## Indian Institute of Technology Kanpur Department of Civil Engineering

Date: 14.08.2013

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Ref. No: CE/GI/LTAS/02/2013-2014 Closing Date: 30.08.2013 Time: 5PM

**Sub: Quotation for GPS and Total Station** 

Dear Sir/Madam,

We would like to procure GPS and Total Station use in laboratory for teaching and research purposes. You are invited to provide quotations as educational pack with the following features.

Required Features:

Requi	red reacures:	
SN	Description	Required Quantity
1.	Hand held GPS with Complete Accessories	20
	GUI based	
	Receiver- Hand held	
	Channels-minimum 12 channels	
	Update rate- 1Hz	
	GPS	
	GNSS Accuracy	
	Meter or sub meter	
	Storage	
	RAM: minimum 256 MB	
	Flash : Minimum 1 GB	
	External storage: up to 32 GB	
	Connectors	
	USB connector.	
	USB to serial converter.	
	External power connector.	
	SDHC card socket.	
	Battery	
	Type: Rechargeable, removable Li-Ion	
	Battery run time: minimum7 to 8 hour	
	Easy to carry in hand	
	Software:	
	Post processing software unlimited license.	
02	GPS System and complete Accessories	05
	GUI based	
	Single frequency	
	12 Channels L1 C/A Code, L1 Full Cycle Carrier	
	Static and FastStatic GPS surveying	

	Horizontal :at least $\pm$ (5 mm + 0.5 ppm) <sup>2</sup> RMS	
	Vertical: at least ±(5 mm + 1 ppm) <sup>2</sup> RMS	
	Kinematic surveying Horizontal: at least ±(10 mm + 1 ppm) <sup>2</sup> RMS	
	Vertical: at least $\pm (20 \text{ mm} + 1 \text{ ppm})^2 \text{ RMS}$	
	Data Storage	
	Minimum 64 MB memory	
	Data Transfer and download/upload through USB	
	Battery: Rechargeable battery up to 8 hours on a full charge	
	Battery charger: internal with external AC power adapter and	
	complete accessories for receiver.	
	Compatible Post processing software for aforementioned receiver with unlimited use in terms of number of	
	simultaneous uses and to achieve accuracy in mm.	
	Accessories: required cables, carbon fiber rod as per	
	instrument, bipod etc.	
03	Total Station with complete Accessories	05
i	System should be GUI based with WindowsCE	
	Range with reflector sheet of size 5 cm x 5 cm 1.5 m to 270	
	M	
	Range with single prism of size 6.25 cm 1.5 m to 3,000 m  Accuracy	
	(1 Standard Deviation based)	
	With Prism :±(2+2 ppm × D) mm	
	In Reflectorless mode :±(3+2 ppm x D) mm	
	Angle accuracy-horizontal and vertical :1"	
	Horizontal/Vertical angle should be Diametrical	
	Measurement capable in face left and face right.	
	Telescope	
	Image erect	
	Magnification of telescope 30X	
	Minimum focusing distance 1.5m	
	Laser pointer—coaxial with red light	
	Resolving power – 3" minimum	
	Laser Plummet for centering	
	Laser Training	
	Diagonal Eye Piece capable	
	(give cost of diagonal eye piece as an optional item)	
	Tilt concer	
	Tilt sensor  Dual-axis with Compensation range : ±3.5'	
	Dual axis with Compensation range . ±3.3	
	Communication methods	
	Communication ports: USB and RS232	
	Wireless communications: Integrated Bluetooth	
	RAM 128MB and Flash Memory 128MB Minimum	
	Battery capacity: Continues 24 hour working	
	Accessories: Measuring tape for Instrument Height	
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Measurement, required cables, Prism, prism holder, carbon fiber rod, Tripod, required software as per instrument with unlimited license, bipod etc.

## **Service Features**

- 1) It must be noted that the Hand held GPS receiver machine should also be compatible for use with ESRI ARC PAD 6.0 or higher version or mapping tools from other similar Software.
- 2) Warranty period should be clearly mentioned in the quotation. Local maintenance support should be available. If not, please mention where the machine will be serviced in the event of failure. Further mention whether stand-by machine will be provided during down time within warranty period.

You are requested to submit your quotation in sealed envelope mentioning the following:

- 1. Cost of the item including warranty/free maintenance
- 2. Technical specifications in detail.
- 3. Warranty period to be clearly mentioned in quotation.
- 4. Delivery time (items are to be delivered at IIT Kanpur)
- 5. Educational discount applicable considering end use for research and teaching
- 6. Payment terms (as per standard IIT Kanpur norms).
- 7. Proprietary Certificate, if applicable.
- 8. Any other relevant details.

Last date for the receipt of quotations: 30 August, 2013. Please note that your quotation must provide responses to all points raised under service features.

Please call Dr. Bharat Lohani at 0512-2597413 for any further queries/clarifications in this regard.

Yours Sincerely

(Bharat Lohani)
Associate Professor
Department of Civil Engg.
I.I.T. Kanpur-208016
Phone: 0512-259-7413

Phone: 0512-259-7413 Email: blohani@iitk.ac.in