INDIAN INSTITUTE OF TECHNOLOGY KANPUR
CENTRAL STORES & PURCHASE SECTION
IIT Post Office Kanpur - 208 016
Under certificate of posting

Phone : 91-512-2597214, 7384
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Email : purchase@iitk.ac.in.

Enquiry No : **E/2014-2015/41**
Enquiry Date : **24/03/2015**
Closing Date : 09/04/2015
Delivery Date: **15 Days**

Dear Sir ,

Sealed Quotations so as to reach latest by 3:00 PM on dated 09/04/2015 are invited for the supply of following items :

Sl No.	Description	Quantity	Unit
1	RFID READER & BOOM BARRIER (FOR COMPLETE DESCRIPTION AND TECHNICAL SPECIFICATIONS PLEASE REFER ATTACHED ANNEXURE-A)	1	SET

1. Suppliers are requested to submit authorization letter from their manufacturer failing which their quotation may not be considered. 2. Quotation must be submitted in two bid system i.e. technical & financial bid in sealed separate envelopes.

Sd/-

Dy. Registrar (S&P)
Central Store & Purchase Section

"Annexure - A"

INDIAN INSTITUTE OF TECHNOLOGY KANPUR
SECURITY SECTION

No- Secty/RFID/2015/IITK-
Dated: 17th Mar 2015

RFID Enabled Vehicle Entry System

IIT Kanpur proposes to introduce Radio Frequency Identification (RFID) enabled vehicle entry system. The system consists of RFID readers and tags, boom barriers, and access control software. The readers and the boom barriers will be installed at the main gate of the IIT campus. The vehicles are tagged by tamper-proof RFID tag. When a vehicle approaches the boom barrier, the RFID reader identifies the vehicle, the access control software verifies the identity of the vehicle, and the system opens the barrier. In this system, the existing passes (plastic stickers) will be replaced by a non-transferable, tamper proof RFID enabled pass with no explicit mention of IITK name or logo.

Features

- Secure and efficient identification.
- Hands-free and quick access control.
- Increased vehicle turn-around.
- Automatic notification when vehicle enters or leaves the campus through the main gate.
- Provide full history of the vehicles crossing the main gate.
- Tags can be identified, even when the vehicle is on the move.
- Vehicle identification from10-12 meter distance so that it is convenient for riders to access the boom barrier without stopping the vehicle.

Automatic Boom Barrier Features

- Strong aluminium arm with rubber guard.
- Encoder for obstacle detection and immediate run inversion.
- Two beams, likely to be 4-6 meters in length on both sides of the road (one on the left and the other one on the right). Closing time of the barrier should be less than 2 seconds.
- Manual lock release by key in case of power failure.
- All the processes should be smooth without any noise and shaking.

- Green light and red light indicating the position of the beam.
- Connections for infrared photocell, loop detector & IC system for other functions.
- Stop and reverse operation safety devices.
- Provision for connecting an RFID system.

Functions

- Open the door by scanning the tag.
- After being stopped for a specific time, the system will automatically send a signal to close the barrier.
- The system can be configured with an ID card reader, allowing addition and deletion of users.

TECHNICAL SPECIFICATION

Clear Opening Width	4 – 6 meters
Power Supply	230 V ~ / 50 - 60 Hz
Control Panel	24 V
Torque	250Nm
Opening Time	1 - 2 s/90
Protection Rating	IP 54
Operating Temperature	-20°C/+55°C
Travel Control system	Encoder

RFID Reader

RFID UHF readers enables the tagged vehicle identification from 10-12 meter distance which is more convenient for riders to access the boom barrier without stopping the car.

Technical Features:

RFID	
Frequency (UHF Band)	865 - 867 MHz
Power Output	+10dBm to +33dBm
Air Protocols	ISO 18000-6 (EPC Class 1 Gen 2)
CONNECTIVITY	
Communication	10/100 Base T Ethernet (RJ45); USB Host & Client (Type A & B) or Serial (DB9)
ENVIRONMENTAL	
Operating Temp.	-20° to +55° C
Humidity	5-95% non-condensing
Sealing	IP53

RFID Antenna (Outdoor)

Gain	6.0 dBiL
VSWR (Return Loss)	1.22 : 1(20 dB)
Front to Back Ratio	>10dB
Polarization	Circular
3db Beam Width	75^0
Max Power	20 watts
Axial Ratio	3 db
Oper. Temps	-10° C to +65° C
Sealing	IP67

OTHER SPECIFICATIONS—

1. Windows based access control software (Windows 8 or above)
2. Network based data storage
3. Tags would be placed on two and four wheelers and buses.
4. The vehicle and the key ring, both are to be tagged and the boom barrier should open only when the input from both the RFID tags match.
5. Tamper proof RFID tags of size not exceeding 10 cm. (diagonal size)
6. MTBF 5 years
7. Training, installation, testing & commissioning
8. Warranty period minimum one year; thereafter AMC for one year.
9. Single point contact in case of need/ problem
10. Availability of support personnel within 2 hours of complaint
11. A map of the main entrance gate is provided. Interested parties are expected to submit design and cost details of the entire system. They are welcome to visit the location. For this they may contact the Security Section.
12. Quotation must reach undersigned on or before 9th April 2015 at 1500 hrs.
13. Quotation must be valid for 90 days after last date of quotation submission.
14. All prices are to be FOR IIT Kanpur
15. Delivery period should not be more than 4 weeks.
16. IIT Kanpur is exempted from excise/custom duty.
17. **Payments terms: 90% on installation and 10% satisfactory report**

18. Quotation shall be submitted in two parts

(a). Part-I (Technical) should contain all technical details and specification of the offered for RFID reader and boom barrier along with technical compliance sheet, (like make and other features), warranty and applicable tax rate (Like VAT etc.)
(b). Part-II (Financial) should contain the price of the offered same above along with commercial terms and conditions. The price should not be quoted in the technical bid.

19. **Warranty: 01 Years on RFID reader and boom barrier and accessories.**

20. The vendor (if not OEM) should have valid authorization for this tender enquiry from the OEM Company.

Map of the main entrance gate