



West Visayas State University

(Formerly Iloilo Normal School)

Procurement Division/ Bids and Awards Committee Secretariat Office

Luna St., La Paz, Iloilo City 5000

Iloilo, Philippines

* Trunkline: (063) (033) 320-0870 loc1103/1104 * Telefax No.: (033) 320-0879

* Website: www.wvsu.edu.ph * Email Address: bac@wvsu.edu.ph



SUPPLEMENTAL/BID BULLETIN

Project Reference No.	IB No. 2023-42
Name of the Project	<u>Procurement of Fourier-Transform Infrared (FTIR) Machine for the Infrastructure and Smart Campus Development, Operationalization of Face-to-Face Classes and Upgrading/ Procurement of Equipment</u>
Location of the Project	WVSU - Main Campus

ADDENDUM NO. 2023-34

October 10, 2023

This **Addendum No. 2023-34** is issued to modify the **Section I. Invitation to Bid and Section VII. Technical Specifications**. This shall form an integral part of the Bidding Documents.

I. Section VII. Technical Specifications:

Item No.	Description			Corrections/ Amendments/ Instructions		
1.	Fourier-Transform Infrared (FTIR) Machine			Fourier-Transform Infrared (FTIR) Machine		
	Please specify brand and model:			Please specify brand and model:		
	Quantity/Unit: 1 unit			Quantity/Unit: 1 unit		
	Unit Cost: Php1,549,000.00			Unit Cost: Php1,549,000.00		
	Optical Performance			Optical Performance		
	Wavelength Range	8,300-350 cm^{-1} optimized, proprietary KBr beamsplitter	6500-550 cm^{-1} with ZnSe optics	Wavelength Range	8,300 - 350 cm^{-1} optimized, proprietary KBr beamsplitter (Should come as standard with the unit)	6500-550 cm^{-1} with ZnSe optics (optional optics)
	Spectral Resolution	0.5 cm^{-1} standard		Spectral Resolution	0.5 cm^{-1} standard	
	Wavelength Precision	Better than 0.01 cm^{-1} at 3000 cm^{-1}		Wavelength Precision	Better than 0.01 cm^{-1} at 3000 cm^{-1}	
				Wavelength Accuracy	0.1 cm^{-1} at 3000 cm^{-1}	
	Signal-to-noise	9,300:1 peak-peak, 5 seconds 32,000:1 peak-peak, 1 minute	14,500:1 peak-peak, 5 seconds 50,000:1 peak-peak, 1 minute with optional performance pack	Signal-to-noise	9,300:1 peak-peak, 5 seconds 32,000: peak-peak, 1 minute (For KBr Beam splitter)	14,500:1 peak-peak, 5 seconds 50,000:1 peak-peak, 1 minute with optional performance pack (For ZnSe optics)
	Optical System			Optical System		
	General - Long-life sealed and desiccated optical unit safe guard design for the optics, Vibration isolated baseplate			General - Long-life sealed and desiccated optical unit safe guard design for the optics, Vibration isolated baseplate		
	Interferometer - Rotary Michelson interferometer, High stability, self-compensating for dynamic alignment changes due to a tilt and shear			Interferometer - Rotary Michelson interferometer, High stability, self-compensating for dynamic alignment changes due to a tilt and shear		



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Item No.	Description	Corrections/ Amendments/ Instructions
	Optics <ul style="list-style-type: none"> Kinematically mounted, zero alignment optics, with high reflectivity and a low-angle off axis design. Have a safeguard system for extended desiccant life and additional optical component protection. 	Optics <ul style="list-style-type: none"> Kinematically mounted, zero alignment optics, with high reflectivity and a low-angle off axis design. Have a safeguard system for extended desiccant life and additional optical component protection.
	Detectors <ul style="list-style-type: none"> High linearity room temperature detector (standard) Temperature-stabilized room temperature DTGS detector optional 	Detectors <ul style="list-style-type: none"> High linearity room temperature detector (standard) Temperature-stabilized room temperature DTGS detector optional
	Source Long-life source with proprietary hot-spot stabilization. User replaceable from outside instrument.	Source Long-life source with proprietary hot-spot stabilization. User replaceable from outside instrument.
	Beamsplitter <ul style="list-style-type: none"> Proprietary extended range KBr. 	Beamsplitter <ul style="list-style-type: none"> Proprietary extended range KBr.
	Desiccant <ul style="list-style-type: none"> Long-life desiccant system accepts disposable packs. Software controlled desiccant status indicator 	Desiccant <ul style="list-style-type: none"> Long-life desiccant system accepts disposable packs. Software controlled desiccant status indicator
	Validation <ul style="list-style-type: none"> Software controlled validation wheel option containing a polystyrene reference material, traceable to a NIST standard for wavenumber accuracy and a Schoott NG11 filter for ordinate repeatability 	Validation <ul style="list-style-type: none"> Software controlled validation wheel option containing a polystyrene reference material, traceable to a NIST standard for wavenumber accuracy and a Schoott NG11 filter for ordinate repeatability
	Optical Windows <ul style="list-style-type: none"> KBr (standard), ZnSe option for exceptionally high humidity environments. 	Optical Windows <ul style="list-style-type: none"> KBr (standard), ZnSe option for exceptionally high humidity environments.
	Data System and Electronics	Data System and Electronics
	Signal Sampling <ul style="list-style-type: none"> Over-sampling delta-sigma converter 	Signal Sampling <ul style="list-style-type: none"> Over-sampling delta-sigma converter
	Communication <ul style="list-style-type: none"> USB, wireless and TCP/IP interface allows direct connection with LAN Instruments can be configured with wireless router communication 	Communication <ul style="list-style-type: none"> USB, wireless and TCP/IP interface allows direct connection with LAN Instruments can be configured with wireless router communication
	Calibration Transfer <ul style="list-style-type: none"> Absolute Virtual Instruments (AVI) option, actively standardizes instrument response to further improve repeatability and protect data integrity 	Calibration Transfer <ul style="list-style-type: none"> Absolute Virtual Instruments (AVI) option, actively standardizes instrument response to further improve repeatability and protect data integrity
	Atmospheric Compensation <ul style="list-style-type: none"> Minimizes effect of atmospheric water and CO2 on the sample spectra without the need for reference or calibration spectra. Operates at various instruments setting without having to recalibrate to correction. 	Atmospheric Compensation <ul style="list-style-type: none"> Minimizes effect of atmospheric water and CO2 on the sample spectra without the need for reference or calibration spectra. Operates at various instruments setting without having to recalibrate to correction.
	Accessory Recognition <ul style="list-style-type: none"> Spectrum Two accessories are automatically detected as soon as they are locked into the sampling area. Instruments parameters are optimized for the installed accessory. Accessories information stored with special data 	Accessory Recognition <ul style="list-style-type: none"> Accessories are automatically detected as soon as they are locked into the sampling area. Instrument parameters are optimized for the installed accessory. Accessories information stored with spectral data.



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Item No.	Description	Corrections/ Amendments/ Instructions
	<p>Error Trapping</p> <ul style="list-style-type: none"> All sample spectra are checked for common spectroscopic and sampling problems. Key Instrument components are continuously monitored 	<p>Error Trapping</p> <ul style="list-style-type: none"> All sample spectra are checked for common spectroscopic and sampling problems. Key Instrument components are continuously monitored
	<p>Component Checks</p> <ul style="list-style-type: none"> Individual component checks under software control can be executed on-demand or automatically scheduled at preset time/intervals 	<p>Component Checks</p> <ul style="list-style-type: none"> Individual component checks under software control can be executed on-demand or automatically scheduled at preset time/intervals
	<p>Powersave mode</p> <ul style="list-style-type: none"> Instruments standby and power-up can be automatically scheduled 	<p>Powersave mode</p> <ul style="list-style-type: none"> Instruments standby and power-up can be automatically scheduled
	<p>Bench Details</p>	<p>Bench Details</p>
	<p>Size</p> <ul style="list-style-type: none"> Not greater than 450mm x 30mm x210 mm (W x D x H) 	<p>Size</p> <ul style="list-style-type: none"> Not greater than 450mm x 30mm x210 mm (W x D x H)
	<p>Weight</p> <ul style="list-style-type: none"> Not greater than 13kg 	<p>Weight</p> <ul style="list-style-type: none"> Not greater than 13kg
	<p>Power Supply</p> <ul style="list-style-type: none"> Universal voltage power supply enables operation from mains. Optional rechargeable battery pack for remote operation, chargeable from mains or car battery. Optional power pack also serves as an Uninterrupted Power Supply (UPS). 	<p>Power Supply</p> <ul style="list-style-type: none"> Universal voltage power supply enables operation from mains. Optional rechargeable battery pack for remote operation, chargeable from mains or car battery. Optional power pack also serves as an Uninterrupted Power Supply (UPS).
	<p>Operating Range</p> <ul style="list-style-type: none"> 5-45°C 	<p>Operating Range</p> <ul style="list-style-type: none"> 5-45°C
	<p>Typical desiccant lifetime</p> <ul style="list-style-type: none"> 5 years at 25°C and 90% relative humidity 	<p>Typical desiccant lifetime</p> <ul style="list-style-type: none"> 5 years at 25°C and 90% relative humidity
	<p>Software</p>	<p>Software</p>
	<p>General</p> <p>A single software platform incorporates all of the functions required for infrared; instrument control, data manipulation and analysis, and flexible report utilities. A suite of optional software packages provides advanced capabilities or functions designed for specific application areas. Optional Spectrum Touch functionally optimized for touchscreen operation allows simple user interface for turnkey operation with selected applications. Software meets the technical requirements for the FDA's 21 CFR Part 11 with SQL database audit trail and data storage/retrieval.</p>	<p>General</p> <p>A single software platform incorporates all of the functions required for infrared; instrument control, data manipulation and analysis, and flexible report utilities. A suite of optional software packages provides advanced capabilities or functions designed for specific application areas. Optional Touch functionally optimized for touchscreen operation allows simple user interface for turnkey operation with selected applications. Software meets the technical requirements for the FDA's 21 CFR Part 11 with SQL database audit trail and data storage/retrieval.</p>
	<p>Sample Table</p> <ul style="list-style-type: none"> Increase productivity by enabling multiple samples to be defined in batches facilitating continuous operation. 	<p>Sample Table</p> <ul style="list-style-type: none"> Increase productivity by enabling multiple samples to be defined in batches facilitating continuous operation.



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Item No.	Description	Corrections/ Amendments/ Instructions
	<p>User Interface</p> <ul style="list-style-type: none"> - Password-protected user login function. Access to methods and routines, menu, toolbar and toolbox functions can be controlled by a supervisor 	<p>User Interface</p> <ul style="list-style-type: none"> - Password-protected user login function. Access to methods and routines, menu, toolbar and toolbox functions can be controlled by a supervisor
	<p>Reports</p> <ul style="list-style-type: none"> - Quick print facility for graphs, spectra and result windows. User defined templates can be created to enable custom printed and electronic reports. Send to Word functions for simple formatting via Microsoft Word. 	<p>Reports</p> <ul style="list-style-type: none"> - Quick print facility for graphs, spectra and result windows. User defined templates can be created to enable custom printed and electronic reports. Send to Word functions for simple formatting via Microsoft Word.
	<p>Processing</p> <ul style="list-style-type: none"> - 1st-4th derivative with a variable filter, smooth (Savitsky-Golay, moving average and triangular), difference, normalization, A, %T, %R, KM, LOG (1/R), ordinate modes, cm^{-1}, nm and micron abscissa modes, +, -, *, /, difference, baseline correction, smooth, deconvolution, normalize, interpolate, blank, Kramers-Kronig, ATR correction, peak table, peak height, and peak area. Cell Pathlength data command, enables effective handling of cell pathlength with demountable transmission cells. 	<p>Processing</p> <ul style="list-style-type: none"> - 1st-4th derivative with a variable filter, smooth (Savitsky-Golay, moving average and triangular), difference, normalization, A, %T, %R, KM, LOG (1/R), ordinate modes, cm^{-1}, nm and micron abscissa modes, +, -, *, /, difference, baseline correction, smooth, deconvolution, normalize, interpolate, blank, Kramers-Kronig, ATR correction, peak table, peak height, and peak area. Cell Pathlength data command, enables effective handling of cell pathlength with demountable transmission cells.
	<p>Materials Testing</p> <ul style="list-style-type: none"> - With spectral comparison algorithm and Eucidean searching. Spectral searching against commercially available or customer-developed libraries. 	<p>Materials Testing</p> <ul style="list-style-type: none"> - With spectral comparison algorithm and Eucidean searching. Spectral searching against commercially available or customer-developed libraries.
	<p>Quantitative Analysis</p> <ul style="list-style-type: none"> • Single frequency, method development software. Spectrum includes Beer's Law, and chemometrics-based quantitative prediction. 	<p>Quantitative Analysis</p> <ul style="list-style-type: none"> • Single frequency, method development software. The software includes Beer's Law, and chemometrics-based quantitative prediction.
	<p>Validation</p> <ul style="list-style-type: none"> • Instrument performance, user configurable system suitability routines and international Pharmacopeia test methods available in standard software. Instrument scheduler facility allows auto programming of instrument validation testing 	<p>Validation</p> <ul style="list-style-type: none"> • Instrument performance, user configurable system suitability routines and international Pharmacopeia test methods available in standard software. Instrument scheduler facility allows auto programming of instrument validation testing
	<p>Macros</p> <ul style="list-style-type: none"> - Macro Editor and Equations Editor provide the ability to setup sequences of data collection and custom spectral processing. These procedures can then be stored and repeating using a single mouse click. Spectrum Touch user interface software for exceptional ease of use in touchscreen-driven and handheld PC driven systems. 	<p>Macros</p> <ul style="list-style-type: none"> - Macro Editor and Equations Editor provide the ability to setup sequences of data collection and custom spectral processing. These procedures can then be stored and repeating using a single mouse click. Touch user interface software for exceptional ease of use in touchscreen-driven and handheld PC driven systems.



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Item No.	Description	Corrections/ Amendments/ Instructions
	<p>User Training</p> <ul style="list-style-type: none"> - Instruments use, common maintenance and software operation. Context-sensitive help provides assistance throughout the software. Optional Packages include IR Introductory Kit for faster self-learning, Educational Package for more comprehensive learning and on-site assisted learning programs. 	<p>User Training</p> <ul style="list-style-type: none"> - Instruments use, common maintenance and software operation. Context-sensitive help provides assistance throughout the software. Optional Packages include IR Introductory Kit for faster self-learning, Educational Package for more comprehensive learning and on-site assisted learning programs.
	<p>Optional Software Packages</p>	<p>Optional Software Packages</p>
	<p>21 CFR Part 11</p> <ul style="list-style-type: none"> - Spectrum 10 Enhanced Security™ (ES) software meets the technical requirements for the FDA’s 21 CFR Part 11 with SQL database audit trail and data storage/retrieval 	<p>21 CFR Part 11</p> <ul style="list-style-type: none"> - Spectrum 10 Enhanced Security™ (ES) software meets the technical requirements for the FDA’s 21 CFR Part 11 with SQL database audit trail and data storage/retrieval
	<p>Sample Analysis Workflows</p> <ul style="list-style-type: none"> - With software designed for FT-IR materials testing and product verification. Simple turnkey Compare, SIMCA, quantitative analyses with user defined instructions and reports can be readily configured. OLE-DB compliant data storage with ES and non-ES versions available for 21CFR11 compliance. 	<p>Sample Analysis Workflows</p> <ul style="list-style-type: none"> - With software designed for FT-IR materials testing and product verification. Simple turnkey Compare, SIMCA, quantitative analyses with user defined instructions and reports can be readily configured. OLE-DB compliant data storage with ES and non-ES versions available for 21CFR11 compliance.
	<p>Quantitative Analysis</p> <ul style="list-style-type: none"> - Spectrum Quant for chemometrics-based quantitative method development. Includes Expert Assist for method troubleshooting 	<p>Quantitative Analysis</p> <ul style="list-style-type: none"> - Software for chemometric-based quantitative method development. Includes Expert Assist for method troubleshooting.
	<p>Validation CD</p> <ul style="list-style-type: none"> - Date validation CD contains test algorithm descriptions, test date and results for data transform algorithms, Comprehensive IQ/OQ documentation and services available. 	<p>Validation CD</p> <ul style="list-style-type: none"> - Date validation CD contains test algorithm descriptions, test date and results for data transform algorithms, Comprehensive IQ/OQ documentation and services available.
	<p>Optional Application and Learning Package</p>	<p>Optional Application and Learning Package</p>
	<p>Accelerated Learning</p> <ul style="list-style-type: none"> - IR Introductory Kit, Educational Package and on-site assisted learning options available. Application-specific packages and options tailored for pharmaceuticals analysis, polymer analysis, nutraceuticals, used oils, fuels and environmental hydrocarbon analysis available. See separate literature in individual packages for further details. 	<p>Accelerated Learning</p> <ul style="list-style-type: none"> - IR Introductory Kit, Educational Package and on-site assisted learning options available. Application-specific packages and options tailored for pharmaceuticals analysis, polymer analysis, nutraceuticals, used oils, fuels and environmental hydrocarbon analysis available. See separate literature in individual packages for further details.



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Item No.	Description	Corrections/ Amendments/ Instructions
	<i>Spectral Libraries Included in the System</i>	<i>Spectral Libraries Included in the System</i>
	<ul style="list-style-type: none"> - Fluka Chemicals Library - ATR of Polymer Library - Coblenz Chemicals Library - Lubes Library I & II - Lowa Library - Drugs Library - Forensic Crime Library - CT Police Library - Explosive Library - Fibers FBI Library (including Textile) - Fibers General Library I & II (Including textile) - Polymer Additives - General Chemicals Library - Adhesive Library I & II - Solvent Library - Stone Library - EPA Environmental Library - ATR of Commonly used Plastic 	<ul style="list-style-type: none"> - Fluka Chemicals Library - ATR of Polymer Library - Coblenz Chemicals Library - Lubes Library I & II - Lowa Library - Drugs Library - Forensic Crime Library - CT Police Library - Explosive Library - Fibers FBI Library (including Textile) - Fibers General Library I & II (Including textile) - Polymer Additives - General Chemicals Library - Adhesive Library I & II - Solvent Library - Stone Library - EPA Environmental Library - ATR of Commonly used Plastic
	-	Universal ATR
	-	<p>The universal ATR is an excellent general accessory for the analysis of solids and liquids. The UATR produces high quality spectra through the use of a pressure arm allowing good contact of the sample with the diamond crystal. The pressure arm force indicator ensures first class sample-to-sample and operator-to-operator reproducibility.</p> <p>Features of the UATR include:</p> <ul style="list-style-type: none"> • Automatic recognition - as soon as the accessory is placed in the sample compartment the Universal ATR module is recognized along with its unique number, and system suitability checks can be carried out. • Zero alignment, zero set-up - once locked into the software, the system is ready to be used without any alignment necessary. • Integrated - the plug-in module design means the accessory becomes an integral part of the instrument once installed. • Pressure arm with pressure sensor supplied as standard. Live spectral preview mode and force readout in software ensures good contact before scanning Includes UATR polystyrene reference.
	<p>Inclusions:</p> <p>With high spec PC (64bit windows 10 or 11 with licensed MS office 16) With COMPATIBLE UPS FOR THE POWER RATING OF THE EQUIPMENT</p>	<p>Inclusions:</p> <p>With high spec desktop PC (64bit windows 10 Pro OS (upgradable to Windows 11) or Windows 11 Pro OS with licensed MS office 16), 21 in full HD monitor</p> <p>UPS: With COMPATIBLE UPS FOR THE POWER RATING OF THE EQUIPMENT</p>
	<p>Conditions: One (1) year warranty on main parts against manufacturer's defect and two (2) years warranty on service, including preventive maintenance and calibration.</p>	<p>Conditions: One (1) year warranty on parts against manufacturer's defect and two (2) years warranty on service, including preventive maintenance and calibration. Includes Installation and training</p>



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II. Invitation to Bid:

Item No.	Description	Corrections/ Amendments/ Instructions
2.	The <u>West Visayas State University</u> now invites bids for the above Procurement Project. Delivery of the Goods is required by <u>90 calendar days</u> . Bidders should have completed, within <u>2 years</u> from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).	The <u>West Visayas State University</u> now invites bids for the above Procurement Project. Delivery of the Goods is required by <u>30 calendar days</u> . Bidders should have completed, within <u>2 years</u> from the date of submission and receipt of bids, a contract similar to the Project. The description of an eligible bidder is contained in the Bidding Documents, particularly, in Section II (Instructions to Bidders).
	---Nothing Follows---	---Nothing Follows---

For guidance and information of all concerned.

JULIUS B. UNDAR

Chairperson, Bids and Awards Committee