## **Indian Institute of Technology Kanpur**

Department of Civil Engineering

## No. PSG/JNM/IITK-04

16 March, 2012

## Date extended up to 23 March 2012

## ${\bf Sub: } {\bf \underline{Ouotation \ for \ Portable \ Seismograph \ for \ Shallow \ Seismic \ Survey \ reflection/refraction} \\ {\bf and \ MASW}$

Dear Sir,

We propose to purchase a Portable Seismograph to undertake following studies:

- 1) Shallow seismic survey by reflection/refraction up to 100 m or deeper for mapping sub-surface geological structure and deformation if any in young alluvial deposits or hard rock.
- 2) For Multi channel Analysis of Surface Wave (MASW) for knowing the sub-surface variation is lithology and strength of the soil or sediment succession.

You are requested to send your quotation/s quoting best price for the portable seismograph with following specifications (minimum):

S.	Description of items	Qty
No.		
1	<ul> <li>Light weight portable Seismograph 48 Channel Signal System. The unit should have low power consumption, field ruggedised, single in-house unit with inbuilt color display,</li> <li>With inbuilt Hard Disk drive, USB Port for data Transfer and should be capable of performing the data acquisition in the field without any laptop. The system should compatible with geophones (manufactured by main system manufacturer)</li> <li>Seismic land cables, portable weight drop source (~55 kgs) to get deeper penetration, hammer switch along with essential cables, battery and battery charger, carrying bag.</li> </ul>	01
2	Software for 2D seismic surface wave analysis (MASW) should be provided along with the complete system. Geophones, software etc. Should be manufactured by the main system manufacturer.	01
3	Software for reflection/refraction analysis (with at least three licenses)	01
4	14-28 HZ VERTICAL GEOPHONE - for refraction & reflection survey	50
5	4.5 HZ VERTICAL GEOPHONE - for Multi-Channel Analysis of Surface Wave (MASW) - Vs	50
6	AMC/warranty for at least 3 years	

Note: The above specifications are minimum required, however, you are requested to come up with better specifications/combinations suitable for above mentioned survey. We will appreciate your suggestions in this regard.

You are requested to submit your quotation in a sealed envelope with complete product description, technical literature, price, warranty period (minimum 3 years), delivery time and other terms and conditions if any **by 23 March, 2012**. Your quotation should be sent on the given address: Dr. Javed N Malik, Department of Civil Engineering, IIT Kanpur. Kanpur 208016. Uttar Pradesh. If you have any questions please call Dr. J. N. Malik at 2597723 or 09956300101.

Yours Sincerely

(J N Malik)