

**Government of India**  
**Bhabha Atomic Research Centre**  
**Applied Physics Division**

**Ref:** BARC/APD/MF/2022/IKS/414

May 23, 2022

**Sub: Repair, upgradation and servicing of HP-Ge based gamma spectrometer system (Baltic Scientific Instruments make detector GCD-50190 along with MCA 527) QTY- 1 Set as per attached specifications**

**Due Date: 08/06/2022**

Kind attention: I. K. Singh      Extension-21317

Dear Sir,

1. Quotations are invited for the minor fabrication job, as per the enclosed specifications.
2. Bidder shall quote for fabrication of these components with material.
3. Bidder shall take out an insurance policy in favor of BARC for any free issue material supplied.
4. Taxes shall be quoted separately.
5. The quotations must reach, Head, Applied Physics Division on or before the due date referred above and must be sent in a sealed envelope superscribed with the above reference number and due date by speed post only
6. The address on the envelope should read:

**The Head,**  
Applied Physics Division, Purnima Labs,  
Bhabha Atomic Research Centre, Trombay,  
Mumbai - 400 085.  
Attn: **I. K. Singh**
7. The fabrication work shall be subject to inspection by our representative. The finished components shall not be dispatched prior to approval by our representative at the bidder's works. Necessary inspection facilities should be provided to our engineers during fabrication at bidder's premises.
8. The bidder shall deliver the finished components after approval by our representative, **within 90 days** from the date of the firm purchase order issued to the bidder. The finished components shall be delivered by the bidder at **Applied Physics Division**, Purnima Laboratory, Bhabha Atomic Research Centre, Trombay, Mumbai-400 085.
9. **Head, Applied Physics Division, BARC**, reserves the right to accept/reject any or all quotations without assigning any reason.
10. **Payment** will be made by cheque only after satisfactory completion of work on production of bill, delivery challan and advance stamped receipt. It may be noted that IT @ 2% shall be deducted from your bills.
11. Job will be guaranteed against material and manufacturing defects for 1 year from the date of supply.

  
(I. K. Singh)

Scientific Assistant D  
For and on behalf of,

, Head, Applied Physics Division

Enclosure: Specification of Tender

## Scope of Work

### **Repair, upgradation and servicing of HPGe based gamma spectrometer:**

The scope of the work includes repair, upgradation and servicing of HPGe based gamma spectrometer system (Baltic Scientific Instruments make detector GCD-50190 along with MCA527). The supplier can inspect the system by contacting our representative before finalizing quotation. The scope of supplier is to make system working including replacement/ repair of any component or batteries. Some of the steps may be following:

1. Checking of operating voltage (2500 volt)
2. Checking and replacing of faulty electrical component of preamplifier.
3. Calibration of preamplifier must be done.
4. Testing for proper working of MCA adapter.
5. Checking for proper vacuum of Dewar flask.
6. Checking evacuation with heating.
7. Replacement of FETs.
8. MCA 527 battery power must be upgraded/ battery repair or replacement.
9. Proper setting of germanium crystal and other two p-type and n-type crystal must be checked.
10. Crystal defect must be tested.
11. Resolving energy resolution of detector using proper gamma source of cesium and cobalt.
12. Supplier should make arrangement for the transport arrangement (to and fro) of the detector system (up to north gate BARC).
13. Supplier shall quote for lump sum for all the items.
14. Supplier can contact for more details/ inquiry on extn no. 022-25591317 before due date.

Note: Supplier should submit the details of experience on working upgradation/repair of Hp-Ge detectors.

@mb. Singh