



Republic of the Philippines
WESTERN MINDANAO STATE UNIVERSITY
Zamboanga City
Telephone No.: 062-991-7875
www.wmsu.edu.ph

INVITATION TO BID

The Western Mindanao State University, through its Bids and Awards Committee (BAC), is inviting PhilGEPS registered suppliers to apply for eligibility and to submit bids for the item mentioned hereunder:

- 1.) 3 Units **GPS Receiver**
Specification:
 - * Physical dimensions: 191.5x94.5x44.0mm
 - * Display size: 127.0mm (5.0") diagonal
 - * Display resolution: 800x400 pixels
 - * Display type: Sunlight readable WVGA display
 - * Weight: 450g (with batteries)
 - * Battery: Rechargeable lithium-ion or 3AA
 - * Battery life: up to 16 hours
 - * Water rating: IPX7
 - * Memory/History: 8 GB
 - * Interface: High-speed USB and NMEA 0183 compatible
 - * Touchscreen
 - * High-sensitivity receiver
 - * Preloaded maps

- 2.) 1 Unit **Theodolite Transit**
Specification:
 - * Telescope with 26x magnification
 - * Rating of IP-66 against dust and water
 - * Single backlit LCD display
 - * Operating Time with Laser: at least 45 hours
 - * Accuracy: 9 seconds
 - * Horizontal and Vertical measurements
 - * Laser point range: 165'
 - * Optical plummet
 - * Bubble level
 - * Operating Temp. - 20°C - 50°C
 - * To includes:
 - Theodolite with laser printer
 - Plumb bob
 - Tool Kit
 - Lint free cloth
 - Waterproof protective cover
 - Hand carrying case

- 3.) 5 Units **Abney Hand Level**

Specification:

- * 5-1/4" long with radius arc
- * graduated 0 to 90 degrees in both direction
- * vernier reading to 10 minutes
- * percent of grade scale from 0% to 100%
- * with complete cordura belt loop case

4.) 5 Units **Microscope Repair Magnifier 500x USB Digital Holder Soldering Stand Lamp**

Specification:

- * Magnification: Ratio 500x
- * Viewable Area: 0.5 x 0.6mm
- * Lens Distance: 3-4mm range
- * Light source: 8 LED with control wheel (adjustable)
- * Fixed base made of Metal bracket
- * Bracket: can rotate 360°
- * PC Interface: USB 1.1 to 3.0

5.) 2 Units **Digital Psychrometer Kit**

Specification:

Humidity:

- * Range: 10 to 90% RH
- * Max. Resolution: 0.1% RH
- * Accuracy: $\pm 3\%$ RH

Temperature (internal)

- * Range: -4 to 122°F (-20 to 50°C)
- * Resolution: 0.1°
- * Accuracy: $\pm 1^\circ$ F or $\pm 0.6^\circ$ C
- * Temperature (external):

- * Range: -4 to 158°F (-20 to 70°C)
- * Resolution: 0.1"
- * Accuracy: $\pm 1^\circ$ F or $\pm 0.6^\circ$ C

Temperature (external)

- * Range: -4 to 158°F (-20 to 70°C)
- * Resolution: 0.10
- * Accuracy: $-/+ 10^\circ$ F or $-/+ 0.60^\circ$ C
- * Dew Point: -90.4 to 122°F (-68.0 to 49.9°C)
- * Wet Bulb: -6.9 to 122°F (-21.6 to 49.9°C)
- * Dimensions: 7x1.9x1" (178.5x48.4x24.7mm)
- * Weight: 3.3oz (95g)

6.) 1 Unit **Digital Soil Moisture, Temperature & Salinity Meter**

Specification:

Soil Moisture

- * Range: 0 to 100%
- * Accuracy: $\pm 2\%$
- * Response time: 3 sec.

Soil Temperature -

- * Range: 40°F to 150°F
- * Accuracy: $\pm 1.5^\circ$ F
- * Response time: 60 sec.

Salinity

- * Range: 0 to 100 cS/m*
- * Accuracy in water: ± 2 cS/m*
- * Accuracy in Soil: ± 10 cS/m (centi-Seimans/meterp; 10cS/m = 1mmho/cm2)
- * Response time: 5 sec.

Feature:

- * Records up to 4,096 measurements
- * USB and RS-232 output for transfer to a PC
- * Built-in stand with wall-mounted option allows for easy benchtop measurement and storage
- * Water proof housing, ideal for field testing and laboratory
- * Large backlit LCD to view main measurement simultaneous with temperature
- * Autofocal feature permit one calibration point per measurement range
- * With ATC to ensures measurement accuracy even in fluctuating temperature
- * Can connect to any GPS receiver with a serial output option

7.) 1 Sets

Canopy Imager

Specification:

- * Lens: Equidistant wide-angle lens
- * Fish-eye lens Angle: 150
- * Image Resolution: 8 megapixels
- * Interface: 7" capacitive touchscreen
- * Keypad: 6 button, trigger-release capture
- * Measuring time: 0.5 second
- * Operating Temperature: 5°C to 50°C

8.) 1 Unit

Digital Electronic Precision Balance

Specification:

- * Capacity: 20 mg - 200g
- * Accuracy: 0.001g / 1mg
- * Repeatability Error: ± 0.002 g /2mg
- * Non-Linear Error: ± 0.002 g /2mg
- * Pan Size: at least 90mm
- * Power: 220V, 60Hz

9.) 4 Units

Digital Soil Thermometer

Specification:

- * Reading update every 10 second
- * 4-3/4 inch stainless steel probe
- * Range: -58 to 572°F (-50 to 300°C)
- * Resolution: 0.10
- * Accuracy: $\pm 0.4^\circ\text{C}$ or $\pm 1^\circ\text{C}$
- * Dimension: 4-3/4 inch stem length, 0.19 inch stem diameter

10.) 1 Unit

Drone (Aerial Monitoring)

Specification:

AIRCRAFT

- * Takeoff Weight: 1391g
- * Diagonal Distance: 350mm
- * Max Service Ceiling Above Sea Level: 1968ft (6000m)
- * Max Speed: 31mph (50lph) (p-mode), 36 mph (58kph)(A-mode)

- * Max Flight Time: Approx. 30 minutes
- * Operating Temperature Range: 32° to 104°F (0° to 40°C)
- * Operating Frequency: 2.400GHz to 2.483GHz (Europe, Japan, Korea)
5.725GHz to 5.850GHz (United States, China)
- * Hover Accuracy Range: T=RTK enabled and functioning properly:
Vertical $\pm 0.1\text{m}$; Horizontal: ± 0.1
- * RTK disabled: Vertical: $\pm 0.1\text{m}$ (with vision positioning); $\pm 0.5\text{m}$
(with GNSS positioning) Horizontal: $\pm 0.3\text{m}$ (with vision positioning);
 $\pm 1.5\text{m}$ with GNSS positioning)
- * Image Position Offset: The position of the camera center is relative to the phase center of the onboard D-RTK antenna under the aircraft body Axis: (36, 0 and 192mm) already applied to the image coordinates in Exif data. The positive x, y and z axes of the aircraft body point to the forward, rightward and downward of the aircraft respectively.

VISION SYSTEM

- * Velocity Range: ≤ 31 mph (50kph) at 6.6 ft (2m) above ground with adequate lighting
- * Altitude Range: 0-33 ft (0-10m)
- * Operating Range: 0-33ft (0-10m)
- * Obstacle Sensing Range: 2-98 ft (0.7-30m)
- * Field of View (FOV): Forward/Rear: 60° (horizontal), $\pm 27^\circ$ (vertical)
Downward: 70° (front and rear), 50° (left and right)
- * Measuring Frequency: Forward/Rear: 10 Hz, Downward: 20Hz
- * Operating Environment: Surface with clear patterns and adequate lighting (>15 lux)

CAMERA

- * Sensor: 1" CMOS; Effective Pixels: 20 M
- * Lens: FOV 84° 8.8 mm/24mm (35mm format equivalent: 24mm);
f/2.8-ft/11, auto focus at 1m^∞
- * ISO Range: Video: 100-3200(Auto), 100-6400 (Manual); Photo: 100-3200 (Auto); 100-12800 (Manual)
- * Mechanical Shutter Speed: 8-1/2000 s
- * Electronic Shutter Speed: 8-1/8000 s
- * Max Image Size: 4864x3648 (4:3); 5472x3648 (3:2)
- * Video Recording Modes: H.264, 4K: 3840x2160 30p
- * Photo Format: JPEG
- * Video Format: MOV
- * Supported File systems: FAT32 (≤ 32 GB): exFAT (.32 GB)
- * Supported SD Cards: MicroSC, Max Capacity: 128 GB. Class 10 or UHS-1
- * Operating Temperature Range: 32° to 104°F (0° to 40°C)

11.) 2 Units

Laser Dendrometer

Specification:

- * BAF measurement range: 1 to 127ft 2/acre (0.2 to 39.0m²/hectare)
- * Diameter accuracy: $\pm 1/4''$ up to 80' (± 6 mm up to 24m)
- * Diameter measurement range: 2" to 100" (5cm to 254cm)
- * Inclination accuracy: $\pm 0.1^\circ$ typical
- * Inclination measurement range: $\pm 90^\circ$
- * Height Measurement resolution: 0.1' (3cm)

- * Optics: Normal, 1x; magnified, 2.4x
- * Data communications: serial RS 232 input/output
- * Operating temperature: -22°F to 1'40°F (-30°C to 60°C)
- * Power: 2 AA or 1 CRV3; 30V DC nominal (included)
- * Dimensions: 2.75"W x 2"D x 6.5"L
- * Weight: 1.1 lbs

12.) 2 Units

Altimeter

Specification:

- * Height and slopes measurements are made simple with these six scales.
Required Scales Baseline Distance Measuring
- * Range1 chain=66'66'-27 to 144' 15 15 ft., yds.,
- * or m-6 to +26ft., yds., or m 20 20 ft.,
- * or m-8 to 34ft.,yds., or m25 25 ft., yds.,
- * or m-10 to +43ft., yds., or m 30 30 ft., yds
- * or -12 to +52 ft., yds.
- * or m percent any distance in ft., -40 to +150% of baseline yds., or m distance.

13.) 1 Unit

Water Flow Probes

Specification:

- * Range: 0.3-19.9 FPS (0.1 to 6.1 MPS)
- * Accuracy: Average velocity ± 0.1 FPS
- * Averaging: Digital running average
- * Display: LCD
- * Operating Temperature: 4° to 158°F (-20°C to 70°C)
- * Sensor Type: Protected Turbo-Prop Propeller with electromagnetic pick-up
- * Probe size: Expand from 3' to 6' or 5' to 15'
- * Sensor Housing: 2" in dia x 3" length
- * Made of PVC handle and propeller housing Anodized Aluminum Shaft, stainless steel bearing.

The criteria to be used for the eligibility check of the prospective bidders, examination and evaluation of bids, post-qualification and all matters relevant to this procurement shall be in accordance with Republic Act. No. 9184 (The Government Procurement Reform Act) and its Implementing Rules and Regulations.

Interested bidders may obtain further information from WMSU BAC Secretariat regarding the checklist of eligibility and technical requirements.

IMPORTANT NOTICE FOR BIDDERS:

1. Bidding papers may be acquired starting September 17 until October 15, 2021 from the BAC Office or download from website (www.wmsu.edu.ph). The WESTERN MINDANAO STATE UNIVERSITY shall allow the bidder to present its proof of payment for the Bidding Documents fees before the submission of their bids, pursuant to the latest Guidelines issued by the GPPB, in the amount of Five Thousand Pesos (Php.5,000.00). (Please attached the machine copy of the Official Receipt)

2. All bidders' are required to post a Bid Security, at least Two (2%) Percent of the ABC in the form of Cash, Cashier's Check or Manager's Check or may submit Bid Securing Declaration. Bids without Bid Security will not be considered.
3. The Bidder shall prepare an original of the Eligibility Documents & Technical Components and original of Financial Proposal and clearly mark each "ORIGINAL – ELIGIBILITY DOCUMENTS and TECHNICAL COMPONENTS", and "ORIGINAL – FINANCIAL PROPOSAL", respectively. Bidders shall submit one (1) set of the first and second components of its bid. State the unit price of each item and the total bid price and also state the shortest time of delivery and submit your quotation duly signed by your representative in a sealed envelope.
4. Pre-Bid Conference will be on **September 28, 2021, 10:00 AM** at BAC Office, WMSU, Ground Floor Executive Building, Zamboanga City and/or through video conferencing or webcasting via Zoom, which shall be open to prospective bidders.
5. Bid Submission will be on or before **October 15, 2021 at 10:00 A.M.** through **Manual Submission.**
6. Bid opening shall be on **October 15, 2021** at 10:00 A.M. at BAC Office, Ground Floor Executive Building, WMSU, Zamboanga City, Philippines, 7000. Bids will be opened in the presence of the Bidders representatives who choose to attend at the address above. Late bids shall not be accepted.
7. Price validity shall be for a period of 120 calendar days.
8. Bidders shall submit original brochures showing certifications of the product being offered.
9. Warranty shall be for a period of Six (6) months for supplies and materials. One (1) year for equipment, from date of acceptance by WESTERN MINDANAO STATE UNIVERSITY.
10. Bids received in excess of the ABC shall be automatically rejected at Bid Opening.

The WESTERN MINDANAO STATE UNIVERSITY reserves the right to reject any or all Bids and to accept the bid most advantageous to the government, and to award the contract by lot, if warranted.