

Tender Document to be put in the Tender Box kept in Maintenance Section, Room No. 204, 2nd Floor, NIOS, A 24/25, Sector-62, Noida

Last date and time for submission of Sealed Tender: **17.01.2018 upto 14.30 hours.**

Date & time for opening of the Technical bid: **17.01.2018 at 15.00 hours.**

Venue for opening of Technical Bid(s):

**National Institute of Open Schooling
Maintenance Section, 2nd Floor,
A-24/25, Sector-62,
Noida-201309 (U.P.)**



National Institute of Open Schooling(NIOS)

(An Autonomous Institution Under Ministry of Human Resource Development,
Department of School Education & Literacy, Govt of India)
A-24/25, Sector – 62, Noida – 201309 (U.P)

Tender for Providing, Installation,Commissioning & Testing(SICT) of 33 metres OR 108 feet Flag Mast suitable for 30 ft. x 20 ft. size Tri COLOR National Flag in the premises of NIOS Head Quarters, A-24/25, Sector-62, NOIDA, U.P

National Institute of Open Schooling (NIOS) is an autonomous organization of the Deptt. of School Education & Literacy, Ministry of Human Resource Development (MHRD), Govt. of India. It provides education opportunities for Secondary and Senior Secondary levels and also for Vocational courses to persons who wish to study further and qualify for a better tomorrow. The mission of NIOS is to provide education to all with special concern for girls and women, rural youths, working men and women, SC and ST, persons with disability and other disadvantaged persons who for one or the other reason could not continue their education with the formal system. NIOS operates through a network of Eighteen (22) Regional Centres and Two (2) Sub-Regional Centres and about 6000 Accredited Institutions (AIs) commonly known as Study Centres in India. **NIOS is the largest open schooling system in the World.**

NIOS invites tender in two bid systems from the Professional/Manufacturer or Authorised Dealer/Contractor for the work of Providing, Installation,Commissioning & Testing(SICT) of 33 metres OR 108 feet Flag Mast suitable for 30 ft. x 20 ft. size Tri COLOR NATIONAL FLAG at NIOS Campus, A-24-25, Sector-62, Noida.

INSTRUCTIONS TO BIDDERS:

- (i) The Agency shall have to submit the tender in two bid system (Technical and Financial bid). The tender must be submitted in two separate envelopes, first one envelop should contain "Technical Bid" appended at Annexure-II along with EMD of Rs. 25,000/- (Rupees twenty five thousand only) in the shape of Demand Draft of any Nationalized Bank in favour of the Secretary, NIOS payable at Noida and second one envelop should contain "Financial Bid" after quoting the lowest rates in Annexure-III. Both the envelopes should be sealed properly and submitted in a single cover superscribed "**Tender for Providing, Installation, Commissioning & Testing(SICT) of 33 metres OR 108 feet Flag Mast suitable for 30ft. x 20ft. size Tri Colour National Flag in the premises of NIOS Head Quarters, A-24/25, Sector-62, NOIDA, U.P"** and addressed to The Secretary, National Institute of Open Schooling (NIOS), A-24/25, Sector-62, Noida 201309 (U.P.). The Tender should be dropped in the sealed tender box meant for the purpose kept at Maintenance Section, Room No. 204, 2nd Floor, NIOS, A-24/25, Sector-62, Noida-201309 (U.P.).
- (ii) The tender document can be downloaded from the website of NIOS www.nios.ac.in. The agencies shall be valid for participating in the tender process if they enclose EMD along with the Technical bid.
- (iii) The bidder should keep checking the website for any Addenda / Corrigenda in the notice bidding document till the last date of submission of tender.
- (iv) The successful tenderer shall be required to submit security deposit of 7% of the total value of the work by way of Demand Draft drawn in favour of "Secretary, National Institute of Open Schooling, Noida" within fortnight after receipt of award letter as interest free security deposit for ensuring good performance and for security purposes which shall be released after a period of 14 months. On receipt of security deposit, EMD of the successful tenderer shall be returned without any interest.
- (v) The intending tenderers are advised that the Financial Bids of only those tenderers shall be opened whose Technical Bids are found meeting the eligibility criteria. The Technical Bids of only those tenderers who have deposited the requisite Earnest Money in an acceptable form i.e. by way of Demand Draft in favour of the Secretary, NIOS, Noida shall be opened. The tender document shall be opened at given date and time. No interest shall be paid on EMD.

ELIGIBILITY CRITERIA:

- (i) Agency should be registered under the State Govt. or any other Act as applicable for the trade. (Please attach a Proof).
- (ii) Agency should be Professional/Manufacturer or Authorised Dealer/Contractor.
- (iii) Agency should have experience for designing, manufacturing and installing the SITC of minimum 5 Flag mast with minimum height of 33 metres OR 108 feet (Please attach a Proof).
- (iv) Agency should have average Annual Turnover of Rupees Fifty Lacs during the last 3 years i.e. 2014-15, 2015-16 and 2016-17 (Please attach Audited Statements of three years or Certificate from a Chartered Accountant).

TERMS AND CONDITIONS:

1. All materials required for the job will have to be arranged by the contractor meeting the relevant codes specifications.
2. The contractor will have to make his own arrangement to transport the required materials outside and inside the working place and leaving the premises in a neat and tidy condition after the completion of the job to the satisfaction of NIOS
3. The contractor will have to arrange for safe keeping of his materials and should provide necessary security arrangements for safe guarding the materials. NIOS will not be responsible for any claims with regard to this.
4. The tenderers are advised to visit the site and get acquainted with the site conditions. Vendor will have to make their own arrangements for transportation of material, movement of heavy equipment at site.
5. The site will be offered on AS IS WHERE IS basis for the execution of this job and it will be the sole responsibility of the vendor to ensure that they abide by the various rules. Regulations, bye-laws and other statutory requirements, etc. imposed by the Government.
6. The tenderers should study the various tender conditions / documents etc. carefully before submitting their offers. If there are any doubts, they should get clarifications from the Asstt. Director(Admn.), NIOS Head Quarters, Maintenance Section, A 24-25, Sector-62, Noida either in person or over phone no. 0120-4089822 before applying for tender.

7. All entries and rates in the tender form must be written in permanent ink or typewritten. Erasures, overwriting or corrections, if any, should be attested under the full signatures of the tenderer. All rates and grand total amount should be given both in figures and words. In case of any difference, the rate given in words will be taken as authentic and final.
8. As far as possible the tenderers should endeavor not to stipulate any counter terms / conditions or modifications of tender clauses and should quote strictly as per tender conditions.
9. NIOS reserves the right to reject offers not meeting its technical requirements and commercial conditions.
10. NIOS shall not be bound to accept the lowest tender and reserves right to accept any tenders. Decision of NIOS in this connection shall be final.
11. NIOS reserves the right to accept any tender in whole or in part or reject any or all tenders without assigning any reason.
12. The bidder should not have abandoned any work under Government of India or other State Govt. or any contract awarded to them has been rescinded, during last five years prior to the date of this bid.
13. The bidder should not have any legal case on him or should not had been involved in any litigation / enquiry for similar work under Government of India /State or any Govt. organization.
14. All the bidders will have to submit the list of similar works executed in a separate envelop. The bidders should have executed minimum five similar works of 33 metres OR 108 feet high flag mast.
15. Detailed specifications of all the items have been furnished in the Bill of Quantities (B.O.Q) against which rates are to be quoted by the bidders. Quantities taken in the BOQ are approx. and can increase or decrease or scope of the work can also be changed. No claim on this account shall be entertained.
16. Subletting the work after its award is not permissible.
17. The bid shall be accompanied by **Earnest Money of Rs.25000/-** in the shape of **Demand Draft** from any of the Nationalized Bank in favour of Secretary, NIOS payable at Noida. EMD of unsuccessful bidder shall be refunded after the tender is finalized and work is awarded to the successful bidder. No interest shall be paid on EMD.

18. The quoted rates shall include components related to labour laws. The contractor will have to abide by all the labour laws and to deposit due amounts under these laws already covered in the quoted rates.
19. Non compliance of instructions of the authorities of NIOS or delay in completion of the assigned work or non removal of defects in time; the NIOS shall be free to get the job done or get the defects rectified through any other outside agency at the risk and cost of the contractor.
20. The work shall be completed within **One Month** from the date of issue of award letter.
21. Income Tax and other taxes as applicable shall be deducted from the contractor's payment bill.
22. The contractor shall be responsible for any damage caused to any property of the NIOS Campus and make good all such damages at his own cost.
23. In the event of any accident during the course of work which may result in any injury to a work man; the responsibility of their medical treatment will fully rest with the contractor and the NIOS shall not be liable in any way to the payment to the labour engaged by him on the work.
24. The work includes the foundation of the Pole. The bidder will get the bearing capacity tested, before designing the foundation. The design calculation & structural drawing shall also be supplied by the bidder. In case NIOS changes the design, the expenditure on this account shall be borne by the bidder.

Bids not fulfilling all or any of the above conditions or incomplete, in any respects are liable to be rejected.

25. In case any dispute between the Agency and NIOS arising out of or in relation to the contract, the dispute shall be referred to a Sole Arbitrator to be appointed by the Secretary, NIOS and the decision of such Arbitrator shall be conclusive and binding on both the parties. The Arbitrator shall be governed by the provision of Indian Arbitration Act, 1996.
26. For award of work, Grand total of all items quoted by the Agency which would be the lowest, would be considered only.

SPECIAL TERMS & CONDITIONS

1. **COMPLETION PERIOD:** One month from the date of issue of award letter to the successful agency.

2. DEFECTS LIABILITY PERIOD:

- i) Pole: - 12 months warranty on Flag Mast Shaft & accessories from the date of commissioning.
- ii) LED lights & Aviation light will be under comprehensive warranty for 3 years.
- iii) Successful bidder will also provide design certificate of minimum durability period of 25 years for 33 metres OR 108 feet Flag mast Pole.

3. CEMENT:

- a. The Vendor shall have to arrange Cement required for construction under the scope of work at his own cost.
- b. For all computation purposes, the theoretical Cement consumption shall be considered as per CPWD standards.

4. LABOUR:

Labour camp will not be permitted inside the NIOS premises. The contractor will have to make their own necessary arrangements elsewhere for the same.

- 5. Extension of time, if required on any account will have to be brought to the notice of NIOS at least 03 days in advance from the schedule date of job completion with proper details & justification.
- 6. All statutory registrations/licence will have to be submitted to NIOS prior to commencement of the work.

10. TENDER QUANTITIES:

Tender quantities appearing in the schedule of rates are only indicative quantities. Exact quantities of each item shall be ascertained by the Contractor and only such ascertained quantities shall be procured.

Secretary

DETAIL TECHNICAL SPECIFICATIONS FOR 33 metres OR 108 feet FLAG MAST:

1.00 SCOPE:

The scope of this specification covers the manufacture, transport, installation, testing and commissioning of the complete Flag system, using Raising and Lowering type of Flag mast Towers, including the Civil Foundation Works.

2.00 PRE-QUALIFICATION

Bidder should be Professional/Manufacturer or Authorised Dealer/Contractor. Bidder itself should have own experience for designing, manufacturing and installing the SITC of minimum 5 Flag mast with minimum height 33 metres OR 108 feet.

3.00 APPLICABLE STANDARDS:

<u>Code No.</u>	
1. TR. No. - 7	High Masts for Lighting and CCTV (2000 edition) of ILE, U.K,
2. SABS 0225:1991	High Mast natural frequency calculation
3. IS 875 Part – 3	Wind Loading
4. BS EN 10025:1993	High Tensile Steel Sheets
5. IS 2062	Mild Steel
6. BS EN ISO 1461	Galvanization
7. IS 3459 / 2266	Stainless steel Wire rope
8. IS 325	Motor

4. FLAG MAST:

4.01 Structure:

The Flag mast shall be of continuously tapered, polygonal cross section, 20 sided, presenting a good and pleasing appearance and shall be based on proven In-Tension design conforming to the standards referred to above to give an assured performance and reliable service.

4.02 Construction:

The mast shaft shall be manufactured from high tensile steel plates con Agencying to BS EN 10025 having minimum yield strength of 355N/Sq. mm. Each mast shaft section shall have only one longitudinal weld and with out any circumferential weld joint. Sections with more than one longitudinal weld shall not be accepted. The mast base flange shall be free from any lamination or incursion and provided with supplementary gussets between the bolt-holes to ensure elimination of helical stress concentration.

The minimum A/F dimension of top shall be 150 mm and bottom as per the design and safe structure calculation. **Design certificates and warranty should be provided for minimum 25 years.** The minimum section length except for the top section shall be 10.98 m and top shall depend on the length required to make the specified height. The masts sections shall be joined at site by slip-stress-fit method and minimum overlap distance shall be 1.5 times the diameter at penetration.

A door reinforced with welded steel section, vandal resistant, weather proof with Allen bolts and pad locking facility of minimum dimension 1250 mm x 250 mm shall be provided at a height 2 times the width of door from the base of mast to provide clear access to base compartment equipment's winch, motor, cable, connector etc.

For the environmental protection of the mast, the entire fabricated mast shall be hot dip galvanized internally and externally in single dip having a uniform average thickness of 85 microns for plates more than 5 mm and 70 microns for 5 mm or less thickness. Manufacturer of Flag mast, Octagonal poles and Luminaires should preferably be same for easy maintenance

4.03 Dynamic Loading for the Mast:

The mast structure shall be suitable to sustain an assumed maximum reaction arising from a wind speed as per IS 875 (three second gust), and shall be measured at a height of 10 meters above ground level. The life of the mast should be 25 years. The force co-efficient taken for design of the polygonal structure is to be established from the wind tunnel test data.

4.05 Raising and lowering mechanism:

4.05.01 Winch:

The double drum winch shall be completely self sustaining without the need for brake shoe, springs or clutches and self-lubricating type by means of an oil bath. The worm gear ratio shall be 53:1 and safe working load 750 Kg. The drums are to be grooved to provide perfect seat for stable and tidy rope lay and arrangement for distortion free rope end termination.

The winch shall have provision to operate manually by a handle or electrically through power tool. The capacity, operating speed, safe working load, recommended lubrication and serial number of the winch should be marked on each winch.

4.05.2 Head Frame:

The hot dip galvanized head arrangement is to be designed as receiving the flag wire rope & addition to this to stand by rope for flag & additional safety rope for man rider (Not part of supply and to be ordered separately). The LM6 Aluminum pulleys with bush bearing mounted through stainless steel shaft shall be suitable to accommodate wire ropes to be provided.

4.05.3 Wire Ropes:

The galvanized wire ropes shall be in 7/19 construction with central core in the same material of 6 mm diameter. The breaking load of each rope shall not be less than 2350 Kg giving a factor of safety of over 5 for the system at full load as per the TR-7. The end construction of rope for the winch drum shall be fitted with talurit and for two continuous ropes the end termination in luminary's carriage shall be with stainless steel thimble and copper splicing and for others with stainless steel thimble and bull dog grips.

4.06 Electrical System, Cable and Cable Connections:

The power cable from base compartment to junction box at the top shall be 1.1 KV grade PVC insulated, PVC sheathed copper conductor of size minimum 3 core x 1.5 sq. mm. Wiring from junction box to Aviation Light is to be done using 3 core 1.5 sq. mm PVC insulated, PVC sheathed, copper conductor flexible cable.

Suitable arrangement is to be provided in the base compartment to receive and terminate incoming power cable and MCB in a box for isolation of incoming power supply.

4.07 Power Tool for the Winch:

Three phase, single speed, motor of rating suitable to hoist the flag mounted on adjustable plate to adjust the length of winch motor coupling chain is to be provided in base compartment.

Mechanical torque limiter is to be mounted on motor shaft to stop transmission of motion from motor to winch in case of excess load and thus prevent the damage to winch and breakage of rope.

4.08 Decorative Finial

One number of FRP ornamental finial (DOME) shall be provided for each FLAG mast on the head arrangement is to be provided.

4.09 Aviation Obstruction Light (To be ordered separately)

Providing of Single dome aviation obstruction lights of type LED AOL, Make shall be BINAY or equivalent.

4.10 Earthing Terminals:

Earth terminal using 12 mm diameter hot dip galvanized bolts shall be provided on the door stiffener of the mast for lightning and electrical earthing of the mast.

4.11 Control Box

Each mast shall be provided with a control box with 32A TPN MCB incomer, power tool control with 2 no 9A contactors and raise lower push button, Incoming 16 sq. mm and outgoing 4 sq. mm terminals. Power cable of suitable size up to the feeder pillar from supply point shall also be provided by the bidder.

5.00 Luminaries

The flood light luminaries 300 – 350 Watt LED type having more than 100 Lumen / W output. This Flood light shall be installed on 5 mtr galvanized octagonal poles with providing & laying of 3 Core x 2.5 Sq mm Copper cable for the individual wiring of the Luminaries.

5.11 Octagonal Poles

5 mtr. High hot dip galvanized octagonal poles for installing the flood light to illuminate the flag in dark.

6.00 Makes for Flag Mast, Octagonal Poles & Luminaires

BAJAJ Electricals / CHM Industries Inc. / Shreder / Equivalent

7.00 PU Painting

Flag mast shall be finished with Polyurethane (PU) paint over the galvanized surface after application of Etch Primer coat. PU Paint should be done at manufacturer's works.

8.00 FLAG

Providing of national flag of size 20' x 30' in 100% Knitted Polyester (140 / 160 gsm), with reinforced super-strong nylon webbing on all 3 sides & rope/toggle sleeve.

TECHNICAL DATA SHEET
For 33 metres OR 108 feet Flag Mast

HIGH MAST SYSTEM

Make	: Bajaj Electrical, CHM Industries IMC Shreder or Equivalent only.
Height of mast	: 33 metres OR 108 feet
No.of Sections	: Three
Material Construction	: S355 grade asper BS-EN10025
Base & Top Diameter	: Top: 150mm Bottom: 540mm
Plate Thickness	: Top: 3mm Middle: 4mm Bottom: 4mm
Cross Section Mast	: 20 side Polygon
Standard for Galvanization	: As per BS EN ISO1461
Size of opening and door at base	: 1200 x250mm
Diameter of base plate	: 730mm
Thickness of base plate	: 30mm
Lightening protection finial	: GI Single spike of length 1200mm
Max wind speed	: 50m/s
Number of foundation bolts	: 12nos.
PCD of foundation bolts	: 650mm
Type/Diameter/ Length of foundation bolts	: TS600/30mm dia /850mm long

WINCH/POWER TOOL

Type/SWL of winch	: Double drum, SWL 750kg
Method of operation	: Integral Motor
Motor capacity	: 2HP
No.of speeds	: 4pole, Single speed
Torque limiter	: With mechanical tripping facility



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 (An Autonomous Institution Under Ministry of Human Resource Development,
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 A-24/25, Sector – 62, Noida – 201309 (U.P)

TECHNICAL-BID

Tender for Providing, Installation,Commissioning & Testing(SICT) of 33 metres OR 108 feet Flag Mast suitable for 30ft. x 20ft. size Tri COLOR National Flag in the premises of NIOS Head Quarters, A-24/25, Sector-62, NOIDA, U.P

Sl.No.	Particulars	Information to be furnished by the Agency
1.	Name & Complete Address of the Agency	
2.	Is the Agency registered under the State Govt. or any other Act as applicable for the trade? (Please attach a Proof).	
3.	Is the Agency a Professional/Manufacturer or Authorised Dealer/Contractor	
4.	Is the Agency having experience for designing, manufacturing and installing the SITC of <u>minimum 5 Flag mast with minimum height of 33 metres OR 108 feet?</u> (Please attach a Proof).	
5.	Average Annual Turnover during the last 3 years i.e. 2014-15, 2015-16 and 2016-17 (Please attach Audited Statements of three years or Certificate from a Chartered Accountant).	

6.	Has the Agency abandoned any work under Government of India or other State Govt. or any contract awarded to them has been rescinded, during last five years prior to the date of this bid.	
7.	Has the Agency any legal case on him or had been involved in any litigation / enquiry for similar work under Government of India /State or any Govt. organization.	
8.	Technical infrastructure/Staff strength in all the categories.	
9.	PAN/TAN number of the Agency (Attested copy should be enclosed)	
10.	Valid Service Tax Registration Number (Attested copy should be enclosed)	
11.	Details of Earnest Money Deposit (EMD) to be deposited by way of Demand Draft(DD) in favour of Secretary, NIOS payable at Noida.	DD No. : _____ Date : _____ Amount : 25,000/- Bank : _____

(Signature of the tenderer)
With complete address and seal
Tel. No. :.....
Mobile No.:
E-mail ID:.....

Place:
Date:



National Institute of Open Schooling(NIOS)
 (An Autonomous Institution Under Ministry of Human Resource Development,
 Department of School Education & Literacy, Govt of India)
 A-24/25, Sector – 62, Noida – 201309 (U.P)

FINANCIAL BID

Tender for Providing, Installation, Commissioning & Testing(SICT) of 33 metres OR 108 feet Flag Mast suitable for 30ft. x 20ft. size Tri COLOR National Flag in the premises of NIOS Head Quarters, A-24/25, Sector-62, NOIDA, U.P

The Secretary
 National Institute of Open Schooling
 A 24/25, Sector 62, NOIDA-201309 (U.P.)

After having gone through the terms and conditions as enumerated in the tender document for **Providing, Installation, Commissioning & Testing (SICT) of 33 metres OR 108 feet Flag Mast suitable for 30 ft. x 20 ft. size TRI COLOR NATIONAL FLAG in the premises of NIOS.**

I/We accept all the terms and conditions and quote our lowest rates for the same in the prescribed proforma given below:

S.No	Description	Unit	Qty	Rate(Per Unit)	Amount
1	Construction of shallow foundation with M20 grade concrete for the Flag Mast considering the safe soil bearing capacity at site as 10T/sqmtr. at 2meter depth with all materials and labour and soil investigation	Job	1		
2	Providing, Installation, Testing & Commissioning of 30mtr. Flag mast. Mast shaft shall be in three sections, hot dip galvanized and suitable for wind velocity as per IS 875. It includes a special type of Dome and including PU Painting of Flag Mast shaft with a coating of etch primer, primer and PU paint.	Each	1		

3	Providing, Installation, Testing & Commissioning of foundation bolts manufactured from special steel along with nuts, washers, anchor plates and templates.	Set	1		
4	Providing, Installation, Testing & Commissioning of system for Raising & Lowering of Flag. It shall have double drum winch, 6mm dia galvanized wire rope and integral power tool for the raising and lowering of Flag. Suitable control panel shall be provided for reversing operation of Power tool motor.	Each	1		
5	Providing, Installation, Testing & Commissioning of LED single dome system and Aviation Obstruction Light with 3C X2.5sqmm Cu armoured cable.	Each	1		
6	Providing, Installation, Testing & Commissioning of LED 300 to 350 watt Flood Light IP 65 or suitable for illumination of Flag mast.	Each	2		
7	Providing, Installation, Testing & Commissioning of 5M high hot dip galvanized octagonal pole suitable to mount 1 no. non integral flood light fittings at top & control gear box mounting arrangement at bottom.	Each	2		
8	Providing, Installation, Testing & Commissioning of foundation bolts manufactured from special steel along with nuts, washers, etc. (For 5M Pole)	Set	2		
9(a)	Providing, Installation, Testing & Commissioning of National Flag size 20x 30ft, made with shiny knitted polyester 160 GSM (c)	Each	2		

9(b)	Providing, Installation, Testing & Commissioning of National Flag size 20x 30ft,made with shiny knitted polyester 140 GSM (c)	Each	Rate only		
10	Providing, Installation, Testing & Commissioning of GI Pipe earthing for Flag Mast with 205M long 40mm dia GI Pipe including connection to High mast earth terminal with 25 x3 mm GI flats with all materials and labour(2nos.per mast required)	Each	2		
Grand Total					

I hereby accept to deposit 7% amount of the value of the work to NIOS as a Security Deposit for a period of 14 months from the date of installation and commissioning of the Flag Pole & National Flag, within fortnight of the issue of work order.

NOTE: For award of work, Grand total of all items quoted by the Agency which would be the lowest, would be considered only.

(Signature of the tenderer)
 With complete address and seal
 Tel. No. :.....
 Mobile No.:
 E-mail ID:.....

Place:
 Date: