Tender No:

KDU/PRO/CAP/182/2022

General Sir John Kotelawala Defence University,
KandawalaEstate, Ratmalana,
Sri Lanka.
T: Phone: 2632028 , 2622995
Fax : 2622504, 2623599
Web:www.kdu.lk

07/ 06 /2022

INVITATION TO BID AND GENERAL CONDITIONS OF TENDER

1. The Vice Chancellor of the General Sir John Kotelawala Defence University, as the Chairman, Department Procurement Committee Invites Bid/s from prospective Bidders for supply of **item/s listed in the schedule in Annex "A"**. **The relevant specifications of the item/s are indicated in Annex "B".**

2. **CLOSING DATE & TIME**. The tender will close at 1000 hrs. on 30 /06/2022. Any Bid submitted after the closing time of the tender will be rejected & unopened such bids will be returned to the bidder.

3. **VALIDITY OF BID**. The bid submitted under this tender **must be valid for a minimum period of 77 days from thedate of closing of tender**.

4. BID BOND / GUARANTEE.

(a) If the quoted bid value exceeds Rs: 2,000,000.00, such Bids should be accompanied with 1% of Bid Value an "on demand" and "unconditional" Bid Bond/Guarantee for a sum of **Rs: .....** in the format given in Annex "C" through a recognized local Bank or Insurance Company registered in Sri Lanka which is authorized by the Insurance Board of Sri Lanka to issue such Bid Guarantees. All Bid Bond/Guarantees should be valid for at least 30 days more than the validity period of bids, ie, for 150 days from the date of Bid opening. **Cheques will not be accepted as Bid Guarantee**.

(b) Submission of insufficient Bid Bond/Guarantee value or period will be considered as a "**major deviation**" and such offer will not be considered for further procurement action and will be rejected.

5. **VALUE ADDED TAX.** The Bidders who bid for locally delivered items must have the VAT registration. The VAT portion must be shown separately in the price schedule in Annex "A" and VAT registration number must be indicated. If the quoted item is exempted from VAT or Bidding Company is not liable for VAT, reference number and date of relevant Act number/Gazette notification/a certificate (as applicable) **issued for the current financial year** from the Commissioner General of Inland Revenue to that effect should be submitted along with the Bid.

6. **BID SUBMISSION.** The **bidder must duly sign at the last page (before Annexes) of this document** indicating the name of the signatory and the name of the company & place the company common seal to confirm the acceptance of tender conditions. **The Bid/s that do not include authorized signature will be rejected**. The Bid/s duly signed by the bidder enclosed and sealed in an appropriate cover addressed to the following address should be sent by registered post or could be deposited in the **appropriate tender box placed at General Sir John Kotelawala Defence University, Kandawala Estate, Ratmalana** (at the Main Entrance of General Sir John Kotelawala Defence University) on or before the time & date specified for the closing of tender. **The tender reference number, date & time of closing tender should be indicated & underlined at the top left corner of the envelop**.

Tender Ref No :.....
Closing Date & Time :.....

The Chairman,
Department Procurement Committee,
General Sir John Kotelawala Defence University,
Kandawala Estate, Ratmalana,
Sri Lanka.

7. The Bid/s must be submitted in the attached schedule of prices in Annex "A" as applicable. However, bidders could use similar formats prepared with their own letter heads with all the details mentioned therein and submit in **three copies along with duly signed copy of a General Conditions of tender**. The Bid/s must contain **Technical Literature, Pamphlets, Drawings and Quality Standard Certificate etc** necessary to determine characteristics of items offered and in case of Machinery/Vehicles & Equipment, servicing and workshop data/after sales service, back up facilities or any other facilities provided by the supplier.

8. **SUBMISSION OF SAMPLES/PAYMENT OF TESTING CHARGES**.

When it is required to submit samples, **every offer** must be accompanied with pre - marked samples. The marking of samples **indicating the Bidder & Offer number** must be done and the samples must be handed over to the officer at same place where tender box is placed **on or before the closing date & time of the Bid**. Samples submitted after closing time of the Bid will be rejected. The documents such as Air Way Bills etc, will not be accepted in place of samples. When the testing charges are required to be paid, bidders shall pay testing charges separately **for all offers** indicated in their bid/s.

(1) **Samples.** Please submit..... samples.

(2) **Testing Charges**. A sum of Rs ..... **per offer** must be paid to the Bursar of KDU, prior to the submission of bid and a copy of the receipt must be annexed to the bid. It is the responsibility of bidder to inform the Cashier of the Account Office to note the tender number on the receipt issued for such payments.

8. **BID OPENING**. All duly received bids **will be opened immediately after the scheduled closing time of Bids at the same venue**. Bidders or their accredited agents could be present at the time of opening of bids.

9. **PRICES.**

For locally delivered items (including locally manufactured items & foreign items imported by the bidders) price must be quoted in Sri Lankan Rupees, inclusive of all charges for delivery of items to General Sir John Kotelawala Defence University Ratmalana, Faculty of Allied Health Science (FAHS) Werahera and University Hospital Werahera or Southern Campus Sooriyawewa. **Unit price, VAT and Total price should be clearly indicated in schedule in Annex "A"**. Other than VAT, all other type of taxes (eg : NBT, BTT, etc.) should not be indicated separately and should be included in unit price.

10. **RESTRICTED TENDERS**. Invitation to Bids are circulated a m o n g the registered suppliers with Ministry of Defence (MOD), only bids submitted by registered suppliers will be allowed for consideration. However, Chairman, Department Procurement Committee reserves the right to invite the bids from multiple combinations of Procurement Methods as stipulated in Chapter III of the Government Procurement Guideline, 2006 to ensure highest competitiveness.

11. **PERFORMANCE BOND/GUARANTEE.** A successful bidder shall f u r n i s h a Performance Bond/Guarantee in the form of "On Demand" & "Unconditional" Bank/Insurance Guarantee for a sum equivalent to 10% of the contract value for every contract that exceeds Rs. 2,000,000.00 or equivalent amount in foreign currency through a recognized Commercial Bank registered in Sri Lanka or through an Insurance Company authorized by the Insurance Board of Sri Lanka to issue such Performance Guarantee for this purpose, **within two weeks from the date of notification of award**. The proceeds of the Performance Bond/Guarantee shall be payable to the Vice Chancellor of the General Sir John Kotelawala Defence University as compensation for any loss resulting from the supplier's failure to complete his performance obligations under the contract. If the contracted supplier fails to deliver the items on time or fails to complete the works as per the agreed contract, **THE TOTAL VALUE OF THE PERFORMANCE BOND/GUARANTEE** will be forfeited. If only partial delivery is made during the agreed contract period, the corresponding value percentage of undelivered quantity from the Performance Bond/Guarantee will be forfeited.

12. **SIGNING OF CONTRACT.** The notification of award will be transmitted to the successful bidder by post, by fax or e-mail. This notification constitutes the formation of the contract. The successful bidder should submit his written acceptance for the award and performance bond / guarantee (For awards over Rs. 500,000.00 without VAT) within 14 days of receipt of such notification. Upon acceptance of the award and furnishing of the Performance Bond/Guarantee, the successful bidder will have to enter into a formal contract with the Vice Chancellor of the General Sir John Kotelawala Defence University by signing the Contract.

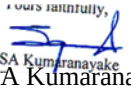
13. **DELIVERY.** Preference will be given for early delivery. In case of bulk supplies for locally manufactured items, the delivery of **total quantity must be completed within 120 days of signing of contract**, unless mutually agreed for extended delivery period with General Sir John Kotelawala Defence University. **The bidder/s must indicate the proposed delivery schedule in Annex "D"**. In the event of placing a purchase order with the successful bidder, the total quantity so ordered must be supplied as one consignment unless part deliveries are agreed upon in the contract. The deliveries not made as per agreed delivery schedule will be considered as bad performances by the suppliers and **no extended delivery period will be authorized**. Under extreme unavoidable conditions too, the Chairman, Department Procurement Committee (Vice Chancellor of the General Sir John Kotelawala Defence University) reserves the right to grant or refuse delivery period extensions only within the current financial year with or without liquidated claim for delayed deliveries and that decision will be final.

14. **LIQUIDATED DAMAGES.** In case of delivery period extensions requested by the successful bidder, a sum equivalent to 1% of the total value of the delayed supply per delay of one week or part thereof may be deducted from the payment due to the supplier from the General Sir John Kotelawala Defence University as liquidated damages up to the maximum limit of 10% of the total value of delayed supplies.

15. **PAYMENT TERMS FOR LOCALLY DELIVERED ITEMS.** Payment will be made after acceptance of items which should be subjected to a pre-acceptance inspection/testing by General Sir John Kotelawala Defence University authorities. The delivery made to the General Sir John Kotelawala Defence University should not be considered as quantities taken over by General Sir John Kotelawala Defence University until items are properly accepted after pre-acceptance inspection. Any item that does not conform to the specifications or already approved sample will be rejected & it is the responsibility of the supplier to remove them from General Sir John Kotelawala Defence University stores/premises within 07 working days of such intimation (either verbal or written) at his own cost and replace them with items conforming to specification within one month of such rejection. The bidder shall allow approximately 60-90 days' period of credit from the date of acceptance of items for Account Office, General Sir John Kotelawala Defence University to obtain liquid cash from General Treasury & release the payment.

16. **RIGHTS OF THE PROCUREMENT COMMITTEE**. The Department Procurement Committee reserve the right to accept or reject whole or part of this tender and their decision will be final. The successful bidders will be notified. Information with regard to rejected or unsuccessful bids will not be communicated.

Thanking You,
Yours faithfully,



SA Kumaranayake
For Vice Chancellor
General Sir John Kotelawala Defence University

I/We agree to abide by the conditions of tender and undertake to supply the items as per delivery schedule mentioned in the contract, in the event of an order been placed with me/my firm/company as a result of this tender.

……. Signature

…… Name of Signatory

……Name of the Company/Bidder

Date :- ……. Company seal

ANNEX "A"

SCHEDULE OF PRICES FOR LOCALLY DELIVERED ITEMS

S/N	ITEMS	DENO	QTY	PRICE EACH SLRS	TOTAL PRICE SLRS
	PURCHASE OF DESIGN AND SUPPLY OF WIRELESS NETWORKS (WIFI) FOR GENERAL SIR JOHN KOTELAWALA DEFENSE UNIVERSITY				
01	Design and Supply of Wireless Networks (WIFI)				
	Specification Attached				
	TOTAL				
	DISCOUNT				
	TOTAL(AFTER DISCOUNT)				
	VAT %				
	GRAND TOTAL				

(A) OTHER DETAILS

(i) DELIVERY PERIOD - **…….....**
(ii) MAKE & MODEL - **…….....**
(iii) VALIDITY PERIOD - **……...**
(iv) WARRANTY PERIOD - **……...**
(v) PAYMENT TERMS - **CREDIT**
(vi) COUNTRY OF ORIGIN - **……...**
(vii) DISCOUNT IF ANY - **……...**
(viii) ANY OTHER TAXES - **……...**

(B) VAT DETAILS - **VALUE ADED TAX PERMANENT REGISTRATION CERTIFICATE / VAT EXEMPTION LETTER ISSUED BY DEPARTMENT OF INLAND REVENUE TO BE ATTACHED**

(C) PLACE OF DELIVERY - **ITEMS TO BE DELIVERED TO THE "GENERAL**

SIR JOHN KOTELAWALA DEFENCE UNIVERSITY, KANDAWALA STATE, RATMALANA ALONG WITH THE COPY OF ORDER AND RELEVANT INVOICE.

(D) Any queries / information with regard to this procurement / tender could be obtained from Officer Commanding Logistics Services office at General Sir John Kotelawala Defence University through e-mail ocls@kdu.ac.lk and by telephone number 0112622504, OCLS – 0710219303 , DIT – 0710219237 during working hours.

NOTE: UNIT PRICE AND TOTAL PRICE ARE TO BE INDICATED CLEARLY INTHE TENDER, IF NOT QUOTATION WILL BE REJECTED.

SUPPLIER NAME - **…….**

ADDRESS - **…….**

CONTACT NUMBER - **…….**

E MAIL ADRESS - **…….**

Company Seal

(E) Bid Reference: KDU/PRO/CAP/ 182/2022

……

DATE

SPECIFICATION FOR THE DESIGN AND SUPPLY OF WIRELESS NETWORKS (WI-FI) AT GENERAL SIR JOHN KOTELAWALA DEFENSE UNIVERSITY - SRI LANKA

1. **Technical Specifications:** Required minimum technical specifications are in Annex A.

2. **Site Inspection/Survey:** Suppliers need to inspect the site and conduct the site survey to propose the design and before submit the Bill of Material (BOM) for passive components wherever the existing cable structure is not catered to the new system. New passive extensions shall adhere to existing passive cable warranty conditions.

3. **Performance Guarantee:** The successful supplier shall furnish a Performance Guarantee for the existing and new passive cable system for the due performance of the contract which shall be valid for 15 years from the date of the letter of award.

4. **Requirements of APs for different zones at the Kotelawala Defence University Premises –** Quantity of APs for future enhancement is attached as Annex B.

5. **Existing Aps installed at the KDU as Annex "C".**

6. **Existing UPSs installed for WiFi network at the KDU as Annex "D".**

7. **Specification for 1.2 KVA UPS is as Annex "E".**

Annex A

EXPERIENCE, QUALIFICATIONS, AND OTHER REQUIREMENTS FOR THE TENDER FOR THE IMPLEMENTATION AND MAINTENANCE OF WIRELESS NETWORKS (WI-FI) AT THE GENERAL SIR JOHN KOTELAWALA DEFENSE UNIVERSITY - SRI LANKA

1.0 Scope of work

a. The contractor shall design, supply, install, commission, and maintain the University Wi-Fi Access System for the General Sir John Kotelawala Defence University at Ratmalana-Sri Lanka with sufficient supplying internet bandwidth.

b. The contract duration shall be 5 years.

c. The contractor's investment for the design, supply, installation, commissioning, and maintenance shall be recovered through the cap-ex model and monthly billing service respectively.

d. Presently, Kotelawal Defence University has LEARN VPLS link connectivity provided via SLT Fiber Line. The contractor can provide separate internet bandwidth (Internet leased line) connection for the proposed Wi-Fi Access system or can include an enhancement of the existing internet within the procurement of this solution. This needs to be clarified in the pre-tender board meeting.

e. All Building distribution and Map of the Kotelawal Defence University (KDU) is attached, note that the highlighted buildings are to be covered by this Wi-Fi System.

2.0. Experience, Qualifications, and Other Requirements are as follows:

No	Experience, Qualifications, and Other Requirements	Bidder Response
2.1	The supplier should be a registered company in Sri Lanka and shall have completed and maintained three similar projects (LAN, WLAN, & Structured Cabling) during the last five years ending 31.05.2022. Each project shall not be less than twenty million rupees. The tenderer should provide the Documentary evidence.	At least 2-~~3~~3 Wi-Fi Access Systems (in similar or higher capacity) installation projects successfully completed within the last 3 years. (Documentary evidence required)
2.2	The Supplier should have obtained: a. Construction Industry Development Authority (CIDA) Grade EM1 Registered certification. b. ISO 9001:2015 (or higher) Quality management certification.	Compulsory (Documentary evidence required)
2.3	The Supplier should have three minimum certified engineers and 24x7 Help Desk Operations to assure reliability and continued service.	Compulsory

2.4	Quoted products must be recognized by Gartner as a leader in the Magic Quadrant for Wired and Wireless Access Infrastructure over the past 5 years.	Compulsory (Documentary evidence required)
2.5	All the brands of equipment quoted shall be minimum two years' service history in Sri Lanka or 10 years Internationally. Further model should be latest one.	Compulsory (Documentary evidence required)
2.6	Category of equipment quoted should have been deployed in similar environment / industry/ Military globally with one similar installation running for the past 2 years.	Compulsory (Documentary evidence required)
2.7	Supplier should be a licensed Mobile Operator/ Telecommunication Service Provider/ Internet service Provider registered under Telecommunications Regulatory Commission of Sri Lanka.	Optional (Documentary evidence required)
2.8	Availability of local office or locally registered agent in Sri Lanka for the maintenance services of supplied systems during its service period.	Compulsory (Documentary evidence required)

3.0. System Design Criteria/ requirements:

3.1 The bidders should visit the Kotelawala Defence University Ratmalana site for analyzing the existing infrastructure and leased line available for providing Wi-Fi Access system. Same time bidder should collect the details as per the tabulate provided submit along with the bidding documents as follows:

Zone (Pre define)	Building/Faculty /Location (Contractor shall visit the site)	Floor	Estimated concurrent users		Estimated minimum bandwidth per user	
			Day	Night	Day	Night
Estimated total bandwidth						

3.2 The bidders should visit the Kotelawala Defence University at Ratmalana and check the

existing equipment's available with laid **fiber cables** network to reducing the installation charges as well as total project cost.

3.3 The bidder should check for the possibilities of future expansion of the Wi-Fi Access system for the upcoming new buildings in the Kotelawal defence University at Ratmalana.

3.4 The bidders should submit the BOQ for the proposed (indoor/outdoor) installation in the format as tabulated below and further bidders should clearly indicate the details (Model, Type, Technical capacity) of all items submit in the BOQ. (Existing AP types and quantity provide with tender document s an Annex).

Item No.	Item Description	Installation location	Quantity

3.5 The bidders shall submit the financial proposal for the contract in the format as tabulated below:

Sr. No.	Design, Supply, Installation, Commissioning & Maintenance	Amount of CAPEX	Monthly rental (With service level agreement for 3 years)
01	**Design, Supply, Installation, Commissioning & Maintenance of Wi-Fi**		

4.0 Bidders must submit the details as follows after complete the design proposal:

a. Design summary.
b. Proposed Wi-Fi network architecture.
c. Wi-Fi Indoor/Outdoor heat maps.
d. Proposed equipment (Brand/Models and product literature).
e. Proposed installation locations.
f. Other technical designs.

g. Should provide the diagram of full Fiber Backbone Network to link up the access switches of the proposed Wi-Fi network. If the bidder proposes alternative fiber network, other than the existin fiber network should be responsible for repairing/restoring all

damages happening to the structures, roads, and pathways of the University due to installation works.

h. Bidders should clearly indicate and mention about the future Wi-Fi system upgrade, enhancements which are going to connect (loop up) with the proposed system (Especially possible approaches for technical enhancement). Further, bidder should keep provisions to connect in future enhancement such as Fiber Connectivity, Switches and Routers.

i. Network administrative requirements to be provided with the deploying Wi-Fi network are as follows: (Selected Supplier).

(1) Device profiling.

(2) Multi- OS support.

(3) Device roaming.

(4) Built-in / Cloud based analytics / Statistics collection and reporting.

(5) Map integration to instant identification of malfunctioning Wi-Fi devices, a heavy user connected, one-click configuration, monitoring up to the user device.

(6) Centralized browser- based control console for wireless network management and control.

(7) Application support and prioritization.

(8) Application traffic visibility and analysis.

(9) Application firewall and traffic shaping.

(10) Mobile device and Bring Your Own Device (BYOD) management.

(11) Remote diagnostics via “Online Tools”.

(12) Zone wise analytics.

(13) Creation of custom rules.

(14) Plug and Play Wi-Fi deployments and configuration.

(15) Control / administer 1000+ access points – monitor AP performance, status.

(16) Content filtering, User filtering.

(17) Identifies and controls traffic based on HTTP/HTTPS content type (e.g., audio, video, text, application).

(18) Identifies traffic based on user name, computer name, operating system, and other useful client attributes.

(19) Mesh networking support for access points.

j. Selected supplier should supply a Firewall with following minimum configuration requirements:

(1) Identity base policies

a) User application policy
b) Traffic shaping
c) Application filter
d) Schedule
e) Access time
f) Surfing quota
g) Network traffic quota

(2) Webserver protection

a) Form hardening
b) URL hardening
c) Cookie signing
d) Malware protection

(3) Web protection

a) Malware protection
b) URL filtering
c) Content filtering
d) Web application control
e) Dual anti-virus scanning

(4) Network protection

a) Intrusion protection
b) Advance threat protection
c) Remote Ethernet Device (RED) management

(5) Security policies

a) packet filtering
b) Network address translation (NAT)
c) Powerful object-based management
d) Routing through the security policy page
e) IPv6 support in the network

(6) Logging and reporting

a) Log management
b) Security management
c) Network attacks information
d) Compliance management
e) Forensic analysis

(7) Real-time logs

a) Productivity analysis
b) Blocked attempt reports
c) Usage reports
d) Top users

(8) Wireless features

a) Central management

b) Plug & play deployment.
c) Multi SSID support
d) Hotspot captive portal
e) Guest user portal
f) Rogue AP scan

k. Should be able to provide flexible bandwidth to any zones.

l. Should provide software, firmware upgrades.

m. Should provide training on Wi-Fi Network Management to KDU IT staff.

n. Should provide warranty for the installed Wi-Fi equipment's for the agreement time-period (05 years).

o. Should be properly mention the after sale services.

p. Should be able to provide 24x7 helpdesk support service, further Mean Time To Repair (MTTR) should be less than 4 hours.

q. Selected supplier should clearly indicate the possibility of providing 4G facility in addition to KDU main Wi-Fi solution provided, as value added services and if so, should be mentioned separately with all essentials such as network plan, routers, switches, etc. and other additional expenditure cost.

5.0. Handing Over.

a. **MOU -** An MOU should be signed with the Wi-Fi service provider and the KDU covering all the aspects of the contract.

b. **As Built Drawings -** After completion of the project, the contractor shall handover a set of hard copies & a set of soft copies in a CD (consisting of PDF version) of as Built drawings to cover the entire installation incorporating all the changes/revisions. Graphically representation of signal coverage should be provided by the contractor for easy reference for the client.

c. **System Information** - Contractor may handover all licenses purchased, software configurations, usernames, and passwords (with full rights) of all the Systems to the authorized person nominated by the Employer and Consultant.

d. **Manuals and Technical Catalogues** - Operation and maintenance manuals and relevant technical catalogues of equipment used in the system may handed over in triplicate. Provide complete printed operational manuals in a format as provided by the equipment manufacturer. Instructions shall be simplified to permit operation of the system by non-technical personnel.

e. **Coverage Reports** - Coverage report shall be provided with data throughput report on commissioning and handing over of the new WiFi system.

MINIMUM TECHNICAL SPECIFICATION FOR THE TENDER FOR THE IMPLEMENTATION, AND MAINTENANCE OF WIRELESS NETWORKS (WI-FI) AT THE GENERAL SIR JOHNKOTELAWALA DEFENSE UNIVERSITY-SRI LANKA

6.0 Access Point – Type 1

No	Description / Required minimum specification	Compliance (Yes/No)	Remarks
6.1	Brand		
6.2	Access Point type 1 - Model		
6.3	Country of Origin and Manufacture		
6.4	Hardware and General features		
a	The OEM shall be in the leader's quadrant in the latest Gartner magic quadrant for LAN and WLAN		
b	All the access points shall monitor, configure, and managed via centralized which is a physical controller		
c	The access point must have 1x10/100/1000BASE-T autosensing (RJ-45) ports and it shall support 802.3af PoE or 802.3at PoE+		
d	The access point shall support PoE as the source of power for POE through Switch or POE Injector or local power (DC Power)		
e	Standard mounting kits applicable for Ceiling Mount, and Wall Mount shall provide from the same OEM.		
f	Access point type 1 shall provide a minimum of 1.3 million hrs. MTBF at operating room temperature.		
6.5	Radio Frequency and specification		
a	The access point shall support simultaneous 802.11ac and 802.11ax on both the 2.4 GHz and 5 GHz radios.		
b	The access point shall support High-speed spectrum intelligence across 20MHz, 40MHz, and 80MHz wide channels to manage the performance challenges due to wireless interference		
c	The access point must support 2x2 multiple-input multiple-output (MIMO) with two spatial streams		
d	Access point must have at least 4.5 dBi Antenna gain @ 2.4GHz & 5.5 dBi Antenna gain @ 5GHz radios		
e	The access point must support approved transmit power by TRCSL on 2.4Ghz & 5GHz Radio respectively		
f	The access point must support a minimum of 1.5 Gbps throughput		
g	The access point shall support layer two and layer 3 roaming		
h	Access point itself shall observe the Bluetooth device and shall be able to deploy location services such as device tagging, location finding, etc.		
i	Access Point shall have dedicated radio for spectrum analysis, real-time wireless intrusion prevention/detection to mitigate rogue AP attacks and RF optimization		
j	Access point shall support detecting and classifying non-Wi-Fi wireless transmissions while simultaneously serving network traffic		
k	Access point shall incorporate radio resource management for power, channel, coverage hole detection, and performance		

	optimization		
6.6	Wireless Security, QoS, Monitoring & reporting		
a	The access point must have a Trusted Platform Module (TPM) to ensure that the device and its boot code have not been modified and to prevent device mimicry or deactivation.		
b	The access point shall provide a bandwidth limiter itself to control bandwidth usage		
c	The access point shall be able to set policies based on Groups and SSID and Device		
d	The access point shall integrate a Layer 7 firewall for the identification of user-based application-based traffic		
e	The access point shall support a method of digital data modulation, whereby a single stream of data is divided into several separate sub-streams for transmission via multiple channels to enhance efficiency.		
f	The access point shall prevent DoS attacks, Man in the middle attacks, and over-the-air security threats by acting as a wireless intrusion prevention system.		
g	The access point shall support secure guest access with device isolation		
h	Access Point shall support tunneling with IPsec VPN		
i	Access Point shall support stronger encryption and authentication which is provided via the latest version of WPA2 and WPA3 protected access method		
j	The access point shall provide detailed historical per-client usage statistics		
k	The access point shall have an anti-theft security system and anti-tamper cabling mechanism to protect from physical security hazard		
l	Access points shall be certified with FIPS 140-2, Common Criteria, and DoDIN-APL.		
6.7	Flexibility & Manageability		
a	The access point shall be able to manage via a centralized management platform to provide inherent HA config to prevent failover		
b	The access point shall support Zero-touch remote provisioning with no staging		
c	Access points shall be able to avoid the sticky client problem of placing end devices to the best AP based on the bandwidth available, the types of applications used, and the type of traffic even in the users on roaming.		
d	The access point shall support automatic firmware upgrades with scheduling control		
e	The access point shall support telnet and/or SSH login to APs directly for troubleshooting flexibility.		
f	The access point shall support to integrate mobile device management solution		
6.8	Warranty and support		
a	The Access point shall provide 5 years comprehensive manufacturer authorized warranty and technical assistance directly with OEM		
b	The proposed model has not been listed as an end of sale device and has not been listed as an end of a support device for the		

	upcoming 5 years		
c	The supplier shall have at least 3 OEM certified design/implementation/maintenance engineers for the proposed brand		

7.0. Access Point Type 2

No	Description / Required minimum specification	Compliance (Yes/No)	Remarks
7.1	Brand		
7.2	Access Point type 2 - Model		
7.3	Country of Origin and Manufacture		
7.4	Hardware and General features		
a	The OEM shall be in the leader's quadrant in the latest Gartner magic quadrant for LAN and WLAN		
b	All the access points shall monitor, configure, and managed via centralized which is a physical controller		
c	The access point must have 1x10/100/1000BASE-T autosensing (RJ-45) ports and it shall support 802.3af PoE or 802.3at PoE+		
d	The access point shall support PoE as the source of power for POE through Switch or POE Injector or local power (DC Power)		
e	Standard mounting kits applicable for Ceiling Mount, and Wall Mount shall provide from the same OEM.		
f	Access point type 2 shall provide a minimum of 0.5 million hrs. MTBF at operating room temperature.		
7.5	Radio Frequency and specification		
a	The access point shall support simultaneous 802.11ac and 802.11ax on both the 2.4 GHz and 5 GHz radios.		
b	The access point shall support High-speed spectrum intelligence across 20MHz, 40MHz, 80MHz, and 160 MHz wide channels to manage the performance challenges due to wireless interference		
c	The access point must support 4x4 multi-user multiple-input multiple-output (MU-MIMO) with four spatial streams		
d	Access point must have at least 4.2 dBi Antenna gain @ 2.4GHz & 7.5 dBi Antenna gain @ 5GHz radios		
e	The access point must support approved transmit power by TRCSL on 2.4Ghz & 5GHz Radio respectively		
f	The access point must support a minimum of 2.6 Gbps throughput		
g	The access point shall support layer two and layer 3 roaming		
h	Access point itself shall observe the Bluetooth device and shall be able to deploy location services such as device tagging, location finding, etc.		
i	Access Point shall have dedicated radio for spectrum analysis, real-time wireless intrusion prevention/detection to mitigate rogue AP attacks and RF optimization		
j	Access point shall support detecting and classifying non-Wi-Fi wireless transmissions while simultaneously serving network traffic		
k	Access point shall incorporate radio resource management for power, channel, coverage hole detection, and performance optimization		
7.6	Wireless Security, QoS, Monitoring & reporting		
a	The access point must have a Trusted Platform Module (TPM) to ensure that the device and its boot code have not been modified and to prevent device mimicry or deactivation.		

b	The access point shall provide a bandwidth limiter itself to control bandwidth usage		
c	The access point shall be able to set policies based on Groups and SSID and Device		
d	The access point shall integrate a Layer 7 firewall for the identification of user-based application-based traffic		
e	The access point shall support a method of digital data modulation, whereby a single stream of data is divided into several separate sub-streams for transmission via multiple channels to enhance efficiency.		
f	The access point shall prevent DoS attacks, Man in the middle attacks, and over-the-air security threats by acting as a wireless intrusion prevention system.		
g	The access point shall support secure guest access with device isolation		
h	Access Point shall support tunneling with IPsec VPN		
i	Access Point shall support stronger encryption and authentication which is provided via the latest version of WPA2 and WPA3 protected access method		
j	The access point shall provide detailed historical per-client usage statistics		
k	The access point shall have an anti-theft security system and anti-tamper cabling mechanism to protect from physical security hazard		
l	Access points shall be certified with FIPS 140-2, Common Criteria, and DoDIN-APL.		
7.7 Flexibility & Manageability			
a	The access point shall be able to manage via a centralized management platform to provide inherent HA config to prevent failover		
b	The access point shall support Zero-touch remote provisioning with no staging		
c	Access points shall be able to avoid the sticky client problem of placing end devices to the best AP based on the bandwidth available, the types of applications used, and the type of traffic even in the users on roaming.		
d	The access point shall support automatic firmware upgrades with scheduling control		
e	The access point shall support telnet and/or SSH login to APs directly for troubleshooting flexibility.		
f	The access point shall support to integrate mobile device management solution		
7.8 Warranty and support			
a	The Access point shall provide 5 years comprehensive manufacturer authorized warranty and technical assistance directly with OEM		
b	The proposed model has not been listed as an end of sale device and has not been listed as an end of a support device for the upcoming 5 years		
c	The supplier shall have at least 3 OEM certified design/implementation/maintenance engineers for the proposed brand		

8.0. Access Point Type -3

No	Description / Required minimum specification	Compliance (Yes/No)	Remarks
8.1	Brand		
8.2	Access Point type 3 - Model		
8.3	Country of Origin and Manufacture		
8.4 Hardware and General features			
a	The OEM shall be in the leader's quadrant in the latest Gartner magic quadrant for LAN and WLAN		
b	All the access points shall monitor, configure, and managed via centralized which is a physical controller		
c	The access point must have 1x10/100/1000BASE-T autosensing (RJ-45) ports and it shall support 802.3af PoE or 802.3at PoE+		
d	The access point shall support PoE as the source of power for POE through Switch or POE Injector or local power (DC Power)		
e	Standard mounting kits applicable for Ceiling Mount, and Wall Mount shall provide from the same OEM.		
f	Access point type 3 shall provide a minimum of 0.5 million hrs. MTBF at operating room temperature.		
g	Access point type 3 shall be an outdoor Hardened type and must adhere to IP66 and IP67 without additional casing or solution.		
8.5 Radio Frequency and specification			
a	The access point shall support simultaneous 802.11ac and 802.11ax on both the 2.4 GHz and 5 GHz radios.		
b	The access point shall support High-speed spectrum intelligence across 20MHz, 40MHz, and 80MHz wide channels to manage the performance challenges due to wireless interference		
c	The access point must support 2x2 multiple-input multiple-output (MU-MIMO) with two spatial streams		
d	The access point must have inbuilt Omni directional antennas and shall support at least 3.2 dBi Antenna gain @ 2.4GHz & 5 dBi Antenna gain @ 5GHz radios		
e	The access point must support approved transmit power by TRCSL on 2.4Ghz & 5GHz Radio respectively		
f	The access point must support a minimum of 1.5 Gbps throughput		
g	The access point shall support layer 2 and layer 3 roaming		
h	Access point itself shall observe the Bluetooth device and shall be able to deploy location services such as device tagging, location finding, etc.		
i	Access Point shall have dedicated radio for spectrum analysis, real-time wireless intrusion prevention/detection to mitigate rogue AP attacks and RF optimization.		
j	Access point shall support detecting and classifying non-Wi-Fi wireless transmissions while simultaneously serving network traffic		
k	Access point shall incorporate radio resource management for power, channel, coverage hole detection, and performance optimization		

8.6 Wireless Security, QoS, Monitoring & reporting			
a	The access point must have a Trusted Platform Module (TPM) to ensure that the device and its boot code have not been modified and to prevent device mimicry or deactivation.		
b	The access point shall provide a bandwidth limiter itself to control bandwidth usage		
c	The access point shall be able to set policies based on Groups and SSID and Device		
d	The access point shall integrate a Layer 7 firewall for the identification of user-based application-based traffic		
e	The access point shall support a method of digital data modulation, whereby a single stream of data is divided into several separate sub-streams for transmission via multiple channels to enhance efficiency.		
f	The access point shall prevent DoS attacks, Man in the middle attacks, and over-the-air security threats by acting as a wireless intrusion prevention system.		
g	The access point shall support secure guest access with device isolation		
h	Access Point shall support tunneling with IPsec VPN		
i	Access Point shall support stronger encryption and authentication which is provided via the latest version of WPA2 and WPA3 protected access method		
j	The access point shall provide detailed historical per-client usage statistics		
k	The access point shall have an anti-theft security system and anti-tamper cabling mechanism to protect from physical security hazard		
l	Access points shall be certified with FIPS 140-2, Common Criteria, and DoDIN-APL.		
8.7 Flexibility & Manageability			
a	The access point shall be able to manage via a centralized management platform to provide inherent HA config to prevent failover		
b	The access point shall support Zero-touch remote provisioning with no staging		
c	Access points shall be able to avoid the sticky client problem of placing end devices to the best AP based on the bandwidth available, the types of applications used, and the type of traffic even in the users on roaming.		
d	The access point shall support automatic firmware upgrades with scheduling control		
e	The access point shall support telnet and/or SSH login to APs directly for troubleshooting flexibility.		
f	The access point shall support to integrate mobile device management solution		
8.8 Warranty and support			
a	The Access point shall provide 5 years comprehensive manufacturer authorized warranty and technical assistance directly with OEM		
b	The proposed model has not been listed as an end of sale device and has not been listed as an end of a support device for the upcoming 5 years		
c	The supplier shall have at least 3 OEM certified design/implementation/maintenance engineers for the proposed brand		

9.0. Wireless Controller

No.	Description / Required minimum specification	Compliance Yes/No)	Remarks
9.1	Brand		
9.2	Model		
9.3	Country of Origin and Manufacture		
9.4 Hardware and General features			
a	The Controller shall have a minimum of 4x 25G SFP interfaces		
b	The Controller shall be a 1U rack-mountable and consist of redundant power supplies,		
c	The controller shall be deployed with N+1 redundancy architecture		
d	The Controller shall have a minimum of 20 Gbps throughput from the first day of operation		
e	The Controller shall provide a minimum of 185,000 Hrs. MTBF at operating room temperature.		
f	The Controller shall manage locally and on-premises. But it shall be supported to move to the cloud if decided in the future.		
9.5 Management, Security QoS, Monitoring & Reporting			
a	The controller shall have the capability to manage 500 access points and supports to cater 1000 access points in the future without changing the hardware components		
b	The controller shall have the capability to serve 16,000 concurrent users and end devices		
c	The controller needs to provide an independent network controlling irrelevant geographic locations in case of expansion		
d	The Wireless Network shall continuously function even if the connectivity to the controller is interrupted.		
e	The controller shall handle 2 million firewall sessions		
f	The controller shall be provided layer 3 roaming to user connectivity without disconnecting while on the move		
g	traffic can be segmented based on a defined set of user types such as guest, contractor, or employee to provide greater levels of security.		
h	The controller shall support deep packet inspection and application awareness		
i	The controller shall be supported QoS over encrypted traffic		
j	The controller shall be provided centralized encryption at the gateway level.		
k	The controller shall be provided build-in Layer 4-7 stateful firewall and must ensure it supports role-based access and policy enforcement to provide dynamic segmentation		
l	The controller shall be able to set policies based on User, Groups, SSID, and Device.		
m	The controller shall provide application-aware traffic to optimize and guarantee performance for critical application		
n	The controller shall support contextual awareness to provide detailed, historical per-client usage statistics including clients Operating systems, device type, and hostname		
o	The controller shall provide location analytics reporting		

p	The controller shall provide device tracking, L7 traffic analytics reporting per network, per device, and per application		
q	The controller shall support the ability to serve clients and monitor the RF environment concurrently.		
9.6 Warranty and support			
a	The controller shall provide with 5 years comprehensive manufacturer authorized warranty and technical assistance directly with OEM		
b	The proposed model has not been listed as an end of sale device and has not been listed as an end of a support device for the upcoming 5 years		
c	The supplier shall have at least 3 OEM certified Design/implementation/maintenance engineers for the proposed brand		

10.0. POE Switch

No.	Description / Required minimum specification	Compliance (Yes/No)	Remarks
10.1	Brand		
10.2	Model		
10.3	Country of Origin		
10.4 General Specification			
a	The switch shall be from the same vendor of Wireless products for ease of management and operation		
10.5 Ethernet Interfaces			
a	The switch shall have 12 ports POE 10/100/1000 Mbps UTP Access ports		
b	The switch shall provide 2 x 1 SFP+ fiber uplinks ports		
c	The switch shall support a minimum of 130W POE and must support PoE Standards IEEE 802.3af and 802.3at		
10.6 Performance			
a	The Switch shall support a minimum of 32 Gbps Switch capacity		
b	The Switch shall support a minimum of 24 Mpps of forwarding rate		
c	The Switch shall minimum support for up to 8,100 MAC addresses		
d	The switch shall support 512 IPv4 and 512 IPv6 entries or more		
e	shall support 512 Multicast entries or more		
f	The switch shall support 640 Access Control List (ACL) entries or more		
10.7 Hardware features			
a	The Switch shall support a minimum of 4GB DRAM		
b	The Switch shall support a minimum of 16GB of Flash storage		
c	The Switch shall ssupport9198 bytes of Jumbo frames		
d	Shall support 512 VLANs and 16 Switched Virtual Interfaces		
e	The platform shall have an open standard, a modular, extensible operating system that shall support automation features.		
f	The switch shall support In Services Software Upgrade to provide software upgrades and hitless patching of the modular operating system		
g	The switch shall support Hitless patch upgrades which allow patches and new service features to be installed without restarting the equipment		
10.8 Laver-2 Features			
a	The switch shall support the automatic Negotiation of Trunking Protocol, to help minimize the configuration & errors		
b	The switch shall support IEEE 802.1Q VLAN and encapsulation		
c	The switch shall support Private VLAN encapsulation		
d	The switch shall support Unidirectional Link Detection Protocol (UDLD) or equivalent protocol		
e	The switch shall support Automatic media-dependent interface crossover (MDIX) to automatically adjusts transmit and receive pairs if an incorrect cable type (crossover or straight-through) is installed.		
f	The switch shall have a mechanism for unidirectional connectivity to be detected and disabled fiber-optic interfaces when connecting incorrect fiber-optic wiring or port faults		
g	The switch shall support IGMP v1, v2 Snooping		

h	Switch shall support IPv4 and IPv6The Switch shall be able to discover (on both IPv4 & IPv6 networks) the neighboring device giving the details about the platform, IP Address, Link connected through etc., thus helping in troubleshooting connectivity problems.		
10.9 Laver-3 Features			
a	The Switch shall support Inter-VLAN routing.		
b	Basic IPv4 and IPv6 unicast routing protocols (static and RIPv2)		
c	The Switch shall support dual-stack IPv6 & IPv4 Static Routing		
10.10 QoS Features			
a	The switch shall support QoS techniques for managing the network. QoS shall consist of classification and marking, policing and markdown, scheduling, shaping, and queuing methods		
b	The Switch shall support strict priority queuing, and traffic prioritization in real-time.		
c	The Switch shall be provided a mechanism to handle large buffer traffic		
d	The Switch shall support Rate limiting based on per port and per queue and shall be able to set maximum limitations.		
10.11 Network Security features			
a	The Switch shall support IEEE 802.1x to allow dynamic, port-based security, providing user authentication.		
b	The switch shall support VLAN ACLs on all VLANs to prevent unauthorized data flows from being bridged within VLANs. Also, the switch shall support Port-based ACLs for Layer 2 interfaces to allow the application of security policies on individual switch ports.		
c	The switch shall support Unicast MAC filtering to prevent the forwarding of any type of packet with a matching MAC address. Also, the switch shall be provided with MAC address notification to allow administrators to be notified of users added to or removed from the network.		
d	The switch shall support SSHv2 and SNMPv3 to provide network security by encrypting administrator traffic during Telnet and SNMP sessions.		
e	The switch shall support TACACS+ and RADIUS authentication to enable centralized control of the switch and restrict unauthorized users from altering the configuration.		
f	The switch shall support DHCP snooping to allow administrators to ensure consistent mapping of IP to MAC addresses		
g	Multilevel security on console access to prevent unauthorized users from altering the switch configuration.		
10.12 Management			
a	The switch shall support remote configuration & management through a secure command-line interface (CLI) over Telnet and SSH.		
b	The switch shall support traceroute to ease troubleshooting by identifying the physical path that a packet takes from source to destination.		
c	The switch shall support Trivial File Transfer Protocol (TFTP)		
d	Network Timing Protocol (NTP) to provide an accurate and consistent timestamp to all intranet switches.		
e	The switch shall provide RMON I and II standards support		
10.13 Warranty and support			
a	The Switch shall provide 3 years comprehensive manufacturer authorized warranty and technical assistance directly with OEM		

b	The Switch has not been listed as an end of sale device and has not been listed as an end of a support device for the upcoming 5 years		
c	The supplier shall have at least 3 OEM certified Design/implementation/maintenance engineers for the proposed brand		

11.0. Connectivity Physical Infrastructure Minimum Technical Specification

No	Connectivity Physical Infrastructure Minimum Technical Specification	Compliance (Yes/No)	
11.1	**Physical connectivity**		
	The tenderer shall be responsible for the Testing & Commissioning of the Structured Cabling System. And shall provide UTP Cable Test Result with 25 years performance guarantee by manufacturer and Fiber Optic Test Result with 25 years performance guarantee by the manufacturer.		
11.2	**The tenderer shall provide CAT 6 UTP cabling as necessary with below minimum specification (Supported materials shall be provided. Keystone, face plates, patch cords, patch panels etc.)**		
a	Number of twist pairs: four pairs		
b	Flame Rating: UL 1685		
c	Installation tension: Minimum 110N		
d	Shall Support PoE+ and PoE++ Power application		
e	channel performance: TIA/ISO standards with headroom guarantee		
f	Standards Compliance: ANSI/TIA-568.2-D Category 6A, IEC 61156-5 Category 6A		
11.3	**The tenderer shall provide OM4 fiber cabling as necessary with below minimum specification (Supported materials shall be provided. Keystone, face plates, patch cords, patch panels etc.)**		
a	Number of cores: six or more		
b	Type of tube: tight buffered		
c	Fiber type: multi-Mode 50/125µm		
d	Flame Rating: Low Smoke Zero Halogen		
e	Installation tension: Minimum 650N		
f	Crush strength: Minimum 500		
g	Standards: RoHS, Telcordia, IEC 60754-2, IEC 60332-1, UL1666, IEC 61034		
h	Splice Type: Fusion splicing with the lowest loss and least reflectance.		

Location	Type		Annex "B"	
Zone	AP Type 1 - (min 30 -40 concurrent user access)	AP Type 2 - (min 100 - 150 Concurrent user access)	AP Type 3- (min 60-70 concurrent user access)	Switches min 8 ports
Zone A -Academic Building	14			
Zone B- Medical Faulty	12	4		
FOC LAB		1		
Zone C - Suranimala Building	9	1		
Zone D -Cadet Accommodation (Welusumana)	12			
Welusumana small sigle floor billet	1			1
Zone D1-Cadet Accommodation (Kanchadewa)	12			
Zone D2-Cadet Accommodation (Viharamahadevi)	12			
Zone D3-Cadet Accommodation ~~(Therupuththabaya)~~ Nandimithra	12			
Zone D4- Foreign Accommodation ~~(Welusumana)~~ pussadeva	12			
Zone E - Married Quarters	4			
Zone F-KDU Museum	2		1	
Zone G,G1-University Medical Center and DLOG Office	2			
Zone H-Cadet Mess	7			
Zone I- HQ Building	4			
Zone J - DVC Office & CO Office	3			
Zone K -Officer Mess	14			
New officer mess for ladies	1			
Zone L - Gym/ Indoor Stadium	4			
Zone M- Logistics Building	1			
Zone N- MTO Section	2			
Zone O- Sgt Mess & Accommodation	6			
Zone P-VC Quarters(2	2			
Zone Q -DVC Quarters	2			
Zone R - KDU Press	5			
VC staff	1			
Zone S- Honor Shop			1	
Zone T-Swimming Pool			1	
Zone U Other Rank Accommodation		2		
Zone V Dean Quarters	2			
Zone W Adjutant Quarters	2			
Zone X FMHS	12	14		6
Zone Y -FOL	9	2		2
Zone Z- Information Center	2			
Zone AA - UP Section	1			
Zone BB- Main Gate	1			
Civilian Rest Room	1			
Manabarana Cadet Accomadation	8			
Teraputtabaya (Small building next to nandimithra nd Knchadeva)	2			1
FOE	29	7		7
Total	225	31	3	17

Annex "C"

Wi-Fi Access Network

a. List of buildings and number of respective existing access points are as follows;

Zone	Building	ExistingNumber of Wireless AP
A	Academic Building	11
B	Medical Faculty	13
C	Suranimala Building	6
D	Cadet Accommodation (welusumana)	4
D1	Cadet Accommodation (Kanchadewa)	2
D2	Woman Cadet Accommodation(Viharamadevi)	4
D3	Cadet Accommodation(Therupuththabaya)	3
D4	Foreign Cadet Accommodation	11
E	Married Quarters	2
F	KDU Museum	3
G,G1	University Medical Center and DLOG Office	1
H	Cadet Mess	5
I-1,2,3,4,5,6	HQ Building	3
J,j-1	DVC Office & CO Office	2
K	Officers Mess	14
L	Gym/Indoor Stadium	2
M	Logistics Building	1
N	MTO Building	1
O	Sgt Mess & Accommodation	6
P	VC Quarters	2
Q	DVC Quarters	2
R	KDU Press	3
S	Honor Shop (Outdoor)	1
T	Swimming Pool	1
U	Other Rank Accommodation	2
V	Dean Quartos	2
W	Adjutant Quartos	2
	Total	**109**

Annex "D"

UPS for Network Equipment

Existing UPS distribution is described as below:

Zone	Building	Existing UPS Count
A	Academic Building	2
B	Medical Faculty	3
C	Suranimala Building	1
D	Cadet Accommodation (welusumana)	2
D1	Cadet Accommodation (Kanchadewa)	1
D2	Woman Cadet Accommodation(Viharamadevi)	1
D3	Cadet Accommodation(Therupuththabaya)	1
D4	Foreign Cadet Accommodation	3
E	Married Quarters	1
F	KDU Museum	1
G,G1	University Medical Center and DLOG Office	1
H	Cadet Mess	2
I-1,2,3,4,5,6	HQ Building	1
J,j-1	DVC Office & CO Office	1
K	Officers Mess	4
L	Gym/Indoor Stadium	1
M	Logistics Building	1
N	MTO Building	1
O	Sgt Mess & Accommodation	1
P	VC Quarters	1
Q	DVC Quarters	1
R	KDU Press	1
S	Honor Shop (Outdoor)	-
T	Swimming Pool	-
U	Other Rank Accommodation	1
V	Dean Quartos	1
W	Adjutant Quartos	2
	Total	**36**

Annex "E"

Ítem	Mínimum Specification	Bidders Compliance	
		Yes / No	If "No" Indicate Your Offer
Brand	(Specify)		
Model	(Specify)		
Country of Origin	(Specify)		
Country of Manufacture / Assembled	(Specify)		
UPS Type	Line Interactive		
Input Power	180-270 Volts, 50Hz-60Hz		
Output Power	230 Volts, 50Hz		
Output Slots	At Least Two universal Output Slots		
Back Up Time	10 minutes (Full Load)		
Capacity	1200 VA minimum		
Trnsfer Time	0.7ms or less		
Indicator	Audible Power Failer Alarm, Seperate LED for A/C Power, Battery Charging, Battery Backup, Low Battery Alarm		
Protection	Over Voltage Protection, Lighting, Short Circuit Protection, Surge Protection		
Battery Type	Sealed & Maintenance Free		
Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided	Supplier Should Have Certified Repair Centre and Island wide Branches for immediate Warranty facility		
Recharging Time	5-6 hours to 90% Capacity		
Vendors Experience	Supplier should have at least 5 Years' Experience by selling this Product		
Authorization	Supplier should be a Manufacture Authorized Agent in Sri Lanka and Proof should be provided		
Warranty	Manufacturer Warranty for a minimum of Two (2) years including replacements of all defective parts with rechargeable batteries. All kind of repairs should be completed withing 24 hours (One working days) during the warranty period. All defective parts should be replaced with brand new parts during the warranty period.		
Brochurs	Brochures for the offered model (Only) shall be submitted with the tender		

SPECIMEN FORM OF BID SECURITY

By this Bond we .....(hereinafter called "the Bidder") and We (name of bank or insurance company) whose registered office is at..... (hereinafter called "the Surety") are held and firmly bound onto ……. (hereinafter called the Authority") in the sum of …….. for the payment of which sum the Bidder and the Suretybind themselves their successors and assigns jointly and severally by those presents.

Whereas the authority has invited the Tender and other persons to compete tenders in similar terms for the supplyof .... and to submit the same for the consideration of the Authority, and the Bidder proposes to submit to the Authority a Bid (hereafter called "the Bid") in accordance with such invitation, the Bond shall provide security to the Authority that the Bidder will honour certain obligations to be undertaken by him in the Tender in accordance with the following conditions.

Now the Conditions of this Bond are:

(a) That it shall remain in full force and effect until the earliest of

(i) (Date), being ( ) days from (submission date), the date stipulated by the Authority for the submission of tenders, or any prolongation of such date above notified to the Authority by the Bidder andthe Surety in writing.

(ii) In the event of acceptance of the Tender by the Authority, the date upon which the Bidder provides a performance security to the Authority in accordance with the terms of the contract thereby made between them, or

(b) Subject to this Bond being in full force and effect, the Surety shall pay the full amount specified in thisBond upon receipt of first written demand form the Authority stating that.

(i) The Bidder has withdrawn his Tender during the validity of this Bond, or

(ii) The Bidder has failed to provide a performance security to the Authority in accordance with the terms of the tender within 14 days from receipt of intimation of award of the Tender.

No alteration in the terms of the Tender, nor any forbearance of forgiveness in or in respect of neither any matter or thing concerning the Tender on the part of the Authority, nor any objection from the bidder shall in any way release the Surety from any liability under this Bond.

The benefit of this Bond shall not be assignable by the Authority and upon its ceasing to be in full force and effectthe Authority shall return the same to the Bidder.

This Bond shall be governed by the laws of Sri Lanka

I executed as a deed on this ( ) day of (For and on behalf of the Bidder

----------	----------
Signed by.....	Signed by .....
In the capacity of ----------	In the capacity of ----------
and by.....	and by .....
In the capacity of ----------	In the capacity of ----------
Seal (where applicable)	Seal (where applicable)

20 ( )

For and on behalf of the Surety

ANNEX "D"

DELIVERY SCHEDULE

(IT IS MANDATORY TO FILL THE FOLLOWING SCHEDULE BY THE BIDDER)

TENDER NO :

ITEM : …….

QTY : …….

DURATION	QTY
EX STOCK QTY (WITHIN 01 WEEK)	
01MONTH	
02 MONTHS	
03 MONTHS	
04 MONTHS	
TOTAL	

NAME OF THE BIDDER : …….

SIGNATURE OF BIDDER : …….

DATE : ……..

COMPANY SEAL : ……..: