



الأكاديمية العربية للعلوم والتكنولوجيا والنقل البحري
Arab Academy for Science, Technology & Maritime Transport

Date: 28/5/2015

Call for Tender no. 91/2014/2015

Dear Sirs,

The Arab Academy for Sciences, Technology & Maritime Transport in Alexandria, a specialized education agency of the Arab League - exempted from the customs duties - extends best wishes to your esteemed company.

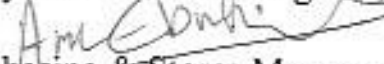
The Academy is in the process of procuring a **Broadband Satellite Communications Network**.

Kindly, find attached the Technical specifications & requirements, also, the terms & conditions of the Tender.

We would highly appreciate if you provide us with your Quotation for supplying our requirements within the closing date of the tender and in accordance with the attached terms and conditions.

Looking forward to receiving your quotation before the due date on **Thursday the 11th of June 2015**.

Many thanks & Best Regards,


Purchasing & Stores Manager
Amr Ebrahim Aly

For any queries, please contact us on: Tel / Fax: 00 203 5622744
e-mail: amrebrahim@ aast.edu or amr.e.aly@gmail.com

Moshe

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Tender Terms & Conditions

- Companies must furnish, as a part of the financial offer, a **preliminary Guarantee** (Bid Bond) equal to \$ 2000.00 (only US\$ Two Thousand) by an Unconditioned Banker Letter of Guarantee issued or endorsed by a licensed Egyptian First Class Bank valid for three months.
- Any offer which is not accompanied with the preliminary Guarantee will be rejected as non-responsive. This amount will be discharged / returned back to the un-successful offers.
- **Offers must remain valid** for at least three months from the date of opening the envelopes.
- After being notified with the acceptance of the offer, the company shall furnish a **Performance Bond** equal to 5% of the value of the Supply Order, with the same terms of the preliminary guarantee. The performance bond will be kept at the Academy disposal for one year starting from the date of delivery & operation of the goods.
- **Prices** to be quoted in US Dollars, detailed prices as possible.
- **Delivery** on basis CIF Alexandria Airport / Sea Port. The Academy will be responsible for clearing the consignment at customs.
- **Payment** will be effected through opening a Confirmed Irrevocable letter of Credit in your favor, payable 70% at sight & 30% after installation & operation of the equipment. All charges outside Egypt to be born to the supplier account.
- **The Warranty against Industrial defects** should be covered for a minimum period of 24 months from date of SAT (Site Acceptance Tests). A Warranty Certificate issued by manufacturer should be submitted. Within this period, if any of the components is found defective, it should be immediately replaced free of cost.
- The quotation should state the **maintenance prices** after the warranty period (including and excluding spare parts).
- **Delivery period:** kindly state your earliest convenience.
- In case of delay in delivery within the agreed period, the company should pay 1% of the delayed items value as a penalty, for each week of delay, with a maximum of 3% of the Total Order Value.
- All offers to be presented in **English Language**, as well as the specifications and literature.
- In case of order, the company should present together with the shipping documents, an **Inspection Certificate**, issued by manufacturer, stating that all goods have been examined & tested before dispatch and found in good conditions.
- The quotation should clearly state the offered equipment are from European Origin; a **Certificate of Origin** should be presented together with the shipping documents in case of order.
- **All prices should be fixed** and the Academy is not committed to any alteration, fluctuation in prices during execution period.

- **The Academy is not bound** to accept the lowest quotation. Furthermore, the Academy reserves to itself the right to reject any or all the received offers, or cancel the whole Tender without giving any reasons.
- The required equipment shall be used in **Educational purposes**. The Academy would present the documents that refer to this matter if required.
- General background of the company, experiences and qualifications to be enclosed with the offer.
- The company or its **representative / agent** in Egypt should be responsible for the installation, the operation of the equipment, the training of two technicians from the Academy for the use and maintenance of the equipment. Furthermore, it should be able to offer any technical support during the warranty period.
- Offers should be accompanied with **catalogues** (updated version) and manuals explaining the trade mark, model, date and origin of manufacture and any special features of the equipment.
- Together with the equipment, the company should deliver a full copy of the **operation and maintenance manuals** in English Language.
- The company should deliver together with the equipment all **accessories, cables, fittings** necessary for operation (detailed prices should be stated in the quotation).
- The company should state any required preparations that should be made at site before the installation and operation process, for example: any electrical requirements, operation stream, ..
- A list of the spare parts (detailed prices) that could be needed for at least the first year of operation, to be included.
- The company should confirm that any spare parts needed for maintaining the equipment, would be available for at least the first five years.
- Any offer submitted after the closing date of the tender or sent by facsimile or which does not comply with the above terms would be rejected.
- Offers to be submitted in **two sealed envelopes** containing the following:
 - ✓ First envelope: containing the technical proposal (in one original & one copy), the catalogues & the Bid Bond **addressed "Technical Offer"**.
 - ✓ Second envelope: the financial offer (in one original & one copy) **addressed "Financial Offer"**.
- The offer should be handed over to the Academy Site before 12 pm **on 11/6/2015** in a sealed envelope superscripted with the tender number and the due date – and addressed to:

Mr. Amr Ebrahim
Purchasing & Stores Manager
Arab Academy for Science & Technology & Maritime Transport
Abu kir Alexandria - Egypt
Tel: 00 203 5622744
PO Box: 1029 Alexandria, Egypt

رقم المشروع: ENPI/2014/342-443
 اسم المشروع: تطوير شبكة اتصالات بالأقمار الصناعية
 بيان المواصفات الفنية للأصناف المطلوبة

الوصف	البند
<p>DVB-S2 Modulator IP core which implements a DVB-S2 compliant modulator on FPGA. The core should accept an input stream of MPEG2 TS-packets over an ASI interface, and after performing all necessary BB, FEC and PL processing, provides a stream of complex valued samples which are pushed to the HDRM-M modulator block (included) for sample-rate conversion and RRC filtering. Functional blocks include:</p> <ul style="list-style-type: none"> - MPEG2 TS alignment recovery and buffering - Baseband (BB) frame construction - compatible with the ACM, VCM and CCM configurations - BCH and LDPC FEC processing ASI interface for incoming TS-packets - Supports QPSK, 8PSK, 16APSK & 32APSK modulation - Supports VCM operation - Normal and short frame sizes - 1/4, 1/3, 2/5, 1/2, 3/5, 2/3, 3/4, 4/5, 5/6, 8/9, 9/10 code rates - Simple microprocessor interface (SMPI) - Two clocks: one system clock & one ASI interface clock - Test mode traffic generator - Fully synchronous design - to work on FPGA 	<p>DVBS2- -1 Modulator</p>
<p>DVB-S2 Demodulator is core intended for DVB-S2 forward link applications. The demodulator has to be compatible with the ACM, VCM and CCM configurations of the DVB-S2 Standard and is therefore suitable for the reception of DVB broadcast, DSNG, professional and broadband interactive services.</p>	<p>DVBS2- -2 Demodulator</p>
<p>DVB-S2 LDPC and BCH encoder IP core</p> <p>To perform forward error correction as defined within the Standard,</p> <p>features of the decoder has to include :</p> <ul style="list-style-type: none"> - Soft-Decision demapper, block deinterleaver, LDPC encoder, BCH decoder, and descrambler included. - Low-power and low-complexity design. - Frame-to-frame on-the-fly configuration. - AXI4-Stream handshaking interfaces for seamless integration. - Design-time configuration of throughput for optimal resource utilization. 	<p>DVBS2- -3 FEC Encoder</p>

<ul style="list-style-type: none"> - Faster convergence due to layered LDPC decoder architecture. - Early stopping criterion for iterative LDPC decoder, saving a considerable amount of energy. - Configurable amount of LDPC decoding iterations for trading-off throughput and error correction performance. - Collection of statistic information (number of modified bits, number of iterations, encode success). - To support FPGAs (Xilinx, Altera). 	
<p>DVB-S2 LDPC and BCH decoder IP core</p> <p>To performs forward error correction as defined within the Standard.</p> <p>features of the decoder has to include :</p> <ul style="list-style-type: none"> - Soft-Decision demapper, block deinterleaver, LDPC decoder, BCH decoder, and descrambler included. - Low-power and low-complexity design. - Frame-to-frame on-the-fly configuration. <p>AXI4-Stream handshaking interfaces for seamless integration.</p> <ul style="list-style-type: none"> - Design-time configuration of throughput for optimal resource utilization. - Faster convergence due to layered LDPC decoder architecture. - Early stopping criterion for iterative LDPC decoder, saving a considerable amount of energy. - Configurable amount of LDPC decoding iterations for trading-off throughput and error correction performance. - Collection of statistic information (number of modified bits, number of iterations, decode success). - To support FPGAs (Xilinx, Altera). 	<p>DVBS2- -4 FEC Decoder</p>
<p>Two FPGA evaluation kit to test the DVB-S2 modulator, demodulator, encoder and decoder</p>	<p>FPGA and -5 evaluation kits</p>
<p>On demand service to be defined according to need</p>	<p>PCB -6 manufacturing</p>
<p>On demand service to be defined according to need</p>	<p>Electronic -7 components</p>
<p>4 of 8 W BUC Extended ku-band 4 of PLL kuband LNB 4 of 1.2 m Tx/Rx antenna</p>	<p>RF -8 components</p>

<p>1- USB Real Time Spectrum Analyzer UCB signal capture and Software to provide real time spectrum analysis, streaming capture and deep signal analysis capabilities for signals from 9 kHz to 6.2 GHz.</p> <p>2- Compact Handheld Spectrum Analyzer Spectrum analyzer to handle punishing field conditions and allow to monitor, locate, identify, and analyze a broad range of cellular, land mobile radio, Wi-Fi, and broadcast signals.</p> <p>Measurements: Occupied Bandwidth, Channel Power, ACPR, C/I, Spectral Emission Mask</p> <ul style="list-style-type: none">* Interference Analyzer: Spectrogram, Signal Strength, RSSI, Signal ID, Interference Mapping* Tracking Generator* Coverage Mapping* 3GPP Signal Analyzers GSM/EDGE, W-CDMA/HSDPA, TD-SCDMA/HSDPA, LTE* 3GPP2 Signal Analyzers cdmaONE/CDMA2000 1X, CDMA2000 1xEV-DO* IEEE 802.16 Signal Analyzers Fixed WiMAX, Mobile WiMAX* ISDB-T Signal Analyzer* Dynamic Range: > 102 dB in 1 Hz RBW* DANL: -162 dBm in 1 Hz RBW* Phase Noise: -100 dBc/Hz max @ 10 kHz offset at 1 GHz* Frequency Accuracy: <math>\pm 50</math> ppb with GPS On* Resolution Bandwidth (RBW) 1 Hz to 3 MHz	<p>Spectrum- -9 logic analyzers</p>
<p>On demand service to be defined according to need</p>	<p>Spare -10 parts / equipment for machines, tools</p>

1- Rugged laptop		computer or equipment
Hardware & Software	Windows 8 Pro 64-bit Fourth-generation Intel® Core™ i5 Processor or higher	
Durability	Fully-rugged	
Display	13.1" XGA or bigger touchscreen	
Battery	18 hours (27 hours with optional media bay 2nd battery)	
Ports & Expansion	USB x 4, Optional FireWire, SDXC, Ethernet, Optional 2nd LAN (Ethernet), HDMI, VGA, Serial, PC Card, ExpressCard, Headphones, Mic, Dock Connector	
Wireless	Wi-Fi 802.11 a/b/g/n/ac, Bluetooth®, antenna pass through, optional 4G LTE multi carrier, optional dedicated GPS (u-blox)	
2- Rugged tablet		
Hardware & Software	Windows 8 Pro 64 bit Fourth-generation Intel® Core™ i5 Processor or higher	
Durability	MIL-STD-810G, 4-foot drop and all-weather IP65 dust and water resistant design	
Display	10.1-inch, HD daylight-readable, ten point gloved multi touch + digitizer The thinnest and lightest fully-rugged, 10.1-inch, Windows 8.1 tablet	
Interface & Expansion	USB 3.0 + HDMI ports + 11 optional configurations, including a choice of bridge battery, magstripe reader, SmartCard reader, or UHF 900MHz reader. And a choice of barcode, GPS, Serial, Ethernet, MicroSD, or 2nd USB port	
Wireless	Wi-Fi 802.11a/b/g/n/ac, Bluetooth® and Optional integrated 4G LTE multi carrier mobile broadband with satellite GPS	