TENDER

FOR

SUPPLY & INSTALLATION OF EMBEDDED SYSTEM

Tender Inquiry No. - NTSC/COMP/TRG/PROC/2013-14/42

NSIC- Technical Services Centre
(A Government of India Enterprise)
Okhla Industrial Estate, Phase III
Near Govind Puri Metro Station
New Delhi-110020

Tel No. 011-26826801, 26921562
Fax: - 011-26826783

Email: ntscok@nsic.co.in
Website: www.nsic.co.in

NOTICE INVITING TENDER

Subject: **Supply & Installation of 5 no. of Embedded systems along with Interfacing modules & Learning Software**

NSIC-Technical Services Centre (NTSC), A Govt. of India Enterprises, Okhla, New Delhi is a reputed Institute for Technical and Industrial training since 1965.

Sealed quotations are invited in two bid system (Technical & Commercial bid in three separate sealed envelopes contained in one bigger envelope) for **Supply & Installation of 5 no. of Embedded systems** as detailed below:-

Requirement	Supply & Installation of 5 no. of Embedded systems alongwith Interfacing modules & Learning Software
Technical Bid	The details for submission of Technical Bid is placed at **Annexure-`A**
Commercial Bid	The details for submission of Commercial Bid is placed at **Annexure-`C`**
Cost of Tender Documents	Rs. 500/- (Rupees Five hundred only)
Earnest Money Deposit along with Tender	Rs.10,000/- (Rupees Ten thousand only) or exempted as detailed available in "instructions to the Tenderers" at Page no 3
Last date of submission of tender	**10th January 2014 up to 14:00 hours**
Date of opening of Technical Bid	**10th January 2014 at 15:00 hours**
Address for Tender inquiry & Delivery	General Manager, NSIC- Technical Services Centre, Okhla Industrial Estate, Phase-III, Near Govind Puri Metro Station, New Delhi-110020

(Satvinder Singh)
General Manager
NSIC- Technical Services Centre
New Delhi

INSTRUCTIONS TO THE TENDERERS

1. The Bidder shall be OEM or **Authorized Distributors/ Partners/ Dealers of reputed brand having authorization to supply the product**. A copy of Authorization letter issued by OEM to Authorized Distributors/ Partners/ Dealers attending tender to sale the Embedded system & its accessories on behalf of OEM shall be enclosed with the Technical bid.

2. The tender documents can be collected from the office of General Manager, w.e.f. 28 December 2013 to 10th January 2014 (except Saturday & Sunday) between 10:00 to 16:00 hours against payment of **Rs. 500/- (Rupees Five hundred only, Non refundable) by way of Cash/ DD, in favour of 'NSIC Ltd.- NTSC A/c' payable at New Delhi.**
    Alternatively tender form can be downloaded from our website www.nsic.co.in from 28 December 2013 to 10th January 2014. In this case the tender fee may be enclosed with Technical bid in the form of Demand Draft.

3. **The Earnest Money Deposit** of **Rs. 10,000/- (Rupees Ten thousand only) by way of D.D.** only drawn in favour of '**NSIC Ltd.- NTSC A/C**' shall be submitted separately along cost of tender.

    The offers without EMD will be rejected. However, there is exemption of EMD applicable to the units registered with Central Purchase Organization (DGS&D), National Small Industries Corporation (NSIC) or the concerned Ministry or Department as defined under Rule 157 of General Financial Rules (GFR), 2005. **A copy of valid certificate shall be enclosed along with the Technical bid for availing EMD exemption.**

4. Tender shall be duly, properly and exhaustively filled in. All pages of the tender should be **signed with stamp by the Authorized Signatory of Tenderer with company stamp on all the pages of this tender.**

5. Any cutting/over writing etc. in the tender must be signed by the person who is signing the tender. The rates and units shall not be overwritten. **The financial figures in commercial bid shall always be both in figures and words. In case of any discrepancy in figures and words, the amount written in words shall be considered.**

6. The Tenderer shall submit the copy of PAN, TIN, VAT registration along with the Technical Bid of the tender document.

7. The tender shall be placed in a properly sealed bigger envelope addressed to General Manager, NSIC-Technical Services Centre, Okhla Industrial. Estate, Phase III, Near Govind Puri Metro Station, New Delhi and the said **bigger envelope shall contain three separate sealed envelopes containing Technical bid, Commercial bid and Tender cost & EMD.**

8.   The bigger envelope shall be super-scribed as "Supply & Installation of five no. of Embedded systems with its due date. The three sealed envelopes inside the bigger envelope must be super-scribed as:*Envelope No-1: The said envelope is for technical bid & shall be super-scribed as "Tender for the Supply & Installation of 5 no. of Embedded systems – TECHNICAL BID documents" Envelope No-2: The said envelope is for commercial bid & shall be super scribed as "Tender for the Supply & Installation of 5 no. of Embedded systems – COMMERCIAL Bid". Envelope No-3: The said envelope is for cost of Tender and EMD & shall be super scribed as "EMD & Tender cost".*

9.   Technical bid will be opened on 10th January 2014 at 15:00 hours in the office of General Manager. A representative of the Tenderer may be present at the time of opening of the tender. The date for opening second envelope containing commercial bid will be intimated to the qualified bidders separately.

We confirm with our acceptance to the Instruction to the tenderers at S.No-1 to 9 as stated above.

Signature of the Tenderer with seal

TERMS & CONDITIONS

Submission of the duly signed tender implies that these conditions of tender have been read by the Tenderer and is aware of the scope of the supply and the quality of the material to be supplied. The final acceptance of the tender rests with the General Manager of NSIC-Technical Services Centre, who reserves the right to accept or reject any or all tenders without assigning any reason therefore.

a) No representation for the enhancement of the prices of the accepted tender or alteration of the terms and conditions will be entertained at any stage.

b) The delivery period of the supplies should be within **30 days** from the date of confirmed order from NSIC. In case tenderer fails to supply within the accepted period, penalty at the rate of 1% of value of the order, per week of delay subject to maximum of EMD deposited will be levied.

c) The supplier shall provide packing of the goods, as is required to prevent their damages or deterioration during the transit to their final destination i.e. NSIC Technical Services Centre, Okhla New Delhi.

d) The rates quoted shall be firm & all inclusive for delivery & installation at destination NSIC Technical Services Centre, Okhla, New Delhi.

e) The embedded systems (hardware & software) shall have to be operationalized without any extra cost and to the satisfaction of the DGM (Computer Training) of NTSC, Okhla.

f) 90% Payment will be made against successful installation for which the tenderer shall submit bills in duplicate (original + copy) giving the reference number of the supply order along with delivery note. Balance 10% will be released after 30 days subject to satisfactory services.

g) While submitting the tender, if any of the prescribed conditions are not fulfilled or are incomplete in any form, the tender is liable to be rejected.

h) Any request by the bidders to consider their EMD furnished by them to NTSC for any other contract/ tender cannot be considered as EMD for this tender.

i) The EMD will be refunded to the unsuccessful bidders after the orders are placed on the successful bidder. In case of successful bidder, the EMD will be returned along with the release of balance 10% payment. No interest on EMD will be paid.

j) The EMD will be forfeited in following cases:

   i. If the bidder fails to accept the order based on his offer within the prescribed time.
   ii. If the bidder fails to supply the embedded system with specifications in compliance to specifications given in technical bid.

iii. If the bidder delays supplies beyond a reasonable time resulting in disruption of NTSC works.

k) If the item supplied are found to be different than those in the accepted offer and are of specifications lower than those stipulated in the accepted offer, NTSC shall have right to totally reject the supplied product and claim for compensation. The supplier shall be responsible for arranging the rejected goods to be removed at his cost from NTSC premises.

l) In the event of any dispute the legal matter shall be subjected to the jurisdiction of Delhi Court only.

We confirm with our acceptance to the Terms & Conditions stated from (a) to (l) above.

Signature of the Tenderer with seal

TECHNICAL BID
FORMAT & REQUIREMENTS

1. Tender Ref. No: ………………………………………………….

2. Name of Tenderer: ………………………………………………

3. Complete office address of Tenderer…………………………………...

4. Contact details of authorized person of tenderer who have signed the tender.
   a. Name……………………
   b. Designation……………
   c. Phone (Office)………….
   d. Phone (Mobile)………...
   e. E mail……………………

5. Due date & Time of submission of bid: ……………………………

6. EMD payment details (DD number & bank detail) ……………………

7. Tender fee (if downloaded from website) (DD number & bank detail)

   …………………………

8. Submission of technical confirmation to the requirement: As per enclosed Annexure "B"

   Higher technical specification may be considered subject to competitive price offer.
   Warranty: 3 years onsite comprehensive
   Validity of Tender for 60 days from the date of opening of Technical bid

9. **Documents to be enclosed with the Technical bid are as under :**

   a. Copy of authorization letter from Original Equipment Manufacturer.

   b. Duly signed & stamped Tender documents (All pages) as a mark of your acceptance,

   c. Details of latest three buyers to whom the similar supplies were made should be submitted in the following format:-

S.No.	Name of Client along with contact details	Quantity supplied

   d. Supporting information with respect to the technical data, drawings or booklets of product. Any product manual brief, test certificates available may be enclosed.

   e. Copies of PAN, VAT/ TIN duly Signed & Stamp.

Signature of the Tenderer with stamp

Sr. No.	Name	Technical Specification	Quantity
1	8051 Microcontroller Development Board with Programmer	MCU clocked at 11.0592MHz Expansion connectors for plug in modules and prototyping area On board programmer for 89C51/ 52 and 55 devices USB interface to PC for programming Every pin is marked in order to make work easier Master Reset/Restart Key for hardware reset Input/output & test points provided on board On board breadboard Self contained trainer with On board DC and AC power supply CD with sample project code, Programmer software, useful documents & reference material. **Technical Specifications** Serial communication : USB Port Baud rate : 9600 bps MCU : 89C51/52 Crystal frequency : 11.0592 MHz Size of Breadboard : 175 67 8 mm Tie points: 1685 Test points : 40 DC power supply : +12 V, -12 V, +5 V & -5 V Programmer unit : Ready to run programmer will program 89C51/52 & 55 Devices Interconnection for modules : 2 mm patch cords and FRC cables Power supply : 230 V 10 %, 50 Hz Accessories: USB cable, Mains cord, Operating and Experimental Manual, 2 mm Patch cords, Four 20 pin FRC cable, One 10 pin FRC cable, software CD. There should be no components on the top of the board. The trainer should encased in a molded box with a cover	4

| | Microcontroller Development Platform | PIC16F877A MCU clocked at 4 MHz
On platform programmer
USB interface to PC for programming
Every pin is marked in order to make work easier Master Reset/Restart Key for hardware reset Input/output & test points provided on platform On platform breadboard for connecting external components
Self contained development platform with on platform DC Power Supply +12V, -12V, +5V & -5V
Interconnection for modules : 2 mm patch cords   and FRC cables
Power supply : 230 V, 50 Hz

Accessories: CD with sample project code, Programmer software & useful documents CD (Theory, procedure, reference , results etc)

There should be no components on the top of the board.
The trainer should encased in a molded box with a cover | 2 |

| 3 | ARM 7 Development Platform | LPC2148 (ARM7TDMI 32 Bit) MCU clocked at 12 MHz
Expansion connectors for plug in modules and prototyping area
8 KB to 40 KB of on-chip static RAM and 32 KB to 512 KB of on-chip flash memory;128 bit wide interface/accelerator enables high-speed 60 MHz operation
On platform Flash download utility (programmer) for Philips Microcontrollers
USB & RS232 both interface given for programming
USB 2.0 Full-speed compliant device controller with 2 KB of endpoint RAM
LPC2146/48 provides 8 KB of on-chip RAM accessible to USB by DMA
Every pin is marked in order to make work easier
Master Reset/Restart Key for hardware reset
On platform UART 0 and UART 1 Interface
On platform ADC (10 Bit) Interface
On platform 10-bit DAC provides variable analog output
On platform PWM Interface
On platform facility to connect JTAG debugger
On platform GPIO Connectors
60 MHz maximum CPU clock available from programmable on-chip PLL with settling time of 100 µs
On-chip integrated oscillator operates with an external crystal from 1 MHz to 25 MHz
Power saving modes include idle and Power-down
Input/output & test points provided on platform
On platform four external interrupts interface
Self contained development platform with on platform DC Power Supply
CD with sample project code, Programmer software & useful | 2 |

		documents.
		RTC : 3.3 Volt CMOS Battery Included accessories:- RS232 serial cable, USB cable, Mains cord,2mm Patch cords, Software. There should be no components on the top of the board. The trainer should encased in a molded box with a cover
	Additional Interface cards for above Microcontroller Developments Platforms:-	

4	ADC/DAC Module	ADC/DAC module **Technical Specifications:-** ADC : ADC 0808 DAC : DAC 0808 ADC Input & Reference voltage range : 0 - 5 V DC (Variable) Input/output & test points (Gold Plated) provided on board Power supply : From Development board Interface: 20 pin FRC cable Accessories include : : 20 pin FRC cable	4
5	Motor Module	Motor Module **Technical Specifications:-** Steeper Motor +5 V DC Motor +12 V Servo Motor +5 V Input/output & test points (Gold Plated) provided on board Power supply : From Development board Interface: 20 pin FRC cable Accessories include : : 20 pin FRC cable	4
6	Elevator control module	Elevator control module **Technical Specifications:-** Elevator interface PC based programming LED'S: 6 Nos. Switches: 9 Nos. Power supply : From Development board Interface: 20 pin FRC cable Accessories include : : 20 pin FRC cable	4

7	TTL I/O Interface module	TTL I/O Interface module **Technical Specifications:-** 12 TTL Input 12 TTL Output PC based programming Input/output & test points provided on board Power supply : From Development board Interface: 20 pin FRC cable Accessories include : : 20 pin FRC cable	4
8	Graphical Display module	Graphical Display module **Technical Specifications:-** 128 x 64 Graphical LCD display PC based programming Input/output & test points (Gold plated)provided on board Power supply : From Development board Interface: 20 pin FRC cable Accessories include : : 20 pin FRC cable	4
9	Display and Switches module	Display and Switches module **Technical Specifications:-** 4 x 4 matrix keypad Eight input sensing switch 16 x 2 characters LCD Seven segment display PC based programming Input/output & test points (Gold plated)provided on board Power supply : From Development board Interface: 20 pin FRC cable Accessories include : : 20 pin FRC cable	4

| 10 | Multi interface module | Multi interface module
Technical Specifications:-
Temperature Sensor interface
Stepper Motor interface
I 2C EEPROM interface
SPI EEPROM interface
PC based programming

Temperature Sensor : LM35 0 - 100°C (Analog output)
I C Memory : 128 K EEPROM
SPI Memory : 128 K EEPROM
Stepper Motor : +5 V DC
Power supply : From Development board
Interface: 20 pin FRC cable
Accessories include : : 20 pin FRC cable | 4 |
| 11 | Embedded Technology Learning Software with hardware lock | Learning solution for Embedded system

It should includes :
Basics:- Definition, Characteristics , Architecture , Applications, categories, Digital primer & components

8051microcontroller :- Microcontrollers, Architecture, Features, 8051 Pin out & details, Register and SFR, Memory map, instruction set, addressing mode, Timer& counters, Interrupts, Serial communication

PIC Microcontroller :- PIC & family, PIC 16877A fundamentals & pin out details ,memory map, timer, instruction set, ADC,CCP, MSSP

Peripheral interfacing:- Power supply, switch interface, LED interface, Seven segment display interface, Stepper motor | |

COMMERCIAL BID

FORMAT & REQUIREMENTS

1. Tender Ref. No.: ………………………………………

2. Name of the Tenderer: ………………………………..

3. The offer with rates for the schedule of requirements of items, as elaborated in Annexure "B" is to be submitted. Adhering to the format given below is a Pre-requisite for considering your quotations:

Tentative required no. : 5, However quantity may Increase/ Decrease

Description	Amount for one System (In Rs.)
Supply & Installation of Five Embedded Systems	
Duties and taxes **a) VAT @ …………………..** **Any other tax/ Charge (indicate name with rate)** **b) ……………………………**	
TOTAL IN FIGURES	
TOTAL IN WORDS: ………………………………………………….....	

4. *The rate quoted shall be in accounting units (A/U) and should be inclusive of basic price & all other cost including cartage, insurance, taxes & duties (as applicable). The price competiveness shall be given due consideration while analyzing the commercial bid. The NTSC will not issue any form toward rebate / exclusion of Sales tax/VAT.*

It is hereby confirmed that we shall abide all the terms & conditions as specified in the tender and further agreed for the penalty to be imposed, in case of delayed supplies from our end as specified in Point (b) of "Terms & Conditions" of this tender.

Signature of the Tenderer
With stamp

*******END OF TENDER DOCUMENT******