



GURU GOBIND SINGH INDRAPRASTHA UNIVERSITY
SECTOR 16C, DWARKA, NEW DELHI – 110 078

Supply and installation of Wi-Fi Access Points and
Controller at GGSIPU Campus (Sector 16 C, Dwarka,
New Delhi - 110078)

TENDER DOCUMENT

(This Document contains 38 pages)

Tender Document – Sl. No. _____

Guru Gobind Singh Indraprastha University
Sector 16C, Dwarka, New Delhi – 110 078

Tender Document

1.	Name of work	:	Supply and Installation of Wi-Fi Access Points and Controllers at GGSIPU Campus (Sector 16 C, Dwarka, New Delhi)
2.	Last Date & Time for submission of tender	:	01.05.2013 (Wednesday) upto 3.00 PM
3.	Place / Office for submission for Tender	:	Purchase Branch, Library Block, Room No. L010, Ground Floor, Guru Gobind Singh Indraprastha University, Sector 16C, Dwarka, New Delhi – 110078
4.	Earnest Money Deposit	:	1,80,000/- (One Lakh Eighty Thousand only)
5.	Cost of Tender Form (Non-Refundable)	:	Rs. 1000/- (Rs. One Thousand Only) through DD in favour of Registrar, GGSIPU, Payable at Delhi
6.	Delivery Period	:	Within 45 days (Fourty Five Days)
7.	Issue of Tender Document	:	10.04.2013 to 01.05.2013 upto 3.30 PM on all working days from 10.00 AM to 03.00 PM. Tender Document may be purchased from Office of In-Charge (Purchase), Library Block, Room No. L010, Ground Floor, Guru Gobind Singh Indraprastha University, Sector 16C, Dwarka, New Delhi. OR Tender Document may be down loaded from the University Website. www.ipu.ac.in
8.	Date and time of submission of Tender	:	Latest by 01.05.2013 (Wednesday) upto 03:30 PM
9.	Opening of Technical bid in presence of the authorized representatives of bidders, if any.	:	01.05.2013 (Wednesday) at 04.00 PM

1.0 Introduction

1.1 The sealed item rate tenders are invited in two Bid System – (Technical & Financial Bid) on behalf of the Guru Gobind Singh Indraprastha University, Sector 16C, Dwarka, New Delhi from reputed & eligible agencies for **“Supply and installation of Wi-Fi Access Points and Controllers at GGSIPU Campus (Sector 16 C, Dwarka, New Delhi)”**.

2.0 Scope

The work consists of:

2.1 **“Supply and Installation of Wi-Fi Access Points and Controllers at GGSIPU Campus (Sector 16 C, Dwarka, New Delhi)”** as per requirement given in Section - III.

2.2 Installation & fixing of Wi-Fi Access Points and Controllers (As per Annexure K) at the said location.

2.3 Comprehensive on-site warranty on Wi-Fi Access Points and Controllers should have at least 3 years (on-site & comprehensive) from the last date of completion / installation of the items supplied as certified by the University.

3.0 Definitions:

3.1 GGSIPU means Guru Gobind Singh Indraprastha University, Delhi

3.2 University means Guru Gobind Singh Indraprastha University, Delhi

3.3 Employer means the Registrar, GGSIPU and his successor

3.4 Bidder / Supplier means the individual, proprietary firm, partnership firm, limited company private or public or corporation

3.5 “Year” means “Financial year” unless stated otherwise.

4.0 Eligibility Criteria:

- a) Tenderer must produce latest OEMs Authorization Certificate with blue ink signature.
- b) Agency should have satisfactorily completed three similar works each costing not less than Rs.10 lacs or two similar works each costing not less than Rs. 15 lacs or one similar work costing not less than 30 lacs during the last five years ending December 2012. Similar work shall mean work of supply & installation of Wi-Fi Access Points and Controllers in central government / central autonomous bodies / educational institutions / central public undertaking.
- c) Tenderer should have well established office in Delhi with registration since last 05 years.
- d) Tenderer should have PAN/TIN Number, Sales Tax/Service Tax registration.
- e) Tenderer should not have been bared or blacklisted by any of the Central Government/Departments/Organisations/Central PSUs.
- f) Tender is liable to be rejection without EMD.
- h) Every page of tender document should be signed by the Tenderer with seal.
- i) In case any person signs the tender/agreement on behalf of a limited company or firm, letter of authority/resolution passed by the Company/firm empowering

him/her to sign the documents on behalf of company or firm shall be enclosed in the tender document.

- j) Tenderer must be registered firm.
- k) Certificate of registration, MOU in case of partnership firm, article of association etc. must be attached.
- l) Tenderer should also have the authorization of full support of maintenance and spares as detailed in this tender document from OEMs.
- n) Should have minimum average annual financial turn over of Rs. 1 crore during the last three years ending March 2012 duly certified by Chartered Accountant.
- o) Wi-Fi Access Points and Controllers should have at least 3 years warranty (on-site & comprehensive).

Note: 1) The tenderer shall submit the copy of the work done / completion certificates from client / consultant not below the rank of Executive Engineer / Project Manager / Administrative Officer/Director/System Analyst.
2) The tenderer shall submit copy of balance sheet, profit & loss account duly audited by Chartered Accountant.

5.0 Who can apply:

- 5.1 If the bidder is an individual, the application shall be signed by him above his full type written name and current address.
- 5.2 If the bidder is a proprietary firm, the application shall be signed by the proprietor above his full typewritten name and the full name of his firm with its current address.
- 5.3 If the bidder is a firm in partnership, the application shall be signed by all the partners of the firm above their full typewritten names and current addresses, or alternatively, by a partner holding power of attorney for the firm. In the latter case a certified copy of the power of attorney should accompany the application. In both cases a certified copy of the partnership deed and current address of all the partners of the firm should accompany the application.
- 5.4 If the bidder is a limited company or a corporation, the application shall be signed by a duly authorized person holding power of attorney for signing the application accompanied by a copy of the power of attorney. The bidder should also furnish a copy of the Memorandum and Articles of Association duly attested by a Public Notary.
- 5.5 Joint Venture/ Consortiums are not accepted.

6.0 Sealing and Marking of Bids

- 6.1 The bidder shall place the three separate envelopes (called inner envelopes) marked "Technical Bid", "Financial Bid" and "Earnest Money Deposit" in one outer envelope. The inner envelopes will have marking as follows:-
 - A) Technical Bid
 - B) Earnest Money Deposit (EMD)
 - C) Financial Bid

- 6.2 The sealed inner and outer envelopes containing the technical and financial bid shall be addressed to Registrar, Guru Gobind Singh Indraprastha University, Sector 16C, Dwarka, New Delhi.
- 6.3 The sealed tender shall bear the name and identification number of the Tender on the cover of the Envelope.
- 6.4 In addition to the identification required as above, each of the envelopes shall indicate the name and address of the bidder to enable the bid to be returned unopened in case it is declared late or is declared non-responsive.

7.0 Bid Submission:

7.1 The envelop named “Technical Bid” shall comprise of following

- a) Letter of Transmittal (as per Annexure – A)
- b) Legal status of the company/ organization with legal proof along with copies of the original documents (as per Annexure B)
- c) Income tax registration, service tax registration, Vat registration, TIN number, etc. (attach copies of the original documents)
- d)
 - Earnest Money Deposit
 - Details & supporting document for initial eligibility criteria in formats attached in Annexure- C, D, E, F, H & I.
 - ORIGINAL Tender Documents (Vol.1), signed and stamped on each page, but without price bid i.e. Schedule of Quantities Vol.II.
 - Covering letter, technical submission and other details required forming part of the offer.

7.2 The envelope named Financial Bid and shall comprise of the price bids of the items included in Section III

7.3 Each page of the Technical Bid & Financial Bid must be sealed and signed by the authorized signatory of the bidder.

7.4 Duly signed tender document along with all corrigendum, addendum issued, if any, should also be sealed as part of technical bid.

8.0 Opening of Financial bid and evaluation:

The financial bids of only those bidders which qualify the initial eligibility criteria will be opened in the presence of intending bidders. The date and time of opening of financial bids shall be intimated separately to the bidders who satisfy the initial eligibility criteria. The lowest financial bidder shall only be considered for award of work.

9.0 Earnest Money Deposit:

- 9.1 The Earnest Money Deposit (EMD) as prescribed must be attached. The Earnest money shall be accepted in the following forms and shall be in favour of “Registrar, GGSIPU”, payable at Delhi:-
- i. Demand draft / Bankers cheque
 - ii. Fixed deposit receipt (FDR)
- 9.2 Tenders with no earnest money deposit will summarily be rejected. In case of successful bidder of the financial bids, the earnest money may be retained and adjusted towards a part of the Performance Guarantee.
- 9.3 In the case of unsuccessful bidders, the Earnest Money Deposit will be refunded without any interest.

10.0 Financial Bid:

- 10.1 The bidder shall quote unit item rates in Indian rupees (INR), both in words and figures in the Schedule quantities only. No alterations in the form of tender, in the schedule of quantities or additions etc. shall be permitted. In case of difference between the rates of items written in figures and in words, the rates of items written in words shall be taken as correct. No changes in unit rates shall be allowed. The rates quoted in schedule quantity are for finished and completed items and no extra amount for carting or transporting material, labour etc. shall be paid unless specifically so mentioned or provided for in tender. The rates should be inclusive of all leads and lifts for all materials in the completed items and also include all taxes, duties, royalties etc. including Work Contract Tax, labour cess, ESI, EPF etc. as applicable. No extra payment on this account will be made.
- 10.2 The Work Contract Tax/Turnover Tax/Income Tax shall be deducted at source at the rate that will be in force from time to time.
- 10.3 Terms of price shall be in Indian rupees (INR) inclusive of duties, packing, forwarding, transportation, assembly, installation at University Campus at Sector 16 C, Dwarka, providing warranty of respective items (on site and comprehensive) along with applicable taxes and levies.

11.0 General:

- 11.1 All information called for in the enclosed forms should be furnished against the relevant places in the forms. If for any reason, information is furnished on a separate sheet, this fact should be mentioned against the relevant place. Even if no information is to be provided in a column, a “nil” or “no such case” entry should be made in that column. If any particular/query is not applicable in case of the bidder, it should be stated as “not applicable”. The bidders are cautioned that supply for incomplete information called for in the application forms or deliberate suppression of any information may result in the bid being summarily disqualified. Bids received after the expiry of the stipulated date and time mentioned in the tender document will not be entertained.
- 11.2 The bid document should be legibly written. The bidder should sign each page of the bid.

- 11.3 Overwriting should be avoided. Correction, if any, should be made by neatly crossing out, initialing with date and rewriting. Pages of the eligibility criteria document are to be numbered. Additional sheets, if any added by the bidder, should also be numbered. Bid should be submitted as a package with signed letter of transmittal.
- 11.4 References, information and certificates from the respective clients certifying suitability, technical knowledge or capability of the bidder should be signed by officer of the client organization.
- 11.5 The bidder may furnish any additional information which he thinks is necessary to establish his capabilities to successfully complete the envisaged work. He is, however, advised not to furnish superfluous information. No information shall be entertained after submission of tender document unless it is called for by the University.
- 11.6 Any information furnished by the bidder found to be incorrect either immediately or at a later date, would render him liable to be debarred from tendering/taking up of any work in GGSIPU.
- 11.7 The successful bidder shall have to work in co-ordination and co-operation with any other agencies appointed by the University to work simultaneously in the same or adjoining area. The decision of the University in case of any dispute between the different agencies appointed by the University shall be final and a binding.
- 11.8 The bidder will have to enter into regular agreement on the receipt of acceptance of the tender and shall abide by all the rules and regulations embodied therein.
- 11.9 Income tax, Works Contract Tax and any other tax at the rates in force during the progress of contract that will be in force from time to time shall be recovered / deducted from the released payment amount.
- 11.10 Sales Tax, purchase Tax, turnover tax or any other tax on material applicable on the date of submission of bid in respect of this contract shall be payable by the contractor and University will not entertain any claim whatsoever in respect of the same.
- 11.11 On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the University shall be communicated in writing to the Registrar.
- 11.12 The contractor shall furnish a list of University employees related to him, if any.
- 11.13 The material used shall be BIS standards first quality.
- 11.14 If the bidder shall obtain a contract with GGSIPU as a result of wrong tendering or other non-bonafide methods of competitive tendering, the University reserves the right to terminate the contract without any liability to the contractor.
- 11.15 Without prejudice to any of the rights or remedies under this contract if the contractor dies, the University shall have the option of terminating the contract without compensation to the legal heir of the contractor.
- 11.16 Escalation: Increase in rates of material / Labour shall not be payable on any account. Price quoted shall be firm and no escalation will be allowed on any account.

11.17 The successful bidder will have to sign an agreement within stipulated time period as mentioned in the letter of intent. The necessary fees, stamp paper, etc. required for completing the agreement have to be borne by the bidder.

11.18 Scope of Works

The Scope of work shall consist of **Supply and installation of Wi-Fi Access Points and Controllers at GGSIPU Campus (Sector 16 C, Dwarka, New Delhi)** including supply, preparation of design drawing; erection and placing in position at site, complete in all respects, and its maintenance during warranty period.

11.19 Specification for Work, Quality and Workmanship

The procurement of various materials shall be either from the manufacturers or their main authorized dealers to ensure that no duplicate/spurious makes are used in the works. The entire work shall be warranted for a period of three years against defective material and poor workmanship with liability of replacement or to the satisfaction of the University.

Wherever reference to Indian Standard Codes and practices is made they shall be referred to the latest edition/revision of the same, issued up to 7 days prior to the submission of tender.

11.21 Drawings

The drawing provides a general idea about the work to be performed under the Scope of the Contract and are by no means final drawings showing the full range of work under the scope. Work has to be executed strictly according to Mock-up and shop drawing submitted with the bid and correction if any suggested /approved by the University.

11.22 Watch and Ward

The Contractor shall be responsible for watch and ward of all the works, equipment and various materials till complete handing over the works.

11.23 Safety and Security

Safety and Security of workers/staff, material, equipments, etc. will be the responsibility of the contractor. The university will not be held responsible on this account.

11.24 The University reserves the right, without being liable for any damages or obligation to inform the bidder, to:

- (a) Amend the scope and value of contract to the bidder.
- (b) Reject any or all the applications without assigning any reason.

11.25 Any effort on the part of the bidder or his agent to exercise influence or to pressurize the University would result in rejection of his bid. Canvassing to any kind is prohibited.

12.0 Final decision making authority

The University reserves the right to accept or reject any bid and to annul the process and reject all bids at any time, without assigning any reason or incurring any liability to the bidders. No claim whatsoever will be entertained / paid by the university to the bidder (s).

13.0 Summary Rejection of the tender.

- 13.1 The bid without bid security (EMD) will summarily be rejected.
- 13.2 The bid without the documents required as mentioned in the technical bid are likely to be rejected.
- 13.3 Late tender(s) will not be accepted.
- 13.4 There should not be two prices for the same equipment, which will summarily be rejected.
- 13.5 No separate covers other than the consolidated sealed cover for tender will be accepted.
- 13.6 The terms and conditions other than the stipulated in the above tender will not be considered. The conditional tenders will be rejected.
- 13.7 The tender may be rejected in full or any part at the discretion of the university.

14.0 Particular provisions

- 14.1 The University reserves the right to execute the work or reject the tender without assigning any reason or incurring any liability to the bidder.
- 14.2 The University has the power to make alteration in, omission from, addition of or substitution for the original specifications, drawings, designs.
- 14.3 Variation in the quantity of work up to 30% from the proposed quantity will be acceptable to the bidder for a period of one year.

15.0 Site visit

- 15.1 The bidder is requested to visit the work site and get acquainted with site conditions regarding layout and all other matters, affecting the work before filling in the item rates. Submission of a tender by a bidder, implies that they have read these instructions and have made themselves aware of the scope of the work, conditions of contract and University will not, therefore, bear any extra charges on any account, in case the bidder finds later on to have misjudged the site conditions or specification.
- 15.2 Interested Firms/Agencies can visit the site in the University to survey, before submission of tender on all working days (Monday to Friday) from 10:00 AM to 04:00 PM.

16.0 Amendment of tender document:

- 16.1 Before the deadline for submission of tender, the University may modify the tender document by issuing addenda.

- 16.2 Any addendum thus issued shall be a part of the tender document and shall be uploaded on the University website (www.ipu.ac.in). Prospective bidders must visit the website before filling and submission of Tender Document for such information.

17.0 Validity of Tender:

Ninety days from the date of opening of tender. During this period no bidder shall be allowed to withdraw his tender. In case of withdrawal, the EMD submitted by the bidder shall be forfeited and no claim shall be entertained on this regard.

18.0 Performance Guarantee:

- 18.1 The Performance Guarantee of 10% of the total tendered value will be deposited by the tenderer within the 15 days alongwith an agreement on a non judicial stamp paper worth Rs. 100/-, after the letter of intent. The Performance Guarantee shall be accepted in the following form and shall be in favour of “Registrar, GGSIPU”, payable at Delhi with a validity of months as under:-

- i. Fixed deposit receipt (FDR) of a nationalized bank (Warranty period plus six months validity)
- ii. Bank Guarantee (As per Annexure-G) (Warranty period plus six months validity).

- 18.2 The Performance Guarantee will be refunded without any interest after the successful installation and completion of warranty period.

- 18.3 In case of non submission of Performance Guarantee within specified time, the earnest money will be forfeited and the University may consider to black list the contractor.

- 18.4 In case a fixed deposit receipt/ Bank Guarantee of any bank is furnished by the contractor to the University as part of the Performance Guarantee and the Bank is unable to make payment against the said instrument. The loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to the University to make good the deficit.

19.0 Sample Approvals

- 19.1 A pre-delivery inspection may be undertaken by the University representatives at the place of manufacturing of the suppliers works. If required, inspections at various stages of manufacturing can also be undertaken by the university representatives at suppliers work and contractor should not have any objection for the same. The time taken for delivery inspection is inclusive of the scheduled completion time of the delivery & installation. If there are any issues regarding quality of material the University reserves right to get the material tested and the contractor has to pay all expenses towards transportation, testing charges, etc.

20.0 Warranty

The contractor shall provide 3 years warranty (on-site & comprehensive) on **Wi-Fi Access Points and Controllers** from the last date of installation and shall be

responsible for any defects that develop in the Wi-Fi Access Points and Controllers. They shall also replace any defective part of the product supplied and other accessories, without any exception and recourse, free of cost.

The contractor is responsible for all packing, unpacking, assembly, installation of units. The contractor will test the products and accomplish the adjustments necessary for successful and continuous operation of the products supplied at all installation sites and shall ensure maintenance of the supplied products during the warranty period. All the repairing / replacing of defects shall be done by the contractor totally free of cost.

21.0 Duration

The items covered under this tender are required to be delivered and installed at University Campus at Sector 16C, Dwarka, New Delhi **within 45 days**, as specified in delivery schedule submitted by bidder.

22.0 Payment Terms

Payment for Goods and Services shall be made by University in Indian Rupees as follows:

- 22.1 Payment will be made against delivery and satisfactory installments of the items as specified in the delivery schedule.
- 22.2 Each invoice should be submitted in duplicate clearly specifying contract no, goods description, quantity, unit price, total amount along with warranty certificate, etc.
- 22.3 No advance payment will be made under any circumstances.

23.0 Delay and Non Conformance

- 23.1 If the contractor fails to Install any or all of the goods with in the period specified in the Purchase Order, University shall without prejudice to its other remedies under the Purchase Order, deduct from the contract price, as liquidated damages, a sum equivalent to 0.5% of the contract price of the delayed goods weekly or part thereof of delay until actual delivery. The penalties will be maximum of 5% of the contract amount / awarded value.
- 23.2 In case of extraordinary delay or beyond 45 days of stipulated delivery period, University reserves the right to terminate the contract without any liability to cancellation charges and encash the submitted Performance Guarantee.

24.0 Services during warranty period

- 24.1 The maximum response time for maintenance complaint during warranty period (i.e. time required for contractor's maintenance engineer to report at the installation after a request call/email/SMS is made or letter is written) shall not exceed 01 day.

- 24.2 The period for correction of defects during warranty period is 03 days.
- 24.3 In case an item is not usable beyond the stipulated maximum downtime the contractor will be required to arrange for an immediate replacement.
- 24.4 In case the rectification of defects is not carried out within 03 days and replacement of defective items are not provided, a penalty of sum equivalent to 5% per week of the delivered price of that defective item(s) shall be levied. This penalty is applicable upto a maximum of 4 weeks (maximum 20%). Subsequently, the rectification shall be carried out by the University at the risk and cost of the contractor. The cost of repairs along with the penalty of 100% shall be recovered either from any due to the company or from the performance security held with University and the balance amount if any, will be paid to the contractor after completion of warranty obligations.
- 24.4.1 The local technical support, after sales service should clearly be mentioned in technical bid.

25.0 Packing and Marking

- 25.1 All packing should be strong enough to withstand rough handling during loading/unloading and transporting. Fragile articles should be packed with special precaution and should bear the marking like fragile, handle with care, this side up etc.
- 25.2 All protection and threaded fittings shall be suitably protected and covers shall block the openings.

26.0 Substitution and Wrong Supplies

Unauthorized substitution or materials delivered in error of wrong description or quality or supplied in excess quantity or rejected goods shall be returned to the contractor at contractor's cost and risk.

27.0 Insurance, Freight and Deliveries

- 27.1 The contractor shall make all arrangements towards safe and complete delivery at the designated locations indicated by University in the Purchase Order. Such responsibility on part of the contractor will include taking care of insurance, freight, state level permits etc. as applicable.
- 27.2 The contractor will keep University informed about changes, if any, in various stages of deliveries, installation.

28.0 Arbitration and Settlement of Disputes:

- 28.1 University and the contractor shall make every effort to resolve amicably by direct information negotiation by difference or dispute arising between them under or in connection with the University order.

- 28.2 If after thirty (30) days from the commencement of such informal negotiations, University and the contractor have been unable to resolve amicably the dispute, either party may require that the dispute be referred for resolution to the formal mechanisms as specified hereunder:
- 28.2.1 Any dispute or differences whatsoever arising between the parties out of or relating to the manufacturing, meaning, scope, operation or effect of this contract or the validity or the breach thereof shall be settled by arbitration in accordance with the provisions of the Arbitration & Conciliation Act, 1996 and the award made in pursuance thereof shall be binding on the parties. The sole arbitrator shall be appointed by the Vice Chancellor, GGS Indraprastha University.
- 28.2.2 The performance under this contract shall not stop for any reason whatsoever during the said dispute/proceedings, unless the contractor is specifically directed by University to desist from working in this behalf.
- 28.2.3 The venue of arbitration shall be Delhi/ New Delhi. The language of proceedings shall be English. The Law governing the substantive issues between the parties shall be the Laws of India.
- 28.2.4 It is also a term of that if any fees are payable to the arbitrator, these shall be paid equally by both the parties. It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their statement of claims and counter statement of claims.

SECTION II

**INFORMATION REGARDING TECHNICAL
ELIGIBILITY**

(Annexure A to F, H & I)

LETTER OF TRANSMITTAL

From:

To

The Registrar

GGSIU

Sector 16C, Dwarka

New Delhi - 110078

Sub: Submission of Tender Document for the work of “**Supply and Installation of Wi-Fi Access Points and Controllers at GGSIU Campus (Sector 16 C, Dwarka, New Delhi)**”.

Sir,

Having examined the details given in Tender document for the above work, I/we hereby submit the relevant information.

1. I/we hereby certify that all the statement made and information supplied in the enclosed annexures / forms accompanying statement are true and correct.
2. I/we have furnished all information and details necessary for eligibility and have no further pertinent information to supply.
3. I/we submit the requisite certified solvency certificate and authorize the Registrar, GGSIU to approach Bank issuing the solvency certificate to confirm the correctness thereof. I/we also authorize the GGSIU to approach individuals, employers, firms and corporation to verify our competence and general reputation.

Name & Signature(s) of Bidder(s) with seal

DECLARATION BY THE BIDDER

We _____ (Name of the Bidder) hereby represent that we have gone through and understood the Bidding Document (which in two parts) in Part-I (Commercial Section & Technical Section) and Part-II (Schedule of Quantities) and that our Bid has been prepared accordingly in compliance with the requirement stipulated in the said documents.

We are submitting a copy of Bidding Document marked “Original” as part of our Bid duly signed and stamped on each page in token of our acceptance. We undertake that Part-I and Part-II of the Bidding Document shall be deemed to form part of our bid and in the event of award of work to us, the same shall be considered for constitution of Contract Agreement. Further, we shall sign and stamp each page of this Part-I and Part-II as a token of Acceptance and as a part of the Contract in the event of award of Contract to us.

We further confirm that we have indicated prices in Schedule of Quantities and submitted in Price Bid in separately sealed envelope. We confirm that rate quoted by us includes price for all works/activities/supply etc. as mentioned in item description of the items in Schedule of Quantities.

SIGNATURE OF BIDDER : _____

NAME OF BIDDER : _____

COMPANY SEAL : _____

Note : This declaration should be signed by the Bidder’s representative who is signing the Bid.

COMPLIANCE TO BID REQUIREMENT

We hereby agree to fully comply with, abide by and accept without variation, deviation or reservation all technical, commercial and other conditions whatsoever of the Bidding Documents and Addendum to the Bidding Documents, if any, for subject work issued by GGSIPU.

We hereby further confirm that any terms and conditions if mentioned in our bid (Un-priced as well as Priced Part) shall not be recognized and shall be treated as null and void.

SIGNATURE OF BIDDER : _____

NAME OF BIDDER : _____

COMPANY SEAL : _____

ORGANISATION STRUCTURE

1. Name & Address of the Bidder :
2. Telephone No./Fax No./ e-mail :
3. Legal status of the Bidder (attach copies of original document defining the legal status)
 - a) An Individual
 - b) A proprietary firm
 - c) A firm in partnership
 - d) A limited company or Corporation
 - e) A Public Sector Undertaking
4. Particulars of registration with various Government Bodies (Attach attested Photo Copy)

Organization /Place of registration	Registration No
-------------------------------------	-----------------
5. PAN No. -----
6. Names and Titles of Directors & Officers with designation to be concerned with this work. :
7. Name & Designation of individuals authorized to act for the organization :
(Pl. attach power of attorney in favour of authorized representative duly signed by authorized signatory)
8. Was the Bidder ever required to suspend work for a period of more than six months continuously after you commenced the supply? If so, give the name of the work and reasons of suspension of work. :
9. Has the Bidder, or any constituent partner in case of partnership firm, ever abandoned the awarded work before its completion? If so, give name of the work and reasons for abandonment. :
10. Has the Bidder, or any constituent partner in case of partnership firm, ever been debarred/ black listed for tendering in any organization at any time? If so, give details. :
11. Has the Bidder, or any constituent partner in case of partnership firm, ever been convicted by a court of law? If so, give details. :
13. Any other information considered necessary but not included above:

(Stamp, Name & Signature of the Bidder)

DETAILS OF ANNUAL TURNOVER

A. FINANCIAL DETAILS

Financial Years	Gross Annual Turnover on Supply & Installation of Wi-Fi Access Points and Controllers (In Lakhs)	Profit/Loss (In Lakhs)
2011-2012		
2010-2011		
2009-2010		

B. Audited balance sheet and profit & loss account for above three years to be submitted.

C. Latest Solvency certificate from Banker valid on date of receipt of tenders.

(Stamp, Name & Signature of Bidder)

Annexure - D

DETAILS OF SIMILAR WORKS COMPLETED DURING LAST 05 (FIVE) YEARS

Sl.No.	DESCRIPTION OF WORK	POSTAL ADDRESS OF CLIENT WITH CONTACT NUMBERS	CONTRACT VALUE	COMPLETED VALUE	STARTING DATE	SCHEDULED COMPLETION DATE	ACTUAL COMPLETION DATE	REASONS FOR DELAY, IF, ANY

NOTE: Performance Report issued by Client for all above job(s) shall be furnished alongwith the Bid as per Annexure - E.

(Stamp & Signature of Bidder)

PERFORMANCE REPORT OF EACH WORK REFERRED IN ANNEXURE - D

1. Name of work/ Project & Location :
2. Name of Client and Address with
Contact details :
3. Agreement No./ Work Order No. :
4. Value of work as per
work order/Award : Rs.
5. Total value of actual work done : Rs.
6. Estimated Cost of award : Rs
7. Date of start :
8. Date of completion
 - i) Stipulated date of completion :
 - ii) Actual date of completion :
9. Amount of compensation levied for delayed completion, if any : Rs.
10. Amount of reduced rates item if any : Rs
11. Amount of compensation not yet decided :
12. Performance Report
 - 1) Quality of work Excellent/Very Good/Good/Fair/Poor
 - 2) Financial soundness Excellent/Very Good/Good/Fair/Poor
 - 3) Technical Proficiency Excellent/Very Good/Good/Fair/Poor
 - 4) Resourcefulness Excellent/Very Good/Good/Fair/Poor
 - 5) General behaviour Excellent/Very Good/Good/Fair/Poor

(Signature & Stamp of Director/Registrar/Admin. Officer/Ex. Engineer or Equivalent)

Dated :

Note :

1. This Annexure should be submitted separately for each work completed by the Bidder during last 05 (five) years and the works indicated in **Annexure D**.
2. This ANNEXURE shall be signed & stamped by the Bidder's Client not below the rank of Executive Engineer or equivalent.
3. The Name, Address, Contact details (Mobile, Fax, Email, and Landline Phones) of Client should be indicated to facilitate confirmation of work.

Solvency Certificate from Bankers of the company in the following form:
FORM OF BANKER'S CERTIFICATE FROM A SCHEDULED BANK

This is to certify that to the best of our knowledge and information M/s..... having marginally noted address, a customer of our bank are/is respectable and can be treated as good for any engagement upto a limit of Rs..... (Rupees.....)

This certificate is issued without any guarantee or responsibility on the bank or any of the officers.

(Signature)
For the Bank

NOTE

- (1) Bankers certificate should be on letter head of the Bank, sealed in cover addressed to tendering authority,
- (2) In case of partnership firm, certificate should include names of all partners as recorded with the bank.

Signature of Chartered Accountant with seal

Signature of Bidder(s) with seal

**Form of Performance Guarantee
Bank Guarantee Bond**

1. In consideration of the GGSIPU (hereinafter called “The University”) having offered to accept the terms and conditions of the proposed agreement between ----- and ----- (hereinafter called “the said Contractor(s)”) for the work - ----- (hereinafter called “the said agreement”) having agreed to production of a irrevocable Bank Guarantee for Rs.----- (Rupees ----- only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and condition in the said agreement.

We, ----- (indicate the name of the Bank) ----- (hereinafter referred as “the Bank”) hereby undertake to pay to the University an amount not exceeding Rs.---- (Rupees ----- only) on demand by the University.

2. We, ----- (indicate the name of the Bank) ----- do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the University stating that the amount claimed is required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs.----- (Rupees ----- only).

3. We, the said bank further undertake to pay the University any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal.

The payment so made by us under this bond shall be a valid discharge of our liability for payment there under and the Contractor(s) shall have no claim against us for making such payment.

4. We, ----- (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the University under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Project-in-Charge on behalf of the University certified that the terms and conditions of the said agreement have been fully and properly carried out by the said Contractor(s) and accordingly discharges this guarantee.

5. We, ----- (indicate the name of the Bank) further agree with the University that the University shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the University against the said contractor(s) and to forbear or

enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the University or any indulgence by the University to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.

6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).
7. We, -----(indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the University in writing.
8. This guarantee shall be valid upto ----- unless extended on demand by the University. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs.----- (Rupees ----- only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

Dated the ----- day of ----- for ----- (indicate the name of the Bank)

DECLARATION FOR FAIR BUSINESS BY THE BIDDER

(Affidavit on Non-Judicial Stamp Paper of Rs.10/- duly attested by Notary / Magistrate)

This is to certify that We, M/s _____ in submission of this offer confirm that:-

- i) We have not made any misleading or false representation in the forms, statements and attachments in proof of the qualification requirements;
- ii) We do not have records of poor performance such as abandoning the work, not properly completing the contract, inordinate delays in completion, litigation history or financial failures etc.
- iii) Business has not been banned with us by any Central / State Government Department/ Public Sector Undertaking or Enterprise of Central / State Government.
- iv) We have submitted all the supporting documents and furnished the relevant details as per prescribed format.
- v) The information and documents submitted with the tender by us are correct and we are fully responsible for the correctness of the information and documents submitted by us.
- vi) We understood that in case of any statement/information/document furnished by us or to be furnished by us in connection with this offer is found to be incorrect or false, our EMD in full will be forfeited and business dealings will be banned.
- vii) We have not been punished / penalized by way of imprisonment in last three years.
- viii) We have not been blacklisted/debarred by any of the Government/Public Sector Agency in last three years.

SEAL, SIGNATURE & NAME OF THE BIDDER

Signing this document

TECHNICAL BID

The technical bid should be in the following format.

1. Name and address of the bidder
2. Telephone No., Mobile number and Fax number and Email address
3. Status of the firm
 - i) An proprietary firm
 - ii) Partner ship firm
 - iii) Limited company or corporation
4. Particulars of registration with various govt. offices/bodies
5. PAN number with a copy of the latest return
6. TIN/Sales tax number with a copy of the latest return
7. Service tax number, if any with a copy of the latest return
8. Address of the manufacturing Unit/plants with telephone numbers, mobile numbers, fax numbers and email address.
9. Earnest money deposit as prescribed against each item in the form of DD/FD in favour of Registrar, GGSIPU payable at Delhi.
10. The copy of the terms and conditions as given in the tender with the signature and seal of the dealer/proprietor/manufacturer.
11. The Certificate of dealership or Distributor or manufacturer indicating the person is Manufacturer, dealer or distributor.
12. A letter of authority from the original manufacturer for sale and service of the equipment.
13. A certificate from the manufacturer certifying the guarantee/warranty period on the equipments and the spares.
14. The firm should provide a list of users with their contact details, including phone/email.
15. The after sales service should be clearly mentioned (i.e. The life of the equipment, the availability of spares, the local technical support, the cost involved in the AMC and Comprehensive AMC, free services if any etc.)
16. Undertaking on non judicial stamp paper worth Rs. 100/-
 - i) The firm has not been debarred or blacklisted by any Govt./semi govt./autonomous organization/Public Sector Undertakings.
 - ii) it will ensure fair trade practice (where it will be mentioned that this equipment has not been sold for less than the price quoted)
 - iii) The firm has no personnel dealings with the officials of the University.
17. The technical specification along with the literature of the equipment without mentioning any cost should be given in the format given below. If any add on items other than the specifications mentioned in the tender may also be mentioned separately.

Name of the equipment	EMD
Specifications	

Signature and seal of the authorized signatory.

(Annexure – J)

Detail of the new requirement for procurement of Wi-fi Access Points

Sr. No.	Location	No. of Wi-Fi devices
1.	Back of the administrative building to cover open area of USMC (out door)	2
2.	Out side of the Block A to cover open area of USMC (out door)	2
3.	Outside of the block B (out door)	2
4.	Faculty committee room of each school (A,B,C,D & E) (In door)	9
5.	Newly created seminar Hall (block C, D & E) (Indoor)	6
6.	Students Canteen (Indoor-2) Outdoor-2	4
7.	Staff Canteen/outside of library (indoor-1, outdoor-3)	4
8.	Boys Hostel (Indoor-18)(outdoor-5)	23
9.	Girls Hostel (Indoor-18)(outdoor-5)	23
10.	Residence Block/VC residence Outdoor-3, Indoor -1	4
11.	Accounts Branch Indoor	01
	Total	80

Special Conditions

Special Conditions

- 1.0 Unless otherwise provided in the schedule of quantities the rates tendered by the contractor shall be **FOR** all-inclusive of all taxes, transport and installation in the specified place. The rates for all items of work, unless clearly specified otherwise, shall include the cost of all labour, materials, and other inputs involved in the execution of the items.
- 2.0 No foreign exchange shall be made available by the department for the purpose of procurement of equipment, plants, machinery, materials of any kind or any other items required to be carried out in execution of work.
- 3.0 The bidder or his authorized representative should always be available at the site of work to take instructions from officer in charge, and ensure proper execution of work.
- 4.0 No work shall commence in the absence of contractor's engineers and they shall certify in writing about the correctness of layout alignment and shall ensure stability of all structural work such as partition panel/electricity panel and other related items.
- 5.0 All work and materials brought and left upon the ground by the contractor or by his orders for the purpose of forming part of the works, are to be considered to be the property of the GGSIPU and the same are not to be removed or taken away by the contractor or any other person without consent in writing of the officer -in-charge but the GGSIPU is not to be in any way responsible for any loss or damage which may happen to or in respect of any such work or materials either by the same being lost or damaged by weather or otherwise.
- 6.0 The contractor shall execute the different items simultaneously, as far as possible, so that minimum breakage and repairs are involved.
- 7.0 The contractor shall take all necessary precautions to prevent any nuisance or inconvenience to the owners, tenants of adjacent properties and to the public in general and to prevent any damage to such properties and any pollution of environment and waterways. He shall make good at his own cost and to the satisfaction of the officer-in-Charge, any damage to public or private property whatsoever caused by the execution of the work or by traffic brought thereon by the contractor. Utmost care shall be taken to keep the noise level to the barest minimum so that no disturbance as far as possible is caused to the occupants/users of adjoining buildings.
- 8.0 All associated activities required for obtaining necessary clearances, permissions, approvals, all licenses etc. as required from all concerned authorities in respect of installation and commissioning shall be the responsibility of the contractor, the cost for which shall be deemed to be included in the rates for various items of work of Schedule of Quantities. However, actual statutory fee paid to the concerned authorities for obtaining approvals if any, shall be reimbursed by the University on production of proof of payment made by the Contractor.
- 9.0 The contractor shall be responsible for watch and ward of all the works, equipment and various materials till complete handing over of works.

- 10.0 The contractor shall submit the test certificates from the respective manufacturer along with its declaration that all relevant standards have been complied with while manufacturing of these **Wi-Fi Access Points and Controllers** alongwith all items.
- 11.0 Wherever any reference to any Indian Standards Specification occurs in the documents relating to this contract the same shall be inclusive of all amendments issued their to or revisions there of if any, upto the date of receipt of tenders.
- 12.0 The contractor shall got approve the sample of all items including shade / colour / fabric and necessary hardware before bulk supply from Officer-in-charge.
- 13.0 The site of placing / fixing the **Wi-Fi Access Points and Controllers** alongwith all items may be at one or more places within the campus and at any floor upto seven levels for which nothing extra shall be paid.
- 14.0 The contractor shall be fully responsible for rectifying the defect or replacing and damaged panel / partition / hardware, which may happen during the use up to 12 months from the date of completion of the work if the same is due to manufacturing defects etc. The decision of officer-in-Charge in this regard shall be final & binding. In case the contractor fails to carry out the said repairs, rectifications, replacement within the specified time, the department shall get the repairs / rectifications / replacement as considered necessary at the cost of the contractor by recovering the cost from the security deposit. In case additional expenditure is incurred by the department on this account, the same shall be borne by the contractor.
- 15.0 The rates quoted by the contractor shall be all inclusive keeping in mind the specifications, special conditions and technical specifications and nothing extra shall be payable whatsoever, unless otherwise specified.
- 16.0 If the work is carried out in more than one shifts or during night to meet the time period of completion, nothing extra shall be paid on this account.
- 17.0 Contractor shall have to make own arrangement for water & electricity, otherwise 1% of gross amount shall be deducted from the dues of the contractor.
- 18.0 The contractor shall be bound to follow the instruction and restrictions imposed by the Administration / Police authorities on the working and movement of labour / material / vehicles etc. and nothing extra shall be paid on this account.

Section - III

Technical Specifications & Financial Bid

General Specifications

1.0 Scope

- 1.1 The scope of work shall consist of supply, installation, fabrication, assembling, and preparation for design, drawings, supply and erection. Work shall be executed in a well coordinated and professional manner.
- 1.2 All works shall be executed strictly in accordance with the item description, specifications and drawings. However in absence of specifications, BIS / BIFMA specifications, standards shall be followed along with relevant item description, technical specifications and drawings.
- 1.3 The work shall be executed and measured as per metric dimensions given in schedule of quantities, drawings etc. (F.P.S. units wherever indicated are for guidance only)

2.0 Quality & Workman Ship

- 2.1 The specifications are intended for the general description of the work quality and workmanship. The specifications are however not intended to cover the minute details and work shall be execute according to the specification given herein or in its absence the relevant BIS standards or the best practice recommended by relevant Indian Manufacturers or best trade practices.
- 2.2 All material shall confirm to the materials specified. The procurement of various materials shall be either from the manufacturers or their authorized dealers so that there is no duplicate / spurious makes are used. Notwithstanding all above, contractor shall be held responsible for the execution of works and use of proper best available quality of materials as per the tender specifications. For the items/materials not appearing in the list, the decision of officer-in-charge shall be final and binding.
- 2.3 The contractor shall arrange stage wise inspection of the **Wi-Fi Access Points and Controllers** at factory of the works by University. Contractor will have no claim if the **Wi-Fi Access Points and Controllers** brought at site are rejected by University in part or full lot due to bad workmanship / quality. Such **Wi-Fi Access Points and Controllers** will not be measured and paid and the contractor shall remove the same from the site of work within 7 days after the written instructions in this regard are issued by University.
- 2.4 The contractor shall produce all materials in advance so that there is sufficient time for testing and approving of the material and clearance of the same for use in work. The contractor shall produce test certificates of all the material in respect of their conformation to the relevant Indian standards / tender specifications. All tests required for the materials as desired by the University shall be at the contractors cost.
- 2.5 Testing may also be carried out at the discretion of the University, from the lot of finished product brought at site by the contractor. In case such tests have been carried out by the principal manufacturer at its testing facility, the same will may be provided by the contractor for consideration.

3.0 Drawings & Execution of Work

- 3.1 The work shall be executed as per the layout approved by officer – In Charge. The contractor shall prepare the layout and seek approval from University. The contractor may suggest any changes in the design and layout which are necessary to make the design economical, optimal, conform to the provisions of this tender document. Such changes will again be subject to the prior approval of officer in Charge but never relive the contractor of its responsibility and liabilities under this contract.

Technical Specification of Wi-Fi Access Points and Controllers

Technical Specification of **Wi-Fi Access Points and Controllers** as per details below:

III.A. Wi-fi Access Points (Indoor)

Hardware:

1. Access Points proposed must include radios for both 2.4 GHz and 5 GHz.
2. Must have a robust design for durability.
3. Should be able to handle upto 150 Concurrent users.
- 802.11n
4. Must support 3X3 multiple-input multiple-output (MIMO) with THREE spatial streams (upto 900 mbps)
5. Must support simultaneous 802.11n on both the 2.4 GHz and 5 GHz radios.
6. Must support datarates up to 450Mbps per Radio.
7. AP should provide minimum 23dBm transmission power for 2.4Ghz and 21dBm for 5Ghz. (EIRP should limited as per govt regulation for indoor AP's).
- RF
8. The Wireless AP should have the technology to improve downlink performance to all mobile devices including one and two spatial stream devices on 802.11n. The technology should use advanced signal processing techniques and multiple transmit paths to optimize the signal received by 802.11 clients in the downlink direction without requiring feedback and should work with all existing 802.11 clients.
9. Must support AP enforce load-balance between 2.4Ghz and 5Ghz band.
10. Must have Channel selection based on measuring throughput capacity in real time and switching to another channel should the capacity fall below the statistical average of all channels without using background scanning as a method. Should also support coverage hole detection and performance optimization.
- Roaming
11. Must support Proactive Key Caching and/or other methods for Fast Secure Roaming.
- Security
12. Must support Management Frame Protection.
13. Should support locally-significant certificates on the APs using a Public Key Infrastructure (PKI).
14. Must support IDS/IPS.
- Encryption
15. Access Points must support a distributed encryption/decryption model.
16. Access Points must support encryption on CAPWAP/LWAPP Standard.
- Monitoring
17. Same model AP that serves clients must be able to be dedicated to monitoring the RF environment.
- Flexibility:
18. Should support mesh capabilities for temporary connectivity in areas with no Ethernet cabling.
19. Mesh support should support QoS for voice over wireless.
20. Must support 16 WLANs per AP for SSID deployment flexibility.
- Operational:
21. Must support HTTP/S, telnet and/or SSH login to APs directly for troubleshooting flexibility.
- Power:
22. Must support Power over Ethernet, local power, and power injectors.
- Quality of Service:
23. 802.11e and WMM
24. WiFi Alliance Certification for AP
25. Must support Reliable Multicast Video to maintain video quality.
26. Must support QoS and Call Admission Control capabilities.

III.B Wi-fi Access Points (outdoor)

Hardware:

1. The Access Point should have 1 Port 10/100/1000 POE
2. Access Points proposed must include radios for both 2.4 GHz and 5 GHz.
3. Should be able to handle up to 150 Concurrent users.
4. AP Must be IP 67 Certified outdoor rated (datasheet of the Access Point should have IP- 67 mentioned).
5. Operating temperature: -20 degree to 55 degree Celsius (datasheet of the Access Point should have temperature mentioned).

802.11n

6. Must support 3X3 multiple-input multiple-output (MIMO) with Two spatial streams.
7. Must support simultaneous 802.11n on both the 2.4 GHz and 5 GHz radios.
8. Must support data rate of 300Mbps per Radio.
9. AP should provide minimum 27dBm transmission power for 2.4 GHz and 5GHz. (EIRP should be limited as per govt. regulation for AP's).

RF

10. The Wireless AP should have the technology to improve downlink performance to all mobile devices including one and two spatial stream devices on 802.11n. The technology should use advanced signal processing techniques and multiple transmit paths to optimize the signal received by 802.11 clients in the downlink direction without requiring feedback and should work with all existing 802.11 clients.
11. Must support AP enforce load-balance between 2.4Ghz and 5Ghz band.
12. Must have Channel selection based on measuring throughput capacity in real time and switching to another channel should the capacity fall below the statistical average of all channels without using background scanning as a method. Should also support coverage hole detection and performance optimization

Roaming

13. Must support Proactive Key Caching and/or other methods for Fast Secure Roaming.

Security

14. Must support Management Frame Protection.
15. Should support locally-significant certificates on the APs using a Public Key Infrastructure (PKI).
16. Should support IDS/IPS.

Encryption

17. Access Points must support a distributed encryption/decryption model.
18. Access Points must support encryption on CAPWAP/LWAPP Standard

Flexibility:

19. Should support mesh capabilities for temporary connectivity in areas with no Ethernet cabling.
20. Mesh support should support QoS for voice over wireless.
21. Must support 16 WLANs per AP for SSID deployment flexibility.

Operational:

22. Must support HTTP/S, telnet and/or SSH login to APs directly for troubleshooting flexibility.

Power:

23. Must support Power over Ethernet, local power, and power injectors.

Quality of Service:

24. 802.11e and WMM
25. Wi-Fi Alliance Certification for AP.
26. Must support Reliable Multicast Video to maintain video quality.

III.C Controller for wi-fi access points

WLAN Controller should be based on the following key requirements:

Standards:

1. WLAN Controller should have minimum 2 10/100/1000 Ethernet or SFP port.
2. WLAN Controller should support up to 100 AP's from day one and should be scalable up to 300 Access points in a single 1 RU chassis.
3. Controller should support 1000+ WLAN's.

Compatibility

4. Must Support Wireless Intrusion Prevention feature.

High Availability:

5. Must support 1+1 and/or N+1 redundancy models.
6. Must support redundancy functionality for all the Access points to move from primary to backup Controller.

RF Management:

7. Must support an ability to dynamically adjust channel and power settings based on the RF environment.
8. Radio coverage algorithm must allow adjacent APs to operate on different channels, in order to maximize available bandwidth and avoid interference
9. Must support interference detection and avoidance.
10. Must support coverage hole detection and correction.

IPv6 features

11. WLAN Controller should support IPv4, IPv6 and Dual stack.
12. WLC should support Guest-access functionality for IPv6 clients

Performance:

13. Controller performance must remain the same if encryption is on or off for wireless SSIDs.

Security:

14. Should adhere to the strictest level of security standards, including 802.11i Wi-Fi Protected Access 2 (WPA2), WPA, Wired Equivalent Privacy (WEP), 802.1X with multiple Extensible Authentication Protocol (EAP) types and Radius server.
15. Controller should support integrated or External AAA server.
16. System should provide DOS attacks and Intrusion Detection & Prevention and Control for any Rogue Access Points.
17. The AP should be able to scan for rogue access points and the controller should be able to locate them on a floor map. The controller should be able to send a notification to the administrator when a rogue AP has been detected.

18. Must support setting L2, L3 Access Control Lists (ACLs).
19. Should support Management frame protection for the authentication of 802.11 management frames by the wireless network infrastructure.
20. System should support L2 Client Isolation so User cannot access each other's devices. Isolation should have option to apply on AP or SSID's.

Guest Wireless

21. Must support built-in web authentication and Captive portal support with external Authentication system i.e Authentication Gateway's.
22. Controller should have BYOD features and Guest Access management procedure where user may use internet without entering to Enterprise SSID and should be time restricted.

Functionality

23. Should be able to set per-user bandwidth limit on a per-SSID basis.
24. Must support user load balancing across Access Points.
25. Controller must provide Mesh capability for Mesh supported AP.

Roaming:

26. Must support client roaming across controller on L2 or L3.
27. Solution proposed must support clients roaming across at least 400 APs.

Operational:

28. System should provide air-time fairness between these different speed clients – slower clients should not be starved by the faster clients and faster clients should not adversely affected by slower clients.

QOS:

29. Must support 802.11e WMM

Note: Please provide Datasheet published by OEM on web-site for wi-fi access points and controller to verify above specification

Schedule of Quantities for Wi-Fi Access Points and Controllers

FINANCIAL BID

Sr. No.	Item Description	Qty.	Unit Price (INR)	Amount in Rs. (inclusive taxes)
1.	Controller for Wireless Access Point Make: _____ Mode: _____	01		
2.	Wireless Access Point (Indoor) Make: _____ Model: _____	56		
3.	Wireless Access Point (outdoor) Make: _____ Model: _____	24		
4.	Mounting kit for point no.-2 & 3	80		
5.	POE injector for point no.-2 & 3	80		
6.	Installation charges (including of UTP CAT6 Cable & Conduit) I/O faceplate & Gangbox) and 4ft patch cord	As per actual *		
7.	Cage for wireless access point	80		
	Total			

Signature:
Name of the Vendor:
Address:
Email id:
Mobile No.:

