



Republic of the Philippines
SOUTHERN LUZON STATE UNIVERSITY
Lucban, Quezon

REQUEST FOR QUOTATION

LIGHT SENSOR AND DATA LOGGER (ORS)

Purchase Request No. 2024-07-1617

Approved Budget for the Contract: ₱325,000.00

The Southern Luzon State University through the Bids and Awards Committee invites interested firms/supplier to submit quotation for the procurement of **Light Sensor and Data Logger (ORS)** to apply the sum of **Three Hundred Twenty Five Thousand Pesos Only (₱ 325,000.00)** inclusive of VAT, being the **Approved Budget for the Contract (ABC)**, details as follows:

Qty.	Unit	ITEM/S DESCRIPTION
1	set	Photosynthetic active radiation (PAR) meter and continuous PAR measurements logger, plus 1 unit of PAR meter (Quantum sensor, for control experiment)
		*see attached document for specifications

1. The quotation must be submitted (can also be send thru email at the contact details listed below) or to the Office of the Procurement Office/Bids and Awards Committee, Southern Luzon State University, 2nd Flr. Hermano Puli Building, and shall be received by the Committee.

E-mail : slsuprocurement@slsu.edu.ph

2. The SLSU reserves the right to reject any or all quotations and/or proposals and waive any formalities/ informalities therein and to accept such bids it may consider as most advantageous to the agency and to the government. Southern Luzon State University SLSU neither assumes any obligation for whatsoever losses that may be incurred in the preparation of bids, nor does it guarantee that an award will be made.


MAR DEL C. ZABELLA
Head, Procurement Office
Southern Luzon State University
Lucban, Quezon
Tel. No.: (042)540-6519

Procurement of 1 set of Photosynthetic Active Radiation meter for Research Project between SLSU- Tiaong and Bukid Amara entitled, "Influence of Supplemental Lighting on the Optimum Growth of Japanese Melon (Cucumis melo cultivar earls muskmelon)

1) Quantum Sensor

Description: Light sensor capable of measuring Photosynthetic Active Radiation

Specification:

Detector:	High stability silicon photo-voltaic detector (blue enhanced)
Wavelength Range:	400 to 700 nm
Absolute Calibration:	± 5% traceable to the U.S. National Institute of Standards and Technology (NIST)
Sensitivity:	Typically, 5 μ A to 10 μ A per 1,000 μ mol s ⁻¹ m ⁻²
Linearity:	Maximum deviation of 1% up to 10,000 μ mol s ⁻¹ m ⁻²
Response Time:	Less than 1 μ s (2 m cable terminated into a 604 Ohm load)
Temp. Dependence:	± 0.15% per °C maximum
Cosine Correction:	Cosine corrected up to 82° angle of incidence.
Azimuth:	< ± 1% error over 360° at a 45° elevation
Tilt:	No error induced from orientation
Operating Temp. Range:	-40 to 65 °C
Operating Humd. Range:	0% to 95% RH (non-condensing)
Sensor Housing:	Weatherproof anodized aluminum body with acrylic diffuser and stainless steel hardware; O-ring seal on the sensor base
Size:	2.36 cm diameter × 3.63 cm (0.93" × 1.43")
Weight:	24 g head; 60 g base/cable (2 m) with screws
Cable Length:	2 m, 5 m, 15 m, 50 m (6.5', 16.4', 49.2', 164')

2. Light Sensor Data Logger

Description:

- Connects to LI-COR terrestrial and underwater light sensors.
- Weather-resistant, handheld operation
- Intuitive, menu-driven interface

Specifications:

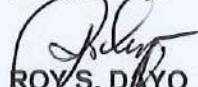
Current Inputs:	3 BNC connectors (used to connect LI-COR sensors)
Output Channels:	
Light	
Math Channels	: 8 math channels (addition, subtraction, multiplication, division, natural logarithm, integration, daily integration, attenuation)
GPS (optional)	
Prompt	
Battery Voltage	
Input Channel specifications:	
Frequency Rejection:	>70dB at 50 or 60 Hz (1 input channel @ sampling rates of 1, 2, 5, 10, 20Hz)
Current Accuracy:	±0.3% of full scale reading @25°C
Raw Mode (1 – 500 Hz):	Selectable Range

Standard Modes (Continual, Manual, Daily, One Time):	Auto range for total sampling rate ≤ 3 Hz (ex. 1 Hz sampling on 3 input channels) Fixed range (selectable) for total sampling rates > 3 Hz (e.g. 2 Hz sampling on 2 input channels)
Sampling Rates:	
Standard Modes:	0.01 Hz, 0.1 Hz, 1 Hz, 2 Hz, 5 Hz, 10 Hz, 20 Hz
Raw Mode:	1 – 500 Hz (1 Hz through 500 Hz in whole number increments)
Logging Rates:	
Standard Modes sampling:	Every Sample, 100 msec, 200 msec, 500 msec, 1 sec, 5 sec, 10 sec, 15 sec, 30 sec, 60 sec, 100 sec, 5 min, 15 min, 30 min, 1 hr, 2 hr, 3 hr, 6 hr, 12 hr, 24 hr
Raw Mode Sampling:	Every sample (1 - 500 Hz)
Averaging:	
Raw Mode Sampling:	No averaging
Display:	128 x 64 graphics display
Real-Time Clock:	Year, Month, Day, Hour, Minute, Seconds Accuracy of ± 3 minutes per month
Data Storage Capacity:	1 GB (FAT16 file system)
Communications:	USB (as mass storage device)
Global Positioning System (Option) — GPS RADIONOVA® RF Antenna Module:	
Horizontal position accuracy:	2.5 m CEP (50% Circular Error Probability, Open-Sky, 24hr Static, good view of the sky).
Maximum position update rate:	1 Hz.
GPS receiver sensitivity, autonomous acquisition:	-148dBm. WAAS enabled receiver Time to first fix (TTFF), hot start: 1 second.
TTFF, warm start:	6 seconds (typical).
TTFF, cold start (with good view of the sky):	37 seconds at 90% probability.
Power Supply Options:	4 "AA" size batteries USB, AC-DC power adapter USB, external battery power pack (customer supplied)
Battery Life:	80 hours life (typical usage of 1 Hz sampling rate and logging rate) 40 hours life (typical usage with GPS option on)
Operating Temperature Range:	20 to 50°C
Humidity Range:	0 to 95% RH (non-condensing conditions)
Storage Temperature Range:	40 to 65°C
Size:	20.9 x 9.8 x 3.5 cm (8.2" x 3.9" x 1.4")
Weight:	0.454 kg (1.0 lb) with batteries
Signal range:	

Range #	Current range	Resolution (typical)
1	0 - 0.250 micro-amps	0.0305 nano- amps
2	0- 2.50 micro-amps	0.1525 nano-amps
3	0- 25 micro- amps	1.525 nano-amps
4	0- 250 micro-amps	15.25 nano-amps

** Mounting and Leveling Fixture 2003S

Prepared by:


ROY S. DIYO
 Project Leader