Co-funded by the
Erasmus+ Programme
of the European Union

Institute of Technology of Cambodia
Training a new generation of entrepreneurs in sustainable agriculture and food engineering (FoodSTEM)
REF: 610052-EPP-1-2019-1-KH-EPPKA2-CBHE-JP

Date: 28th of December, 2020

To: All Eligible Bidders

Subject: **Invitation Quotation to Supply Electronic Equipment**
For the Training a new generation of entrepreneurs in sustainable agriculture and food engineering project (FoodSTEM)

You are kindly invited to provide us with your sealed quotation for the supply of Electronic Equipment. Project's requirements are listed below.

Item	Specification	Quantity	Statement of Compliance Bidders must state here either "Comply" of "Not Comply"
Lot 1 (ITC)			
1	**Wireless Access Point**	**8**	
	Environment: Indoor		
	Dimensions (WxDxH): 6.3 x 6.3 x 1.9 inch		
	Antennas: Internal		
	Data Transfer Rate: 867 Mbps		
	Frequency Band: 2.4 GHz, 5 GHz		
	Ports: 1 x 10/100/1000 RJ45, BT/BLE		
	Ceiling/wall mount kit		

	Power order: 802.3af PoE		
	Network wireless hardware support	8	
	Service term: 3 years		
	Support Contract: 24 x 7		
2	**Wireless Access Point**	**2**	
	Form Factor: External		
	Data Transfer Rate: 1300 Mbps		
	Ceiling mountable and wall mountable		
	Wireless Protocol: 802.11 a/b/g/n/ac		
	Power Over Ethernet: PoE		
	Wi-Fi Bands: 2.4GHz, 5 GHz		
	Network wireless hardware support	2	
	Service term: 3 year		
	Support Contract: 24 x 7		
3	**Gigabit Ethernet switch**	**1**	
	Ports: 24 x 10/100/1000 (PoE+) +4 x Gigabit SFP		
	Power Over Ethernet: PoE+		
	Switching capacity: 56 Gbps		
	Frequency required: 50 -60 Hz		
	Rack-mountable		
	L2+ managed		
	Dimension (W x D x H): 17.3 x 12.2 x 1.7 inch		
	Ethernet switches License	1	
	Service term: 3 year		
	Firmware and General Upgrades		
	Advanced Hardware Replacement		
	24 x 7 support		
4	**Firewall**	**1**	
	50 - 100 User Network		
	Threat Protection Throughput: 250 Mbps		
	Site-to-site VPN Tunnels: 300		

	1 year license and service support		
5	**Service Configuration and Installation**	**1**	
	Configuration Firewall		
	Configuration Gigabit Ethernet switch		
	Installation Wireless Access Point		
6	**Server Rack Cabinets**	**1**	
	Size: 600x1000x2055		
	Steel Casement Door		
	Perforation Steel Door		
	Double Swing Steel Door		
	Jacking Feet 4pcs		
	Castors 4pcs		
	Power Strip 1pcs		
	Wrench 1pcs		
	Shelf 3pcs		
7	**Server Rack Cabinets**	**1**	
	800x1000x205		
	Steel Casement Door		
	Perforation Steel Door		
	Double Swing Steel Door		
	Jacking Feet 4pcs		
	Castors 4pcs		
	Power Strip 1pcs		
	Wrench 1pcs		
	Shelf 3pcs		
	Service Rack installation	1	
	Installing, training and support		

8	**Smart-UPS**	1	
	Type: Double conversion online		
	Number of tare power: 65 W		
	UPS Size: S		
	Number of rack unit: 6		
	Rack-mounted mode		
	USB compatible		
	Input network frequency: 40 - 70 Hz auto-sensing		
	Number of input connectors: 1 hard wire 3-wire (1P + N + E), 1 hard wire 5-wire (3P + N + E)		
	Input voltage limits: 160 - 275 V		
	Input voltage : 230V, 400V 3 phases		
	Maximum configurable power : 10000 W		
	Output frequency: 50/60 Hz +/- 3 Hz sync to mains		
	Outputvolt_other : 220V , 240V		
	Output voltage: 230 V		
	Battery recharge time : 1.5h		
	3 year warranty on repair and replace (excluding battery)		
9	**Smart-UPS**	5	
	Battery voltage: +/- 192 V		
	Net weight: 91.0 Kg		
	Number of rack unit : 3U		
	Dimension: 68.27 cm (Depth), 13 cm (Height), 43.2 cm (Width)		
	Approvals: OSHPD		
	REACH: Contains SVHCs		

	2 year warranty on repair or replace		
10	**Computer Laptop**	**1**	
	Display: 16- inch Retina display with True Tone		
	Touch Bar and Touch ID		
	SSD Storage: 1 TB		
	Memory: 16GB of 2666MHz DDR4		
	Four Thunderbolt 3 ports		
	Turbo Boost up to 4.8GHz		
	AMD Radeon Pro 5500M with 4GB of GDDR6 memory		
	Operationg systen: MacOS X		
11	**Computer Desktop**	**3**	
	CPU: Intel Core I5-6500/ 3.2 GHz		
	RAM: 8GB / 16 (max)		
	Storage 256 GB SSD		
	VGA: Intel HD Graphic 530		
	OS: Windows 10		
	Monitor: 23.8" 1920x180 Full HD resolution		
	Weight: 7.2 Kg		
	3 year warranty		
12	**Computer Laptop**	**2**	
	Processor: Cometlake Intel Core i5		
	Memory: DDR4-16GB 2666MHz		
	Hard disk: 256GB SSD		
	Operating system: Window 10 License		
	Color: Silver		

	Intel Graphic/DISPLAY: 14"FHD (1920x1080)		
13	**Color Printer**	**3**	
	Multifunction: Print, Scan, Copy, Fax with ADF		
	Maximum printing resolution 4,800 x 2,400 dpi (with Variable-Sized Droplet Technology)		
	Print Speed: ISO 24734, A4 (Black / Colour) Simplex: Up to 18 ipm / 10 ipm, Duplex: 8.7 ipm / 6.0 ipm		
	Print Speed:ISO 24734.2, A3 (Black / Colour) Simplex: Up to 10 ipm / 5.0 ipm, Duplex: 6.0 ipm / 3.7 ipm		
	Photo Default - 10 x 15 cm / 4 x 6 " Approx. 42 sec per photo (Border)		
	Automatic 2-sided printing: Yes (A4 and A3)		
	Card solts and USB function: yes		
	Maximum Copy Resolution: 600 x 600 dpi		
	Scanner Type :Flatbed colour image scanner with CIS sensor		
	Scan speed: Mono 200 dpi 6.0 sec / 8.3 ppm , Colour 200 dpi 12 sec / 4.8 ppm		
	Fax type: Walk-up black-and -white and colour fax capability		
	Fax resolution: up to 200 x 200 dpi		
	Dimensions: 666 x 486 x 418 mm (W x D x H)		
Lot 2 (RUA)			
1	**Computer Desktop**	**18**	
	Intel Quad Core i7		
	Memory:16G DDR3L		
	Hard disk: 1T SSD		
	WiFi, BT 4.0, DVD, Windows 10		
	Display: 23.8" Screen LED-Lit Monitor		
2	**LED Digital Standing**	**1**	
	55 Inch Floor Standing Digital		

	Indoor & Outdoor LED Screen LCD Video Wall 4K LCD Display Panel		
	Aspect ratio: 16:9		
	Feature: Touch Display, LED Backlight Display, With Remote Control		
	Optimum Resolution: 1920 x 1080		
3	**Photocopier machine**	**1**	
	Standard functions: Copy, Print, Scan, Network		
	Type: Laser Printer		
	Print speed: Up to 20 ppm Black-and-white & Color		
	Maximum paper size: Up to 12" x 18" (Ledger/Tabloid/SRA3)		
	Paper Input Capacity (std. / max.): 1,200 sheets / 2,200 sheets with options		
4	**Router**	**3**	
	Type: Wifi Router for office		
	High speed: Yes		
	Data Transfer rate :867mbps at 5GHz and 300Mbps at 2.4GHz		
	Connectivity technology: ethernet		
5	**Anti-Virus**	**20**	
	Number of Device: 1 PC or Mac		
	Anti-spyware, Antivirus, Malware & Ransomware protection		
	PC Cloud Backup: 2GB		
	Smart Firewall: yes		
	Password Manager: yes		
6	**Network switch**	**1**	
	PoE: 48 PoE+ ports with 380W total power budget		
	PORTS: 24x 100M/1000M/2.5G/5G/10G, 4x 1G/10G SFP+, 4x 10G/25G SFP28		

	PROSAFE LIFETIME PROTECTION		
	VERSATILE MOUNTING OPTIONS: Supports desktop or rackmount placement		
7	**Presenter remote**	**2**	
	Wireless Presenter		
	Presentation Remote Clicker		
	Laser Pointer		
8	**Projector**	**2**	
	Brightness: 3, 500 lumen		
	Resolution: WXGA (1280 x 800)		
	Lamp Life Up to 20,000 hours		
	Throw Distance: 4.7 - 28 Feet		
	Image size: 34.5 - 300''		
	Input: VGA, HDMI, 3.5mm Audio in/out, USB		
	Lens: Optical/Digital Zoom and Vertical Keystone		
	Contrast Ratio: 20,000:1		
9	**Projector screen**	**2**	
	Type: Manual screen, wall, ceiling, white fabric		
	Screen size: 100 x 89 inch		
10	**Headset**	**20**	
	USB Connection Headset with Noise-Canceling Microphone (981-000710)		
	Dimension: (241 x 90 x 124, H x W x D) mm		
	System: windows or macOS		
	Cable length: 2.40 m		
	Frequency response (Headset): 100Hz - 10KHz, (Microphone): 200 Hz - 6 KHz		

	1 year hardware warranty		
11	**External Hard Drive**	**2**	
	4TB Storage capacity		
	Interface: USB 3.0, USB 2.0		
	Dimensions (L x W x H): 4.35 x 3.23 x 0.83 inch		
	Included: Portable hard drive, USB Cable, Quick install guide		
12	**Laptop computer**	**1**	
	Ram: 8GB DDR4		
	Hard disk : 256 GB SSD		
	VGA: Intel UHD Graphics		
	Display: 13.3" Full HD		
	Operating system: Windows 10 License		
	Battery Life: 3 cells up to 9 Hours		
	Other: WiFi, BT, Camera		
	Laptop computer		
13	**Computer Laptop**	**2**	
	Core i7		
	Ram: 16GB		
	Hard disk: 512GB SSD		
	Operating system: Window 10 License		
	Display: 12.1" (1920 x 1200)		
	Light weight: 0.85 kg ±5%		
	Up to 12 hours's battery life ±5%		
14	**Digital camera with lens**	**1**	
	Screen: LCD with vari angle touch screen 7.7 cm, aspect ratio: 3:2		

	Megapixel: 24.2 minimum		
	Image type: Raw + JPEG		
	Image sensor size: 22.3 x 14.9 mm		
	Pixel Dimensions: 6000 x 4000, Pixel Size: 3.72 μm		
	Lens Mount: EF, EF-S, TS-E, MP-E		
	Lens kit: EF-S 18 -55 mm is STM		
	Zoom Lens: EF 24-105mm f/3.5-5.6 IS STM Lens		
	Battery type: Rechargeable lithium-ion battery		
	Video shooting: Full HD 1080p		
	Connectivity: Built-in Wi-Fi, NFC and Bluetooth		
	Memory type: SD, SDHC or SDXC		
	Memory: 64 GB		
	Digital camera with lens		
15	**Camera Video**	**1**	
	Memory: SanDisk 64GB		
	Maximum Resolution: 3680 x 2760		
	Aspect ratio: 1:1, 3:2, 4:3, 16:9		
	Zoom: 1080p HD Video		
	Sensor type: MOS Sensor with 17.3 x 13 mm		
	Connectivity: Wifi, HDMI		
	Battery: Rechargeable, Li-ion Battery		
	Professional Video LED Light		
16	**Sound system**	**1**	
	Speaker Processors (2)		
	USB Microphone (192KHz/24Bit Zero)		

	Analog Mixers versus Digital Mixers		
	Live sound		
	Stage Snakes and Stage Boxes		
17	**Wireless Lavalier Microphone**	**2**	
	Antenna: 1/4 wire antenna		
	Channels: 96		
	Groups : A and B		
	Audio Output level: -60dBV, Headphone Output Level: 30 mW		
	Frequency Range: 514 MHz - 596 MHz		
	Frequency response : 40 Hz to 18 KHz		
	Sensitivity: -95 dBm		
	Battery: 2AA		
18	**Dual Lavalier Microphone**	**2**	
	Frequency Range: 65 Hz ~ 18KHz		
	Signal/Noise: 74dB SPL		
	Sensitivity: -30dB +/-3dB/0dB=1V/Pa, 1kHz		
	Output Impedance: 1000 Ohm or less		
	Power requirements: LR44 (included)		
	Connector: 3.5mm 4-pole gold plug		
	Cable length: 4 m		
19	**LED Video Light**	**2**	
	Cooling System: Fan		
	Display: LED		
	Photometrics 5600K		
	Fixture Dimensions: 5.5 x 7.1 x 11.8" / 14.0x 18.0 x 30.0 cm		

	Connector: Power input 4 - Pin XLR		
	Remote control type: Bluetooth, Proprietary wireless		
	AC Input Power: 100 to 240 VAC, 50 / 60 Hz		
	Power Source: AC Adapter, External battery		
	Max Power Consumption: 150 W		
	Including stand + softbox		
20	**Live production switcher**	**1**	
	Total Video Inputs: 4, outputs: 2, Aux outputs: 1		
	Total Audio Inputs: 2 x 3.5mm stereo		
	Total Audio Outputs: None, embedded audio only.		
	Timecode Connection: None		
	HDMI Video Inputs: 4 x HDMI type A, 10-bit HD switchable. 2 channel embedded audio.		
	Video Input Re-Sync: On all 4 HDMI inputs.		
	Operating system: Mac OS or window 10 or later		
	Power Usage: 30W		
21	**Portable Voice Amplifier**	**4**	
	Ports: USB, Mic In, AUX In, Micro SD Card		
	Working time: 10 hours		
	Charging time: 3 to 4 hours		
	Capacity: 1500 mAH		
	Frequency: 100 - 15 KHz + 3dB		
	Format: mp3/wav		
	Voice to spread throughout the 400 square meters		
22	**Touch Screen LCD**	**1**	
	Display: 80 inch Full HD Interactive (2 032 mm)		

	Touch Screen: Yes		
	Apsect Ratio: 16:9		
	Panel type: VA Panel /Edge -LED		
	Resolution (H x V): 1920 x 1080		
	Included Rolling TV Cart Mobile TV Stand with 40 - 80 inch		
23	**Smart TV**	**2**	
	Display: 55 inches		
	Screen type: LED		
	Model year: 2019-2020		
	Smart TV: Yes		
	Resolution Standard: 4K		
	Pixel: 3840 x 2160		
	Dimensions: 970.2 x 563.2 x 58.8 mm		
Lot 3 (UBb)			
1	**Computer Laptop**	**2**	
	Processor: 2.4 GHz Intel Core i5 Quad-Core		
	Ram: 8GB		
	Storage: 256 GB SSD		
	Display: 13.3" Retina with True Tune		
	VGA: Intel Graphics		
2	**Computer Desktop**	**28**	
	CPU: Intel Core i3-8145U upto 3.9GHz		
	Storage: 1TB HDD		
	RAM: 4GB DDR4		
	HDD: 512GB M.2 PCIe + 1TB		

	Display: 21.5" FHD (1920 X 1080)		
	VGA : Intel Graphic		
	Connection: Wireless + Bluetooth		
3	**Headset**	**30**	
	Output power: 50mW		
	Impedance: 32 Ohm		
	Sensitivity: 112 dB ± 3 dB		
	Frequency response: 15Hz - 20 kHz		
	Ear Cups: Yes		
	Input: 3.5 mm Stereo		
	Microphone: yes		
	Condenser: yes		
4	**LCD Projector**	**1**	
	Resolution: WXGA (1280 x 800)		
	Lens: Manual zoom (x1.6) Manual focus		
	Lamp Life: 20 000 hr		
	Image size: 25 to 300 inches		
	Brightness: 5,000 ANSI lumens		
	Contrast Ratio (white/black): 500,000:1 with Light Adjust		
	Port: VGA in, Audio Out, Network, Optional WLAN, 1x Type B, 2 x Type A, RS232, 2 x HDMI, Audio in		
	Power requirements: 100 to 240V AC		
	Input current: 5.0A/2.1 A		
	Warranty: 1 year on part		
5	**Projector screen (2.4mx2.4m), Automatic rolling**	**1**	

	Size: 2.4 m x 2.4 m		
	Type: Wall Screen Automatic with Remote		
6	**Gigabit Switch**	**2**	
	Switch 24 ports		
	Interface: 24 10/100/1000Mbps RJ45 ports, 4 Gigabit SFP/RJ45 combo ports		
	Managed Switch		
	PoE + Ports: 802.3 at/af compliant		
	Bandwidth: 48 +B141:B353Gbps		
	Power supply: 220~240VAC, 50/60Hz		
7	**Sever Rack Cabinet 600 x 1000 x 1388**	**1**	
	Size: 600 x 1000 x 1388		
	Steel Casement Door		
	Perforation Steel Door		
	Double Swing Steel Door		
	Jacking Feet 4pcs		
	Castors 2 pcs		
	Power Strip 1 pcs		
	Wrench 1pcs		
	Shelf 2 pcs		
	Sets of Fan 4pcs		
	Warranty: 1 year on part		
8	**Delivery and Installation**	**1**	
	Power supply system and installation		
	Electricity line system with cord cover for 30 computers (Room size: 6m wide x18m long x4m high)		

	Network supply system and installation		
	provide materials for set up networking for 30 computers except manage switch and Cabinet		
	materials: Cat6 cable with UTP modular plugs, boot plug, PVC		
	cable cover		
	Installing Ceiling projector and LCD automatic rolling projector screen (Projector Ceiling mounter, 15m HDMI cable, power supply)		
	Provide technical labor for installation		
Lot 4 (RULE)			
1	**Computer Desktop**	**23**	
	CPU: Intel Core I5 7500		
	RAM: 8GB DDR4		
	Storage 128GB M2 + 1TB HDD		
	VGA: Intel Integreted HD Grphic 3000		
	OS: DOS		
2	**Computer Laptop**	**2**	
	Processor: Intel® Core i7-8250U		
	Memory: 8GB DDR4		
	Hard Drive:SATA 1TB + 256GB M2 SSD		
	Graphic: Nvidia 4GB		
	Display: 14"		
3	**Switch**	**2**	
	24-Port Gigabit L2		
	Managed Switch with 4 Combo SFP Slots		
	up to 4K VLANs simultaneously (out of 4K VLAN IDs)		
	24 10/100/1000Mbps RJ45 Ports		

4	**RACK 37U-1000**	1	
	RACK-37U-1000		
	DEEP 600 x 1000 x 1800		
	RACK MOUNT 4FAN,		
	included (Fix tray: 1, PDU 6PORT:1)		
5	**POE SWITCH**	1	
	L2 and L2+ Features		
	up to 4K VLANs simultaneously (out of 4K VLAN IDs)		
	24 10/100/1000Mbps RJ45 Ports		
	24-Port Gigabit Smart PoE+ Switch with 4 SFP Slots		
6	**Projector**	3	
	Brightness 3000 lumens		
	Lamp Life Up to **20,000 hours**		
	Resolution XGA (1024 x 768) 786,432 pixels		
	Projector Distance 1.0 - 9.4 m		
	Image Size 76 cm - 762 cm		
	Interface VGA and HDMI Inputs		
7	**Network Cable Cate6**	1	
	Original Cat6 (STP) cable		
8	**Network Connector Cate6 RJ45**	1	
	Original Cat6 Connector		
	Modular Plug (connector) Shielded 100 pcs, Cat6		
9	**Rack Server**	1	
	CPU: Intel Xeon Silver 4114 2.2G, 10C/20T, 9.6GT/s 2UPI, 14M Cache, Turbo, HT (85W)		
	RAM:32GB(2x16GB) RDIMM, 2666MT/s,		

	Storage:3TB7.2K RPM NLSAS 12Gbps 512n 2.5in Hot-plug Hard Drive		
	Network card:4Ports		

In preparing your quotation, you are requested to observe the following:

1. **Your quotation should be addressed to:**

The Project Manager
Industry Linkage Office, Office A-206, Building A,
Russian Confederation Boulevard,
Phnom Penh, Cambodia
Phone: 092 475 547, E-mail: chhanthyda@itc.edu.kh
Attn: Mrs. Chanthyda Nong, Procurement Officer

2. Your quotation should be delivered to the address above at or before **4:00 pm on January 28th, 2021** and sealed with the mention **Do Not Open** Before 3:00 pm on January 29th, 2021.

The Opening quotation will be 3:00 pm on January 29th, 2021 at the Institute of Technology of Cambodia and/or via online broadcasting on FoodSTEM Facebook page : https://www.facebook.com/FoodSTEMEUProject/

3. **Eligible Goods and Services**

Training a new generation of entrepreneurs in sustainable agriculture and food engineering (hereinafter called Erasmus+ **FoodSTEM Project**), reference number **610052-EPP-1-2019-1-KH-EPPKA2-CBHE-JP,** is a co-funded by the Erasmus+ Programme of the European Union and open to all eligible bidders.

4. **Delivery of Equipment**

This Electronic Equipment package contains four lots equipment, which lot 1 for ITC, lot 2 for RUA lot 3 for UBB and lot 4 for RULE. Supplier shall deliver and install Equipment to the Purchaser's premises and to FoodSTEM University Partners premises as specified below.

Institute of Technology of Cambodia
Russian Confederation Boulevard,
Phnom Penh, Cambodia

Royal University of Agriculture
Chamkar Daung, Dangkor
Phnom Penh, Cambodia

University of Battambang
National Road 5, Sangkat Preaek Preah Sdach,
Battambang city, Battambang 020101, Cambodia

Royal University of Law and Economics
French Department in Economics and Management
Monivong Blvd, Sangkat Tonle Basac, Khan Chamcarmorn,
Phnom Penh, Cambodia

The details of the repartition of equipment between universities is specified above.

5. **Taxes, Duties, License Fees**

The Supplier shall be responsible for taxes, license fees, etc., incurred during the delivery of the contracted services to the purchaser.

6. **Warranty**

At least one year warranty on all items must be included in the final price.

7. **Payment**

Payment will be made by bank transfer presenting the full amount shown in the Invoice with detail statement. In the quotation, need to state the name, identity card number and address of the representative authorized to collect payment. Payment for supplies will be made when Equipment are installed at FoodSTEM University Partners as follow:

- University of Battambang
- Royal University of Law and Economics
- Royal University of Cambodia
- Institute of Technology of Cambodia.

The payment will be based on fixed price.

8. **Evaluation of Quotation**

The purchaser will determine which quotation responds to the Description and, the price, is acceptable from a technical point of view. Quotations which are not responsive will be rejected and will be eliminated from further consideration. The purchaser reserved the right to accept or reject any quotation and annul process of inviting quotation and reject at any time prior to award of the contract, without thereby incurring any liability to the affected supplier or any obligation to inform the affected supplier of the grounds for the Purchaser's action.

9. **Validity of the quotation**

Prices of the quotation shall be valid for 1 to 3 months from the date of your submission of quotation.

We look forward to receiving the quotation before the time and date stipulated above. Quotation received after this date will be rejected and returned to the supplier unopened.

Yours sincerely,

Sokneang IN

Project Manager, FoodSTEM