



Engineering College, Ajmer

(An Autonomous Institute of Govt. of Rajasthan)
N.H.8 , Barliya Circle, Near Nareli Temple, Ajmer

INVITATION LETTER

Package Code: TEQIP-III/2019/RJ/GECA/100

Current Date: 20-Sep.-2019

Package Name: GECA/TEQIP-III/2019-20/EIC- Digital System Design Lab

Method: Shopping Goods

To,

M/s.....

.....

.....

Sub: Invitation Letter For GECA/TEQIP-III/2019-20/EIC- Digital System Design Lab.

Dear Sir,

- You are invited to submit your most competitive quotation for the following goods with item wise detailed specifications given at Annexure I,

| S. N. | Item Name | Quantity | Place of Delivery | Installation Requirement |
|-------|--|----------|--|---|
| 1 | Logic Gate Trainer Kit | 1 | Engg. College, Ajmer N.H. 8, Barliya Circle, Near Nareli Temple, Ajmer | Onsite installation and testing & commissioning required. |
| 2 | Universal Logic Gate Trainer Kit | 1 | | |
| 3 | SOP and POS Trainer Kit | 1 | | |
| 4 | Trainer Kit of Half adder/ Subtractor & Full Adder/ Subtractor (NAND & NOR gates) | 1 | | |
| 5 | Trainer Kit to 4-bit ripple adder/ Subtractor (using basic Half adder/ Subtractor & basic Full Adder/ Subtractor). | 1 | | |
| 6 | Trainer Kit of 4-to-1 multiplexer(using basic gates and verify the truth table. Also verify the truth table of 8-to-1 multiplexer using IC) | 1 | | |
| 7 | Trainer Kit of 1-to-4 demultiplexer (To construct 1-to-8 demultiplexer using blocks of 1-to-4 demultiplexer) | 1 | | |
| 8 | 2x4 decoder Trainer Kit | 1 | | |
| 9 | Combinational Circuit Trainer Kit | 1 | | |
| 10 | Flip- Flop Realisation Trainer Kit. | 1 | | |
| 11 | 2, 4 & 8 asynchronous counter Trainer Kit | 1 | | |
| 12 | Shift Register Trainer Kit | 1 | | |
| 13 | Trainer Kit of BCD ripple counter | 1 | | |



| | | | | |
|----|--|----|-----------------|---|
| 14 | 4 Bit Ring counter Trainer Kit | 1 | | |
| 15 | Trainer Kit of parallel in/Parallel out and Serial in/Serial out registers | 1 | Engg. College, | Onsite installation and testing & commissioning required. |
| 16 | Bread Board | 10 | Ajmer | |
| 17 | Function Generator | 10 | N.H. 8, Barliya | |
| 18 | Multimeter | 10 | Circle, Near | |
| 19 | CRO | 4 | Nareli | |
| 20 | DSO | 2 | Temple, Ajmer | |

2. Government of India has received a credit from the International Development Association (IDA) towards the cost of the **Technical Education Quality Improvement Programme [TEQIP]-Phase III** Project and intends to apply part of the proceeds of this credit to eligible payments under the contract for which this invitation for quotations is issued.

3. Quotation

3.1 The contract shall be for the full quantity as described above.

3.2 Corrections, if any, shall be made by crossing out, initialling, dating and re writing.

3.3 All duties and other levies payable by the supplier under the contract shall be included in the unit Price.

3.4 Applicable taxes shall be quoted separately for all items.

3.5 The prices quoted by the bidder shall be fixed for the duration of the contract and shall not be subject to adjustment on any account.

3.6 The Prices should be quoted in Indian Rupees only.

4. Each bidder shall submit only one quotation.

5. Quotation shall remain valid for a period not less than **90** days after the last date of quotation submission

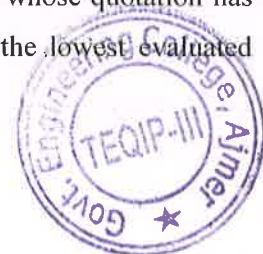
6. Evaluation of Quotations: The Purchaser will evaluate and compare the quotations determined to be Substantially responsive i.e. which

6.1 are properly signed; and

6.2 Confirm to the terms and conditions, and specifications.

7. The Quotations would be evaluated for all items together.

8. Award of contract The Purchaser will award the contract to the bidder whose quotation has been determined to be substantially responsive and who has offered the lowest evaluated quotation price.



8.1 Notwithstanding the above, the Purchaser reserves the right to accept or reject any quotations and to cancel the bidding process and reject all quotations at any time prior to the award of Contract.

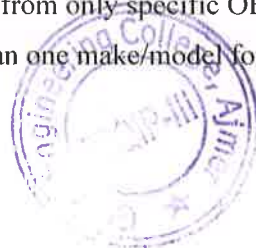
8.2 The bidder whose bid is accepted will be notified of the award of contract by the Purchaser prior to expiration of the quotation validity period. The terms of the accepted offer shall be Incorporated in the purchase order.

9. Payment shall be made in Indian Rupees as follows:

Satisfactory Delivery & Installation - 90% of total cost

Satisfactory Acceptance - 10% of total cost

10. Liquidated Damages will be charged at the rate of 0.01 % per day on pre tax billing amount if delivery period exceeds 45 days. Purchase Order shall be understood cancelled automatically without any prior notification if delivery period exceeds 60 days.
11. All supplied items are under warranty of 36 months from the date of successful acceptance of items and AMC/Others.
12. You are requested to provide your offer latest by 12:30 hours on 09-October-2019, the quotation received within stipulated date and time shall be opened on 09-October-2019 at 1:00 PM.
13. Detailed specifications of the items are at Annexure I. Any Deviation from specification should be highlighted in the bid.
14. Training Clause (if any) : Basic and Advance (full functioning) with maintenance training on-site required.
15. Testing/Installation Clause (if any) **Onsite installation and testing & commissioning required. The vendor should visit the site to understand the installation requirement.**
16. Performance Security shall be applicable: **5% of pre tax billing amount**
17. Purchase Order awarded bidder shall furnish one performance security of 5% of contract value (pre tax billing amount) in the form of bank guarantee valid for 39 months from the scheduled date of completion of assignment.
18. Information brochures/ Product catalogue, if any must be accompanied with the quotation clearly indicating the model quoted for.
19. The bidder must submit their financial bid in the prescribed format (Annexure-2) and no other format is acceptable.
20. The bidder shall quote only one specific make/model from only specific OEM for each of the goods. Bid will be rejected if bidder provide more than one make/model for an item/good.



21. Vendor/bidder must submit two bids concurrently, i.e technical bid and financial bid, with proper marking on envelopes. Financial bids shall be opened of only those bidders who have been declared technically qualified by the Purchase Committee.
22. The qualification criteria for technical bid shall be following (The envelope marked for technical bid must contain all the supporting documents):
- I. Only authorized dealer/ agency of Original Equipment Manufacturer (OEM) or OEM should apply against this invitation for bid. In the case of the bidder, offering to supply goods under the bid, which the bidder does not manufacture or otherwise produce, the bidder has to provide Manufacturer's Authorization Certificate for each item (excluding services) strictly as per format at Annexure -3. Bids submitted without authorization certificate for each item (excluding services) as per Annexure-3 will be summarily rejected.
 - II. The average turnover of the bidder quoting for the bid should be Rs. 28.28 Lakhs during the last three financial years (2016-2017, 2017-2018 & 2018-2019). In this regard, the bidder should submit CA certificate and last three years Balance Sheets audited by a CA including profit and loss accounts for the last three financial years as above.
 - III. OEM Firm or bidder must have executed at least :
One single order of similar items having value of Rs. 2.26 Lakhs
(OR)
Two orders of similar items having value of Rs.1.41 Lakhs.
(OR)
Three orders of similar items having value of – Rs. 1.13 Lakhs.
{Here,*similar means 'supply and installation of **Digital System Design Lab. Equipment/ Instruments** for any Govt. Dept/PSU/reputed organization in the last three years i.e. 2016-2017, 2017-2018 & 2018-2019 till the date of invitation letter. Copies of purchase order and successful work completions certificate must be submitted.}
 - IV. Bidder must submit the latest GST Registration Certificate along with clearance status of 'no dues' of GST.
 - V. The bidder has not been blacklisted by Central Govt./State Govt./PSUs/Autonomous bodies. Further, the bidder has neither filed any litigation against Central/State Govt. nor declared "no performer" by Govt./State Govt./PSUs/Autonomous bodies. An affidavit must be submitted by the bidder.
 - VI. The OEM firm of each item should have the valid ISO 9001:2015 and/or ISO14001:2015 certification (copies of ISO certificate(s) to be submitted.)



- VII. Compliance sheet of technical specification of each item (in the order as given in Annexure 1) should be provided.
- VIII. A Confirmation letter as per format at Annexure-4 on firm's letterhead that the bidder will provide normal Commercial warranty/guarantee of 36 months on all supplied items, and agrees with the terms & conditions mentioned in the invitation letter.
23. The purchase committee has full power to take any decision for the tender or quotation.
24. Sealed quotation to be submitted/ delivered at the address mentioned below, **Principal, Engineering College, Ajmer, N.H.8 , Barliya Circle, Near Nareli Temple, Ajmer**
25. We look forward to receiving your quotation and thank you for your interest in this project.

Dr. U. S. Modani
Principal



Annexure I

| S. N. | Item Name | Specifications |
|-------|---|--|
| 1 | Logic Gate Trainer Kit | <ul style="list-style-type: none"> * Realization of truth tables of AND, OR, NOT GATES, NAND, NOR and EX-OR GATES, using onboard IC's and (truth tables of logic gates: AND, OR, NOR, NAND, NOR, Ex-OR and Ex-NOR) * Logic Status Indicator. * Set of Patch chords * In-built Power Supply * User's Manual * House in an attractive ABS Plastic cabinet with cover |
| 2 | Universal Logic Gate Trainer Kit | <ul style="list-style-type: none"> * Realization of truth tables of AND, OR, NOT GATES, NAND, NOR and EX-OR GATES, using onboard IC's and the truth table of OR, AND, NOR, Ex-OR, Ex-NOR logic gates realized using NAND & NOR gates * Logic Status Indicator. * Set of Patch chords * In-built Power Supply * User's Manual * House in an attractive ABS Plastic cabinet with cover |
| 3 | SOP and POS Trainer Kit | <ul style="list-style-type: none"> * Boolean Function using logic gates in SOP & POS forms * Logic Status Indicator. * Set of Patch chords * In-built Power Supply * User's Manual * House in an attractive ABS Plastic cabinet with cover |
| 4 | Trainer Kit of Half adder/ Subtractor & Full Adder/ Subtractor (NAND & NOR gates) | <ul style="list-style-type: none"> * Study of Half Adder/Subtractor & Full Adder/Subtractor using NAND & NOR Gates and to verify their truth tables * Logic Status Indicator. * Set of Patch chords * In-built Power Supply * User's Manual * House in an attractive ABS Plastic cabinet with cover |
| 5 | Trainer Kit to 4-bit ripple adder/ Subtractor (using basic Half adder/ Subtractor & basic Full Adder/ Subtractor). | <ul style="list-style-type: none"> * Study of 4 bit ripple Adder/Subtractor using Basic Half Adder/Subtractor & Basic Full Adder/Subtractor using NAND & NOR Gates and realize * Circuit diagram printed onboard. * Set of Patch chords * In-built Power Supply * House in an attractive ABS Plastic cabinet with cover * User's Manual |
| 6 | Trainer Kit of 4-to-1 multiplexer(using basic gates and verify the truth table. Also verify the truth | <ul style="list-style-type: none"> * Study of 4-to-1 Multiplexer using Basic Gates and Verify the truth table and 4-to-1 multiplexer using basic gates and verify the truth table. Also verify the truth table of 8-to-1 multiplexer using IC * Verify the truth table of 8-to-1 multiplexer using IC * Circuit diagram printed onboard. * Set of Patch chords * In-built Power Supply |



| | | |
|----|--|--|
| | table of 8-to-1 multiplexer using IC) | <ul style="list-style-type: none"> * House in an attractive ABS Plastic cabinet with cover * User's Manual |
| 7 | Trainer Kit of 1-to-4 demultiplexer (To construct 1-to-8 demultiplexer using blocks of 1-to-4 demultiplexer) | <ul style="list-style-type: none"> * Study of 1-to-4 De-multiplexer using Basic Gates and verify the truth table and design 1-to-4 demultiplexer using basic gates and verify the truth table. Also to construct 1-to-8 demultiplexer using blocks of 1-to-4 demultiplexer * To construct 1-to-8 demultiplexer using blocks of 1-to-4 de-multiplexer * Circuit diagram printed onboard. * Set of Patch chords * In-built Power Supply * House in an attractive ABS Plastic cabinet with cover * User's Manual |
| 8 | 2x4 decoder Trainer Kit | <ul style="list-style-type: none"> * Study of 2x4 decoder using basic gates and verify the truth table. also verify the truth table of 3x8 decoder using IC and design 2x4 decoder using basic gates and verify the truth table. Also verify the truth table of 3x8 decoder using IC * Circuit diagram printed onboard. * Set of Patch chords * In-built Power Supply * House in an attractive ABS Plastic cabinet with cover * User's Manual |
| 9 | Combinational Circuit Trainer Kit | <ul style="list-style-type: none"> * Study, design & realize a combinational circuit that will accept a 2421 BCD Code and Drive a til -312 seven-segment display and * Circuit diagram printed onboard. * Set of Patch chords * In-built Power Supply * House in an attractive ABS Plastic cabinet with cover * User's Manual |
| 10 | Flip- Flop Realisation Trainer Kit. | <ul style="list-style-type: none"> * Study of Basic Logic Gates, Realize the R-S, J-K and D-Flip Flops with and without clock signal and verify their truth table.and Using basic logic gates, realize the R-S, J-K and D-flip flops with and without clock signal and verify their truth table) * Circuit diagram printed onboard. * Set of Patch chords * In-built Power Supply * House in an attractive ABS Plastic cabinet with cover * User's Manual |
| 11 | 2, 4 & 8 asynchronous counter Trainer Kit | <ul style="list-style-type: none"> * Study of construct a divide by 2, 4 & 8 asynchronous counter. Construct a 4-bit Binary Counter and Ring Counter for a particular output pattern using d Flip Flop. * Circuit diagram printed onboard. * Set of Patch chords * In-built Power Supply * House in an attractive ABS Plastic cabinet with cover * User's Manual |
| 12 | Shift Register Trainer Kit | <ul style="list-style-type: none"> * To design and construct unidirectional shift register and verify the function * Circuit diagram printed onboard. * Set of Patch chords * In-built Power Supply * House in an attractive ABS Plastic cabinet with cover |



| | | |
|----|--|--|
| 13 | Trainer Kit of BCD ripple counter | <ul style="list-style-type: none"> * User's Manual * To design and construct BCD ripple counter and verify the function * Circuit diagram printed onboard. * Set of Patch chords * In-built Power Supply * House in an attractive ABS Plastic cabinet with cover * User's Manual |
| 14 | 4 Bit Ring counter Trainer Kit | <ul style="list-style-type: none"> * To design and construct a 4 bit ring counter and verify the function * Circuit diagram printed onboard. * Set of Patch chords * In-built Power Supply * House in an attractive ABS Plastic cabinet with cover * User's Manual |
| 15 | Trainer Kit of parallel in/Parallel out and Serial in/Serial out registers | <ul style="list-style-type: none"> * To perform input/output operations on parallel in/parallel out and serial in/serial out registers using clock. also exercise loading only one of multiple values into the register using multiplexer. * Circuit diagram printed onboard. * Set of Patch chords * In-built Power Supply * House in an attractive ABS Plastic cabinet with cover * User's Manual |
| 16 | Bread Board | <p>Bread Board (BB-2T3D) (Dimensions: 101.5×165.5×8.5mm 2 Terminal Strip: 1260 Tie-point, 4 Distribution strips: 300 Tie-point 3 Binding Posts ABS plastic material Black Metal Plate: 130x216x1mm Copper nickel plated spring clips Accepts a variety of wire sizes (20~29 AWG) Voltsge / current : 300V / 3~5 A)</p> |
| 17 | Function Generator | <ul style="list-style-type: none"> * Frequency Range : 0.01Hz-1MHz in decadic steps. Sine, Square, Triangle, Sawtooth/Ramp and Pulse TTLOutput and facility of DC offset. * Display Freq Volt (Vp) : Digital (4 Digit 7 Segment display). * Accuracy : Better than \pm (1% 1 digit) of F.S. \pm3% (50W impedance). * Amplitude : upto 30V p-p. (variable) by coarse and fine control * Step attenuator : 20dB and 40dB steps. * DC Offset : Upto \pm10V into open circuit. * Output Impedance : 50W & 600W \pm 10%. |
| 18 | Multimeter | Type Ac/DC voltage 200mV/20V/200V/200V,DC current 200 μ A/2mA/20mA/2mA/20mA/200mA/10A,Resistance200 Ω /2K Ω 20K Ω /200K Ω 2M Ω ,T emperature C -20 $^{\circ}$ C/400 $^{\circ}$ C1000 $^{\circ}$ C . |
| 19 | CRO | <ul style="list-style-type: none"> * Bandwidth : AC 10Hz ~ 30MHz (-3dB) DC ~ 30MHz (-3dB) * Y Deflection : 5mV / div ~ 20V / div * Rise Time : <18ns, Mag x 5 Accuracy : <5% * Max Input : 400V(DC+ACp-p) * Sweep Mode : Auto, Trig, Lock, Single * Sweep Rate : 0.1μs/div ~ 0.2s/div 1-2-5 20 steps, error \pm5% * Trig Source : Y1, Y2, ALT, Line, Ext, TV-H, TV-V * Min Sync. Level : Trig DC ~ 30MHz, Int. 1 div, Ext. 0.2Vp-p, TV Int. 2div, |



Ext. 0.3Vp-p Trig Lock (50Hz ~ 10MHz) Internal 2div

* Freq. Response : AC : 10Hz ~ 1MHz -3dB

DC : 0 ~ 1MHz -3dB

* Z Max. Input : 400V (DC+ACp-p)

* Min Input Level : TTL Level

* Wave Form : Square wave

* Amplitude : 1KHz $\pm 2\%$

* Frequency : 0.5Vp-p $\pm 2\%$

* Standard Accessories : Power Chord, Two 30 MHz Oscilloscope Probes,
Manual

* Bandwidth : 30 MHz

* Sample Rate : 250 MS/s

* Horizontal Scale(S/div) : 4ns/div ~ 100s/div,
step by 1~2~4

* Rise time : ≤ 14 ns

* Display : 8" Color LCD,TFT display, 800x600 pixels, 65535 colors

* Channel : 2 + 1 (External)

* Record Length : Max 10 K

* Input Coupling : DC, AC, Ground

* Input impedance : $1M\Omega \pm 2\%$, in parallel with 15pF ± 5 pF

* Channels Isolation : 50MHz: 100 : 1, 10MHz: 40 : 1

* Max. input voltage : 400V (PK-PK) (DC + AC PK-PK)

* DC gain accuracy : $\pm 3\%$

* DC accuracy : Average ≥ 16 : $\pm(3\% \text{ reading} + 0.05 \text{ div})$ for ΔV

* Probe attenuation factor : 1X, 10X, 100X, 1000X

* LF respond(AC, -3dB) : ≥ 5 Hz (at input, AC coupling, -3dB)

* Waveform storage : 15 waveforms

* Lissajous figure

- Bandwidth : Full bandwidth, - Phase difference : ± 3 degrees

* Communication interface : USB, USB flash disk storage, Pass/Fail, LAN, VGA
(optional)

* Cymometer : Available

* Power supply : 100V-240V AC, 50/60HZ,CAT II

* Power consumption : < 18 W

* Fuse : 2A, T class, 250V

* Battery : Not support

20 DSO



FORMAT FOR QUOTATION SUBMISSION
(In letterhead of the supplier with seal)

Date: _____

To: _____

| Sl. No. | Description of goods \ (with full Specifications) | Qty. | Unit | Quoted Unit rate in Rs. (Including Ex-Factory price, excise duty, packing and forwarding, transportation, insurance, other local costs incidental to delivery and warranty/ guaranty commitments) | Total Price (A) | Sales tax and other taxes payable | |
|-------------------|---|------|------|---|-----------------|-----------------------------------|----------------|
| | | | | | | In % | In figures (B) |
| Total Cost | | | | | | | |

Gross Total Cost (A+B): Rs. _____ (Amount in figures)

We agree to supply the above goods in accordance with the technical specifications for a total contract price of Rs. _____ (Rupees _____ amount in words) within the period specified in the Invitation for Quotations. We confirm that the normal commercial warranty/ guarantee of _____ months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter. We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in bribery.

Signature of Supplier

Name: _____
Address: _____
Contact No. _____



Annexure 3 (Invitation)

MANUFACTURER AUTHORIZATION FORM

No. _____ dated _____

To

Dear Sir:

Package No. _____

We----- (Name of the OEM) who are established and reputed manufacturer of _____ (*name and description of goods offered*) having factories at _____ (*address of factory*) with factory registration no. --
----- do hereby authorize M/s _____ (*Name and address of Agent*) to submit a bid, and sign the contract with you for the goods manufactured by us against the above bid.

We hereby extend our full warranty as per your invitation letter, for the goods and services offered for supply by the above firm against this Invitation for Bid.

Yours faithfully,

(Name)

(Name of manufacturers)

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



Annexure 4 (Invitation)

Confirmation Letter

No. _____

dated _____

To

Dear Sir:

Package No. _____

We confirm that the normal commercial warranty/ guarantee of 36 months shall apply to the offered items and we also confirm to agree with terms and conditions as mentioned in the Invitation Letter.



Yours faithfully,

(Name)

(Name of manufacturers)