST</mark> @	One Robot	ics Lab f	or 5 years	
	[A] Total Cost includ	ing GST @	500 Robot	ics Lab f	or 5 years	
B. Rob	otics Do It Yourself (	(DIY) Kits	: Compone	ent Detai	ls	
SI. No.	Items/Activities	Quantity (a)	Unit Cost (in ₹.) (b)	Taxes (in ₹.) (c)	Total Cost (in ₹.) (d = b + c)	Total Amount (in ₹.) (e = a x d)
1	Robotic Kits & Equipment for Standard 6	10				
2	Robotic Kits & Equipment for Standard 7	10				
3	Robotic Kits & Equipment for Standard 8	10				
4	Robotic Kits & Equipment for Standard 9	10				
5	Robotic Kits & Equipment for Standard 10	10				
	Total Cost includi	ing GST @	One Robot	ics Lab f	or 5 years	
	[B] Total Cost includ	ing GST @	500 Robot	ics Lab f	or 5 years	
SI. No.	Items/Activities	Quantity (a)	Unit Cost (in ₹.) (b)	Taxes (in ₹.) (c)	Total Cost (in ₹.) (d = b + c)	Total Amount (in ₹.) (e = a x d)
С	Innovative Project Component	1				
Т	otal Cost [C] Includi	ng GST @	500 Robot	tic LAB F	or 5 Years	
D	Prototyping Tools per Lab	1				
т	otal Cost [D] Includi	ng GST @	500 Robot	ic LAB F	or 5 Years	

Е	Furniture for per Lab	1				
٦	or 5 Years					
F: Con	sumables per Lab- C	omponent	ts (Recurri	ng for ev	very year)	
SL.No.	Item	Quantity (a)	Unit Cost (in ₹.) (b)	Taxes (in ₹.) (c)	Total Cost (in ₹.) (d = b + c)	Total Amount (in ₹.) (e = a x d)
1	Consumables per Lab- Components (Recurring for every year)	1				
[F] Total Cost Including GST for 500 Nos of Robotic LABs for 5 Years						
G Man	power Cost for 500 M	Nos of Rob	otic Labs.			
SL.No.	Item	Quantity (a)	Unit Cost (in ₹.) (b)	Taxes (in ₹.) (c)	Total Cost (in ₹.) (d = b + c)	Total Amount (in ₹.) (e = a x d)
1	IT Manager	1				
2	Central Helpdesk Support/ IT Coordinators	5				
3	Robo Trainer	500				
Tota	I Manpower Cost Inc	cluding GS	T for 500 I		obotic LAB or 1 Years	
[G] Total Manpower Cost Including GST for 500 Nos of Robotic LAB For 5 Years					of Robotic	
Grand Total Cost i.e. [A] + [B] + [C] +[D] + [E] + [F] + [G] including GST for 500 Nos of Robotic LABs						
	Total in Words					

#### <u>NOTE: -</u>

• All the above price would be in INR only with applicable item wise GST.

• The above price would include Compressive OEM Warranty Support for a period of 3 years and 2 years of CAMC from the date of FAT.

• The bidder has to compulsorily quote for all items mentioned in the Commercialbid Tables. In case bidder fails to quote for any of this stage, the bid would be summarily rejected.

- No Component of Financial bid should have "ZERO" value.
- Above is indicative, however the quantity may increase or decrease at the time of placing the purchase order as per actual.
- The Tax rates will be mentioned as per standards.
- If manpower cost is non-exclusive of any statutory stipulation it will be treated as non-responsive bid.

# 18.10 Annexure 10: Pre-Bid Queries Format

#### Name of the Company/Firm:

Bidding document Fee Receipt No. \_\_\_\_\_

#### Person(s) Representing the Company/ Firm:

Name of the Person	Designation	Email-ID(s)	Tel. Nos. & Fax Nos.

#### **Company/Firm Contacts:**

Contact Person(s)	Address for Correspondence	Email-ID(s)	Tel. Nos. & Fax Nos.

#### Query/Clarification Sought: (MS-Excel Sheet Format)

SI.No.	Bidder Name	RFP Chapter No.	RFP Clause No.	RFP Page No.	Clause Details as per RFP	Query/Clarification/ Suggestion

**Note:** Queries must be strictly submitted only in the prescribed format (.XLS/ .XLSX/.PDF).Queries not submitted in the prescribed format will not be considered/ responded at all by the tendering authority. Also, kindly attach the coloured scanned copy of the receipt towards the submission of the bid document fee. Also, the bidders having purchased the tender/ RFP document will only be responded to i.e. their pre-bid queries will be entertained and responded. Also, the softcopy of the queries **(only in MS-Excel Sheet format)** should also be submitted through e-mail at <u>gm.ocac@odisha.gov.in</u>, jayashree.mishra@odisha.gov.in & Sourav.dash@semt.gov.in

# **18.11** Annexure **11**: Details of documents to be submitted by the Bidder

SI. No.	Document	ts to be submitte	d
	Pre-qualification bid	Technical Bid	Financial Bid
1	Pre-Qualification Bid Covering Letter	Technical Bid Covering Letter	Financial Bid Cover letter and Format
2	Particulars of the Bidder	All the supporting document as per Technical Evaluation Criteria	Financial Bid
3	Valid copy of Certificate of incorporation and Registration Certificates Copy of GST registration. Copies of relevant Certificates of Registration, Income Tax/ PAN Number from the respective Government Department.	Technical Specification Compliance Documents with all supporting details	
4	Audited Balance Sheets		
5	CA Certificate with CA"s Registration Number & Seal		
6	Valid Copy of ISO Certificates		
7	<b>RFP</b> Forms and Format		
8	Self-Declaration for Non- Blacklisted		
9	Project Citation Format		
10	Project References		
11	RFP document fee as mentioned		
12	EMD declaration as mentioned in the		

	Eligibility/Pre-qualification Criteria of the RFP.	
13	All the supporting documents as per Pre- Qualification Criteria	

# **18.12** Annexure 12: List of Schools

District	No. of Schools	Zones (Central, North and South)
ANGUL	14	Northern
BALASORE	24	Central
BARAGARH	9	Northern
BHADRAK	30	Central
BOLANGIR	23	Northern
BOUDH	5	Southern
CUTTACK	25	Central
DEOGARH	4	Northern
DHENKANAL	8	Northern
GAJAPATI	8	Southern
GANJAM	65	Southern
JAGATSINGHPUR	12	Central
JAJPUR	27	Central
JHARSUGUDA	6	Northern
KALAHANDI	21	Southern
KANDHAMAL	5	Southern
KENDRAPARA	14	Central
KEONJHAR	10	Northern
KHURDHA	35	Central
KORAPUT	18	Southern
MALKNGIRI	7	Southern
MAYURBHANJ	24	Central
NABARANGPUR	9	Southern
NAYAGARH	9	Central
NUAPADA	8	Southern
PURI	20	Central
RAYAGADA	14	Southern
SAMBALPUR	13	Northern
SONEPUR	7	Northern
SUNDERGARH	26	Northern
Total	500	

18.13 Annexure 13 – Specifications of Robotic Kits and Equipment. Detailed BOQ having details of list of items consisting of each Robotic Kit for Standard 6, 7, 8, 9 and 10<sup>th</sup>

SI. No.	A: Robots-Component Details	Quantity
1	Hybrid Humanoid Robot	1
1	WMR	
1	5 Ft Height	
	High torque, motors	
	Industry grade wheels	
	Fixed hand	
	Mild steel Body	
	Powder coated with white and blue color	
	Wireless Controlled	
	OCU	
	Lead Acid Battery	
	Fixed Head	
	12 Facial Expressions	
	On/Off Switch	
	Battery level Indicator	
	Robot Battery Charger	
2	Robotic Arm	1
	5 DOF Robot Arm	
	4+ Gripper	
	Maximum Reach from Base 310 mm	
	Maximum Payload 90 Grams	
	CNC cut PVC alloy Body	
	USB 18 Servo controller	
	Servo Controller	
	Control Software	
3	<b>Interactive Intelligent Robot</b>	1
	WMR	
	Deep Learning	
	AI Models	
	Emotional Intelligence	
	Touch Screen	
	Wide angle HD Camera	
	Hi-Tech Sensors	
	Distance and edges sensor	
	Voice Recognition	
	Intent response model	

	Tele presence	
	Face Recognition	
	Battery	
	Charger	
4	Hexapod Robot	1
	6 Legged	
	18 DOF	
	Servo Controller	
	Metal Body	
	Lipo Battery	
	Intelligent Balance charger	

SI No.	B. Robotics Do It Yourself (DIY) Kits: Component Details	Quantity
1	Robot DIY Kit 10.0 (10 Robots for 10 th	10
	Standard)	
	WMR 2 level Platform	
	2 geared DC Motor	
	Tricycle model	
	2 general purpose Wheel	
	1 Castro wheel	
	Add On single Peripheral Board with components (DC Socket, capacitor's, Voltage regulators ,resistor's, IC's, LED's, Transistor's ,Relay's "MIC, Buzzer, Push button's ,Diode's, Variable resistor's ,	
	Voltage Display, 7 Segments, LCD Display	
	Controller ATMEGA 328P	
	On/off Switch on robot platform	
	Multiple sensors	
2	Robot DIY Kit 9.0(10 Robots for 9th Standard)	10
	WIMR 2 level Platform	
	2 geared DC Motor	
	Tricycle model	
	2 general purpose Wheel	
	1 Castro wheel	
	Add On single Peripheral Board with components (DC Socket, capacitor's , Voltage regulators, resistor's, IC's ,LED's, Transistor's, Relay , MIC, Buzzer, Push button's, Diode's, Variable resistor's, Voltage Display, LCD Display	
	Controller ATMEGA 328P	
	Multiple sensors	
3	Robot DIY Kit 8.0(10 Robots for 8th Standard)	10
	WMR 2 level Platform	
	2 geared DC Motor	

2 general purpose Wheel         1 Castro wheel         Add On single Peripheral Board with components (DC Socket, capacitors, Voltage regulators , resistors, IC's, LED's, Transistor's, Relay's, MIC, Buzzer, Push buttons, Diode's, Variable resistor's, Voltage Display, 7 Segments, LED Dot Matrix)         Controller ATMEGA 328P         On/Off Switch on robot Platform         Multiple sensors         4 <b>Robot DIY Kit 7.0(10 Robots for 7 Standard)</b> 10         WMR 2 level Platform         2 general purpose Wheel         1 Castro wheel         Add On single Peripheral Board with components ( DC Socket, set of capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC ,Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p         On/off Switch on robot platform         Multiple sensors <b>Robot DIY Kit 6.0(10 Robots for 6" Standard)</b> WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         1 Castro wheel         2 General purpose Wheel         1 Castro wheel         1 Castro wheel         2 general purpose Wheel         1 Castro wheel         1 Castro wheel	1	1	
1 Castro wheel         Add On single Peripheral Board with components (DC Socket, capacitors, Voltage regulators, resistors, IC's, LED's, Transistor's, Relay's, MIC, Buzzer, Push buttons, Diode's, Variable resistor's, Voltage Display, 7 Segments, LED Dot Matrix)         Controller ATMEGA 328P         On/Off Switch on robot Platform         Multiple sensors         4 <b>Robot DIY Kit 7.0(10 Robots for 7 Standard)</b> 10         WMR 2 level Platform         2 general Durpose Wheel         1 Castro wheel         Add On single Peripheral Board with components ( DC Socket, set of capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC, Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p         On/off Switch on robot platform         Multiple sensors <b>Robot DIY Kit 6.0(10 Robots for 6'' Standard)</b> WMR 2 level Platform         2 geared DC Motor         Tricycle model		Tricycle model	
Add On single Peripheral Board with components (DC Socket, capacitors, Voltage regulators , resistors, IC's, LED's, Transistor's, Relay's, MIC, Buzzer, Push buttons, Diode's, Variable resistor's, Voltage Display, 7 Segments, LED Dot Matrix)         Controller ATMEGA 328P       On/Off Switch on robot Platform         Multiple sensors       10         WMR 2 level Platform       2 geared DC Motor         Tricycle model       2 general purpose Wheel       10         Add On single Peripheral Board with components ( DC Socket, set of capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC, Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p       0n/off Switch on robot platform         Multiple sensors       Robot DIY Kit 6.0(10 Robots for 6" Standard)       WMR 2 level Platform         2 geared DC Motor       Tricycle model       2 geared DC Motor         Tricycle model       2 geared DC Motor       10         MMR 2 level Platform       2 geared DC Motor       10         MMR 2 level Platform       10       10         5       Robot DIY Kit 6.0(10 Robots for 6" Standard)       10         MMR 2 level Platform       10       10         5       Robot DIY Kit 6.0(10 Robots for 6" Tstandard)       10         MMR 2 level Platform       10         1 Castro wheel			
(DC Socket, capacitors, Voltage regulators, resistors, IC's, LED's, Transistor's, Relay's, MIC, Buzzer, Push buttons, Diode's, Variable resistor's, Voltage Display, 7 Segments, LED Dot Matrix)         Controller ATMEGA 328P         On/Off Switch on robot Platform         Multiple sensors         4       Robot DIY Kit 7.0(10 Robots for 7 Standard)         WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         Add On single Peripheral Board with components (DC Socket, set of Capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC, Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p         On/off Switch on robot platform         Multiple sensors         Robot DIY Kit 6.0(10 Robots for 6" Standard)         WMR 2 level Platform         2 general purpose Wheel         1 Castro wheel         Abot DIY Kit 6.0(10 Robots for 6" Standard)         WMR 2 level Platform         2 general purpose Wheel         1 Castro wheel         1 Castro wheel         2 general purpose Wheel         1 Castro wheel         2 general purpose Wheel         1 Castro wheel         2 general purpose Wheel <t< td=""><td></td><td></td><td></td></t<>			
On/Off Switch on robot Platform         Multiple sensors         4       Robot DIY Kit 7.0(10 Robots for 7 Standard)       10         WMR 2 level Platform       2 geared DC Motor       11         2 geared DC Motor       Tricycle model       2 general purpose Wheel       1         1 Castro wheel       Add On single Peripheral Board with components (DC Socket, set of capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC ,Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p       0n/off Switch on robot platform         Multiple sensors       Robot DIY Kit 6.0(10 Robots for 6" Standard)       WMR 2 level Platform         2 geared DC Motor       Tricycle model       2 geared DC Motor         5       Robot DIY Kit 6.0(10 Robots for 6" Standard)       10         MMR 2 level Platform       2 geared DC Motor       10         5       Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)       10         0n off Switch on robot platform       Multiple Sensors       10		(DC Socket, capacitors, Voltage regulators , resistors, IC's, LED's, Transistor's, Relay's, MIC, Buzzer, Push buttons, Diode's, Variable resistor's,	
On/Off Switch on robot Platform         Multiple sensors         4       Robot DIY Kit 7.0(10 Robots for 7 Standard)       10         WMR 2 level Platform       2 geared DC Motor       11         2 geared DC Motor       Tricycle model       2 general purpose Wheel       1         1 Castro wheel       Add On single Peripheral Board with components (DC Socket, set of capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC ,Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p       0n/off Switch on robot platform         Multiple sensors       Robot DIY Kit 6.0(10 Robots for 6" Standard)       WMR 2 level Platform         2 geared DC Motor       Tricycle model       2 geared DC Motor         5       Robot DIY Kit 6.0(10 Robots for 6" Standard)       10         MMR 2 level Platform       2 geared DC Motor       10         5       Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)       10         0n off Switch on robot platform       Multiple Sensors       10		Controller ATMEGA 328P	
Multiple sensors       10         4       Robot DIY Kit 7.0(10 Robots for 7 Standard)       10         WMR 2 level Platform       2 geared DC Motor       10         Tricycle model       2 general purpose Wheel       1         1       Castro wheel       1       Castro wheel         Add On single Peripheral Board with components (DC Socket, set of capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC, Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p       0n/off Switch on robot platform         Multiple sensors       Robot DIY Kit 6.0(10 Robots for 6" Standard)       WMR 2 level Platform         2 geared DC Motor       Tricycle model       2 geared DC Motor         Tricycle model       2 geared DC Motor       10         5       Robot DIY Kit 6.0(10 Robots for 6" Standard)       10         S       Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)       10         On off Switch on robot platform       Multiple Sensors       10			
4       Robot DIY Kit 7.0(10 Robots for 7 Standard)       10         WMR 2 level Platform       2 geared DC Motor       10         Tricycle model       2 general purpose Wheel       1         1 Castro wheel       Add On single Peripheral Board with components (DC Socket, set of capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC, Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p       0n/offf Switch on robot platform         Multiple sensors       Robot DIY Kit 6.0(10 Robots for 6" Standard)       WMR 2 level Platform         2 geared DC Motor       Tricycle model       2 geared DC Motor         7 Tricycle model       2 geared DC Motor       10         6       Robot DIY Kit 6.0(10 Robots for 6" Standard)       10         WMR 2 level Platform       2 geared DC Motor       10         7 Tricycle model       2 general purpose Wheel       1 Castro wheel         1 Castro wheel       Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC, 6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)       10         0 n off Switch on robot platform       Multiple Sensors       10			
WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         Add On single Peripheral Board with components ( DC Socket, set of capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC, Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p         On/off Switch on robot platform         Multiple sensors <b>Robot DIY Kit 6.0(10 Robots for 6'' Standard)</b> WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         8 Robot DIY Kit 6.0(10 Robots for 6'' Standard)         WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         8 Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)         On off Switch on robot platform         Multiple Sensors         Battery	4		10
Tricycle model         2 general purpose Wheel         1 Castro wheel         Add On single Peripheral Board with components ( DC Socket, set of capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC ,Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p         On/off Switch on robot platform         Multiple sensors <b>Robot DIY Kit 6.0(10 Robots for 6'' Standard)</b> WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         1 Castro wheel         5         Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)         On off Switch on robot platform         Multiple Sensors         Battery			
Tricycle model         2 general purpose Wheel         1 Castro wheel         Add On single Peripheral Board with components ( DC Socket, set of capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC ,Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p         On/off Switch on robot platform         Multiple sensors <b>Robot DIY Kit 6.0(10 Robots for 6'' Standard)</b> WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         1 Castro wheel         5         Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)         On off Switch on robot platform         Multiple Sensors         Battery		2 geared DC Motor	
1 Castro wheel         Add On single Peripheral Board with components (         DC Socket, set of capacitor, set of Voltage         regulator, multiple resistance, logic gate IC, set of         LED, set of Transistor, Relays "MIC ,Buzzer, set of         Push Button, multiple Diodes, 2 Variable resistor,         Voltage Display, set of 7 segments Display,         Controller ATMEGA 328p         On/off Switch on robot platform         Multiple sensors <b>Robot DIY Kit 6.0(10 Robots for 6'' Standard)</b> WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         1 Cogic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt         Relay, MIC, Buzzer, 5 set Push button)         On off Switch on robot platform         Multiple Sensors         Battery			
Add On single Peripheral Board with components ( DC Socket, set of capacitor, set of Voltage regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC ,Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328pOn/off Switch on robot platform Multiple sensorsRobot DIY Kit 6.0(10 Robots for 6" Standard) WMR 2 level Platform 2 geared DC Motor Tricycle model 2 general purpose Wheel 1 Castro wheel105Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button) On off Switch on robot platform Multiple Sensors10		2 general purpose Wheel	
DC Socket, set of capacitor, set of Voltage         regulator, multiple resistance, logic gate IC, set of         LED, set of Transistor, Relays "MIC, Buzzer, set of         Push Button, multiple Diodes, 2 Variable resistor,         Voltage Display, set of 7 segments Display,         Controller ATMEGA 328p         On/off Switch on robot platform         Multiple sensors <b>Robot DIY Kit 6.0(10 Robots for 6'' Standard)</b> WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         Robot Control board consists of (DC Socket, 5 Set of         capacitor, Voltage regulator, 5 set of resistor, 2 set         of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt         Relay, MIC, Buzzer, 5 set Push button)         On off Switch on robot platform         Multiple Sensors         Battery		1 Castro wheel	
regulator, multiple resistance, logic gate IC, set of LED, set of Transistor, Relays "MIC ,Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328pOn/off Switch on robot platformMultiple sensorsRobot DIY Kit 6.0(10 Robots for 6" Standard)WMR 2 level Platform 2 geared DC Motor Tricycle model 2 general purpose Wheel 1 Castro wheel25Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)100On off Switch on robot platform Multiple Sensors Battery10			
LED, set of Transistor, Relays "MIC, Buzzer, set of Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328pOn/off Switch on robot platform Multiple sensorsRobot DIY Kit 6.0(10 Robots for 6" Standard) WMR 2 level Platform 2 geared DC Motor Tricycle model 2 general purpose Wheel 1 Castro wheel1SRobot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor,2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button) On off Switch on robot platform Multiple Sensors Battery			
Push Button, multiple Diodes, 2 Variable resistor, Voltage Display, set of 7 segments Display, Controller ATMEGA 328p         On/off Switch on robot platform         Multiple sensors <b>Robot DIY Kit 6.0(10 Robots for 6'' Standard)</b> WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor,2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)         On off Switch on robot platform         Multiple Sensors         Battery			
Voltage Display, set of 7 segments Display, Controller ATMEGA 328p         On/off Switch on robot platform         Multiple sensors <b>Robot DIY Kit 6.0(10 Robots for 6" Standard)</b> WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)         On off Switch on robot platform         Multiple Sensors         Battery			
On/off Switch on robot platformMultiple sensorsRobot DIY Kit 6.0(10 Robots for 6" Standard)WMR 2 level Platform2 geared DC MotorTricycle model2 general purpose Wheel1 Castro wheel1 Castro wheel8 Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)0n off Switch on robot platform Multiple Sensors Battery		· · · · · · · · · · · · · · · · · · ·	
Multiple sensorsRobot DIY Kit 6.0(10 Robots for 6" Standard)WMR 2 level Platform2 geared DC MotorTricycle model2 general purpose Wheel1 Castro wheel1 Castro wheel5Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)0n off Switch on robot platform Multiple Sensors Battery		Controller ATMEGA 328p	
Robot DIY Kit 6.0(10 Robots for 6" Standard)         WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         1 Castro wheel         5         Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)         On off Switch on robot platform         Multiple Sensors         Battery		On/off Switch on robot platform	
WMR 2 level Platform         2 geared DC Motor         Tricycle model         2 general purpose Wheel         1 Castro wheel         8 Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)         On off Switch on robot platform         Multiple Sensors         Battery		Multiple sensors	
2 geared DC MotorTricycle model2 general purpose Wheel1 Castro wheel1 Castro wheel5Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)On off Switch on robot platform Multiple Sensors Battery			
Tricycle model2 general purpose Wheel1 Castro wheel1 Castro wheel5Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)10On off Switch on robot platform Multiple Sensors Battery10			
2 general purpose Wheel1 Castro wheel1 Castro wheel5Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)On off Switch on robot platform Multiple Sensors Battery			
1 Castro wheel5Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)10On off Switch on robot platform Multiple Sensors Battery10			
5 Robot Control board consists of (DC Socket, 5 Set of capacitor, Voltage regulator, 5 set of resistor,2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button) On off Switch on robot platform Multiple Sensors Battery			
capacitor, Voltage regulator, 5 set of resistor,2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt Relay, MIC, Buzzer, 5 set Push button)10On off Switch on robot platform Multiple Sensors Battery10			
Multiple Sensors Battery	5	capacitor, Voltage regulator, 5 set of resistor, 2 set of logic IC,6 Set of LED ,4 set of Transistor, 2 Dpdt	10
Battery		On off Switch on robot platform	
		Multiple Sensors	
E E lumpor Wire		Battery	
		F-F Jumper Wire	

SI No.	C: Innovative Project Component	Quantity
	DC motor (Assorted) of capacity: 12V Centre shaft	
1	10 RPM -10 No's	80
	30 RPM- 20 No's	

	60 RPM- 20 No's	
	100 RPM - 20 No's	
	150 Rpm -10 No's	
2	Servo motor of capacity: mini servo 180 Degree. Rotation, Plastic gear type 2.5 kg/cm Torque	20
	Switch box (Assorted- total 20 no's of SPDT ,DPDT ,SPST,	
3	Rocker, Slide Push)	2
4	Ultrasonic sensor for distance detection 2 to 400 CM, digital output, 5 volt DC	20
5	IR proximity sensor for distance detection 2 to 25 cm, colour detection, detection angle 35 deg, LM 393 IC	10
6	PIR sensor for motion sensing, detection 3 to 7 Mtr.	10
7	4 Relay module for motor driving, DPDT relay, 4 channel, operating voltage vol-3.3 to 5 volt	10
8	Single Relay module for 1 channel relay board, 5 Volt DC.	10
9	RF module for 433 Mhz radio frequency ,RX IF frq 1 Mhz, Tx Frc 433.92 Mhz	10
10	Motor driver L293D, 4 h bridge up to 4 by directional DC Motor drive.	10
11	Motor driver L298 for 12 v DC dual motor driving	10
12	LCD module for Arduino 16X2 with back light.	10
13	Matrix display RGB for display cascaded 4 dot matrix LED, 4 In one display with 5p line module	5
14	DTF module for MT 8870 based frq. Decoded defects 029, LED notified, 5 V DC.	10
15	APR module for voice recording for 10 Min, 8 channel, current 500 MA	10
16	Buzzer module for operating at 5 V DC, Pitch at 2.54 MM, tone generation range -1-5 to 2.5 khz.	10
17	Assorted multiple sensor box, collection of 36 different types of sensor	1
18	Component store Rack	1
19	Plastic Box of size 30 X 20 X 25 CM	50
20	General purpose wheel of 7X2 cm, 6 MM	40
21	General purpose wheel of 10X 2 Cm, 6 MM	40

SI No.	D: Prototyping Tools per Lab (Component details)	Quantity
1	3D printer for educational prototyping	1
2	Screw Driver set	10
3	Drilling machine and tool kits	1

4	Hammer	5
5	Hacksaw	5
6	File Set	2
7	Soldering Iro8-6n	10
8	Soldering iron stand	10
9	Pliers	5
10	Long nose pliers	5
11	Long needle nose mini pliers	5
12	Digital Multi meter	10
13	De Soldering gun	10
14	Glue gun	10
15	Allen key set (10 pieces)	2
16	Variable DC power supply unit 5-25 volt output	10
17	Laptop	2

SI. No.	E: Furniture for per Lab	Quantity
	Table (SS frame 8/4 ft size with standard ht. top	
1	blue sun mica on 20 mm ply)	4
	Stainless steel round stool for each student with SS	
2	frame, blue color foam sheet)	40
3	Table for 3D printer and computer	1
4	Computer chair	1
5	Room layout stickers/posters +doodle painting	1

SI. No.	F: Consumables per Lab- Components (Recurring for every year)	Quantity
1	Glue gun stick packet	10
2	Metal chassis	40
3	F - F Connector cable	1000
4	M - M connector cable	1000
5	F- M connector cable	1000
6	Soldering lead	40 Pkt
7	Soldering flux	40 Pkt
8	Single stand wire (100 meter)	10
9	Bread Board of 840 points	20
10	Mini breadboard 400 points	20
11	Resistor box of 1 oms to I micro omds	10
12	Capacitor box for educational purpose	10
13	DPDT relay 8 pin 5 v	50
14	DPDT Switch	75
15	DPDT Box - 3 Switch	25
16	7805 IC	50
17	Transistor BC 547	50
18	LED	50

19	LDR 5mm- 25 no's , 8 mm-25 no's	50
20	Op amp(Assorted IC) for educational project use	50
21	10 Coded wire bundle of 50 meter	4
22	Double sided tape	50
23	Black insulating tape	50
24	Red insulating tape	50
25	Paper Cutter	40
26	Sun board 3mm thick in 32 Sq. Ft sheet	4
27	Sun board 5mm thick in 32 Sq. Ft	4
28	Flex Glue 20 ML	50 bottles
29	Miscellaneous components (washer , spacer , nut	1 Pkt
30	bolt , L clamp, screw, wheels) 3D printing filament	10 Kg
50		IONG