



## **Notice Inviting e-Tender**

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Supply and Commissioning of Medical equipments for setting up of Sports Medicine unit at  
IPGME&R and SSKM Hospital of the Govt. of West Bengal  
[3rd call of bid reference no. WBMSCL/NIT-383/2021, (Schedule- IV, IX &XIII); Dated-25.11.2021]

Bid Reference No.: WBMSCL/NIT-147/2022	Dated-13.04.2022
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### **Amendment-I**

## **REVISED TECHNICAL SPECIFICATION**

### **Schedule-II**

### **SPEED, JUMP, TURN ANALYZER MACHINE**

FUNCTIONAL EVALUATION OF GAIT KINEMATICS INVOLVED IN THE SPORT  
MEDICINE INCLUDING Speed, Jump, Turn analysis.

- Functional Assessment of athletes aiming at monitoring and improving their performances
- User friendly device to generate the report automatically and supply immediate comparison with normal range results
- System should have various types of test for gait analysis viz walking test timed up and turning test
- System should have various types of test for sports analysis viz. Squat Jump Squat with weight bar, Counter Movement jump Repeated CMJ, CMJ with arms thrust and Drop Jump
- System should display following spatiotemporal parameters speed cadence, step stride length gait cycle duration stance duration swing duration, single and double support phase duration

- System should display following Time of fight, Jump height, Maximum concentric strength Maximum eccentric strength, Minimum concentric power Maximum eccentric power, Concentric work, Eccentric work. Elasticity index, Bosco index Coordination index
- Systems use an inertial sensor connected to a computer via Bluetooth to determine spatio temporal parameter pelvic rotations and functional evaluation of kinematics involved in the sport movement
- System to be used around the waist by using an ergonomically designed belt System should have a analysis of speed, acceleration pattern and pelvic angles
- System should display the following pelvic griddle angle parameters vi anterior posterior rotations, ante-retroversion, lateral tilt
- The test result displayed in a complete analysis made of spatio-temporal parameters stride after stride, comparison between pre and post curve was patterns
- Should be supplied with complete software for the analysis of above spatio-temporal parameters, pelvic kinematics, functional evaluation of kinematics involved in the sport medicine
- Software should include normative data for all the acquired parameters.
- Other specification includes
  1. Sensor Typology: Tri axial accelerometer, Tri axial magnetometer, Tri-axial gyroscope
  2. Connectivity Bluetooth Frequency at least upto 175 Hz
  3. d Working real time
  4. d) Battery rechargeable via USB
  5. System should have international safety standards
  6. System should have minimum 2 motion analysis camera (min. 50 frames/sec, high resolution) with image analysis for position coordinate to measure jump height and video recording.
  7. Supplied with laptop with of suitable configuration and colour printer.
  8. System shows have at least 2 force plates (size: minimum 120 x 80 cm) for jump assessment.
- Lastly physical demonstration is required for technical evaluation.

- Should have international safety standards USFDA /European CE(4 digit European notified no).