



# भारतीयविमानपत्तनप्राधिकरण

AIRPORTS AUTHORITY OF INDIA

सं.: /Ref. No. AAI/ENGG/ELECT/JTGM/23-24/W.O-02/

दिनांक /Date: 27.03.2024

**BY SPEED POST/E-MAIL**

सेवा में/To,

**UNISEARCH INDIA (INSTRUMENTS) PRIVATE LTD.,  
No.2/96, V.O.C.Street,  
Kanniyammanpet,  
Chennai – 600 103.**

**कार्य का नाम/ Name of Work :** “Air Quality Monitoring T-2 at Chennai international Airport. SH : DSITC of Spectrum Laser based AQMS and associated works at Chennai International Airport including 02 years DLP & AICMC of 05 years.

स सं./Ref.:1. Bid Invitation No. 2024\_AAI\_186342\_1dated. 15.02.2024

2. Your negotiated offer letter No. Nil Date:20.03.2024.

महोदय / Dear sir(s),

1. Your tender for the work mentioned above is hereby accepted on behalf of Chairman, Airports Authority of India, at the item rates quoted by you totaling to Rs.4,30,18,500/- (Rupees Four Crore Thirty Lakhs Eighteen thousand and Five Hundred Only ) which is 15.32% below the justified cost of Rs.5,08,02,116/-(i/c of all taxes excluding 18% GST).
2. Joint General Manager, Engg (Elect), AAI, Chennai Airport Project, Chennai, shall be the Engineer-in-Charge of the work. You are requested to attend the office of Joint General Manager, Engg (Elect), AAI, Chennai Airport, Project Office by 28.03.2024 to sign and compete the contract agreement. The contract agreement shall be executed on a non-judicial stamp paper of value Rs.100/- (Rupees One Hundred only) and the cost of the stamp paper shall be borne by you.
3. Please deposit Rs-21,50,925/-(Rupees Twenty-One Lakhs Fifty Thousand and Nine Hundred and Twenty-Five Only) towards security deposit as per clause 1(A) on page GCC-16 of tender document. within 10 days from the date of issue of this letter, failing which the same will be deducted from your running bill as per clause 1 (A) on page GCC-16 of the contract document.

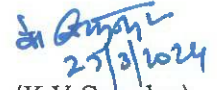
  
27/3/2024  
के. वि. सुन्दर / K.V. SUNDAR  
संयुक्त महाप्रबंधक (अभि-विद्युत)  
Jt. General Manager (Engg - Elect)  
भा.वि.प्रा. चेन्नई हवाई अड्डा, चेन्नई - 600 016.  
AAI Chennai Airport, Chennai - 600 016.

Address: Project Office, AAI, Chennai International Airport, Chennai - 600 016

4. Within 30 days of issuance of acceptance letter, you shall submit to AAI, a Performance Guarantee as per condition of clause 1 on page GCC-15 for an amount of Rs. 21,50,925/- (Rupees Twenty-One Lakhs Fifty Thousand and Nine Hundred and Twenty-Five Only) in the form of Bank Guarantee as per proforma appended to Annexure-XI-page GCC.108 of Tender Document.
5. You are requested to comply with the provisions of Contract Labour (Regulation and Abolition) Act of 1970 and Contract Labour (Regulation and Abolition) Central Rules 1971 and minimum wages act and rules thereof of Central and State Governments.
6. You are also directed to contact Senior Manager (Engg -Elect), AAI, Chennai Airport Project, Chennai immediately, who will arrange to hand over the site to you.
7. Please note that the time allowed for carrying out the work shall be 04 (Four) months for DSITC of Spectrum Laser based AQMS and associated works and 02 years DLP & AICMC of 05 years and same shall be reckoned immediately day after issue of the letter.
8. The letters under reference shall form part of Agreement.
9. Any further correspondence in connection with the contract should normally be addressed to the Engineer-in-Charge.
10. Please acknowledge the receipt and return the duplicate of this letter enclosed herewith after signing it to the undersigned as token of acceptance.

अनुलग्नक/Encl :Schedule of Quantities

भवदीय/Yours Faithfully,

  
(K V Sundar)

सं. महाप्रबंधक (अभि-वि)/Jt. General Manager (Engg-E),  
अध्यक्ष के लिए एवं की ओर से/For & On Behalf of The Chairman,  
भारतीय विमानपत्तन प्राधिकरण/Airports Authority of India,

भा वि प्रा, चेन्नई हवाई अड्डा/AAI, Chennai Airport

**के. वि. सुन्दर / K.V. SUNDAR**

संयुक्त महाप्रबंधक (अभि-विद्युत)  
Jt. General Manager (Engg - Elect)  
भा.वि.प्रा. चेन्नई हवाई अड्डा, चेन्नई - 600 016.  
AAI, Chennai Airport, Chennai - 600 016.

NOO:

में कॉपी / Copy to:-

External:

1. The Commissioner EPF, Tambaram, Chennai -600 045
2. The Regional Labour Commissioner, Chennai -600 006

Internal:

1. The Airport Director, Chennai international Airport, Chennai.
2. The General Manager (Engg)-Chennai Airport, AAI, Chennai.
3. The General Manager (F & A)-Chennai AAI, Chennai.
4. The Jt. General Manager (Vigilance)-SR, Chennai
5. Asst. Gen. manager (Engg-Elect), Project , Chennai
6. Senior Manager (Engg-Elect), Project , Chennai
7. Agreement
8. Works File.

  
27/3/2014  
के. वि. सुन्दर / K.V. SUNDAR  
संयुक्त महाप्रबंधक (अभि-विद्युत)  
Jt. General Manager (Engg - Elect)  
भा.वि.प्रा. चेन्नई हवाई अड्डा, चेन्नई - 600 016.  
AAI, Chennai Airport, Chennai - 600 016.

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Address: Project Office, AAI, Chennai International Airport, Chennai -600 016

## SCHEDULE OF WORK

**Name of Work: Air Quality Monitoring T 2 at Chennai International Airport. SH DSITC of Spectrum Laser based AQMS and associated works at Chennai International Airport including 02 years DLP and AICMC of 5 years**

**Tender Id : 2023\_AAI\_186342\_1**

| S.No | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Item No    | Qty  | Unit | Rate             | Amount           |
|------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|------|------------------|------------------|
| 1.00 | SITC of Digital RH, Temperature, PM2.5 & PM10 MONITORING ANALYSER with Remote transmitter & receiver .The entire sensors shall be with suitable enclosure and complete including SS Structure (Suspended /Floor mounting) arrangement with complete as required. System should operate with power supply - 80 to 300 Vac with complete as per specification mentioned in tender document ect as required .                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           | Item No.01 | 30   | Nos  | ₹ 43,017.80      | ₹ 12,90,533.98   |
| 2.00 | DSITC of measuring gases of O2, CO & CO2 ( TDLs) the following components required.<br>1.8-Channel Multiplexer, 12@T/P Input, 24@4-29ma Output-1 No.<br>2. Control Software - 1No.<br>3. Long Path Telescope - 8 Nos.<br>4. Retro-reflector Array - 8 Nos<br>5. Visible fault locator - 1 No.<br>6. FFTR Transmitter/Receiver, Fiber -Fiber-8 Nos.<br>7.Fiber/Coax Power Meter for CO/CO2-1No<br>8. Sealed External Audit Module -1 No.<br>9. BREAK - OUT (JUNCTION) BOX for CABLES - 1No.<br>10. Panel - 1 Set.<br>11. Cable & Accessories - 8 Sets                                                                                                                                                                                                                                                                                                                                                                 | Item No.02 | 1.00 | Job  | ₹ 2,77,11,916.46 | ₹ 2,77,11,916.46 |
| 3.00 | Parameters:CO, CO2 & O2<br>Measuring Range: CO (0-20000 PPM),CO2 (0-20000 PPM/ 0-25%)O2 (0-21%)<br>Technology:Diode Laser Spectrometer<br>Reflection system:19-element<br>Signal Passing Medium:Fiber optic and coax<br>Internal Gas Cell:Should Be Available for CO, CO2 & O2<br>Compact External Audit facility:Should Be Available for CO, CO2 & O2<br>Adjustable Systems:X-Y easy alignment for transmitter & Reflector<br>Environment al Protection:Screw plate for mounting<br>Internal Data Memory:On-board Memory of 4 GB<br>Multi-Channel:Rack Mounted 8-channel<br>LCD Display:CO, CO2 & O2<br>Output Standard:RS-232, Ethernet, TCP/IP MODBUS & 4-20mA<br>4-20 mA Input - Temperature and Pressure for real-time<br>Internal audit cell-Should be Available<br>Relay- 6 dry-contact relays (5User-configurable)<br>Software-Software for Host computer to setup the operating conditions, store the data. |            |      |      |                  |                  |
| 4.00 | Acquisition Rate- 0.25 - 30 seconds per channel, adjustable.<br>Running averages -Up to 24 hr.<br>Certifications- USEPA/TUV /Equiv. Certificate approved<br>Measuring Distance-Up to 1000 meters<br>Telescope Distance Coverage - 1200 meters(Min)<br>Precision-± 1% of the Signal<br>Accuracy-ppb levels<br>Detection Limits- Customized (ppb to percentage levels)<br>Diagnostic Software-with data Review and Statistical Analysis<br>Environmental Conditions--10 deg C to 60 deg C<br>Power Supply-12 Vdc<br>Response time -Less than 1 Second                                                                                                                                                                                                                                                                                                                                                                  |            |      |      |                  |                  |

**के. वि. सुन्दर/के. वि. सुन्दर**  
 संयुक्त महाप्रबन्धक/प्रमुख अभियन्ता  
 Jt. General Manager (Engineering)  
 भा.वि.प्र. चेन्नई हवाईअड्डा, चेन्नई - 600076.  
 AAI, Chennai Airport, Chennai - 600 016.

## SCHEDULE OF WORK

**Name of Work: Air Quality Monitoring T 2 at Chennai International Airport. SH DSITC of Spectrum Laser based AQMS and associated works at Chennai International Airport including 02 years DLP and AICMC of 5 years**

**Tender Id : 2023\_AAI\_186342\_1**

| S.No  | Description                                                                                                                                                                                                                                                                                                                                                                | Item No    | Qty     | Unit | Rate          | Amount         |
|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|---------|------|---------------|----------------|
| 5.00  | Provision of Receiver with HDD,HDMI monitor, USB PC key board, USB / Ethernet connectivity for system for data down load & printing, including driver software,Output in Microsoft XL format, Power supply 80 to 300 Vac with complete as per specification mentioned in tender document ect as required .                                                                 | Item No.03 | 1.00    | Job  | ₹ 2,70,116.16 | ₹ 2,70,116.16  |
| 6.00  | Type of communication-Wireless (Wi-Fi)<br>Number of receiving station-One (up to 200 Channels).<br>Total no. of transmitters-30 Nos.<br>Data logging rate of each channel-1 reading/Min - minimum<br>Interface to the computer-RJ45-TCP/IP<br>Sensors used for measurement-Silicon Diodes, Platinum RTDs<br>Storage facility of Logged Data-Required. (Six Months minimum) |            |         |      |               |                |
| 7.00  | Processor - Intel i7 minimum 11 th Gen ( 3 GHz )                                                                                                                                                                                                                                                                                                                           |            |         |      |               |                |
| 8.00  | Drive controllers - Integrated serial ATA controller (ICH9R) 3 Gb/s with RAID 0, 1, 5 and 10 capability.                                                                                                                                                                                                                                                                   |            |         |      |               |                |
| 9.00  | RAM - 16 GB LPDDR RAM                                                                                                                                                                                                                                                                                                                                                      |            |         |      |               |                |
| 10.00 | Slots - 7 full length slots: 2 PCI Express (PCIe) x16 graphics, 1 PCIe x8 (x4 electrical) slot, 1 PCIe x1 slot, 3 PCI slots.                                                                                                                                                                                                                                               |            |         |      |               |                |
| 11.00 | Hard Disk - 512 GB SSD                                                                                                                                                                                                                                                                                                                                                     |            |         |      |               |                |
| 12.00 | Ports - Ports Front: 3 USB 3.0                                                                                                                                                                                                                                                                                                                                             |            |         |      |               |                |
| 13.00 | Keyboard - Suitable for windows, keyboard, PS/2 Compatible                                                                                                                                                                                                                                                                                                                 |            |         |      |               |                |
| 14.00 | Operating System & Software - Windows 11 (Min)                                                                                                                                                                                                                                                                                                                             |            |         |      |               |                |
| 15.00 | Antivirus Software - Norton (With minimum 3 years liscence)                                                                                                                                                                                                                                                                                                                |            |         |      |               |                |
| 16.00 | Network - 100 Mbps Network Interface Card with wake on LAN support                                                                                                                                                                                                                                                                                                         |            |         |      |               |                |
| 17.00 | DVD ROM - Built in 52X DVD ROM with speakers                                                                                                                                                                                                                                                                                                                               |            |         |      |               |                |
| 18.00 | Monitor Screen - 1 No. LCD screen minimum 22" size colour , colour depth 24 bit, display resolution 1920X 1080 P , Aspect ratio 16:9.                                                                                                                                                                                                                                      |            |         |      |               |                |
| 19.00 | Printer - 1 No. Laser Jet A3 Size colour , printing speed 25 A4 pages per Minutes and 15 A3 pages PPM (Monochrome ) , Resolution 2400 X 600 dpi, 8MB SDRAM, Network printing card etc.                                                                                                                                                                                     |            |         |      |               |                |
| 20.00 | Providing Software for gas analyser parameters of CO, CO2, O2 for display units purpose at various locations complete as required.                                                                                                                                                                                                                                         | Item No.04 | 1.00    | Job  | ₹ 9,90,425.92 | ₹ 9,90,425.92  |
| 21.00 | Supply of 8 core armoured FOC & coax cable, the fixing of same existing tray/wall with suitable clamp as complete as required.                                                                                                                                                                                                                                             | Item No.05 | 2500.00 | Mtr  | ₹ 225.10      | ₹ 5,62,742.00  |
| 22.00 | Laying of 8 core armoured FOC & coax cable, the fixing of same existing tray/wall/surface with suitable clamp as complete as required.                                                                                                                                                                                                                                     | Item No.06 | 2500.00 | Mtr  | ₹ 270.12      | ₹ 6,75,290.40  |
| 23.00 | Supply & Fixing of web data logger i/c CPU (Model:DL8D-R) with 8 channel (Model:P-B-SST8) analog input module with programming cable (Model:COP-US) for gas analyser system with complete as required.                                                                                                                                                                     | Item No.07 | 1.00    | Set  | ₹ 5,40,232.37 | ₹ 5,40,232.37  |
| 24.00 | SITC of wireless router TP-Link 450MBPS NW TL-WR947HP complete as required.                                                                                                                                                                                                                                                                                                | Item No.08 | 25.00   | Each | ₹ 13,242.09   | ₹ 3,31,052.34  |
| 25.00 | SITC of Electronic TV 65" Ultra HD OLED display with Suitable compact PC to display the AQMS parameters in different locations including connectivity with server at all locations complete as required.                                                                                                                                                                   | Item No.09 | 8.00    | Nos  | ₹ 1,59,638.65 | ₹ 12,77,109.20 |

**के. वि. सुन्दर / K.V. SUNDAR**

संयुक्त महाप्रबंधक ( अग्नि-विद्युत )  
Jt. General Manager (Engg - Elect)  
भा.वि.आ. चेन्नई हवाईअड्डा, चेन्नई - 600 016.  
AAI, Chennai Airport, Chennai - 600 016.

*22/3/2024*

## SCHEDULE OF WORK

**Name of Work:** Air Quality Monitoring T 2 at Chennai International Airport. SH DSITC of Spectrum Laser based AQMS and associated works at Chennai International Airport including 02 years DLP and AICMC of 5 years

**Tender Id :** 2023\_AAI\_186342\_1

| S.No                                       | Description                                                                                                                                                                                                                                                                                                                                                                                                                   | Item No    | Qty  | Unit | Rate           | Amount                  |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------|------|----------------|-------------------------|
| 26.00                                      | Supply, Installation, Testing and commissioning of software interface with existing BMS system (Platform : Suitable to Design -CC) of above entire system (AQMS) for two way flow of data between central control station and equipment. The price shall include the necessary integrator required for integration and also the networking of all load managers.                                                              | Item No.10 | 1.00 | Job  | ₹ 13,50,580.80 | ₹ 13,50,580.80          |
| 27.00                                      | All Inclusive Comprehensive Operation & Maintenance of entire AQMS for DLP period of 02 (Two) Years & after DLP 05 (Five) Years as provided under the main contract/work including cleaning ,trouble shooting, preventive maintenance and breakdown maintenance etc. as required as per good OEM practice, recommendation of the manufacturer, instructions of Engineer-In-Charge and as per terms and conditions specified . |            |      |      |                |                         |
| 28.00                                      | First year after DLP ( 3.67 % of SH:I DSITC of AQMS DSITC including all charges and taxes except GST)                                                                                                                                                                                                                                                                                                                         | Item No.11 | 1.00 | Job  | ₹ 12,84,500.00 | ₹ 12,84,500.00          |
| 29.00                                      | Second year after DLP (4.08 % of SH:I DSITC of AQMS DSITC including all charges and taxes except GST)                                                                                                                                                                                                                                                                                                                         | Item No.12 | 1.00 | Job  | ₹ 14,28,000.00 | ₹ 14,28,000.00          |
| 30.00                                      | Third year after DLP ( 4.53 % of SH:I DSITC of AQMS DSITC including all charges and taxes except GST)                                                                                                                                                                                                                                                                                                                         | Item No.13 | 1.00 | Job  | ₹ 15,85,500.00 | ₹ 15,85,500.00          |
| 31.00                                      | Fourth year after DLP ( 5.04 % of SH:I DSITC of AQMS DSITC including all charges and taxes except GST)                                                                                                                                                                                                                                                                                                                        | Item No.14 | 1.00 | Job  | ₹ 17,64,000.00 | ₹ 17,64,000.00          |
| 32.00                                      | Fifth year after DLP (5.59 % of SH:I DSITC of AQMS DSITC including all charges and taxes except GST)                                                                                                                                                                                                                                                                                                                          | Item No.15 | 1.00 | Job  | ₹ 19,56,500.00 | ₹ 19,56,500.00          |
| <b>Grand Total Amount ( DSITC + AICMC)</b> |                                                                                                                                                                                                                                                                                                                                                                                                                               |            |      |      |                | <b>₹ 4,30,18,500.00</b> |

**Rupees Four Crore Thirty Lakhs Eighteen thousand and Five Hundred Only (Plus GST as applicable )**

*for* 23/04/2024

Jt. Gen. Manager (E-E)  
AAI, Chennai Airport

**के. वि. सुन्दर / K.V. SUNDAR**

संयुक्त महाप्रबंधक (अभि-विद्युत)

Jt. General Manager (Engg - Elact)

भा.वि.प्र. चेन्नई हवाई अड्डा, चेन्नई - 600016.

AAI, Chennai Airport, Chennai - 600 016.

Signature Not Verified

Digitally signed by KANAPARTY RAMESH BABU

Date: 2024.04.22 17:40:04 IST

Location: eProcurement System for Central PSUs