



NOTICE TENDER

The Department of Mechatronics Engineering, UET Peshawar, intends to procure goods for its project "Piloting and Commercialization of Intelligent Lower Limb Prosthesis". Sealed Tenders/Bids are invited from reputed firms registered with KPRA authorities and having Income/Sales Tax (where applicable) and are included in the Active Tax-payers list (ATL) of FBR/KPRA, etc. to submit Tenders/Quotations for the supply of the following items:

S.No	LOT-1 – Sensors & Actuators	Qty
1	Magnetorheological Damper 0 – 12 V DC; 0 – 2 Ampere	06
2	Rotary Encoder – Expected Life 1 million rev.; 1000 PPR	05
3	Rotary Encoder – Expected Life 100 million rev.; 1000 PPR	05
4	Strain Gauges – Reputed manufacturers such as Omega Engineering UK or equivalent; Nominal Resistance 350 ohms	30
5	Bluetooth enabled fingertip pulse oximeter – SpO2 measurement, pulse measurement, data transmission via Bluetooth	07

S.No	LOT-2 – Gait Analysis System	Qty
1	High speed cameras with tripod stand – 1080 resolution @ 60 fps.	04
2	Gait Analysis software module	01
3	Laptop core i7, 13th generation 24 GB RAM and 512 GB SSD or equivalent	02
4	Treadmill for gait analysis in controlled environment at variable speed	01

Details of items, specifications, terms & conditions can be obtained from the office of the Project Principal Investigator, Department of Mechatronics Engineering, UET Peshawar, Phase 5, Hayatabad on any working day upon payment of Rs. 500/- per set (non-refundable) between 10:00 AM – 3:00 PM or online from UET website free of charge. For any query, please contact us at Phone **No. 091-9217070 (Ext. 817)**.

Interested firms fulfilling the required conditions may submit their quotations along with a 2% Call Deposit or Bank Draft in Favor of "University of Engineering Technology Piloting and Commercialization of Intelligent Lower Limb Prosthesis". Submissions must include a technical and financial bid in single sealed envelopes and be received no later than **10:30 AM, May 09, 2025**. Late submissions will not be considered. Tenders will be opened on the same day at **11:00 AM** in the presence of bidders or their authorized representatives in the Conference Hall UET Peshawar. The center reserves the right to accept/reject all bids or parts in the provision of KPRA rules. Tender will be awarded lot-wise. Only the complete lot will be considered for evaluation.

PROJECT PRINCIPAL INVESTIGATOR

Department of Mechatronics Engineering, UET Peshawar (Sector B3, Phase-5, Hayatabad,
Peshawar) Ph: 091-9217070-817

**Terms and conditions for the supply of equipment for the Pakistan Academy of Sciences
funded project at the Department of Mechatronics University of Engineering and
Technology Peshawar**

1. Separate prices must be quoted for all the equipment in lot 1 and lot 2 along with a complete set of accessories and specifications as mentioned below for lot 1 and lot 2.
2. Only the complete Lot will be considered for evaluation.
3. Bids of each item shall be evaluated separately and the Department of Mechatronic UET may choose to order any item(s) based on budget availability.
4. The Department of Mechatronic UET reserves the right to increase or decrease the quantity of items.
5. The validity period of the quotation/tender must be at least 03 Months.
6. Bid/Rate may be quoted for the unit price of the items (including all taxes) entirely in Pak Rupees transparently and clearly according to the prescribed specification available in the document for each item
7. The rates should be mentioned both in words and figures. Rate with cutting or overwriting will be considered non-responsive.
8. No-tender with conditional, ambiguous, and alternative prices will be considered.
9. Arithmetical errors will be rectified on the following basis: if there is a discrepancy between the unit price obtained by multiplying the unit price and quantity, the unit price shell prevails, and the total shell is correct. If there is a discrepancy between words and figures, the amount in words will prevail. If the supplier does not accept the correction of the errors, its bid will be rejected, and its bid security may be forfeited.
10. Copies of registration with income tax sales tax KPRA (Where applicable) as well as a professional tax certificate for the correct financial year 2024-25 will be required.
11. The suppliers must produce NTN/CNIC with the bill, otherwise, a 2% additional income tax will be deducted from the bill.
12. Security @ 10% of the total bill will be deducted from the suppliers at the time of payment, which will be reimbursed upon the completion of the warranty period.
13. Interested firms fulfilling the required condition may be sent their quotations along with a 2% call deposit /bank draft in favor of “University of Engineering Technology Piloting and Commercialization of Intelligent Lower Limb Prosthesis” in separate sealed envelopes for each item latest 10:30AM May 9, 2025. Late submissions will not be considered. Tenders will be opened on the same day at 11:00 AM in the presence of bidders or their authorized representatives .i.e., in the *Conference Hall UET Peshawar*.
14. A call deposit/banker cheque/pay order equal to 2% of the quoted value must accompany the bid otherwise bid will be considered non-responsive. The call deposit/banker, cheque/pay order shall be in favor of “University of Engineering Technology Piloting and Commercialization of Intelligent Lower Limb Prosthesis”. The call deposit amount shall be deposited on the formula as: $\text{unit price} \times \text{quantity required} = b \times 2\%$.
15. The call deposit will be verified before the comparative statement is prepared, and if it is found to be fake, legal action will be taken against the suppliers as per the law.
16. The suppliers shall be bound to the supplier's items within 16 weeks of the receipt of the supply order failing which their call deposit will be forfeited, and the order(s) will be canceled/withdrawn.
17. All applicable taxes will be deducted from the approved suppliers' bill as quoted on the invoice.

18. In case of fraudulent practice by the supplier, strict action will be taken against the suppliers such as forfeiture of security and call deposit amount and penalty.
19. The blacklist suppliers are not eligible to participate in the bidding. The suppliers are bound to provide an undertaken of non-blacklisting from any government department/agency/authority.
20. All documents relating to the bid and contract shall be in English language.
21. The bidding document should be signed and stamped by a person duly authorized on behalf of the supplier on every page.
22. The supplier shall have relevant experience and a proven track record in supplying similar equipment meeting delivery timelines and providing after-sales support.
23. The tender shall be in a sealed envelope written thereon quotation for the item name with the department and the name of the supplier with full address and telephone/fax number/email address must be written on the back of the quotation if the envelope is not sealed and marked as above. Department of Mechatronics University of Engineering and Technology Peshawar will not be responsible for misplacement or pre-mature opening of the bid.
24. The sealed bid shall be addressed to the Principal Investigator of the project titled “University of Engineering Technology Piloting and Commercialization of Intelligent Lower Limb Prosthesis”
25. Purchase Order will be issued Lot wise and payment will be made against the supply of the complete lot. No partial payment(s) will be made against partial supply/delivery.
26. In case of a supply of defective or used items, the Supplier will be dealt with as per Government rules and regulations.
27. Principal Investigator of the project on obtaining the Departmental Project Committee report and satisfactory report submitted by the end user will release the payment after inspection. If any item is rejected by the Departmental Project Committee, the supplier will be bound to replace it within 03 days at his own risk and cost.
28. The successful Supplier will have to make an agreement on the judicial stamp paper for the supply of the items according to the Contract.
29. The Supplier must provide comprehensive one-year warranties for each item covering all hardware/components, pre-installed software, and on-site support with a 48-hour response time, battery, and chargers’ coverage (for laptops) and replacement of the irreparable unit, within 15 business days with a detailed warranty and performance certificate.
30. Incomplete and after the due tender will not be accepted.

INSTRUCTIONS TO BIDDERS

- All bidders must ensure the provision of genuine, brand-new equipment.
- Items must be delivered within 16 weeks from the date of issuance of the Purchase Order.
- Bidders should include warranty and support details where applicable.
- Quotations should be submitted, including all taxes, delivery, and installation (if required).
- Delivery Location: Office of the Principal Investigator for the project titled “University of Engineering Technology Piloting and Commercialization of Intelligent Lower Limb Prosthesis”, Department of Mechatronics Engineering, UET Peshawar.

Sr. #	Item Name	Qty.
Lot # 1 – Sensor & Actuators		
1.	Magnetorheological Damper - Extended Length: 190 mm – 210 mm - Retracted Length: 150 mm – 160 mm - Stroke Length: 40 mm – 60 mm - Shaft Diameter: 10 mm – 12 mm - Outer Body Diameter: 40 mm – 45 mm - Damping force: 150 – 2500 N - Input Voltage: 0 – 12 V DC - Input Current: 0 – 2A	06
2.	Rotary Encoder - Outer Dimensions (max.): 30 mm x 30 mm x 13 mm - Working RPM (min): 90 rpm - Working torque (min.): 0.5 oz-in. - Working Life (min.): 1 million rev. - Shaft Dia. (min.): 6 mm - Pulses/revolution (min.): 1000 PPR	05
3.	Rotary Encoder - Outer Dimensions (max.): 22 mm x 22 mm x 14 mm - Working RPM (min): 10,000 rpm - Working Life (min.): 100 million rev. - Pulses/revolution (min.): 1000 PPR	05
4.	Strain Gauges - Reputed manufacturers such as Omega Engineering UK or equivalent - Carrier: Polyimide - Substrate thickness: 20 microns - Cover thickness: 25 microns - Solder pads for soldering - Nominal resistance: 350 ohms - Grid size: 4.50 mm x 3.20 mm	30
5.	Bluetooth enabled fingertip pulse oximeter - SpO₂ Measurement - Pulse Rate Measurement - Alarm function for low oxygen saturation - Data transmission via Bluetooth upto 5 meters.	07
Lot # 2 - Gait Analysis System		
1.	High Speed Cameras with tripod stands - Resolution: 1080 @ 60 fps - Autofocus, autoexposure and auto white-balance - USB-C3.0 Compatible - Min. 8 MP lens - Field of view: 90° - Compatible with the gait analysis software module	04
2.	Software module - Marker based biomechanical software for 2D analysis of Walking Gait. - Measurement of joint angles & other data from sports specific activities like jump, squat, etc. - Analyze the anterior, posterior, left & right lateral views of the	1 License

	subject. - Walking gait analysis: Rear foot eversion/inversion, lateral pelvic drop, Knee flexion/extension, hip flexion/extension, ankle plantar flexion/dorsiflexion, knee ab/adduction, stance phase % –swing phase %, single support-double support time, cadence, step length, walking speed, stride length etc. All data to be measured for both left and right extremities - Generate organized reports with Data represented in tabular & photographic form - Inbuilt reference ranges for every parameter measured - Automatic documentation of all observations and abnormal biomechanics in form of notes. - Option to export all data to excel sheets - Inbuilt comparison feature that generates Pre-Post comparison reports to monitor changes in patient's gait and other biomechanical assessments. - Inbuilt database feature for storing analysis data - Designated marker placement guide for Walking gait analysis indicating locations where markers need to be placed on the body. - Software should use AI (Artificial intelligence) models to aid in marker digitization. - Virtual training & Technical support for System operation should be provided. - License validity along with all updates and bug fixes for a minimum period of 5 years.	
3.	Laptops for data capturing and processing - Intel Core i7, 13th Gen or higher 6 GB dedicated graphics card 24 GB RAM 512 GB or higher SSD 15.6 in. display 1920 x 1080 resolution - With built-in speaker, microphone With a bag pack	02
4.	Treadmill for gait analysis in controlled environment at variable speed - Motorized: 2.5 HP continues duty motor - Multi Speed Ranges: 1 – 10 km/hr. - Auto inclination: 0% - 10% - Min. 150 lbs. weight bearing capacity - LED with built-in programs - Pre-installed hand pulse sensor	01

DELIVERY REQUIREMENTS

- Delivery Period: Within 16 weeks from the date of Purchase Order.
- Delivery Location: Delivery Location: Office of the Principal Investigator for the project titled “University of Engineering Technology Piloting and Commercialization of Intelligent Lower Limb Prosthesis”, Department of Mechatronics Engineering, UET Peshawar.
- Installation (required): Included in the bid price.
- All equipment must be delivered in original manufacturer packaging, sealed, and include all manuals, cables, and accessories.

TERMS & CONDITIONS

1. Warranty: All items must carry standard manufacturer warranties as specified above.
2. Technical Compliance: The bidder must submit datasheets and compliance certificates with the bid.
3. After-Sales Support: Minimum 1-year technical support for troubleshooting and maintenance.
4. Payment Terms: Payment will be released after a satisfactory report. e.g., 90% on delivery, 10% after inspection and acceptance.
5. Evaluation Criteria: Fulfil technical specification and Lowest evaluated bid (price + compliance).
6. Penalties: Late delivery penalties as per institutional procurement rules.