



Schedule of

Tender For

SIMATIC PLC & HMI Training kit

Central Manufacturing Technology Institute

Tumkur Road, Bangalore–560022, India

**Central Manufacturing Technology Institute
Tumkur Road, Bangalore–560022, India**

TENDER FOR

SIMATIC PLC & HMI Training kit

**Annexure– I:
Schedule of Tender**

**(To be filled in by the tenderer and returned and duly signed along with enclosure to the
Schedule of Tender)**

1.	Name of Purchaser	Central Manufacturing Technology Institute Tumkur Road, Bangalore 560022
2.	Tender No:	CMTI/ E-382/KSR/ PUR /SMDDC/21-22/NR
3.	Place of delivery	Central Manufacturing Technology Institute, Tumkur Road, Bangalore 560022
4.	Delivery of SIMATIC PLC & HMI Training kit Required	Within 12weeks from the date of receipt of purchase order
5.	Date of receipt of The Tender	SIMATIC PLC & HMI Training kit
6.	Validity of the tender	Tender should be valid for a period of not less than 2 months from the date of offer and unless otherwise specified by the tenderer, the tender shall be treated as valid even thereafter.
7.	Technical details/Requirements for which the tender is invited	<ul style="list-style-type: none"> a) As per technical specifications/ Requirements in Annexure-II& Annexure-III (enclosed). b) All details that are required in the specification must be included in the offer. Incomplete tenders are liable to be rejected. c) Wherever numerical values are specified, tenderer shall respond with numerical values that actually correspond to the product. Any additional features/details per training to the product should be enclosed separately

8.	Price offered	<p>The quotation should be furnished in TWO parts in the following manner.</p> <p>a) The first part should contain complete technical details of the item offered along with name and address of the manufacturer, full name and address of the authorized agent, guaranteed delivery period and 2sets of the latest Catalogues. This part should not contain the price details. This part should be super scribed with “Tender Enquiry Reference and Date” and “Technical Bid for SIMATIC PLC & HMI Training kit”</p> <p>c) The second part should contain the Price and other commercial terms. The price should be quoted F-O-R, Bangalore. This part should be super scribed with “Tender Enquiry Reference and Date” and “Price and Commercial Bid for SIMATIC PLC & HMI Training kit”</p> <p>d) Both these parts should be submitted with “Tender Enquiry Reference and Date” and “Technical Bid for SIMATIC PLC & HMI Training kit”</p> <p>e) Break up cost for optional features and optional Equipment/accessories are to be clearly indicated in the price & commercial bid.</p>
9.	Payment Terms	<p>80% after successful installation and integration at CMTI Site</p> <p>20% after completion of comprehensive training of the software</p>
10.	GST Payment	<p>GST payments will be subjected to GST regulations. Payment will be made only for the basic value of the invoice and the balance GST amount will be cleared only after submission of GSTR1 report. (GST Exemption Letter will be provided.)</p>
11.	Transit Insurance	<p>To be arranged by the supplier from supplier’s warehouse to the place of delivery.</p>

12.	Notes	<p>a) Late offers will not be entertained or accepted.</p> <p>b) All the items in the tender Specifications are to be filled in. Incomplete Tender Specifications may not be considered.</p> <p>c) The Director of the Institute reserves the right to reject any tender/all tenders without assigning any reason.</p>
13.	General Terms and Conditions	<p>a) Only SIMATIC PLC & HMI Training kit OEM & authorized resellers / distributor can participate in the tender. Resellers / distributors need to furnish authorization certificate from the OEM, along with the technical bid.</p> <p>b) Software to be supplied on CD-ROM/DVD-ROM media.</p> <p>c) All software's supplied should be latest version with perpetual license and floating type (network license). All modules supplied shall be network version, scalable (both additional users & software).</p> <p>d) Warranty, automatic up-gradation/maintenance, Enhancement and support for 1 year is required. However, AMC for more than one year shall be separately quoted.</p> <p>e) Training Manuals and course content for the training kit to be provided</p> <p>f) Detailed drawings to be provided for the SIMATIC PLC & HMI Training kit and other accessories for operation & maintenance</p> <p>g) SIMATIC PLC & HMI Training kit component spares and toolkits to be provided for the operation & maintenance</p> <p>h) Maintenance support to be provided for two years</p> <p>i) All modules of the system necessary for the implementation and operation of the total system shall be-quoted. Additional modules of software & hardware, not mentioned in the specification, but required for the comprehensive functioning of the total</p>

		<p>system, should be quoted.</p> <p>j) Breakup cost for each and every component of the system shall be furnished with detailed specifications and catalogues.</p> <p>k) Comprehensive and full-fledged corporate training to be provided for 10 days at CMTI, in phases, after installation & commissioning.</p> <p>l) Quote should be accompanied by a compliance statement sheet indicating compliance / non-compliance item-wise. In case of compliance, name of module supporting the functionality the type & number of licenses quoted and the number of users who can access it to be clearly mentioned. Absence of comprehensive compliance statement will lead to disqualification of vendor.</p> <p>m) Vendor to obtain clarity on all issues/points in the Specifications prior to forwarding quotation.</p>
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Annexure-II: Technical Specifications for SIMATIC PLC & HMI Training kit:

Sl. No	Detailed Specifications	Supplier Compliance
<p>SIMATIC PLC & HMI Training kit: The PLC & HMI training kits will be used for hands on training to engineering discipline professionals and students and also for field trails in demonstrating the automation applications. It should have the following features</p> <ul style="list-style-type: none"> • Flexible to operate, expand and inter operable • The training kit should have provision for hands on training and needs to be enclosure properly • PLC should be enabled with IoT compatibility using OPC UA or any other protocols • Should have easy access and safety to the hands on trainers • Training should be provided to the trainers • Documentation on Operational, Training and Maintenance manuals to be provided for usage and maintenance • Training exercises to be provided with examples and suitable supporting materials for the hands-on training purpose • Electrical safety to be provided to the training kit with respect to Short circuit etc 		
Technical Specifications		
1	S7-1500 , mounting rail 160 mm (6.3")	
2	SIMATIC PM1507/1AC/24VDC/3A Stabilized power supply for SIMATIC S7-1500 Input: 230 V AC, Output: 24 V DC/3 A	
3	CPU 1511C-1 PN Central Processing Unit with Working Memory 150 Kb for Program And 1 Mb for Data, <ul style="list-style-type: none"> ✓ Interface: Profinet Irt With 2 Port Switch, ✓ 60 Ns Bit-Performance, Simatic Memory Card Necessary 	
4	Stand. sectional Rail 35mm, Length 483mm	
5	Siemens SIMATIC ET 200SP DI 8x 24VDC ST, PU1 <ul style="list-style-type: none"> • SIMATIC ET 200SP • DI 8x 24VDC ST • Digital input module • 8 digital inputs • 24 V DC • Input type 3 (IEC 61131) • Sink input (PNP/P-reading) • Module diagnostics: Short circuit/Sensor supply/Wire break/Supply voltage • Input delay 0.05-20 ms • Colour code: CC01 	

	<ul style="list-style-type: none"> • Suitable for BU type A0 	
6	<p>Siemens SIMATIC ET 200SP, DQ 8x 24V DC/0,5A ST, PU 1</p> <ul style="list-style-type: none"> • SIMATIC ET 200SP • DQ 8x24VDC/0.5A ST • Digital output module • 8 digital outputs • 24 V DC/0.5 A • Source output (PNP/P-switching) • Substitute value output • Module diagnostics: Short circuit (L + and PE)/Wire break/Supply voltage • Colour code: CC02 • Suitable for BU type A0 	
7	<p>Siemens SIMATICET 200SP, AI 4xI 2-/4-Wire ST, PU 1</p> <ul style="list-style-type: none"> • SIMATIC ET 200SP • AI 4xI 2-/4-wire ST • Analogue input module • Analogue inputs: 4 (current 2/4-wire standard) • 24 V DC • Module diagnostics • 16 bit • Colour code: CC03 • Suitable for BU type A0 and A1 	
8	<p>Siemens SIMATICET 200SP, AQ 4xU/I ST</p> <ul style="list-style-type: none"> • SIMATIC ET 200SP • AQ 4xU ST • Analogue output module • Analogue outputs: 4 (voltage/current standard) • 24 V DC • Module diagnostics • 16 bit • Colour code: CC00 • Suitable for BU type A0 and A1 	
9	<p>Siemens SIMATICET 200SP, IM155-6PN ST</p> <ul style="list-style-type: none"> • SIMATIC ET 200SP • Basic Interface Module • PROFINET • Max. 12 Peripheral modules • 24 V DC • Ports: 2 x RJ45 • Integrated switch • Incl. Server module 	
10	<p>Siemens SIMATIC ET 200SP, Bus adapter BA 2xRJ45</p> <ul style="list-style-type: none"> • SIMATIC ET 200SP • Bus adapter BA 2xRJ45 for SIMATIC DP CPU 	

	<ul style="list-style-type: none"> Ports: 2 x RJ45 for PROFINET 	
11	SIMATIC ET 200SP Base Unit Type A0, BU15-P16+A0+2D BU type A0, push-in terminals, without aux. terminals, new load group, WxH: 15x 117 mm	
12	SIMATIC HMI TP700 Comfort Panel <ul style="list-style-type: none"> SIMATIC HMI TP700 Comfort Comfort Panel Touch operation 7" TFT display (widescreen) 16 million Colours PROFINET interface MPI/PROFIBUS-DP interface Configuration memory: 12 MByte Windows CE 6.0 (Microsoft-Support incl. Security updates discontinued) configurable from WinCC Comfort V11 	
13	SIMATIC STEP 7 Professional V16 – 2 license <ul style="list-style-type: none"> SIMATIC STEP 7 Prof. V16 Upgrade to latest Software and documentation on DVD License key on USB stick Class A 6-languages: DE/EN/IT/FR/ES/ZH Executable in Windows 7 (64-bit) - Windows 10 (64-bit) - Windows Server 2012/16/19 (64-bit) For configuration of SIMATIC S7-1200/1500; SIMATIC S7-300/400/WinAC; SIMATIC Basic Panels 	
14	SIMATIC S7 memory card, 4 MB <ul style="list-style-type: none"> SIMATIC S7 Memory card for S7-1X00 CPU/SINAMICS 3.3 V FLASH 4 Mbytes 	
15	IOT 2040 SIMATIC IoT2040, 2x 10/100 Mbit/s Ethernet RJ45; 1x USB2.0, 1x USB client; SD card slot; 24 V DC industrial power supply	
16	Training Kit enclosure - Should be easy to handle and should have rugged enclosure for transport.	
Warranty <ol style="list-style-type: none"> The SIMATIC PLC & HMI Training kit should have a standard warranty of 12months from the Date of installation, commissioning & acceptance at CMTI. Supplier modification (s) / software updates and upgrades shall be intimated and same should be made available free of cost during the warranty period. The access to online learning resources shall be made available free of cost during the warranty period. Maintenance support to be provided for two years 		

Annexure–III
BOQ FOR
SIMATIC PLC & HMI Training kit:

SL. No	Main components description	Qty in No's
1	S7-1500, mounting rail 160 mm (6.3")	2
2	SIMATIC PM1507/1AC/24VDC/3A	2
3	CPU 1511C-1 PN	2
4	Stand. sectional Rail 35mm, Length 483mm	2
5	ET 200SP, DI 8x 24V DC ST, PU 1	2
6	ET 200SP, DQ 8x 24V DC/0,5A ST, PU 1	2
7	ET 200SP, AI 4XI 2-/4-Wire ST, PU 1	2
8	ET 200SP, AQ 4xU/I ST	2
9	ET 200SP, IM155-6PN ST	2
10	ET 200SP, Bus adapter BA 2xRJ45	2
11	Base Unit Type A0, BU15-P16+A0+2D	2
12	SIMATIC HMI TP700 Comfort	2
13	SIMATIC STEP 7 Professional V16-2 license	2
14	SIMATIC S7 memory card, 4 MB	2
15	IOT 2040	2
16	Training Kit	2

Annexure–IV
ACCEPTANCE CRITERIA FOR
SIMATIC PLC & HMI Training kit

Sl.No.	Item	Description
1.	SIMATIC PLC & HMI Training kit	All modules ,features & functionalities should meet as per Annexure–II: Technical specifications
2.	Installation	<ul style="list-style-type: none"> • Installation & commissioning of SIMATIC PLC & HMI Training kit must be done at CMTI and working of licenses and modules should be demonstrated, at free of cost. • Detailed drawings to be provided for the SIMATIC PLC & HMI Training kit for operation & maintenance • SIMATIC PLC & HMI Training kit component spares and toolkits to be provided for the operation & maintenance.
3.	Training	<ul style="list-style-type: none"> • Suppliers to provide comprehensive training for 10 days (in phases) on usage, operation & maintenance of PLC & HMI Training kit at CMTI at free of cost within 1 month of installation. • Training Manuals and course content for the training kit to be provided. • Comprehensive Certification Training to be provided to 2 Engineers or more.
4.	Documents/Manuals	2 sets of hard copy with 1 set of soft copy in English a) Operation & Maintenance manual b) Training manual & course content material c) Drawings
5.	Service & Maintenance Support	The supplier should provide service & maintenance support for 2 year, at free of cost.

Note:

The PLC & HMI Training kit will be finally accepted based on the compliance in above acceptance criteria. Hence, the bidder has to go through the acceptance criteria and convey their acceptance unambiguously. The compliance statement against all points of tender to be submitted along with technical bid.

SCHEDULE OF REQUIREMENTS

TO BE FILLED BY BIDDER AND ENCLOSED WITH THE TECHNO-COMMERCIAL BID

Brief Description of Goods and Services	Quantity
PLC & HMI Training kit: [Technical Specifications and Other Details as per Bidding Documents]	1 Set
Place of Delivery and Installation	CMTI-Central Manufacturing Technology Institute, Tumkur Road, Bengaluru-560022, Karnataka, India
Period of Delivery shall count from	<TOBEFILLEDBYBIDDER>
Delivery Period [Goods to be delivered in one lot at final destination CMTI – Central Manufacturing Technology Institute, Tumkur Road, Bengaluru, Karnataka, India-560022]	<TOBEFILLEDBYBIDDER>
Time frame required for installation of the PLC & HMI Training kit etc. after receipt at CMTI	<TOBEFILLEDBYBIDDER>
Payment Terms	80% after successful installation and integration of PLC & HMI Training kit. 20% after completion of comprehensive training of the PLC & HMI Training kit.

NOTE: The party has to offer their product/equipment strictly based on the specifications asked in the Bidding Documents