



Request for Proposal

for

Up gradation of IP Surveillance, Access
Control & Enterprise Buildings Integrator
Systems at
Prof. MGKML, CREST Hosakote

**Indian Institute of Astrophysics
Bangalore**

July 2020

1. Introduction

Prof.MGK Menon Lab is designed and built as per ISO 14644-1,14644-2 and ISO 14644-4 cleanroom standards to meet the critical molecular and particulate contamination requirements of space-based science instruments. It is on par with international space instrumentation facilities and consists of Class-10 to Class-300000 clean rooms to meet different levels of cleanliness requirements for different activities with an approximate total area of 400 m².

The facility is equipped with state-of-the-art instruments which can be used to assemble and calibrate equipments which require clean-room conditions.

Keeping in view of complex and technologically demanding inter-disciplinary nature of activities, the executing agency is expected to have access to established expertise in design & execution of IP Surveillance, Access Control & Enterprise Buildings Integrator Systems. Similarly, total familiarity with practices of automation, control & data dissemination adopted in modern systems is a pre-requisite.

2. Scope of work

The bidder shall be responsible for dismantling the existing CCTV & Access control systems & Supply, Installation & commissioning of IP Surveillance, Access Control & Enterprise Buildings Integrator Systems at Prof. MGKML, CREST Hosakote as per the details mentioned in the RFP.

Bidder shall provide at least 3 PO copies of the similar systems supplied, commissioning report, list of customers with contact details etc.,

The items shall be supplied in accordance with the applicable drawings/ documents/ standards specified in standards and the schedules set forth. The following are the objective and scope of work of this RFP in detail.

3. Applicable Codes

i. Applicable IEC 62676

ii. NEC/NEPA/UL/CE/ANSI/ Applicable standards

iii. Applicable Indian & International standards

4. Location and Environment

The system will be installed in ultra-clean rooms at Prof.MGK Menon Lab for Space Sciences at CREST Campus of IIA, Hosakote. Cleanroom class varies from class 10 to class 1 lakh. Extreme care shall be taken to maintain the integrity of the cleanroom during the upgradation and activities to be scheduled without disturbing the ongoing payload integration activities.

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5. Up gradation Details

Sl. No.	Description	Unit	Qty	Make	Model No.
	Supply, installation and commissioning of following				
A	Access Control System				
1	Upgradation of existing Honeywell Enterprise Buildings Integrator EBI R310 to EBI R600.	No.	1	Honeywell	EBI R600
	The EBI R600 Server runs on Windows Server 2016 operating system. The EBI Station (client) can run on either Windows 10, Windows 7 (x64), or Windows 2016 operating systems				
	Following features to be included in the software upgradation		1		
	12 Reader license		1		
	500 data point license		1		
	TEMA-line interface		1		
	BACnet direct interface		1		
	2 stations		1		
	Automation Engine & Alarm Shelving		1		
	Advanced Alarm Management module		1		
	GSM modem		1		
2	New TemaServer Controller for up to 16 Temaline readers (depending from the kind of TK) and 64 digital I/O. Supports 10/100MB Ethernet connection to the supervisory center. Connection to the field devices via LonWorks. Factory setting for 100K cardholders. The TS2 Controller is supported starting from EBI400.	No.	1	Honeywell	TS2
3	Advanced LonWorks Wiegand Interface with 2 supervised digital input and 2 digital output. To be connected to TS_AC01 or TS2. This new wiegand is fully compatible with any EBI-Temaline release that supports the TK_S014 device.	No.	3	Honeywell	TK_S014M
4	Power Supply Unit for Master and Door controller - 24Vdc / 2A	No.	4	Standard Make*	
5	Wall mount enclosure for Master and Door controller	No.	4	Standard Make*	
6	Proximity reader	No.	6	Standard Make*	
7	Emergency Release switch	No.	3	Standard Make*	
Sl. No.	Description	Unit	Qty	Make	Model No.

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8	EML - 600lbs for Single Door with accessories	No.	3	Standard Make*	
9	Door Magnetic contact	No.	3	Standard Make*	
10	4C x 1.0 sqmm armoured unshielded cable	Mts	100**	Standard Make*	
11	6C x 1.0 sqmm armoured shielded cable	Mts	100**	Standard Make*	
B IP Surveillance System					
12	Upgradation of existing Honeywell Digital Video Manager DVM R600 to DVM R700 with additional 8 camera License.	No.	1	Honeywell	DVM R700
13	UL/CE certified IP67 rated ONVIF Dome camera with 1/2.8" 2 MP progressive scan CMOS, PoE (802.3af) Class 0/12VDC, NTSC/PAL, Colour: 0.001Lux @ f/2.0, B/W: 0Lux @f/2.0 (IR on), 15 Mts IR distance, 50db S/N Ratio, Angle view of H: 110°, V: 58°, H.265+, H.265, H.264 and MJPEG, IP67 and Operating temperature of -30°C to 60°C (-40°F to 140°F)	No.	20	Honeywell	H2W2GR1
14	UL/CE certified IP67 rated ONVIF Bullet camera with 1/2.8" 2 MP progressive scan CMOS, PoE (802.3af) Class 0/12VDC, NTSC/PAL, Colour: 0.001Lux @f /1.6, B/W: 0Lux @f/1.6 (IR on), 60 Mts IR distance, 50db S/N Ratio, Angle view of H: 110°-32°, V: 59°-19°, H.265+, H.265, H.264 and MJPEG, IP67 and Operating temperature of -30°C to 60°C (-40°F to 140°F)	No.	1	Honeywell	HBW2GR1V
15	24 port POE switch	No.	1	D-Link	
16	Rack & accessories	No.	1	D-Link	
17	CAT 6 armoured cable	Mts	2000**	D-Link	
18	Engineering, documentation and commissioning charges	Lot	1		
19	Dismantling Charges of the existing system	Lot	1		
20	Miscellaneous	Lot	1		

*** Standard & Reputed makes shall be approved by IIA before finalisation.**

**** Estimated quantity - Measurements will be made after the execution and will be paid as per actuals.**

6. Operation & Safety

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Safety protections: System design shall provide adequate safety interlocks and protections to ensure system safety as well as Personnel safety during operation and storage of the system. Manual overrides shall be provided for any automatic operational controls.

As a part of safety and maintenance bidder shall include essential signs, marks, write-up etc.

7. Preliminary Design of the system offered

Bidder shall provide preliminary design of the system offered along with the Technical offer. Summary of the design shall clearly bring out design margins included in the system design.

8. Electrical Power and other utilities required

Bidder shall clearly specify the estimated connected power as well as estimated peak power consumption of the system offered considering different operation mode described above.

9. Quality control Plan

Bidder shall furnish their standard QC plan used during execution of similar systems.

10. Manuals, Maintenance & Spares

Detailed manuals shall be provided with subsystem descriptions including electrical, circuit diagrams, interconnections and layout details.

Operational procedures shall be provided.

Safety precautions and interlock/alarm recovery procedures shall be provided.

Instruction and maintenance manuals, trouble shooting and fault finding procedures and recovery methods.

11. Demonstration of specifications, Acceptance test and Transportation

Bidders shall organize for required loading/unloading shifting of all system components to the place of installation of this system. Bidder shall assemble and integrate the system at CREST campus of IIA, Hosakote. Acceptance test plan shall be generated by bidder during the course of execution in consultation with the purchaser.

12. Training to operators of the purchaser

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Bidder shall provide a thorough on job training to at least 5 operation personnel for a period of 5 days at purchaser's site prior to system acceptance.

13. Guarantee Period

Bidder to guarantee the failure free operation of the system for a period of not less than **24** months from the date of acceptance of the system at purchaser's site.

14. Compliance and Deviation Table

Bidder shall furnish detailed compliance table w.r.t. all the specifications described above. Bidder shall furnish detailed deviation list, if any w.r.t. above specification. Bidder shall give detailed justification for proposed deviation.

15. Bidder's experience and eligibility criteria

a) It is essential that bidder possess the adequate experience in executing custom designed IP Surveillance, Access Control & Enterprise Buildings Integrator Systems. Bidder must mention such experience clearly in their offer.

b) Bidder should have executed at least one such new/upgradation project in last five years. Bidder shall furnish previous references where similar systems had been supplied by them in past with details like contact person, address, PO value and brief specification achieved at the time of system acceptance by the customer.

16. Miscellaneous

- Clear Specifications (quality, quantity, fitting specification, rate of supply, etc.) shall be given on any auxiliary requirements which are necessary for the operation of the system such as power, etc., Any other requirement like civil, electrical, network, IT support etc shall be clearly specified.
- The company shall provide training about the operation of the system and precautions related to the system.
- Packing and transport of all the components to site is in bidder scope.
- Installation and commissioning is in bidder scope.

17. Schedule

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- Preliminary design review 2 Weeks after receipt of PO
During this stage drawings, design details & options shall be sent to IIA for comments.
- Approval of drawings & Design 1 Week after PO
- Installation & Commissioning at Site 4 Weeks after approval of drawings & design

18. Note to the Bidder

1. IIA reserves the right to alter, whenever necessary, specifications and drawings. As from the date, the Stores shall be in accordance with the specifications, patterns and drawings so altered, which the contractor is bound to comply with. In the event of such alteration involving a revision in the cost, or in the delivery period, the same shall be discussed and mutually agreed to, taking into account the unit rates of similar items in the Contract. In case of disagreement, the decision of IIA, in the cost or the delivery period, shall be final and conclusive.
2. **Minor modifications / Additional Scope of Work:** Minor modifications /additional scope of work to the tune of 2% of the total contract value shall be carried out by the contractor without any extra cost to IIA.
3. **Subletting or Assignment of Contract:** The Contractor shall not sublet, transfer or assign the Contract or any part thereof or bills or any other benefits, accruing there from or under the contract without the prior written consent of IIA (All Subcontractors are required to be appraised and approved by IIA before placement of orders by the Contractor/Bidder). However, such consent shall not be unreasonably withheld by IIA, if such stores are not normally manufactured by the Contractor, such assignment or subletting shall not relive the Contractor from any contractual obligation or responsibility under the Contract.

Any breach of this condition shall entitle IIA to cancel the Contract or any part thereof and to purchase from other sources at the risk and cost of the Contractor and shall recover from the Contractor damages arising from such cancellations.

In case the Contractor sublets, transfers or assigns any part of the Contract with the prior written consent of the Purchaser, all payments to the Sub- Contractor shall be the responsibility of the Contractor and any requests from such sub-Contractor shall not be entertained by IIA.

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4. **Past performance:** In case the past performance of the tenderer is not found to be satisfactory with regard to quality, delivery, warranty obligation and non-fulfilment of terms and conditions of the contract, their offer is liable to be rejected by IIA.
5. The bidder is required to submit all supporting documents as proof for the compliance. Bids received without valid documents and/or incomplete and irrelevant documents are likely to be rejected.
6. A detailed QAP, drawings documentation and calculation for obtaining necessary approval should be submitted to IIA before taking up the upgradation.
7. IIA's decision to consider as to whether a bidder has met with the eligibility criteria or not is final.
8. Payment to the vendor's will be linked with milestones like Delivery at site, installation & commissioning, etc.,
9. Vendor shall visit the project site to evaluate RFP requirements before submitting the quote. Prior permissions shall be obtained from IIA for the visit.

19. Check list for documents to be enclosed in the offer

a) Technical bid: Bidder shall furnish following details / documents in their technical bid:

Detailed description of the system offered w.r.t. each of the above specification.

- i) Detailed list of scope of supply included in the offer.
- ii) List of major items along with make and model number.
- iii) Catalogues, leaflets, brochures, application notes etc. for all the major components proposed.
- iv) Preliminary design made to arrive at sizes of various components.
- v) Compliance table with remarks.
- vi) Deviation table if any with remarks and detailed justification.
- vii) Un-priced commercial bid.
- viii) Any other details relevant to the requirement.

b) Commercial bid: Bidder shall furnish following details / documents in their commercial bid:

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- i) Commercial bid with price
- ii) Price break up as per section 5 in RFP