



## Invitation to Quote

Project Title: MontePN

Procurement title: CORS system equipment

Date: February 11<sup>th</sup>, 2019.

Source of Funding: Faculty of information systems and technologies, Ministry of science, Montenegro

Contract Ref: 01-2301/4

Dear Supplier,

1. You are invited to submit your price quotation for the supply of the following:

Item No.	Name	Unit	Qty
1	CORS system equipment	piece	1

More detailed information on technical specifications is attached.

2. Your price quotation in the form attached may be submitted by hand, mail, facsimile or electronically at the below address (paragraph 6).

3. The deadline for receipt of your quotation by the Purchaser at the addressed indicated in paragraph 6 is: **March 04<sup>th</sup>, 2019, 12:00h local time.**

4. Your quotation in duplicate (if it's not submitted electronically) and in English, should be accompanied by adequate technical documentation and catalogues and other printed material or pertinent information for each item quoted, including names and addresses of firms providing service facilities in Montenegro.

5. Your quotation should be submitted as per the following instructions and in accordance with the attached Contract. The attached Terms and Conditions of Supply is an integral part of the Contract.

(i) **PRICES:** The prices should be quoted in EUR for the Total Cost at final destination Faculty of Information Systems and Technologies, Donja Gorica bb, 81000 Podgorica, Montenegro, which includes all taxes, VAT, customs, duties, inland transportation and insurance, loading, unloading and installation of equipment.

(ii) **EVALUATION OF QUOTATIONS:** Offers determined to be substantially responsive to the technical specifications will be evaluated by comparison of the total price at final destination. The Purchaser will make a decision and notify selected bidder by March 12<sup>th</sup>, 2019.



(iii) AWARD OF PURCHASE ORDER: The award will be made to the bidder offering the lowest evaluated price and that meets the required technical standards. The successful bidder will sign a Contract as per attached form of contract and terms and conditions of supply.

6. Further information can be obtained from address below:

Name: Faculty of Information Systems and Technologies (Biljana Stamatovic)  
Address: Donja Gorica bb, 81000, Podgorica, Montenegro  
Contact email: [biljana.stamatovic@udg.edu.me](mailto:biljana.stamatovic@udg.edu.me)

7. Inspections and Audits

7.1 The Supplier shall carry out all instructions of the Purchaser which comply with the applicable laws where the destination is located.

7.2 The Supplier shall permit, and shall cause its Subcontractors and consultants to permit, the Ministry of Science and/or persons appointed by the Ministry to inspect the Supplier's offices and all accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Ministry if requested by the Ministry.



## **FORM OF CONTRACT**

THIS AGREEMENT number 01-2301/4a made on [REDACTED] between Faculty of Information Systems and Technologies, Montenegro (hereinafter called “the Purchaser”) on the one part and [REDACTED] (hereinafter called “the Supplier”) on the other part.

WHEREAS the Purchaser has invited quotation for Procurement of CORS system equipment to be supplied by Supplier, viz. Contract No.: 01-2301/4a, (hereinafter called “Contract”) and has accepted the Bid by the Supplier for the supply of goods under Contract at the sum of EUR [REDACTED] hereinafter called “the Contract Price”.

NOW THIS AGREEMENT WITNESSETHES as follows:

1. The following documents shall be deemed to form and be read and construed as part of this agreement, viz. :
  - a) Invitation to Quote; Term and Conditions of Supply, Technical Specification;
2. Taking into account payments to be made by the Purchaser to the Supplier as hereinafter mentioned, the Supplier hereby concludes an Agreement with the Purchaser to execute and complete the supply of Contract and remedy any defects therein in conformity with the provisions of Contract.
3. The Purchaser hereby covenants to pay in consideration of the goods supply and acceptance of Contract and remedying of defects therein, the Contract Price in accordance with Payment Conditions prescribed by Contract.

#### **4. Termination**

##### 4.1 Termination for Default

- (a) The Purchaser, without prejudice to any other remedy for breach of Contract, by written notice of default sent to the Supplier, may terminate the Contract in whole or in part:
  - (i) If the Supplier fails to deliver any or all of the Goods within the period specified in the Contract, or within any extension thereof granted;
  - (ii) If the Supplier fails to perform any other obligation under the Contract; or
  - (iii) If the Supplier, in the judgment of the Purchaser has engaged in fraud and corruption, as defined in Clause 5 below, in competing for or in executing the Contract.
- (b) In the event the Purchaser terminates the Contract in whole or in part, the Purchaser may procure, upon such terms and in such manner as it deems appropriate, Goods or Related Services similar to those undelivered or not

performed and the Supplier shall be liable to the Purchaser for any additional costs for such similar Goods or Related Services. However, the Supplier shall continue performance of the Contract to the extent not terminated.

#### 4.2 Termination for Insolvency

- (a) The Purchaser may at any time terminate the Contract by giving notice to the Supplier if the Supplier becomes bankrupt or otherwise insolvent. In such event, termination will be without compensation to the Supplier, provided that such termination will not prejudice or affect any right of action or remedy that has accrued or will accrue thereafter to the Purchaser.

#### 4.3 Termination for Convenience

- (a) The Purchaser, by notice sent to the Supplier, may terminate the Contract, in whole or in part, at any time for its convenience. The notice of termination shall specify that termination is for the Purchaser's convenience, the extent to which performance of the Supplier under the Contract is terminated, and the date upon which such termination becomes effective.
- (b) The Goods that are complete and ready for shipment within thirty (30) days after the Supplier's receipt of notice of termination shall be accepted by the Purchaser at the Contract terms and prices. For the remaining Goods, the Purchaser may elect:
  - (i) To have any portion completed and delivered at the Contract terms and prices; and/or
  - (ii) To cancel the remainder and pay to the Supplier an agreed amount for partially completed Goods and Related Services and for materials and parts previously procured by the Supplier.

### 5. **Fraud and Corruption**

If the Purchaser determines that the Supplier and/or any of its personnel, or its agents, or its Subcontractors, consultants, service providers, suppliers and/or their employees has engaged in corrupt, fraudulent, collusive, coercive or obstructive practices, in competing for or in executing the Contract, then the Purchaser may, after giving 14 days notice to the Supplier, terminate the Supplier's employment under the Contract and cancel the contract, and the provisions of Clause 4 shall apply as if such expulsion had been made under Sub-Clause 4.1.



## 6. Inspections and Audits

6.1 The Supplier shall carry out all instructions of the Purchaser which comply with the applicable laws where the destination is located.

The Supplier shall permit, and shall cause its Subcontractors and consultants to permit, the Ministry of Science and/or persons appointed by the Ministry to inspect the Supplier's offices and all accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Ministry. The Supplier's and its Subcontractors and consultants' attention is drawn to Clause 5 Fraud and Corruption, which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).

**Signature and seal of the Purchaser:**  
FOR AND ON BEHALF OF

**Signature and seal of the Supplier:**  
FOR AND ON BEHALF OF

\_\_\_\_\_  
Name of Authorized Representative

\_\_\_\_\_  
Name of Authorized Representative



## FORM OF QUOTATION

To: Faculty of information systems and technologies, Donja Gorica bb, 81000, Podgorica, Montenegro

**e-mail:** biljana.stamatovic@udg.edu.me

**Telephone:** +382 20 410 777

**Fax:** 382 20 410 766

Date:

We offer to execute the supply of CORS system equipment, number of the contract 01-2301/4a in accordance with the Conditions of Contract accompanying this Quotation for the Contract Price of:

EUR (*insert amount in words and numbers*)

We propose to complete the delivery of Goods described in the Contract until .

This Quotation and your written acceptance will constitute a binding Contract between us. We understand that you are not bound to accept the lowest or any Quotation you receive.

We hereby confirm that this Quotation complies with the Validity of the Quotation required by the proposal documents.

Authorized Signature:

Name and Title of Signatory:

Name of Supplier:

Address:

Phone Number:

Fax Number:

**Terms and Conditions of Supply**

Project Name: MontePN

Purchaser: Faculty of information systems and technologies, address: Donja Gorica bb, 81000, Podgorica, Montenegro

1. Prices and Schedules for Supply

Item	Name	Unit	Qty	Unit Price (includes all taxes, VAT, customs, duties, installation inland transportation and insurance) EUR	Total Price at final destination (includes all taxes, VAT, customs, duties, installation inland transportation and insurance) EUR	Delivery Date
1	CORS system equipment	piece	1			date
<b>TOTAL:</b>						

**Note:** In case of discrepancy between unit price and total derived from unit price, the unit price shall prevail.

2. Fixed Price: The prices indicated above are firm and fixed and not subject to any adjustment during contract performance.
3. The Purchaser reserves the right at the time of contract finalization to increase or decrease by up to 0% the quantity of goods and services originally specified without any change in unit prices as well as other terms and conditions.
4. Delivery Schedule: The delivery and installation should be completed as per above schedule but no later than 45 days after signing the contract with Faculty of Information Systems and Technologies, Donja Gorica bb, 81000, Podgorica, Montenegro;
5. Applicable Law: The Contract shall be interpreted in accordance with the laws of the Purchaser's country.
6. Resolution of Disputes: The Purchaser and the Supplier shall make every effort to resolve amicably by direct informal negotiation any disagreement or dispute between them under or in connection with the Contract. In the case of a dispute between the Purchaser and the Supplier, the dispute shall be settled in accordance with the country procedures.

7. Delivery and Documents: Upon shipment, the Supplier shall notify the Purchaser and the Insurance Company by cable or fax the full details of shipment, including purchase order number, description of goods, quantity, the vessel, the Shipping and Forwarding Receipt from freight Company showing full details, port of loading, date of shipment, port of discharge, etc. The Supplier shall mail the following documents to the Purchaser, with a copy to the Insurance Company:
- (i) copies of the Supplier's invoice showing goods, description, quantity, unit price, and total amount;
  - (ii) duplicate air/ truck transport document and/ or duplicate of railway transport document, and/or duplicate FCR ( Forwarders Certificate of Receipt) in 1 Original and 2 Copies marked «freight prepaid»;
  - (iii) copies of the packing list identifying contents of each package;
  - (iv) manufacturer's or supplier's warranty certificate;
  - (v) certificate of origin;
  - (vi) certificate of quality.
- The above documents shall be received by the Purchaser at least one week before arrival of the goods at the port of place of arrival and, if not received, the Supplier shall be responsible for any consequent expenses.
8. Payment for your invoice will be made as follows: payment will be made 100% on acceptance of the goods and installation completed.
10. Warranty: Goods offered should be covered by manufacturer's warranty for at least 1 year.
11. Packaging and Marking Instructions: The Supplier shall provide standard packing of the Goods as required to prevent their damage or deterioration during transit to their final destination, as indicated in the Contract.
12. Defects: All defects will be corrected by the Supplier without any cost to the Purchaser within 30 day from the date of notice by Purchaser. Name and address of service facility which the defects are to be corrected by the supplier within the warranty period:
13. Force-Majeure: The supplier shall not be liable for penalties or termination for default if and to the extent that its delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force-Majeure. For purposes of this clause, "Force-Majeure" means an events beyond the control of the Supplier and not involving the Supplier's fault or negligence and not foreseeable. Such events may include, but not restricted to, act of Purchaser in its sovereign capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions, and freight embargoes.





If a Force-Majeure situation arises, the Supplier shall promptly notify the purchaser in writing of such condition and the cause thereof. Unless otherwise directed by the Purchaser in writing, the Supplier shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by Force-Majeure event.

14. Required Technical Specifications

- (i) General Description
- (ii) Specific details and technical standards
- (iii) Performance Parameters

Supplier confirms compliance with above specifications (in case of deviations supplier to list all such deviations).

15. Failure to Perform: The Purchaser may cancel the Agreement if the Supplier fails to deliver the Goods, in accordance with the above terms and conditions, in spite of a 21 day notice given by the Purchaser, without incurring any liability to the Supplier.

NAME OF SUPPLIER: \_\_\_\_\_

Authorized Signature: \_\_\_\_\_

Place and Date: \_\_\_\_\_

**Attachment 1**

**Technical specification of CORS system equipment**

	<b>Required by the Purchaser</b>	<b>Offered by the Bidder (Bidder to provide name of the technical specification of offered goods)</b>
CORS station	<p>Signal Tracking            Number of channels: 496            GPS: L1 C/A, L1P, L2C, L2P, L5            BeiDou: B1, B2, B3            GLONASS: L1 C/A, L1P, L2 C/A, L2P            Galileo: E1, E5a, E5b            SBAS: WAAS, EGNOS, MSAS, GAGAN</p> <p>Performance            Cold start: &lt;50s            Warm start: &lt;45s            Hot start: &lt;15s            RTK Initialization time: &lt;10s            Signal reacquisition: &lt;1.5s            Initialization reliability: &gt;99.9%            Velocity accuracy: 0.03m/s            Acceleration: 4g            Overload: 15g            Time accuracy: 20ns</p> <p>Positioning Specifications            PP: 2.5mm+0.5ppm HZ            5mm+0.5ppm V            Long Obs Static: 3mm+0.1ppm HZ            3.5mm+0.4ppm V            SB RTK (&lt;30km): 8mm+0.5ppm HZ            15mm+0.5ppm V            E-RTK (&lt;100km): 0.2m+1ppm H            0.4m+1ppm V            DGPS: 0.4m 3D RMS            SBAS: 1m 3D RMS            Standalone: 1.5m 3D RMS</p> <p>Communications            TNC connector for GNSS antenna            2 DB9M serial connectors            USB port            LAN Ethernet port, NTRIP v2 server            SIM card slot            2 PPS output            Event Marker input</p> <p>Data Format            I/O: RTCM3x(with MSM messages)            Output: NMEA (20Hz), raw binary (100Hz), BINEX</p> <p>Other performances            Weight: &lt;0.8kg</p>	

	<p>Aluminum alloy housing          Designed to survive a 1m drop onto concrete          Remote access and configuration using SSH protocol          Ability to work using dynamic IP address          Ability to connect with meteo station          Smooth DP-Filter          Working temperature: -40°C to + 75°C          Storage temperature: -45°C to + 85°C          Humidity: 95% no condensation          Input voltage: +6V ~ +28VDC          Power consumption: &lt;2.5W</p>	
CORS antenna	<p>Type: Choke Ring          Frequency range:          GPS L1/L2/L5          GLO L1/L2          BDS B1/B2/B3          GAL E1/E2/E5ab/E6          SBAS</p> <p>Impedance: 50 Ohm          Polarization: RHCP          Axial Ratio:&lt;3dB          Azimuth Coverage:360°          Noise Figure: &lt;2          Gain at Zenith:7dBi          Phase Center Accuracy:1mm          LNA Gain: 50dB±2dB          Noise Figure:&lt;2dB          VSWR Output:&lt;2          Operation Voltage:3.3-12VDC          Operation Current:&lt;55mA          Ripple:±2dB          Group Delay:&lt;5ns          Connector: TNC F          Weight:&lt;7kg          Operating Temperature:40°C to +85°C          Storage Temperature:55°C to +85°C          Humidity: 95% No-condensing</p>	
GNSS rover	<p>Signal Tracking          Number of channels: 256          GPS: L1, L2, L2C, L5          BeiDou: B1, B2, B3          GLONASS: L1, L2          Galileo: E1, E5a, E5b          SBAS: WAAS, EGNOS, MSAS, GAGAN</p> <p>Performance          Cold start: &lt;50s          Warm start: &lt;30s          Hot start: &lt;15s          RTK Initialization time: &lt;10s          Signal reacquisition: &lt;1.5s</p>	



	<p>Initialization reliability: &gt;99.9%</p> <p>Velocity accuracy: 0.03m/s</p> <p>Acceleration: 4g</p> <p>Overload: 15g</p> <p>Time accuracy: 20ns</p> <p>Positioning Specifications</p> <p>Post Processing: 2.5mm+0.5ppm HZ 5mm+0.5ppm V</p> <p>Long Obs Static: 3mm+0.1ppm HZ 3.5mm+0.4ppm V</p> <p>SB RTK (&lt;30km): 8mm+0.5ppm HZ 15mm+0.5ppm V</p> <p>E-RTK (&lt;100km): 0.2m+1ppm H 0.4m+1ppm V</p> <p>DGPS: 0.4m 3D RMS</p> <p>SBAS: 1m 3D RMS</p> <p>Standalone: 1.5m 3D RMS</p> <p>Communications</p> <p>4G modem:</p> <ul style="list-style-type: none"> <li>- 4G Bands: 800/900/1800/2100/2600 MHz</li> <li>- 3G Bands: 900/2100 MHz</li> <li>2G Bands: 900/1800 MHz</li> <li>- Support GSM, P2PandNTRIP</li> </ul> <p>Bluetooth®: V 4.0 protocol, compatible with Windows and Android</p> <p>Data Format</p> <p>I/O: RTCM2x, RTCM3x, CMR, CMR+</p> <p>Output: NMEA, raw binary,</p> <p>Other performances</p> <p>Weight: &lt;1kg with batteries</p> <p>Waterproof and dustproof: IP67, protected from temporary immersion to depth of 1 m</p> <p>Shock and Vibration: MIL-STD-810G Standard; Survive a 2 m drop on concrete</p> <p>Working temperature:-40°C to + 65°C</p> <p>Storage temperature:-45°C to + 85°C</p> <p>Humidity:100% no condensation</p> <p>Input voltage:+5V ~ +27VDC</p> <p>Power consumption:&lt;3.1W</p> <p>Li-ion battery capacity:2×2000 mAh, up to 9 hours typically</p> <p>Memory:8 GB</p> <p>Compatible with Carlson SurvCE and Micro Survey Field Genius software</p>	
Data collector	<p>Android 6.0 operating system</p> <p>4.3" capacitive touch screen</p> <p>1.3 GHz processor</p> <p>ROM: 16 GB</p> <p>RAM: 2 GB</p> <p>White backlight keypad</p>	



	<p>8 megapixel camera with autofocus High light Flash LED Dual SIM Dual Standby WLAN 802.11 a/b/g/n/ac SIM 1: 4G: FDD 1/3/7/20, TDD 38/39/40/41 3G: 1/2/5/8/34/39 2G: 2/3/5/8 CDMA: BCO SIM 2: Support GSM850/900/1800/1900 Bluetooth: BT 4.0 USB: Micro USB, OTG Built-in microphone Video Phone Working time: &gt;14 hours (with WIFI, 3G and LCD on) Standby time: 720 hours Working environment: -30 °C to + 60 °C Storage temperature: -30 °C to + 65 °C IP68 standard dustproof and waterproof Shock and vibration: Designed to survive a 0.8 m drop onto concrete;MIL-STD-810G Standard Li-battery capacity: 6500 mAh Extensible TF card, up to 64 GB G-sensor Light-Sensor Proximity-Sensor Compass Gyroscope AC adapter, battery, hand strap and usb cable included</p>	
CORS software	<p>Licensed Designed for mass usage More than 40 CORS stations More than 100 simultaneous user connections Configurable without connection aborts Users, stations and service administration GNSS hardware manufacturer independent Local connections established through serial ports Remote connections established through TCP/IP Pushed-In connections that receive data from another NTRIP Caster passively Pushed-Out connections that actively push data into another NTRIP caster RTCM3x broadcasting Available for Linux OS</p>	