



# UNIVERSITY OF SCIENCE AND TECHNOLOGY OF SOUTHERN PHILIPPINES

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## OFFICE OF THE BIDS AND AWARDS COMMITTEE IV

### Section VI. Schedule of Requirements

The delivery schedule, expressed in weeks or months, indicates the required delivery date which shall be understood as the date the Goods are to be delivered to the project site.

| Item Number | Description                                                                                                                                                                                                                                                                                                                                                                                                                                                      | Quantity | Total | Delivery Schedule        |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|-------|--------------------------|
| 1           | <b>EMBEDDED SECURITY, INTERFACE AND MONITORING MODULE</b><br><br>- Integrated monitoring and security system with 10-inch industrial HMI, environmental sensors, access control (RFID and facial recognition), 1080p IP camera with 128 GB storage, alarm system, and $\geq 1$ kVA UPS, providing real-time monitoring, data acquisition, secure access, and supervisory control via Modbus and TCP/IP communication interfaces.                                 | 1        | unit  | Sixty (60) Calendar Days |
| 2           | <b>INTEGRATED PRECISION COOLING AND THERMAL MANAGEMENT SYSTEM</b><br><br>- Hybrid precision cooling system with minimum 1.3 TR capacity utilizing DX refrigeration (R410A), liquid cooling loop, and PCM thermal storage (~50 kg). Includes radiator-based heat rejection, IoT-controlled exhaust, and instrumentation, capable of maintaining $\leq 27^{\circ}\text{C}$ cabinet temperature under 3 kW IT load with adaptive, energy-efficient thermal control. | 1        | unit  | Sixty (60) Calendar Days |

*Schedule of Requirements – Proposed Procurement of the Supply and Delivery for aiRack: AI-Driven Hybrid-Powered Smart Data Cabinet with Intelligent Thermal and Power Management for Sustainable IT Operations for USTP-CDO Campus CY 2026*

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|-------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---|------|--------------------------|
| 3                       | <b>INTELLIGENT POWER AND HYBRID ENERGY SYSTEM</b><br><br>- Intelligent hybrid power system with minimum 12 kW inverter capacity, integrated MPPT supporting $\geq 12$ kWp solar PV, and 48 VDC 100 Ah LiFePO4 battery storage. Includes complete protection, grounding, distribution, and metering, capable of continuous operation with hybrid solar, grid, and battery supply and monitored energy management.                                                                         | 1 | unit | Sixty (60) Calendar Days |
| 4                       | <b>SERVER RACK WITH INTEGRATABLE AI-ENABLED MICROCONTROLLER SWITCHES</b><br><br>- 19-inch rack-mounted AI-enabled smart cabinet system, minimum 42U galvanized steel enclosure ( $\geq 1000$ mm depth), with integrated mounting, thermal insulation, rack PDU, KVM console, 10-inch HMI, access control, surveillance, AI controllers ( $\geq 20$ TOPS each), microcontrollers, rack server, networking devices, and centralized AI-based monitoring, control, and data logging system. | 1 | unit | Sixty (60) Calendar Days |
| *** Nothing Follows *** |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |   |      |                          |

I hereby verify to comply with all the above requirements.

\_\_\_\_\_  
Signature over printed name of the authorized representative

\_\_\_\_\_  
Company name

\_\_\_\_\_  
Date

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