

**Department of Genetics
University of Delhi South Campus
New Delhi - 110021**

Specification of Next Generation Sequencing System

Ref. no. UDSC/Genetics/AD/NGS/F/2024-25

Dated 12.02.2025

Quotations are invited through GeM / CPP portal (e-procurement) under 2-bid system for Next Generation Sequencing System with FOR destination price to be quoted in INR for University of Delhi, South Campus. The quote should be inclusive of all taxes and duties for supplying and installation of the item as described below

1. The System should be a simple bench top instrument to support various applications like: WGS, WES, WTS Genomic sequencing (de novo/re-sequencing) for humans/plant, , Targeted Panel Sequencing e.g. Cancer panels, PAN Cancer CGP, Liquid Biopsy etc., and small RNA sequencing The same system should be upgradable to perform Protein Analysis, Expression Analysis and Cyto Profiling
2. System should be user friendly, scalable and have capability of remote run monitoring.
3. The NGS platform should use globally proven sequencing chemistry to enable high quality data.
4. Quoted system should be capable of doing onboard early demultiplexing
5. Quoted system should have dual independently controllable blocks to accommodate two flowcells of same or different read lengths/ Chemistries at same time or independently to allow users for setting up experiment runs using two different applications, .
6. Quoted system should support flow cells with individually addressable lane to offer broad range of application and sample type in same run.
7. Quoted system should be able to generate data output upto 600 GB in single run using two flow cells
8. Quoted system should support 2X75, 2X150, 2X 300 read length chemistries to support broad range of applications with different throughputs for example 2X150 (300 GB) , 2X150 (75 GB) and 2X150 (150GB)
9. Quoted system should be able to generate exceptional data accuracy with $\geq 70\%$ Q50 , $\geq 90\%$ Q40 data and Q30 $>95\%$
10. Quoted system should be capable of performing early indexing with index-first run format to enable early index analysis of individual samples to anticipate subsequent run requirements to enable cancel or re-start a run.
11. Quoted system should be able to read through at least 20 bases homo-polymer stretches in the genome accurately.
12. The vendor should quote all (low, medium, high throughput) the available flowcells for 2x150 read lengths format to allow user to select the flowcell as per data output needed., however the final cost calculation (Price per GB) should be done based on the weighted average of 2x150 flowcells along with the main system cost for total 15000 GB in a year and the same shall be accounted for L1 bid criteria.

13. Trained Operator should be provided for 1 year as and when requirement to setup experiment.
14. System should be quoted with – 3 years Warranty and 2 years AMC

General Instructions

1. Premium branded instrument should be provided to ensure the high quality and reliability of experimental outcomes.
2. Details on website & product literature justifying the technical specifications must be provided. The vendor must provide appropriate link/ website detail to verify the technical specifications mentioned in the provided product brochure.
3. The system should come along with 3 years of warranty & 2 years AMC. Should be supported with remote services, cloud connectivity online monitoring, and external barcode using USB, etc.
4. The supplier should have service center in Delhi/NCR for quick service within 48 to 72 hours
5. Firm MUST provide a compliance statement vis-à-vis specifications in a "tabular form" clearly stating the compliance and giving justification, if any supported by technical literature with clear reference of page number, paragraph, or lines. This statement must be signed, with the company seal, by the Tendered for its authenticity and acceptance that any incorrect or ambiguous information found submitted will result in disqualification of the Tender.

Important information

1. The quotation should be addressed to the "Professor Amit Dutt, Department of Genetics, University of Delhi South Campus, New Delhi-110021". The quote should be submitted with all terms and conditions and necessary documents latest by end of tender date.
2. Quotations must be submitted in a two-bid-system. The first part, technical bid, should consist of all technical details and supporting documents with terms and conditions. The compliance sheet must be filled by the vendor.
3. The second part, financial bid, should contain item-wise pricing of items mentioned in the technical bid. Both the quotation documents/ bids are to be submitted through GeM/ CPP portal of the Government of India only (e-procurement). Hard copies of bid will not be accepted.
4. Bank guarantee in INR 3% of the value of the instruments quoted should be provided along with the tender documents, in favor of "The Director, University of Delhi South Campus, New Delhi-110021".
5. The bidder will have to quote all items together. Partial quotes will not be accepted. For each item, the make, model and technical specifications and quantity must be mentioned clearly. Original brochure must be provided.

6. The purchase committee reserve the right to request the participating vender for demonstration of the all the quoted technical specification/ capabilities of the offered model preferably at University of Delhi South Campus, New Delhi-21, or within the Delhi state. The purchase committee reserves the right to disqualify a participating vender if they fail to demonstrate the quoted technical specification and/or capability of the offered equipment/ model.
7. The quote should be valid for 90 days from the last date of submission of bid.



Professor Amit Dutt
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