INDIAN INSTITUTEOFTECHNOLOGY KANPUR Department of Earth Sciences

Enquiry No: JNM/ES/2016-17/02 Date: May 16, 2016

Subject: Quotation for Installation of GNNS Reference Station in Himalaya

With reference to the above subject mentioned, quotations are invited in a sealed envelope so as to reach us by May 23, 2016. The quotations with all other details shall be submitted/sent in the form of a hard copy to the address mentioned below. If you have any questions please contact the undersigned or sent an email.

The prospective suppliers are requested to send the quotation in two separate sealed envelopes, as "Technical Bid" and "Financial Bid". The Technical Bid should contain detailed technical specification of the product being offered and should not mention any prices. The Financial Bid should include the detailed price quotation clearly including the cost of the equipment, taxes, service charges if any, shipping and handling charges. The two separate and sealed envelopes should be clearly marked appropriately as "Technical Bid" and "Financial Bid".

NOTE:Kindly write the inquiry no on the top of envelop.

Terms and Conditions:

- 1. Maximum education discount, if any should be offered
- 2. Validity of quotation should be at least for 60 days
- 3. Prices should be on CIF and FOB separately (if imported)
- 5. Normal payment terms for the Institute will be applicable (90% on delivery of the items and the remaining 10% after satisfactory installation/inspection).
- 6. Quotation should carry proper certifications like agency Certificate, Proprietary certificate (if applicable) etc.

Prof. Javed N Malik Professor Department of Earth Sciences CC Room No 201

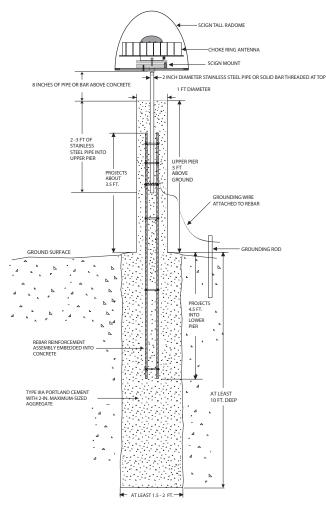
Phone: +91-512-2598971 (Office)

A) Installation of GNSS Reference Station in Himalaya: (The installation should be according to specifications given below + reference sketch)

Pillar: 6 feet tall (above the ground level) with square shape of size 1.5 ft x 1.5 ft. The pillar will have foundation of at least 4 feet deep. At the foundation level the pit will be 4 feet x 4 feet. There will be a iron bars "jaal" at the foundation level from where the pillar will start through L bends. The RCC pillar will have four 16 mm and eight 10 mm iron rods of length 11 feet (6+4+1 feet). The mixture will have 1:3 cement:sand ratio. The pit will be filled with this mixture along with angular concrete (bajri).

There should be a small hut of size 2 feet x 2 feet x 2 feet at the base of the pillar for keeping instruments. The hut will have an iron door with locking provision. The hut can be made using the bricks but it will have a slab roof. In case of hard rock where it is difficult to dig, the depth of foundation would be at least 2 feet. Remaining 2 feet will be above the ground level and over this the pillar height would be 6 feet.

Figure: A reference figure is given here, in case of discrepancy in the dimensions, dimensions from the text will be considered



- **B)** For functioning of all GPS stations you are also requested to quote for following items for complete installation:
 - a) 12 V, 100 Ah SMF battery (for each station)
 - b) 80 W Solar Panel alongwith the requisite charge controller (for each station)