

20W/149/CCTV-1/ED

31 Mar 23

INVITATION OF QUOTATIONS FOR INSTALLATION OF (73) CCTV CAMERA AND (40) CENTRALISED PA SYSTEM- TWO WAY IN TWO BID SYSTEM REQUEST FOR PROPOSAL (RFP) NUMBER 20WG/149/CCTV-1/ED DATED 31 MAR 23

1. Bids in sealed cover are invited for installation of (73) CCTV camera (of Indian origin) and (40) Centralised PA system- two way. Details are mentioned in Part II of this RFP. Please super scribe the above mentioned Title, RFP number and date of opening of the Bids on the sealed cover to avoid the Bid being declared invalid.

2. The address and the contact numbers for sending Bids or seeking clarifications regarding this RFP are given below:-

(a)	Bids / queries to be addressed to:	Chairman, Air Force School, Bagdogra
(b)	Postal address for sending the Bids	Chairman, Air Force School, Bagdogra Post: Bagdogra Airport Dist: Darjeeling West Bengal-734421
(c)	Details of the contact person	Mr Ratnadeep Das (PRT - Computer) Mrs Susreeta Sur (PGT-Computer Science)
(d)	Tele number of the contact person	96093-38346 & 99327-59928 (During School Hours: 0800-1500hrs) 0353-2698093
(e)	E-mail ID of contact person	princialbqd@rediffmail.com


3. This RFP is divided into following six parts:-

- | | | |
|-----|------------|---|
| (a) | Part I : | General information/instruction for the Bidders |
| (b) | Part II : | Schedule of requirement, technical specifications, delivery details |
| (c) | Part III : | Standard Conditions of RFP, which will form part of the Contract |
| (d) | Part IV : | Special Conditions applicable to this RFP |
| (e) | Part V : | Evaluation Criteria and Format for Price Bids |
| (f) | Part VI: | Performance Bank Guarantee Format |

4. Part II, III, IV, V, VI appendix- 'A' & Terms and Conditions of this RFP are to be returned back by the Bidder after putting rubber stamp of the firm and annotating signatures of authorized representative.

5. This RFP is being issued with no financial commitment and the Buyers reserves the right to change or vary any part thereof at any stage. Buyer also reserves the right to withdraw the RFP, should it become necessary at any stage.




 (T Jyothi)
 Group Captain
 Executive Director
 Air Force School, Bagdogra


PART I – GENERAL INFORMATION

1	Date and time for depositing Bids	The Bids is to be placed in sealed envelope. The sealed envelopes are to be deposited by 1000hrs on 24 Apr 23 .
2	Manner of depositing the Bids	Sealed Bids should be either dropped in the Tender Box marked as "INSTALLATION OF CCTV CAMERA AND CENTRALISED PA SYSTEM- TWO WAY" or sent by registered post at the address given above so as to reach by the due date and time. Late tenders will not be considered. No responsibility will be taken for postal delay or non-delivery / non-receipt of Bid documents. Bids sent by FAX or e-mail will not be considered.
3	Time and date for opening of Bids	24 Apr 23, 1200hrs . If due to any exigency, the due date for opening the bid is declared a holiday, the Bids will be opened on the next working day at the same time.
4	Location of the Tender Box	Tender box marked as "INSTALLATION OF CCTV CAMERA AND CENTRALISED PA SYSTEM- TWO WAY" , at the Arjan Gate of Air Force Station Bagdogra. Only those Bids that are found in the tender box will be opened.
5	Place of opening of the Bids	Air Force School, Bagdogra, Darjeeling (WB). The Bidders may depute their representatives, duly authorized in writing to attend the opening of Bids on the due date and time. Rates and important commercial/technical clauses quoted by all Bidders will be read out in the presence of the representatives of all the Bidders. This event will not be postponed due to non-presence of representatives of the Bidder.
6	Two Bid system	Bids should be in two parts as follows: (a) Technical bid consisting of all technical details along with commercial terms and conditions. (b) Financial bid indicating items-wise price for the items mentioned in the technical bid and all other commercial terms and conditions. Please quote the rates in figures as well as in words. Rates should be valid up to 03 months. The bids will be opened on 24 Apr 23 .
7	Forwarding of Bids	(a) The technical bid and financial bid should be sealed by the bidder in separate covers duly superscribed and both these sealed covers are to be put in a bigger cover which should also be sealed and duly superscribed. The technical bids are to be opened and evaluated in the first instance. At the second stage, financial bids of only the technically acceptable offers should be opened for further evaluation and ranking before awarding the contract. (b) Bids should be forwarded by Bidders under their original memo/letter pad inter alia furnishing details like GST number, Bank address with EFT Account if applicable, etc and complete postal and e mail address of their office.
8	Clarification regarding contents of the RFP	Clarification on the RFP, if any may be obtained from Mr Ratnadeep Das (PRT- Computer) & Mrs Susreeti Sur (PGT- Computer Science) Air Force School Bagdogra 96093-38346 & 99327-59928 working hour only i.e 0800hrs to 1400hrs.
9	Modification and Withdrawal of Bids	A bidder may modify or withdraw his bid after dropping it in the tender box. For this bidder may submit a written request. However, same can be done prior to deadline prescribed for submission of bids. No bid shall be modified after the deadline for submission of Bids and withdrawal will result in Bidder's forfeiture of bid security.
10	Clarification regarding contents of the Bids	During evaluation and comparison of Bids, the buyer may, at its discretion, ask the bidder for the clarification of his bid. The request for the clarification will be given in writing and no change in prices or substance of the bid will be sought, offered or permitted. No post-bid



		clarification on the initiative of the bidder will be entertained.
11	Rejection of Bids	Canvassing by the Bidder in any form, unsolicited letter and post-tender correction may invoke summary rejection with forfeiture of EMD (Earnest Money Deposit). Conditional tenders will be rejected.
12	Unwillingness to quote	Bidders unwillingness to quote should ensure that intimation to this effect reaches before the due date and time of opening of the Bid
13	Validity of Bids	The Bids should remain valid till 03 months from the last date of submission of Bids.
14	Earnest Money Deposit (EMD)	Bidders are required to submit Earnest Money Deposit (EMD) for amount of Rs 28,000/- along with their technical bids. The EMD may be submitted in the form of an Account Payee Demand Draft in favour of "AIR FORCE SCHOOL BAGDOGRA" along with quotation. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30 th Day after the award of the contract. The Bid Security of the successful bidder would be returned, without any interest whatsoever, after the receipt of Performance Security from them as called for in the contract.
15	Validity of the Bid Security	The bid security should remain valid for a period of forty five days beyond the final bid validity period (i.e 90days + 45days).
16	Exemption from submission of Bid Security	Bid security is not required to submit by those firms who are registered with the Central Purchasing Organization, National Small Industries Corporation (NSIC) or concerned Departments or Ministries of the Government of India. Ministry of Micro, Small and Medium Enterprises (MSME) certificate. Proof of the same is to be attached along with the bid.




 (T Jyothi)
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PART II – ESSENTIAL DETAILS OF SERVICES REQUIRED

Schedule of Requirement - Air Force School Bagdogra requires CCTV cameras and Centralised PA system (two way) with installation should be of high quality & standard. The requisite specification is attached at Appx - A.

Note:-

1. The items should be of as per SOR attached and all the items will be approved by inspection officer prior to supply of items.
2. **Delivery / Installation Period** - Delivery / installation period of said items would be **45 days** from the effective date of supply order. Please note that supply order can be cancelled unilaterally by the Buyer in case non-completion of work within stipulated time. Extension of completion period will be at the sole discretion of the Buyer, with applicability of LD clause.
3. **Terms of Delivery / installation** Delivery & installation are to be done as per correct specifications. On any deviation, contract will be rejected and the same to be resupplied by due date failing which the security deposit will be forfeited.



A handwritten signature in blue ink, appearing to read 'T. Jyothi'.

(T. Jyothi)
Group Captain
Executive Director
Air Force School, Bagdogra

"Certified that terms & conditions mentioned above have been fully understood and are fully acceptable"


Signature and stamp of Bidder accepting the above terms & conditions

PART III – STANDARD CONDITIONS OF RFP

The Bidder is required to give confirmation of their acceptance of the Standard Conditions of the Request for Proposal mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder (i.e Firm in the Contract) as selected by the Buyer. Failure to do so may result in rejection of the Bid submitted by the Bidder.

1. **Law:** The Contract shall be considered and made in accordance with the laws of the Republic of India. The contract shall be governed by and interpreted in accordance with the laws of the Republic of India.
2. **Effective Date of the Contract:** The contract shall come into effect on the date of signatures of both the parties on the contract (Effective Date) and shall remain valid until the completion of the obligations of the parties under the contract. The completion period of work shall commence from the effective date of the contract.
3. **Arbitration:** All disputes or differences arising out of or in connection with the contract shall be settled by bilateral discussions. Any disputes, disagreement or question arising out of or relating to the Contract or relating to construction or performance, which cannot be settled amicably, may be resolved through arbitration. The standard clause of arbitration is as per Form DPM-7, DPM-8 and DPM-9 (Available in MoD website and can be provided on request).
4. **Penalty for use of Undue influence:** The firm undertakes that he has not given, offered or promised to give, directly or indirectly, any gift, consideration, reward, commission, fees, brokerage or inducement to any person in service of the Buyer or otherwise in procuring the Contracts or forbearing to do for having done or forbome to do any act in relation to the obtaining or execution of the present Contract or any other Contract with the Government of India for showing or forbearing to show favour or disfavour to any person in relation to the present Contract or any other Contract with the Government of India. Any breach of the aforesaid undertaking by the firm or any one employed by him or acting on his behalf (whether with or without the knowledge of the commission of any offers by the firm or anyone employed by him or acting on his behalf, as defined in Chapter IX of the Indian Penal Code 1860 or the Prevention of Corruption Act 1986 or any other Act enacted for the prevention of corruption shall entitle the Buyer to cancel the contract and all or any other contracts with the Firm and recover from the Firm the amount of any loss arising from such cancellation. A decision of the Buyer or his nominee to the effect that a breach of the undertaking had been committed shall be final and binding on the Firm. Giving or offering of any gift, bribe or inducement or any attempted at any such act on behalf of the Firm towards any officer/employee of the Buyer or to any other person in a position to influence any officer/employee of the Buyer for showing any favour in relation to this or any other contract, shall render the Firm to such liability / penalty as the Buyer may deem proper, including but not limited to termination of the contract, imposition of penal damages, forfeiture of the Bank Guarantee and refund of the amounts paid by the Buyers.




(T Jyothi)
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5. **Agent / Agency Commission:** The firm confirms and declares to the Buyer that the firm is the original manufacturer of the stores/ provider of the services referred to in this Contract and has not engaged any individual or firm. Whether Indian or foreign whatsoever, to intercede, facilitate or in any way to recommend to the Government of India or any of its functionaries whether officially or unofficially, to the award of the contract to the Firm, nor has any amount been paid, promised or intended to be paid to any such individual or firm in respect of any such intercession, facilitation or recommendation. The Firm agrees that if it is established at any time to the satisfaction of the Buyer that the present declaration is in any way incorrect or if at a later stage it is discovered by the Buyer that the Firm has engaged any such individual / firm, and paid or intended to pay any amount, gift, reward, fees, commission or consideration to such person party, firm or institution, whether before or after the signing of this contract, the firm will be liable to refund that amount to the Buyer. The firm will also be debarred from entering into any supply Contract with the Government of India for a minimum period of five years. The Buyer will also have a right to consider cancellation of the Contract either wholly or in part, without any entitlement or compensation to the Firm who shall in such an event be liable to refund all payments made by the Buyer in terms of the Contract along with interest at the rate of 2% per annum above LIBOR rate. The Buyer will also have the right to recover any such contract concluded earlier with the Government of India.

6. **Access to Books of Accounts:** In case it is found to the satisfaction of the Buyer that the Firm has engaged an Agent or paid commission or influenced any person to obtain the contract as described in clauses relating to Agents/Agency Commission and penalty for use of undue influence, the firm, on a specific request of the Buyer, shall provide necessary information/inspection of the relevant financial documents/information.

7. **Non-disclosure of Contract document:** Except with the written consent of the Buyer/firm other party shall not disclose the contract or any provision, specification, plan, design, sample or information thereof to any third party.

8. **Liquidated Damages:** Delay in submission of PBG / Bank Guarantee and delay in supply and installation of items i.e 45 days. The BUYER may also deduct from firm as agreed, liquidated damages to the sum of 0.5% of the contract price of the delayed incompleteness of work per week.

9. **Termination of Contract:** The Buyer shall have the right to terminate this Contract in part or in full in any of the followings cases:-

(a) The completion of work is delayed for causes not attributable to Force Majeure for more than 03 months after the scheduled date of completion of given in SOR.

(b) The firm is declared bankrupt insolvent.




(T. Jyothi)
Group Captain
Executive Director
Air Force School, Bagdogra

(c) The completion of work is delayed due to causes of Force Majeure by more than 03 months provided Force Majeure clause is included in contract.

(d) The Buyer has noticed that the firm has utilized the services of any Indian/Foreign agent in getting this contract and paid any commission to such individual / company etc.

(e) As per decision of the Arbitration Tribunal.

10. **Notices:** Any notice required or permitted by the contract shall be written in the English language and may be delivered personally or may be sent by FAX or registered per-paid mail/airmail, addressed to the last known address of the party whom it is sent.

11. **Transfer and Sub-letting:** The firm has no right to give, bargain, sell assign or sublet or otherwise dispose of the Contract or any part thereof, as well as to give or to let a third party take benefit or advantage of the present Contract or any part thereof.

12. **Amendments:** No provision of present Contract shall be changed or modified in any way (including this provision) either in whole or in part except by an instrument in writing made after the date of this Contract and signed on behalf of both the parties and which expressly states to amend the present Contract.

13. **Taxes and Duties (GST):** As per norms laid down by Govt of India and amended from time to time. In the absence of any such stipulation in the bid, it will be presumed that the prices quoted by the Bidder are inclusive of GST and as such no liability of GST will be developed upon by the Buyer.



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Air Force School, Bagdogra

"Certified that terms & conditions mentioned above have been fully understood and are fully acceptable"


Signature and stamp of Bidder Accepting the above terms & conditions

PART IV – SPECIAL CONDITIONS OF RFP

Important:- The Bidders is required to give confirmation of their acceptance of the Special Conditions of the Request for Proposal mentioned below which will automatically be considered as part of the Contract concluded with the successful Bidder (i.e Firm in the Contract) as selected by the Buyer. Failure to do so may result in rejection of the Bid submitted by the Bidder.

1. **Performance Guarantee:** The Bidder will be required to furnish a Performance Guarantee by way of Bank Guarantee through a public sector bank or a private sector bank authorized to conduct government business (ICIC Bank Ltd, Axis Bank Ltd or HDFC Bank Ltd.) for a sum equal to **10%** of the contract value with 30 days of receipt of the confirmed order. Performance Bank Guarantee should be valid up to 60 days beyond the date of warranty. The specimen of PBG is attached.
2. **Payment terms:** No advance payments shall be made. 100% payment shall be made within 30 days of satisfactory completion of work.
3. **Paying Authority:** Chairman, Air Force School, Bagdogra – 734014
4. **Risk & Expense clause:** Executive Director, Air Force School, Bagdogra reserves the right to acquire stores at the expense of contractor from any source in case the contract fails to deliver items as projected in the above schedule at the place and time specified. The debit of expenses towards such incidents will be deducted from the security deposit, which shall be reimbursed by the contractor or at the contractor's expense to be paid by him. Decision of Executive Director of Air Force School, Bagdogra to resort to this practice for an emergency / contingency will be final and binding.
5. **Force Majeure clause**
 - a. Neither party shall bear responsibility for the complete or partial nonperformance of any of its obligations (except for failure to pay any sum which has become due on account of receipt of goods under the provisions of the present contract), if the non-performance results from such Force Majeure circumstances as Flood, Fire, Earth Quake and other acts of God as well as War, Military operation, blockade, Acts or Actions of State Authorities or any other circumstances beyond the parties control that have arisen after the conclusion of the present contract.
 - b. In such circumstances the time stipulated for the performance of an obligation under the present contract is extended correspondingly for the period of time of action of these circumstances and their consequences.
 - c. The party for which it becomes impossible to meet obligations under this contract due to Force Majeure conditions, is to notify in written form the other party of the beginning and cessation of the above circumstances immediately, but in any case not later than 10 (Ten) days from the moment of their beginning.




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d. Certificate of a Chamber of Commerce (Commerce and Industry) or other competent authority or organization of the respective country shall be a sufficient proof of commencement and cessation of the above circumstances.

e. If the impossibility of complete or partial performance of an obligation lasts for more than 03 months, either party hereto reserves the right to terminate the contract totally or partially upon giving prior written notice of 30 (thirty) days to the other party of the intention to terminate without any liability other than reimbursement on the terms provided in the agreement for work.

6. **Inspection Authority:** Inspection authority will be Air Officer Commanding, Air Force Station, Bagdogra or his representative.

7. **Warranty clause:** Warranty on maintenance/products work to be provided atleast for 60 months or more as specified on the product itself (as applicable) from the date of acceptance of the same by the School and in case of any defect arising during this period, the contractor will rectify the same within 07 days of the defect being reported by the School. Delay in rectification will result in extension of the warranty period for the number of delayed days.



A handwritten signature in blue ink, appearing to read 'T. Jyothi', is written over the printed name.

(T. Jyothi)
Group Captain
Executive Director
Air Force School, Bagdogra

"Certified that terms & conditions mentioned above have been fully understood and are fully acceptable"

Signature and stamp of Bidder accepting the above terms & conditions

PART V – EVALUATION CRITERIA & PRICE BID ISSUES

1. **Evaluation Criteria** - The broad guidelines for evaluation of Bids will be as follows:
- Only those Bids will be evaluated which are found to be fulfilling all the eligibility and qualifying requirements of the RFP, both technically and commercially.
 - In respect of Two-Bid system, the technical Bids forwarded by the Bidders will be evaluated by the Buyer with reference to the technical specification as mentioned in the SOR of RFP. The compliance of Technical Bids would be determined on the basis of the parameters specified in the RFP. The Price Bids of only those Bidders will be opened whose Technical Bids would clear the technical evaluation.
 - The Lowest Bid will be decided upon the lowest price quoted by the particular Bidder as per the Price Format given at Para 2 below.
2. **Price Bid Format:** Rates are to be quoted in Indian Rupees (legibly both in figures and words). Rates are to be written in figure against each line, while rates in words are to be written in the last row. The price Bid format is given below and Bidders are required to fill this up correctly with full details:-

<u>Sl No</u>	<u>Items</u>	<u>Qty</u>	<u>Unit price in (Rs)</u>	<u>Total Price (Rs)</u>	<u>GST %</u>	<u>Total Amount (Rs)</u>
(1)	(2)	(3)	(4)	(5)	(6)	(7)
1	CCTV cameras with accessories (INDIAN ORIGIN)	73				
2	Centralised PA system (Two way)	40				




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PART VI – PERFORMANCE OF BANK GUARANTEE FORMAT

Form DPM-15

Performance Bank Guarantee Format

From:
Bank _____
To,
The President of India
Ministry of Defence,
Government of India
New Delhi

Dear Sir,

1. Whereas you have entered into a contract No. _____ dated _____ (hereinafter referred to as the said Contract) with M/s _____, hereinafter referred to as the "firm" for supply of goods as per Part-II of the said contract to the said firm and whereas the firm has undertaken to produce a bank guarantee **10% of total Contract value** amounting to _____ to secure its obligations to the President of India. We the _____ bank hereby expressly, irrevocably and unreservedly undertake and guarantee as principal obligors on behalf of the firm that, in the event that the President of India declares to us that the goods have not been supplied according to the Contractual obligations under the aforementioned contract, we will pay you, on demand and without demur, all and any sum up to a maximum of _____ Rupees _____ only. Your written demand shall be conclusive evidence to us that such repayment is due under the terms of the said contract. We undertake to effect payment upon receipt of such written demand.
2. We shall not be discharged or released from this undertaking and guarantee by any arrangements, variations made between you and the firm, indulgence to the firm by you, or by any alterations in the obligations of the firm or by any forbearance whether as to payment, time performance or otherwise.
3. In no case shall the amount of this guarantee be increased.
4. This guarantee shall remain valid for _____ months from the date of JRI acceptance of test consignment in India or until all the store, spares and documentation have been supplied according to the contractual obligations under the said contract.
5. Unless a demand or claim under this guarantee is made on us in writing or on before the aforesaid expiry date as provided in the above referred contract or unless this guarantee is extended by us, all your rights under this guarantee shall be forfeited and we shall be discharged from the liabilities hereunder.
6. This guarantee shall be a continuing guarantee and shall not be discharged by and change in the constitution of the Bank or in the constitution of M/s _____.

AIR FORCE SCHOOL BAGDOGRA
TERMS AND CONDITIONS

1. The following terms and conditions needs to be followed for smooth conduct of project:
- (a) Installation of (73) cctv camera and (40) centralized pa system- two way is to be done as per correct specifications. On any deviation, contract will be rejected and the same to be reconstructed by due date failing which the security deposit will be forfeited.
 - (b) No advance payments shall be made. 100% payment shall be made within 30 days after completion of work at Air Force School, Bagdogra.
 - (c) Delay in completion of work will attract LD clause which will be at a maximum of 10% of the amount.
 - (d) Bidders are required to submit Earnest Money Deposit (EMD) for amount of **Rs 28,000/-** along with bid. The bid security should be in the form of Account Payee Demand Draft, Fixed Deposit Receipt, Banker's Cheque or Bank Guarantee from any of the public sector banks or a private sector bank authorized to conduct government business, safeguarding the purchaser's interest in all respects. EMD of the unsuccessful bidders will be returned to them at the earliest after expiry of the final bid validity and latest on or before the 30th Day after the award of the contract. The Bid Security of the successful bidder would be returned, without any interest whatsoever, after the receipt of Performance Security from them as called for in the contract. The bid security should remain valid for a period of forty five days beyond the final bid validity period.
 - (e) Bid security is not required to submit by those firms who are registered with the Central Purchasing Organization, National Small Industries Corporation (NSIC) or concerned Departments or Ministries of the Government of India. Ministry of Micro, Small and Medium Enterprises (MSME) certificate. However, a copy of the same is to be attached as proof.
 - (f) The Bidder will be required to furnish a Performance Guarantee by way of Bank Guarantee through a public sector bank or a private sector bank authorized to conduct government business (ICIC Bank Ltd, Axis Bank Ltd or HDFC Bank Ltd.) for a sum equal to 10% of the contract value with 30 days of receipt of the confirmed order. Performance Bank Guarantee should be valid up to 60 days beyond the date of warranty. The specimen of PBG is attached.
 - (g) Bidders who have previously undertaken similar works will be considered eligible to bid for the installation of (73) CCTV Camera of Indian Origin and (40) Centralized PA System- two way. For which, necessary documents/ proof are to be attached with the bid.




(T Jyothi)
Gp Capt
Executive Director
Air Force School, Bagdogra

AIR FORCE SCHOOL BAGDOGRA**Schedule of Requirements**

<u>S.NO</u>	<u>PARTICULARS</u>	<u>QTY</u>
1	32 CHANNEL NVR	2
2	DESKTOP SWITCH 8 PORT	16
3	60W POWER SUPPLY (ADOPTER)	18
4	8 TB SURVELLIANCE FLASH DRIVE	2
5	4X4 PVC BOX	74
6	55" LED TV	3
7	8 PORT GIGA SWITCH	3
8	CAT-6 CABLE (MTR)	800
9	POWER SUPPLY BOX WITH 05 AMP - 02 SOCKETS	16
10	2MP IP CAMERA (Bullet camera for outdoor & Dome camera for classroom)	72
11	2MP IP CAMERA (IR PTZ)	1
12	ELECTRIC WIRE 4SQMM (MTR) (APPROX)	450
13	WIRE CATCHING (APPROX)	150
14	RJ-45 CONNECTOR	310
15	EXTENSION POLE	1
16	INSTALLATION CHARGES FOR CCTV CAMERA AND CENTRALIZED PA SYSTEM	73+40

2MP Full HD IR Network Bullet Camera - 30Mtr (INDIAN ORIGIN)**Specification**

<u>S. No</u>	<u>Feature</u>	<u>Specification</u>
1	Image sensor	1/2.8" 2MP Progressive scan CMOS (0.9071cm)
2	Minimum Illumination	0.01 Lux @F2.0
3	Effective Pixels	1920(H) x 1080(V)
4	Shutter Speed	Auto/Manual, 1/3~1/100000s
5	White Balance	Auto/natural/street lamp/outdoor/manual/regional custom



6	Lens	3.6mm (2.8mm Optional)
7	Lens Type	Fixed
8	Mount Type	M12
9	Max. Aperture	F2.0
10	Iris Type	Fixed aperture
11	Close Focus Distance	2.8mm- 0.5m ; 3.6mm- 0.8m
12	DORI Distance	3.6mm-49.7m (Detect) 19.9m (Observe) 9.9m (Recognize) 5m (Identify) 2.8mm- 38.6m (Detect) 15.4m (Observe) 7.7m (Recognize) 3.9m (Identify)
13	Gain Control (AGC)	Auto/Manual
14	Video Compression	Instastream/H.265/Smart H.264+/H.264/ H.264B/ MJPEG (only supported by the sub stream)
15	Angle of View	3.6 mm: Horizontal: 84°; Vertical: 45°; Diagonal: 100° 2.8 mm: Horizontal: 102°; Vertical: 54°; Diagonal: 120°
16	Back Light Compensation	BLC / HLC / DWDR
17	S/N Ratio	>56dB
18	Video Streaming	Main Stream: 1920 × 1080 (1 fps-25/30 fps) Sub stream: 704 × 576 (1 fps-25 fps) 704 × 480 (1 fps-30 fps)
19	Resolution	1080P (1920 × 1080); 1.3M(1280 × 960);720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
20	Mirror	Yes
21	Motion detection	Off/On (4 area, Rectangle)
22	Privacy Mask	4 Area
23	ICR	Auto (ICR)/ color/BW
24	ROI	Yes (4areas)
25	Noise reduction	3D-DNR
26	Video Bit Rate	H.265:12 kbps-6400 kbps H.264:32 kbps-6144 kbps
27	Bit Rate	CBR/VBR
28	Protocol	Ipv4; Ipv6; HTTP;TCP;UDP;ARP;RTP;RTSP;SMTP;FTP;DHCP;DNS;NTP; Multicast; ONVIF (profile S/ profile T); CGI; Insta On; Genetec
29	SDK & API	Yes
30	Ethernet	RJ-45(10/100 Base-T)
31	Event Trigger	Network disconnection; IP conflict; illegal access; motion detection; video tampering; safety exception
32	Cyber Security	Video encryption; configuration encryption; Digest; WSSE; account lockout; security logs; generation and importing of x.509 certification; HTTPS; trusted boot; trusted execution; trusted upgrade
33	Image	0°/90°/180°/270° (Support 90°/270° with 1080 °



6	Lens	3.6mm (2.8mm Optional)
7	Lens Type	Fixed
8	Mount Type	M12
9	Max. Aperture	F2.0
10	Iris Type	Fixed aperture
11	Close Focus Distance	2.8mm- 0.5m ; 3.6mm- 0.8m
12	DORI Distance	3.6mm-49.7m (Detect) 19.9m (Observe) 9.9m (Recognize) 5m (Identify) 2.8mm- 38.6m (Detect) 15.4m (Observe) 7.7m (Recognize) 3.9m (Identify)
13	Gain Control (AGC)	Auto/Manual
14	Video Compression	Instastream/H.265/Smart H.264+/H.264/ H.264B/ MJPEG (only supported by the sub stream)
15	Angle of View	3.6 mm: Horizontal: 84°; Vertical: 45°; Diagonal: 100° 2.8 mm: Horizontal: 102°; Vertical: 54°; Diagonal: 120°
16	Back Light Compensation	BLC / HLC / DWDR
17	S/N Ratio	>56dB
18	Video Streaming	Main Stream: 1920 × 1080 (1 fps-25/30 fps) Sub stream 704 × 576 (1 fps-25 fps) 704 × 480 (1 fps-30 fps)
19	Resolution	1080P (1920 × 1080); 1.3M(1280 × 960);720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
20	Mirror	Yes
21	Motion detection	Off/On (4 area, Rectangle)
22	Privacy Mask	4 Area
23	ICR	Auto (ICR)/ color/B/W
24	ROI	Yes (4areas)
25	Noise reduction	3D-DNR
26	Video Bit Rate	H.265:12 kbps-6400 kbps H.264:32 kbps-6144 kbps
27	Bit Rate	CBR/VBR
28	Protocol	Ipv4; Ipv6; HTTP;TCP;UDP;ARP;RTP;RTSP;SMTP;FTP;DHCP;DNS;NTP; Multicast; ONVIF (profile S/ profile T); CGI; Insta On; Genetec
29	SDK & API	Yes
30	Ethernet	RJ-45(10/100 Base-T)
31	Event Trigger	Network disconnection; IP conflict; illegal access; motion detection; video tampering; safety exception
32	Cyber Security	Video encryption; configuration encryption; Digest; WSSE; account lockout; security logs; generation and importing of x.509 certification; HTTPS; trusted boot; trusted execution; trusted upgrade
33	Image	0°/90°/180°/270° (Support 90°/270° with 1080



	Rotation	
34	User/ Host	6 Users (Total bandwidth: 36 M)
35	Smart Phone	iPhone, iPad, Android Phone
36	IR	IR Range of 30 Mtr., Smart IR
37	No of IR LEDs	1 (IR LEDs)
38	Browser	IE, Chrome, Firefox
39	Edge Storage	FTP
40	Operating Temperature	-40°C~+60°C , Less than 95%RH
41	Power Source	DC12V,PoE (802.3af)
42	Power Consumption	1.4W (12V DC); 2.2W (PoE)
43	Weatherproof Standard	IP67
44	Casing	Metal + Plastic
45	Dimension	162.6 mm x Φ 70 mm (6.4" x Φ 2.8")
46	Weight	0.22kg




 (T Jyoti)
 Gp Capt
 Executive Director
 AF School Bagdogra

AIR FORCE SCHOOL BAGDOGRA


2MP Full HD IR Network Dome Camera - 30Mtr
(INDIAN ORIGIN)

<u>S. No</u>	<u>Feature</u>	<u>Specification</u>
1	Image sensor	1/2.8" 2MP Progressive scan CMOS (0.9071cm)
2	Minimum Illumination	0.01 Lux @F2.0
3	Effective Pixels	1920(H) x 1080(V)
4	Shutter Speed	Auto/Manual, 1/3~1/100000s
5	White Balance	Auto/natural/street lamp/outdoor/manual/regional custom
6	Lens	3.6mm (2.8mm Optional)
7	Lens Type	Fixed
8	Mount Type	M12
9	Max. Aperture	F2.0
10	Iris Type	Fixed aperture
11	Close Focus Distance	2.8mm- 0.5m ; 3.6mm- 0.8m
12	DORI Distance	3.6mm-49.7m (Detect) 19.9m (Observe) 9.9m (Recognize) 5m (Identify) 2.8mm- 38.6m (Detect) 15.4m (Observe) 7.7m (Recognize) 3.9m (Identify)
13	Gain Control (AGC)	Auto/Manual
14	Video Compression	Instastream/H.265/Smart H.264+/H.264/ H.264B/ MJPEG (only supported by the sub stream)
15	Angle of View	3.6 mm: Horizontal: 84°; Vertical: 45°; Diagonal: 100° 2.8 mm: Horizontal: 102°; Vertical: 54°; Diagonal: 120°
16	Back Light Compensation	BLC / HLC / DWDR
17	S/N Ratio	>56dB
18	Video Streaming	Main Stream: 1920 × 1080 (1 fps~25/30 fps) Sub stream: 704 × 576 (1 fps~25 fps) 704 × 480 (1 fps~30 fps)
19	Resolution	1080P (1920 × 1080); 1.3M(1280 × 960);720p (1280 × 720); D1 (704 × 576/704 × 480); VGA (640 × 480); CIF (352 × 288/352 × 240)
20	Mirror	Yes
21	Motion detection	Off/On (4 area, Rectangle)
22	Privacy Mask	4 Area
23	ICR	Auto (ICR)/ color/B/W



24	ROI	Yes (4areas)
25	Noise reduction	3D-DNR
26	Video Bit Rate	H.265:12 kbps-6400 kbps H.264:32 kbps-6144 kbps
27	Bit Rate	CBR/VBR
28	Protocol	Ipv4; Ipv6; HTTP;TCP;UDP;ARP;RTP;RTSP;SMTP;FTP;DHCP;DNS;NTP; Multicast; ONVIF (profile S/ profile T); CGI; Insta On; Genetec
29	SDK & API	Yes
30	Ethernet	RJ-45(10/100 Base-T)
31	Event Trigger	Network disconnection; IP conflict; illegal access; motion detection; video tampering; safety exception
32	Cyber Security	Video encryption; configuration encryption; Digest; WSSE; account lockout; security logs; generation and importing of x.509 certification; HTTPS; trusted boot; trusted execution; trusted upgrade
33	Image Rotation	0°/90°/180°/270° (Support 90°/270° with 1080
34	User/ Host	6 Users (Total bandwidth: 36 M)
35	Smart Phone	iPhone, iPad, Android Phone
36	IR	IR Range of 30 Mtr., Smart IR
37	No of IR LEDs	1 (IR LEDs)
38	Browser	IE, Chrome, Firefox
39	Edge Storage	FTP
40	Operating Temperature	-40°C~+60°C , Less than 95%RH
41	Power Source	DC12V,PoE (802.3af)
42	Power Consumption	1.4W (12V DC); 2.2W (PoE)
43	Weatherproof Standard	IP67
44	Casing	Metal + Plastic
45	Dimension	85.5 mm × Φ109 mm (3.4" × Φ4.3")
46	Weight	0.24kg




 (T Jyoti)
 Gp Capt
 Executive Director
 AF School Bagdogra

AIR FORCE SCHOOL BAGDOGRA


2MP Full HD Network IR PTZ Camera- 100Mtr (INDIAN ORIGIN)

S. No	Feature	Specification
1	Image Sensor	1/2.8" 2MP PS CMOS (0.9071 centimeters)
2	Effective Pixels	1920(H) x 1080(V), 2 Megapixels
3	S/N Ratio	More than 50dB
4	Minimum Illumination	Color: 0.005Lux@F1.6; B/W: 0.0005Lux@F1.6; 0Lux@F1.6 (IR on)
5	RAM/ROM	1024MB/ 128MB
6	Electronic Shutter Speed	1/1s~1/30,000s
7	Focal Length	4.8mm~120mm
8	Max. Aperture	F1.6 ~ F4.4
9	Iris Control	Auto/Manual
10	Focus Control	Auto / Manual
11	White Balance	Auto, ATW, Indoor, Outdoor, Manual
12	Close Focus Distance	100mm~ 1000mm
13	Resolution	1080P(1920×1080)/720P(1280×720)/D1(704×576/704×480)/CIF(352×288/352×240)
14	DORI Distance	1613m(Detect) 646m (Observe) 323m (Recognize) 161m (Identify)
15	Angle of View	H: 62.8° ~ 2.6°
16	AGC control	Auto / Manual
17	Back Light Compensation	BLC / HLC / WDR(120dB)
18	Optical Zoom	25x
19	Digital Zoom	16x
20	Pan Travel	0°~360° endless, Pan Speed: 0.1° ~ 200°/sec
21	Tilt Travel	-15° ~ 90° auto flip 180°, Tilt Speed: 0.1° ~ 120°/sec
22	Manual Speed	Pan: 0.1° ~ 200° /s; Tilt: 0.1° ~ 120° /s
23	Presets	300
24	Preset Speed	Pan: 240° /s; Tilt: 200° /s
25	Privacy Masking	Up to 24 areas
26	Special Features	IR Range upto 100m, Defog, Up to 300 Presets, 5 Pattern, 8 Tour, Auto Pan , Auto Scan
27	Power up Action	Auto restore to previous PTZ and lens status after power failure
28	Speed Setup	Human-oriented focal Length/ speed adaptation
29	Idle Motion	Activate Preset/ Scan/ Tour/ Pattern if there is no command in the specified period
30	Day/Night: IR Cut Filter	Auto (ICR) / Color / B/W
31	Video Compression	H.265+/H.265/H.264+/H.264
32	Video	Main stream: 1080P/720P(1 ~ 25/30fps) Sub stream1: D1/CIF(1 ~ 25/30fps) Sub



	Streaming	stream2: 720P/D1/CIF(1 ~ 25/30fps)
33	Audio Compression	G.711a/G.711Mu/G.726/AAC
34	ROI	Support
35	Motion Detection	Support
36	Noise Reduction	Ultra DNR (2D/3D)
37	Audio Streaming	1/1 channel In/Out
38	Networking	RJ-45 (10/100Base-T)
39	IVS	Tripwire, Intrusion, Abandoned/Missing, Face Detection
40	Protocols	IPv4/IPv6, HTTP, HTTPS, SSL, TCP/IP, UDP, UPnP, ICMP, IGMP, SNMP, RTSP, RTP, SMTP, NTP, DHCP, DNS, PPPOE, DDNS, FTP, IP Filter, QoS, Bonjour, 802.1x, ONVIF Profile S&G, API
41	Alarm	2/1 channel In/Out
42	Event Trigger	Motion detection, Video tampering, Network disconnection, IP address conflict, Illegal access, Storage anomaly
43	Max Remote Users	20 users
44	Operating Temperature	-40°C ~ 70°C / Less than 95% RH
45	Smart Phone	iPhone, iPad, Android Phone
46	Memory Slot	NAS (Network Attached Storage), Local PC for instant recording, Micro SD card 256GB
47	Weather Proof Standard	IP66
48	Dimension	Φ160(mm) x 295(mm)
49	Casing	Metal
50	Weight	3kg
51	Power Source	DC 12V/3A, PoE+ (802.3at)
52	Power Consumption	13W, 22W (IR on, Heater on)




 (T Jyoti)
 Gp Capt
 Executive Director
 AF School Bagdogra

AIR FORCE SCHOOL BAGDOGRA

32Ch. H.265+ 4K Network Video Recorder (INDIAN ORIGIN)

S. No	Feature	Specification
1	Processor	Industrial-grade embedded processor
2	IP Camera Input	32 channel
3	Operating System	Embedded LINUX
4	Operation Interface	Web/operating in local GUI
5	Performance by Camera	8 channel
6	AI Search by Camera	Search for pictures by channel, time and event type
7	Face Attributes	6 attributes: Gender, age, glasses, expression, mouth mask, and beard
8	AI Search by Face Detection	Search for pictures by channel, time and face attributes
9	Performance by Face Detection	4 Channels
10	Video Output	1 × VGA output, 1 × HDMI output, supports simultaneous video sources output for VGA and HDMI
11	Compression	Smart H.265+/H.265/Smart H.264+/H.264/MJPEG
12	Performance by SMD Camera	Search by target classification (human, vehicle)
13	Network bandwidth	Access: 160 Mbps; Storage: 128Mbps; Forward: 48 Mbps
14	Resolution	8MP; 6MP; 5MP; 4MP; 3MP; 1080P; 720P; D1
15	Decoding Capability	8 × 1080p@30fps
16	Multi-screen Display	1,4,8,9,16,25,32 views
17	Third-party Camera Access	ONVIF; RTSP
18	General Alarm	Motion detection, privacy masking, video loss, scene changing, PIR alarm, IPC external alarm
19	Anomaly Alarm	Camera disconnection, storage error, disk full, IP conflict, MAC conflict, login locked, and cyber security exception
20	Alarm Linkage	Recording, snapshot, local external alarm output, audio, buzzer, log, preset, and email
21	Intelligent Alarm	Face detection, perimeter protection (intrusion and tripwire), IVS, people counting, heat map, and SMD alarms
22	Audio Compression	PCM/G711A/G711U/G726/AAC
23	Audio Input	1 x RCA input



24	Audio Output	1 x RCA output
25	Alarm Input	4 Channel
26	Alarm Output	2 Channel
27	Record mode	Manual record; alarm recording; SMD recording; smart recording
28	Smart Phone	iPhone, iPad, Android Phone
29	Hard Disk	2 SATA III ports, up to 10 TB for a single HDD. The maximum HDD capacity varies with environment temperature
30	Browser	Chrome; IE9 or later; firefox
31	Disk Group	Yes
32	Multi-channel Playback	Up to 16 channels for playback
33	Playback button	Play/pause/stop/slow/quick/backward/by frame Full screen, backup (video clip/file), partial zoom in, and audio on/off
34	Storage	Local HDD; network
35	Backup	USB storage device
36	Interface Ports	2 USB Ports (1 x front USB 2.0 x back USB2.0)
37	Ethernet	1xRJ-45, 10/100/1000 Mbps self-adaptive Ethernet port
38	Protocols	HTTP; HTTPS; TCP/IP; IPv4/IPv6; UPnP; SNMP; RTSP; UDP; SMTP; NTP; DHCP; DNS; IP Filter; DDNS; FTP; Alarm Server; IP Search; P2P; auto register; ONVIF (profile T/S/G); CGI; SDK
39	Power Supply	12 V DC, 4 A
40	Power consumption	< 5.6 W (HDD not included, idling)
41	Working Temperature	-10°C to +55°C (+10 °F to +131 °F)
42	Storage Temperature	0 °C to +40 °C (32 °F to 104 °F)
43	Storage Humidity	30%~85%
44	Operating Humidity	10%~93%
45	Operating Altitude	3000 m
46	Dimensions	375 mm x 282.4 mm x 53 mm (14.76" x 11.12" x 2.09") (W x L x H)
47	Weight	1.5Kg




 (T Jyoti)
 Gp Capt
 Executive Director
 AF School Bagdogra

AIR FORCE SCHOOL BAGDOGRA

School Digital Broadcast System

Two way Audio Broadcast System and Audio Talk Back System

Single wire solution connects speaker to speaker.

<u>S.NO</u>	<u>PARTICULARS</u>	<u>QTY</u>
1	DIGITAL AUDIO BROADCAST (DAB) SYSTEM (DAB) 40 CHANNEL	1
2	DIGITAL AUDIO MICROPHONE	1
3	SPEAKER SYSTEM (15 W)	40
4	ELECTRIC WIRE 4SQ CM (MTR) (APPROX)	550
5	CAT-6 CABLE (MTR) (APPROX)	600

Specification

1. One to one room call announcement communication (Two way communication)
2. Group Call rooms (eg. 10-20 room, 15-24 rooms, select group announcement)
3. Selected Call rooms (eg. 02, 05, 09, 12, 16, 21, 30 call announcement all selected room.)
4. All call announcement all rooms.
5. Automatic School Bell with voice period announcement bell also.
6. Emergency Alarm: Student Safety button all class rooms if any fighting and problem any student press button SOS alarm will activate in principal room. Principal take quick action announcement all rooms.
7. Mobile direct connect with Bluetooth play sound and music live all class room and Pen drive, FM, SD card can connect live music player, song live to all class rooms.
8. Power saving mode cut off power automatic.
9. Wire connecting speaker to speaker.
10. Digital Key pad interface.
11. Speaker Slave Unit
 - (a) 6" Speaker
 - (b) Sound Volume Control
 - (c) Inbuilt Micro Phone
 - (d) Inbuilt Digital Slave Card
 - (e) Inbuilt Amplifier



12. Dimensions - Audio Broadcast Unit (LxBxH)

- (a) Audio Brant und 255mm x 215mm 70mm (Wt. 1.7KG)
- (b) Speaker Slave Unit-130mm x 100mm x 175 mm (Wt. 800GM)

13. User Interface:

- (a) Digital Key pad interface
- (b) 20 x 4 LCD display
- (c) Mike and AUX connected jack
- (d) 3.5mm jack for playing external audio
- (e) Bluetooth, Pen drive, SD Card connectivity
- (f) Input supply 220 AC




(T Jyoti)
Gp Capt
Executive Director
AF School Bagdogra

→ 5 →

Answer: (ii) 



圖 PA-12

EXISTING CAMERA-08



टी ज्योति / T Jyothi
गुप कॅप्टन / Gp Capt
कार्य निर्देशक / Executive Director
ए. ए. वि. बालबोर्ड / AF School Bagdogra



(टी ज्योति / T Jyothi)
हुप कैप्टन / Gp Capt
कार्य निदेशक / Executive Director
ए. ए. सि. बागदोगरा / AF School Bagdogra