



COLLEGE OF ENGINEERING TRIKARIPUR

(Under the Co-operative Academy of Professional Education, Estd. By the Govt. of Kerala)

Approved By AICTE, Affiliated To APJ Abdul Kalam Technological University

An ISO 9001-2015 Certified Institution

Accredited By NAAC and NBA (EEE)

No. D-1220/2021/CET

05.03.2022

Tender Notice No.02/2022

Sealed competitive tenders are invited by the undersigned from original manufactures/ authorized suppliers for the supply of the items mentioned below. The cost of tender document and EMD along with the Bid in the form of D.D shall be drawn in favour of Principal, College of Engineering Trikaripur at Cheemeni

1	Name of item	:	1. 5 Nos of TMS 320C 6748 BASED DSP TRAINER KIT 2. 5 Nos of Xilinx Spartan 6 FPGA development board
3	Brief specification	:	1. TMS 320C6748 Fixed/ Floating – Point VLIW DSP Core 64 General- Purpose Registers(32 Bit) Six ALU (32-/40-Bit) Functional Units, 2Meg x16 Bit x 4 Banks Synchronous, DRAM for External Program / Data: 16/20/24/32-Bit Data Format, No of ADC input : 2 Channels Resolution : 12 bit No of DAC Output : 2 Channels Resolution : 12 bit 2. Xilinx Spartan 6XC6SLX9 TQG144,9152 Logic Elements, 589824 bits of block RAM. 8M Byte for SPI FLASH FPGA Configuration. Clock 50 MHZ. ESP-12F WIFI Modem. 8- Channel 12- bit SPI ADC, 6 Channels available at j7 Connector. 12-bit SPI DAC output at J7Connector 2X16 Character LCD
4	Cost of Tender Documents	:	400+ GST
5	EMD	:	1% of quoted value
6	Issue of Tender documents	:	07/03.2022 , 1P.M
7	Last date and time of submission of tender	:	21/03/2022,2.30 P.M
8	Date and time opening of Tender	:	21/03/2022, 3 P.M

The details of the item, tender conditions and documents can be downloaded from the website www.cetkr.ac.in from 07.03.2022 onwards.

Yours Faithfully,

PRINCIPAL

CHEEMENI P.O CHERUVATHUR – 671313 KASARAGOD-DT
Phone(Office): 0467-2250377; Fax: 0467-2250750
Website: www.cetkr.ac.in

Principal
College of Engineering
Trikaripur, P. O. Cheemeni
Pin 671313

Detailed SPECIFICATIONS

Item 1:

DSP Trainer Kit

TMS320C674x Fixed/Floating-Point VLIW DSP Core

2 Meg x 16 Bit x 4 Banks Synchronous DRAM for External Program/Data

Stereo Audio ADC & DAC

16/20/24/32-Bit Data Format

Supports Rates From 8 kHz to 96 kHz

Programmable Input /Output Analog Gains

Audio Serial Data Bus Supports I2S, Left/Right-Justified, DSP, and TDM Modes

On Board ADC/DAC

ADC:

No of ADC input : 2 Channels
Resolution : 12 bit
Sampling rate : 1Msps (max)
Analog input range : + 5V (max)
High speed SPI serial interface

DAC:

No of DAC output : 2 Channels
Resolution : 12 bit
Settling time : 8.5 micro sec (max)
Analog output range : + 5V (max)
High speed SPI serial interface

JTAG Emulator(XDS100V1):

Emulation Connect/Disconnect, Read/Write memory, Read registers, Load program, Run, Halt, Step, Software and Hardware Breakpoint support, Real-Time Mode. Support for USB Full Speed (12 Mbits/s)

Microphone, Speaker
USB Cable
Power Supply +5V Adaptor
Software CD
Program & Manual CD

Note : Programs as per the KTU syllabus have to be demonstrated

Item 2:

FPGA Development Board

Xilinx Spartan 6 XC6SLX9 TQG144, 9152 Logic Elements, 589824 bits of Block RAM
8 MByte for SPI FLASH FPGA Configuration

ESP-12F WIFI Modem

Bluetooth BLE 4.0

12-bit, 4096 Color VGA

OV7670 CMOS Camera

8 channel 12-bit SPI ADC, 6 channels available at J7 Connector.

LM35 Temperature Sensor

LDR

12-bit SPI DAC output at J7 Connector

Stereo Jack

4-Digit 7 Segment Display

2×16 Character LCD

5v Piezo Buzzer

Keyboard interface on USB connector. Only compatible with 3.3v Keyboard.

USB JTAG for Programming and Debugging. Fully Compatible with Xilinx iMPACT,
Chipscope Pro, Xilinx System Generator, Xilinx Platform Studio.

USB UART can communicate at different baud rate

PROGRAMME CD AND MANUALS

Note : Programs as per the KTU syllabus have to be demonstrated

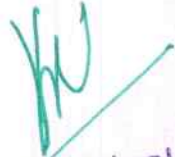


COLLEGE OF ENGINEERING TRIKARIPUR

(UNDER Co-operative Academy of Professional Education-Ested by Govt.of Kerala)

TENDER NO.02/2022

Purchase of 5 Nos of TMS 320C6748 Based DSP Trainer Kit & 5 Nos of Xilinx Spartan 6 FPGA development board for Electronics and Communication Engineering department at College of Engineering Trikaripur .


Principal
College of Engineering
Trikaripur, P. O. Cheemeni
Pin 671313

CHEEMENI P.O CHERUVATHUR – 671313 KASARAGOD-DT
Phone(Office): 0467-2250377; Fax: 0467-2250750
Website: www.cetkr.ac

FORM OF TENDER

Name of item :

Date of Issue :

Name of Tender :

Address :
.....
.....


PRINCIPAL
Principal
College of Engineering
Trikaripur, P. O. Cheemeni
Pin 671313

ANNEXURE 2
FORM OF TENDER

From

To

Sir,

I/We hereby tender to supply, under the annexed general conditions of contract; the whole of the articles referred to and described in the attached specification and schedule, or any portion thereof, as may be decided by Institution, at the rates quoted against each item. The articles will be delivered within the time and at the places specified in the schedule. *I/We am/are remitting/have separately remitted the required amount of ` (Rupees only) as earnest money.

Yours faithfully

Signature Address.....

Date:

*(To be scored in cases where no earnest money deposit is furnished) (General Conditions on the reverse) 165

GENERAL CONDITIONS

Sealed tenders are invited for the supply of the materials as specified in the schedule below/attached.

1) The tenders should be addressed to the officer mentioned below in a sealed cover with the tender number and name shown below duly superscribed on the cover.

2) The tenders should be in the prescribed form which can be obtained from the officer mentioned below on payment of the price which is also noted below. The cost of tender forms once paid will not be refunded. Tenders which are not in the prescribed form are liable to be rejected. The rates quoted should be only in Indian currency. Tenders in any other currency are liable to rejection.

3) Intending tenderers should send their tenders so as to reach the Officer mentioned below, on due date and time (noted below). No tender received after the specified date and time will be accepted on any

account. The rates will be considered firm for acceptance till the date mentioned below. Tenders not stipulating period of firmness and tenders with price variation clause and/or 'subject to prior sale' condition are liable to be rejected.

4) (a) Every tenderer who has not registered his name with the state Government (Stores Purchase Department), should send along with his tender, an earnest money of one per cent of the total cost of the articles tendered for (rounded to the nearest rupee) subject to a minimum of ` 1500, if the amount calculated at one per cent of the value of the articles tendered for falls below ` 1500. The amount may be paid by DD infavour of Principal, College of Engineering, Trikaripur, payable at Cheemeni duly countersigned by the officer mentioned below or by Demand Drafts (crossed) on the local branch of /State Bank of India drawn in favour of the officer mentioned below. Cheques will not be accepted. The earnest money of the unsuccessful tenderers will be returned within a period of one month after the tenders are settled; but that of the successful tenderers will be adjusted towards the security that will have to be deposited for the satisfactory fulfillment of the contract. "If the Earnest Money Deposit of the successful tenderer is not refunded within three months of finalization 166 of the contract interest at the rate of interest paid for S.B. accounts by nationalized banks will be paid on the Earnest Money Deposit".

5. The tenders will be opened on the appointed day and time in the office of the undersigned, in the presence of such of those tenderers or their nominees who may be present at that time.

6. If any tenderer withdraws from his tender before the expiry of the period fixed for keeping the rates firm for acceptance, the earnest money if, any, deposited by him will be forfeited to Institution or such action taken against him as Institution think fit.

7. Tenderers shall invariably specify in their tenders the delivery conditions including the time required for the supply of articles tendered for.

8. (a) The tenderer shall clearly specify whether the articles offered bear Indian Standards Institution Certification Mark or not. In such cases, they shall produce copies of Certification mark along with their tender in support of it. (b) Tenderers shall clearly specify whether the goods are offered from indigenous sources, from imported stocks in India or from foreign sources to be imported under a license. Institution reserves the right to reject offers for import of goods if the Import Trade Control Policy in force at the time of award of the contract prohibits or restricts such imports.

9. The final acceptance of the tenders rests entirely with the Institution who do not bind themselves to accept the lowest or any tender. But the tenderers on their part should be prepared to carry out such portion of the supplies included in their tenders as may be allotted to them.

10. In the case of materials of technical nature the successful tenderer should be prepared to guarantee satisfactory performance for a definite period under a definite penalty.

11. Communication of acceptance of the tender normally constitutes a concluded contract. Nevertheless, the successful tenderer shall also execute an agreement for the due fulfillment of the contract within the period to be specified in the letter of acceptance. The contractor shall have to pay all stamp duty, lawyer's charges and other expenses incidental to the execution of the agreement. Failure to execute the agreement within the period specified will entail the penalties set out in para 12 below.

12. (a) The successful tenderer shall, before signing the agreement and within the period specified in the letter of acceptance of his tender deposit a sum equivalent to 5 per cent of the value of the contract as security for the satisfactory fulfillment of the contract less the amount of money deposited by him along with his tender. If the successful tenderer fails to deposit the security and execute the agreement as stated above, the earnest money deposited by him will be forfeited to Institution and contract arranged elsewhere at the defaulter's risk and any loss incurred by Institution on account of the purchase will be recovered from the defaulter who will, however, not be entitled to any gain accruing thereby.

(b) In cases where a successful tenderer, after having made partial supplies fails to fulfil the contracts in full, all or any of the materials not supplied may at the discretion of the Purchasing Officer, be purchased by means of another tender/ quotation or by negotiation or from the next higher tenderer who had offered to supply already and the loss, if any, caused to the Institution shall thereby together with such sums as may be fixed by the Institution towards damages be recovered from the defaulting tenderer.

(c) Even in cases where no alternate purchases are arranged for the materials not supplied, the proportionate portion of the security deposit based on the cost of the materials not supplied at the rate shown in the tender of the defaulter shall be forfeited and balance alone shall be refunded.

(d) If the contractor fails to deliver all or any of the stores or perform the service within the time/period(s) specified in the contract, the purchaser shall without prejudice to its other remedies under the contract, deduct from the contract price as liquidated, damages, a sum equivalent to 0.5% or 1% of the delivered price of the delayed stores or unperformed services for each week of delay until actual delivery or performance, upto a maximum deduction of 10% of the contract prices of the delayed stores or services. Once the maximum is reached, the purchaser may consider termination of the contract at the risk and cost of the contractor.

13. The security deposit shall, subject to the conditions specified herein, be returned to the contractor within three months after the expiration of the contract, but in the event of any dispute arising

between the Institution concerned and the contractor, the Institution shall be entitled to deduct out of the deposits or the balance thereof, until such dispute is determined the amount of such damages, costs, charges and expenses as may be claimed. The same may also be deducted from any other sum which may be due at any time from Institution to the contractor. In all cases where there are guarantee for the goods supplied the security deposit will be released only after the expiry of the guarantee period. If the Security is not released even after the completion of one year, from the date of expiry of the period of contract provided there are no complaints against the contractor. Interest at the rate of interest paid for S.B. accounts by nationalized banks will be paid on the Security Deposit.

(a) "If the Earnest Money Deposit/Security Deposit is not released within the period specified for no fault of the Contractor, the loss incurred to Institution shall be made good from the Officer responsible for the belated release of the Earnest Money deposit/Security Deposit."

14. (a) All payments to the contractors will be made by the Principal in due course:-

1. Payments are by cheques or drafts on State Bank of India (at any of their Principal Branches in India).

(a) All incidental expenses incurred by the Institution for making payments outside the district in which the claim arises shall be borne by the contractor.

15. The tenderers shall quote also the percentage of rebate (discount) offered by them in case the payment is made promptly within fifteen days of taking delivery of stores.

16. Bank charges incurred in connection with payment against documents through bank will be to the account of the contractor. In exceptional cases where the stamped receipts of the firms are not received for the payments (in advance) the unstamped receipt of the Bank (i.e., counterfoils of pay-in-slips issued by the Bank) alone may be accepted as a valid proof for the payment made.

17. The contractor shall not assign or make over the contract on the benefits or burdens thereof to any other person or body corporate. The contractor shall not underlet or sublet to any person or persons or body corporate the execution of the contract or any part thereof.

18. (a) In case the contractor becomes insolvent or goes into liquidation, or makes or proposes to make any assignment for the benefit of his creditors or proposes any composition with his creditors for the settlement of his debts, carries on his business or the contract under inspection on behalf of or his creditors, or in case any receiving order or orders, for the administration of his estate are made against him or in case the contractor shall commit any act of insolvency or case in which under any clause or

clauses of this contract the contractor shall have rendered himself liable to damages amounting to the whole of his security deposits, the contract shall, thereupon, after notice given by the Principal to the contractor, be determined and the Institution may complete the contract in such time and manner and by such persons as the Institution shall think fit. But such determination of the contract shall be without any prejudice to any right or remedy of the Institution against the contractor or his sureties in respect of any breach of contract therefore committed by the contractor. All expenses and damages caused to Institution by any breach of contract by the contractor shall be paid by the contractor to Institution, and may be recovered from him under the provisions of the Revenue Recovery Act in force in the State

19. (a) In case the contractor fails to supply and deliver any of the said articles and things within the time provided for delivery of the same, or in case the contractor commits any breach of any of the covenants, stipulations and agreements herein contained, and on his part to be observed and performed, then and in any such case, it shall be lawful for Institution (if they shall think fit to do so) to arrange for the purchase of the said articles and things from elsewhere or on behalf of the Institution by an order in writing under the hand of the Principal put an end to this contract and in case the Institution shall have incurred, sustained or been put to any costs, damages or expenses by reason of such purchase or by reason of this contract having been so put an end to or in case any difference in price, compensation, loss, costs, damages, expenses or other money shall then or any time during the continuance of this contract be payable by the contractor to the Institution under and by virtue of this contract, it shall be lawful for the Institution from and out of any moneys for the time being payable or owing to the contractor from the Institution under or by virtue of this contract or otherwise to pay and reimburse to the Institution all such costs, damages and expenses they may have sustained, incurred or been put to by reason of the purchase made elsewhere or by reason of this contract having been so put an end to as aforesaid and also all such difference in price, compensation, loss, costs, damages, expenses and other moneys as shall for the time being be payable by the contractor aforesaid. (b) In case any difference or dispute arises in connection with the contract, all legal proceeding relating to the matter shall be instituted in the Court within whose jurisdiction the Principal voluntarily resides.

20. Any sum of money due and payable to the contractor (including security deposit returnable to him) under this contract may be appropriated by the Purchasing Officer or Principal or any other person authorized by Principal and set off against any claim of the Purchasing Officer or Principal for the payment of a sum of money arising out of or under any other contract made by the contractor with the Purchasing Officer or any other person authorized by Principal. Any sum of money due and payable to the successful tenderer or contractor from Institution shall be adjusted against any sum of money due to Institution from him under any other contracts.

21. Every notice hereby required or authorized to be given may be either given to the contractor personally or left at his residence or last known place of abode or business, or may be handed over to his agent personally, or may be addressed to the contractor by post at his usual or last known place of abode or business and if so addressed and posted, shall be deemed to have been served on the contractor on the date on which, in the ordinary course of post, a letter so addressed and posted would reach his place of abode or business.

22. The tenderer shall undertake to supply materials according to the standard sample and/or specifications. 172

23. Any attempt on the part of the tenderers or their agents to influence the Department/Stores Purchase Department in their favour by personal canvassing with the Officers concerned will disqualify the tenderers.

24. Tenderers should be prepared to accept orders subject to the penalty clause for forfeiture of security in the event of default in supplies or failure to supply within the stipulated period.

25. (a) The prices quoted should be inclusive of all taxes, duties cesses, etc., which are or may become payable by the contractor under existing or future laws or rules of the country of origin/supply or delivery during the course of execution of the contract. (b) In case payment of customs/excise duty is to be made by the Purchasing Officer, the Purchasing Officer will pay the duty on the "unloaded invoice price" only in the first instance. any difference being paid when the tenderer produces, the final assessment orders later.

26. The tenderer will invariably furnish the following certificate with their bills for payment:- 173
"Certified that the goods on which sales tax/GST has been charged have not been exempted under the Central Sales Tax Act or States Sales Tax Act or the Rules made thereunder and the charges on account of sales tax on these goods are correct under the provisions of the relevant Act or the rules made thereunder, Certified further that we (or our Branch or agent) (Address)..... are registered as dealers in the State of under Registration No. for purposes of sales tax./GST"

27. Special conditions, if any, of the tenderers attached with the tenders will not be applicable to the contract unless they are expressly accepted in writing by the purchaser.

28. The tender should send along with his tender an agreement executed and signed in Kerala Stamp Paper of value Rs. 200/- (as decided by the concerned Government Department from time to time) purchased in the Kerala State. A specimen form of agreement is also given in this Annexure. Tenders without the agreement in stamped paper will be rejected outright. But in deserving cases where agreement has not been received, the purchasing officer may exercise his discretion and call upon such tender to execute the agreement within a period of ten days from the date of issue of such intimation, if the Purchasing officer is satisfied that the omission to forward the agreement along with the tender was due to causes beyond the control of the above time limit will not be considered.

Superscription ---- Tender No D/1220/2022/CET Supply of DSP Trainer Kit & FPGA Development board

Due date and Time for receipt of tender--- 21/03/2022. 2.30 P.M

Date and Time for opening of tender – 21/03/2022. 3.00 P.M

Date to which the rates are to be firm 1 Month

Price of tender form – Rs 400+GST 12%

Add of Officer from whom tender forms are to be obtained and to whom tenders are to be sent: Principal, College of Engineering Trikaripur, Cheemeni (PO) 671313

Name of Office:

(Name & designation of purchasing Officer)

Station and date: Cheemeni , 05/03/2022.

SCHEDULE OF MATERIALS

Sl. No	Specification	Quantity	Unit	Rate	Total	Remark

Whether samples essential:

Period within which goods should be delivered: 2 weeks

Rates should be quoted for delivery f.o.r.....
 at Departmental Stores.....

Other special conditions: