

# Guidelines and Technical Specifications for Procurement of Computer Systems and at the University of Peradeniya

**Date: December 2024**

**Last updated: February 2025**

## Preamble

This document outlines the minimum specifications to be adhered to when procuring computers for the University of Peradeniya. It specifies the core components of a computer system, including processors, memory, storage, display, connectivity, and other essential hardware and software requirements, to ensure consistency, compatibility, and cost-effectiveness across the university's IT infrastructure.

The document categorises specifications into four primary use cases:

1. **Basic Office Work** – Computers primarily used for routine administrative and clerical tasks, such as ERP/SAP, word processing, spreadsheet management, and web-based applications.
2. **Laboratory Applications** – Computers utilised in academic and research laboratories, requiring enhanced performance to support moderate computational workloads and specialised software.
3. **Computationally Demanding Tasks** – High-performance computers designed for advanced computing needs, including simulations, data analysis, and other resource-intensive applications.
4. **Laptop Computer** – A portable device to provide general computing.

This document serves as a guideline to support the university's academic and administrative goals effectively, while promoting the standardisation of computer systems procured across departments.

It is important to note that this document does not specify technical specifications for task-specific computer systems. Such requirements, unique to particular disciplines or projects, must be developed separately in consultation with the relevant stakeholders and the IT experts.

**IMPORTANT:** Users of this document are required to ensure that the detailed technical specifications and vendor conformities are explicitly defined when preparing procurement documents for calling for bids from suppliers. This step is crucial to guarantee that procured systems meet the outlined requirements while allowing fair competition among vendors.

## 1. Recommended technical specification for computer systems for office work

Item Specification			Conformity		If "No" Supplier's response
	Description	Requirement	Yes	No	
1	Make	(Please specify) Should be an internationally reputed brand			
2	Model	(Please specify) the exact model's name of the proposed system			
3	Country of Origin	(Please specify)			
4	Country of Manufacture	(Please specify)			
5	Type	Micro Tower			
6	Processor	Intel i5 14th Generation with minimum of 10 Cores and 20MB Cache memory and Intel UHD Graphics 770			
8	Memory	16GB DDR5 4000MT/s or higher upgradable up to 32GB			
9	Internal Storage	512GB NVME M.2 SSD for Operating System			
		1TB SATA 7200rpm Hard disk			
10	Optical Drive	DVD-RW SATA drive			
11	Sound	Integrated Sound			
12	Video Controller	Integrated graphics			
13	Monitor	24' LED monitor with 1920x1080 resolution and 75Hz refresh rate (Same brand)			
14	Network interface	Integrated Gigabit Ethernet			
		Integrated Wireless LAN (Wi-Fi 5)			
15	I/O Ports	Minimum 4 External USB 3.0 ports			
		Minimum least 4 rear and 2 front USB ports for desktops			
		Minimum 1 USB-C with transfer rates of 10Gbps			
		1 x Microphones on front			
		1 x headphones on front			
		1 x RJ 45			
		HDMI			
16	Expansion slots	(Please specify)			
17	Mouse	2-Button Optical Scroll Mouse (Same brand)			
18	Keyboard	QWERTY keyboard (Same Brand)			
19	Operating System	Genuine Windows 11 Professional 64 bit with recovery cloud image (Manufacture confirmation required by computer serial			

		number)			
<b>20</b>	Driver Software	Should be included hardware Drivers on CD Media			
<b>21</b>	Security	Cable lock, chassis security slot and padlock loop			
<b>22</b>	Warranty	03 Years comprehensive warranty (Labour, Parts, Onsite Backup)			
<b>23</b>	UPS	650VA with 1-year warranty			
<b>24</b>	Product Experience	Product brand must be an internationally recognized brand.			
		Bidder should have minimum of 08 years' experience in selling the quoted Similar Products in Sri Lanka			
		Manufacturer should have minimum of 10 years' experience in manufacturing of the same Brand (Attach proof)			

## 2. Recommended technical specification for computer systems for laboratory applications

Item Specification			Conformity		If "No" Supplier's response
	Description	Requirement	Yes	No	
1	Make	(Please specify) Should be an internationally reputed brand			
2	Model	(Please specify) the exact model's name of the proposed system			
3	Country of Origin	(Please specify)			
4	Country of Manufacture	(Please specify)			
5	Type	Micro Tower			
6	Processor	Intel i7 14th Generation with minimum of 20 Cores and 33MB Cache memory and Intel UHD Graphics 770			
8	Memory	32GB DDR5 4000MT/s or higher upgradable up to 64GB			
9	Internal Storage	1TB NVMe M.2 SSD for Operating System			
		1TB SATA 7200rpm Hard disk			
10	Optical Drive	DVD-RW SATA drive			
11	Sound	Integrated Sound			
12	Video Controller	Integrated graphics			
13	Monitor	24' LED monitor with 1920x1080 resolution and 75Hz refresh rate (Same brand)			
14	Network interface	Integrated Gigabit Ethernet			
		Integrated Wireless LAN (Wi-Fi 5)			
15	I/O Ports	Minimum 4 External USB 3.0 ports			
		Minimum least 4 rear and 2 front USB ports for desktops			
		Minimum 1 USB-C with transfer rates of 10Gbps			
		1 x Microphones on front			
		1 x headphones on front			
		1 x RJ 45			
		HDMI			
16	Expansion slots	(Please specify)			
17	Mouse	2-Button Optical Scroll Mouse (Same brand)			
18	Keyboard	QWERTY keyboard (Same Brand)			
19	Operating System	Genuine Windows 11 Professional 64 bit with recovery cloud image (Manufacture confirmation required by computer serial number)			

<b>20</b>	Driver Software	Should be included hardware Drivers on CD Media			
<b>21</b>	Security	Cable lock, chassis security slot and padlock loop			
<b>22</b>	Warranty	03 Years comprehensive warranty (Labour, Parts, Onsite Backup)			
<b>23</b>	UPS	650VA with 1-year warranty			
<b>24</b>	Product Experience	Product brand must be an internationally recognized brand.			
		Bidder should have minimum of 08 years' experience in selling the quoted Similar Products in Sri Lanka			
		Manufacturer should have minimum of 10 years' experience in manufacturing of the same Brand (Attach proof)			

### 3. Recommended technical specification for computer systems for computationally demanding tasks

Item Specification			Conformity		If "No" Supplier's response
	Description	Requirement	Yes	No	
1	Make	(Please specify) Should be an internationally reputed brand			
2	Model	(Please specify) the exact model's name of the proposed system			
3	Country of Origin	(Please specify)			
4	Country of Manufacture	(Please specify)			
5	Type	Tower			
6	Processor	Intel i7 14th Generation with minimum of 20 Cores and 33MB Cache memory and Intel UHD Graphics 770			
8	Memory	64GB DDR5 4000MT/s or higher upgradable up to 128GB			
9	Internal Storage	1TB NVMe M.2 SSD for Operating System			
		2 x 1TB SATA 7200rpm Hard disk			
10	Optical Drive	DVD-RW SATA drive			
11	Sound	Integrated Sound			
12	Video Controller	Integrated graphics			
13	Monitor	24' LED monitor with 1920x1080 resolution and 75Hz refresh rate OR 27' LED monitor with 3840x2160 (4K) resolution and 144Hz refresh rate. (Same brand or equivalent)			
14	Network interface	Integrated Gigabit Ethernet			
		Integrated Wireless LAN (Wi-Fi 5)			
15	I/O Ports	Minimum 4 External USB 3.0 ports			
		Minimum least 4 rear and 2 front USB ports for desktops			
		Minimum 1 USB-C with transfer rates of 10Gbps			
		1 x Microphones on front			
		1 x headphones on front			
		1 x RJ 45			
		HDMI			
16	Expansion slots	(Please specify)			
17	Mouse	2-Button Optical Scroll Mouse (Same brand)			
18	Keyboard	QWERTY keyboard (Same Brand)			
19	Operating System	Genuine Windows 11 Professional 64 bit			

		with recovery cloud image (Manufacture confirmation required by computer serial number)			
<b>20</b>	Driver Software	Should be included hardware Drivers on CD Media			
<b>21</b>	Security	Cable lock, chassis security slot and padlock loop			
<b>22</b>	Warranty	03 Years comprehensive warranty (Labour, Parts, Onsite Backup)			
<b>23</b>	UPS	1KVA with 1-year warranty			
<b>24</b>	Product Experience	Product brand must be an internationally recognized brand.			
		Bidder should have minimum of 08 years' experience in selling the quoted Similar Products in Sri Lanka			
		Manufacturer should have minimum of 10 years' experience in manufacturing of the same Brand (Attach proof)			

#### 4. Recommended technical specification for Laptop computer systems for general use

Item Specification			Conformity		If "No" Supplier's response
	Description	Requirement	Yes	No	
1	Make	(Please specify) Should be an internationally reputed brand			
2	Model	(Please specify) the exact model's name of the proposed system			
3	Country of Origin	(Please specify)			
4	Country of Manufacture	(Please specify)			
6	Processor	Intel i5 14th Generation with minimum of 10 Cores and 20MB Cache memory and Intel UHD Graphics 770  OR  Intel Ultra 5 225U or better with minimum 12 cores and 12MB Cache memory and Intel Graphics			
7	Memory	16GB DDR5 4000MT/s or higher upgradable up to 32GB			
8	Internal Storage	512GB NVMe M.2 SSD for Operating System			
		1TB SATA 7200rpm Hard disk (Optional)			
9	Audio	Integrated HD Audio			
10	Screen	15.6" diagonal FHD (1920 x 1080)			
11	Keyboard	US Windows keyboard			
12	Camera	720p HD camera or better			
13	Network interface	Integrated Gigabit Ethernet			
		Integrated Wireless LAN (Wi-Fi 5/6)			
		Bluetooth V5.0 or higher			
14	I/O Ports	Minimum 1 x USB-C port			
		USB-C 65W PD port (Optional)			
		Headphone/microphone combo jack			
		2 x USB 3 ports			
		1 x RJ 45			
		HDMI			
		Other: Please specify <i>IF only USB-C a multiport Docking station must be included</i>			
15	Expansion slots	(Please specify)			
16	Battery	3-cell 42Wh Li-ion or better			
17	Power Adapter	(Please specify)			



<b>18</b>	Carrying Case	Should be from the same brand			
<b>19</b>	Operating System	Genuine Windows 11 Professional 64 bit with recovery cloud image (Manufacture confirmation required by computer serial number)			
<b>20</b>	Driver Software	Included Hardware Drivers on CD Media or hard disk recovery partition			
<b>21</b>	Security	Cable lock			
<b>22</b>	Warranty	03 Years comprehensive manufacturer warranty (Verifiable Online)			
<b>23</b>	Product Experience	Product brand must be an internationally recognized brand.			
		Bidder should have minimum of 10 years' experience in selling the quoted Similar Products in Sri Lanka			
		Manufacturer should have minimum of 15 years' experience in manufacturing of the same Brand (Attach proof)			