



Schedule of

Tender For

SIMATIC PLC & HMI Training kit

Central Manufacturing Technology Institute

Tumkur Road, Bangalore-560022, India

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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:	
3.	Place of delivery	Central Manufacturing Technology Institute, Tumkur Road, Bangalore 560022
4.	Delivery of SIMATIC PLC & HMI Training kit Required	Within 8 weeks 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	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

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12.	Notes	<ul style="list-style-type: none"> a) Late offers will not be entertained or accepted. b) All the items in the tender Specifications are to be filled in. Incomplete Tender Specifications may not be considered. c) The Director of the Institute reserves the right to reject any tender/all tenders without assigning any reason.
13.	General Terms and Conditions	<ul style="list-style-type: none"> 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. b) 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). c) Warranty, automatic up-gradation/maintenance, Enhancement and support for 1 year is required. However, AMC for more than one year shall be separately quoted. d) Training Manuals and course content for the training kit to be provided. e) Detailed drawings to be provided for the SIMATIC PLC & HMI Training kit and other accessories for operation & maintenance f) SIMATIC PLC & HMI Training kit component spares and toolkits to be provided for the operation & maintenance g) Maintenance support to be provided for two years h) 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

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		<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 • 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	<p>CPU: (6ES7 511 1CK01 0AB0) SIMATIC S7-1500 Compact CPU 1511C-1PN</p> <ul style="list-style-type: none"> • central processing unit with working memory 175 KB for program and 1 MB for data • 16 digital inputs, 16 digital outputs • 5 analog inputs, 2 analog outputs • 6 high speed counters, 4 high speed outputs for PTO/PWM/frequency output 1. • interface: PROFINET IRT with 2 port switch, 60 NS bit-performance, (incl. front connector push-in) 	
2	<p>Digital I/O: (6ES7 523 1BL00 0AA0) SIMATIC S7-1500 digital input/output module</p> <ul style="list-style-type: none"> • DI 16 x 24VDC BA, 16 channels in groups of 16, input delay typ. 3.2 ms input type 3 (IEC 61131) • DQ 16 x DC 24V/0.5A BA; 16 channels in groups of 8; 4 A per group; 	

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	<ul style="list-style-type: none"> The module supports the safety-oriented shutdown of load groups up to SIL2 according to EN IEC 62061:2021 and Category 2 / PLC according to EN ISO 13849-1:2015 	
3	<p>Analog Input Module :(6ES7 531 7QD00 0AB0) SIMATIC S7-1500 Analog input module</p> <ul style="list-style-type: none"> AI 4xU/I/RTD/TC ST, 16-bit resolution, Accuracy 0.3%, 4 channels in groups of 4; 2 channels for RTD measurement; Common mode voltage 10 V; Diagnostics; Hardware interrupts; Delivery including push-in front connector, infeed element, shield bracket, and shield terminal 	
4	<p>Analog Output: (6ES7 532 5NB00 0AB0) SIMATIC S7-1500, analog output module</p> <ul style="list-style-type: none"> AQ 2x U/I ST 16-bit resolution accuracy 0.3%. 2 channels in groups of 2. 	
5	<p>HMI:(6AV2 124 0MC01 0AX0) SIMATIC HMI TP1200 Comfort Panel</p> <ul style="list-style-type: none"> Touch operation 12" widescreen TFT display 16 million colors PROFINET interface MPI/PROFIBUS DP interface 12 MB configuration memory <p>Windows CE 6.0, configurable from WinCC Comfort V11.</p>	
6	<p>Simatic memory card :(6ES7954-8LE03-0AA0)</p> <ul style="list-style-type: none"> SIMATIC S7, MEMORY CARD FOR S7-1500 CPU/SINAMICS, 3,3 V FLASH, 12 MBYTE 	
7	<p>Mounting Rail : (6ES7590 1AC40 0AA0) mounting rail 245 mm (approx. 9.6 inch); incl. grounding screw, integrated DIN rail for mounting of incidentals such as terminals, automatic circuit breakers and relays.</p>	
8	<p>Training Kit enclosure - Should be easy to handle and should have rugged enclosure for transport.</p>	

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9	<p>SIMATIC STEP 7 Professional V17 – 1 license</p> <ul style="list-style-type: none"> • SIMATIC STEP 7 Prof. V17 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 Pro (64-bit) - Windows Server 2012/16/19 (64-bit) <p>For configuration of SIMATIC S7-1200/1500; SIMATIC S7-300/400/Win AC; SIMATIC Basic Panels</p>	
<p>Warranty</p> <ol style="list-style-type: none"> a) 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. b) The access to online learning resources shall be made available free of cost during the warranty period. c) Maintenance support to be provided for two years 		

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

SL. No	Main components description	Qty in No's
1	CPU 1511C-1PN: (6ES7 511 1CK01 0AB0)	1
2	Digital I/O: (6ES7 523 1BL00 0AA0)	1
3	Analog Input Module :(6ES7 531 7QD00 0AB0)	1
4	Analog Output: (6ES7 532 5NB00 0AB0)	1
5	HMI:(6AV2 124 0MC01 0AX0)	1
6	Simatic memory card :(6ES7954-8LE03-0AA0)	1
7	Mounting Rail :(6ES7590 1AC40 0AA0)	1
8	Training Kit	1
9	SIMATIC STEP 7 Professional V17 – 1 license	1

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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 (basic and advanced) for 10 days (in phases) on usage, operation & maintenance of PLC & HMI Training kit at CMTI within 1month of installation. • Training Manuals and course content for the training kit to be provided. • Comprehensive Certification Training to be provided to 2 Engineers.
4.	Documents/Manuals	1 set 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 years, 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.

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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 Document.

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