

Term of Reference (TOR)  
for  
Rent of BIAM Data Center

1. **Background:** Bangladesh Institute of Administration and Management (BIAM) is one of the leading training institutes of the country established in 1991 for providing professional and career development training in the field of development administration and management. Later on, the institute converted into Foundation by a government resolution in November 2002. BIAM Foundation is mandated for enhancing professional skills, expertise and performance of the cadre officers and non-cadre officers as well as other public private organizations of the country. A Data Centre has been established as part of the Information Technology (IT) Lab at the BIAM premises to ensure the data security. This Data Centre is connected with two Computer Labs equipped with 41 Desktops (Dell Brand-41, Apple Brand-41). Total 700 LAN nodes with 100 access point for LAN network, WiFi network and Backup servers, Application servers, Database servers, Storage servers have been installed. BIAM Foundation intends to operate and manage the Data Center by a reputed IT Firm on rental basis. It is expected that the selected IT Firm will use and manage the Data Center encluse maintenance, data security upgradation etc. and will pay certain amount of money to BIAM Foundation on monthly/ half yearly/ yearly basis in exchange of using Data Centre and its space.

**2. Details of Data Center and others of BIAM:**

2.1. The data center is located at the 2nd Floor of main Building of BIAM Foundation. The total area of the data center is arroud 1500 sft. The detail of the server is given below:

2.1.1. Server & Storage: Ocean Stor 6800 V5, Virtualization Software 8 CPU, Huawei Application Server (4), Huawei Database Server (2), Huawei Production Storage 140 TB raw 100 TB useable storage, Huawei Backup Server, Commvault Backup Software for 20 VM & 5 Physical Server, Backup Storage (96 TB Raw & 50 TB useable storage), F5 Application Delivery Controller with link Load Balancer and WAF, Microsoft Active Directory Solution, Microsoft UserCals, Microsoft Next Generation End Point Protection Solution, Microsoft Database Licence.

2.1.2. Network Device: Core-RT-NetEngine-8000 M1A-1, Core-RT-NetEngine-8000 M1A-2, Core-Firewall-USG6635E-1, Core-Firewall-USG6635E-2, DC-Core-SW-CE8861-1, DC-Core-SW-CE8861-2, Server-Farm-Switch-CE6865-1, Server-Farm-Switch-CE6865-2, BMC-Switch-S5731-1, Campus-Core-switch-S6730-1, Campus-Core-switch-S6730-2, Campus-Distribution-Switch-S6730-1, Campus-Distribution-Switch-S6730-2, Campus-Access-Switch-CE-S5732.

2.1.3. Network Solution: WiFi6 Standard Wireless Access Point, Campus Network Manager and Controller.

2.1.4. Other Peripherals:- LAN Cable, Face plate, Modular jack, Patch panel, 1U Cable manager, patch cord, Optical cable, Adaptor, Pigtail, 60 KVA Generator with ATS, CCTV Surveillance System, Access Control System, Air Conditioning System, Dehumidifier, AVR, Onsite Resident Support Engineer managed Work.

2.1.5. The detail of (a) Architecture of BIAM Network, (b) Architecture of BIAM Network, (c) Passive Infrastructure, (d) Power System, (e) Power system inside Data Center, (f) Power system inside MDC, (g) Auto Fire Detection and Suppression System, (i) Very Early Smoke Detection Apparatus,



(j) Rodent System are attached in the annex "A".

**2.2. Server & Storage Details are mentioned below:-**

Server	RAM	Processor	Local_Disk (Usable)
APP1	8*64=512	2*18=36 (Gold)	2*480=RAID1=480 GB
APP2	8*64=512	2*18=36 (Gold)	2*480=RAID1=480 GB
APP3	8*64=512	2*18=36 (Gold)	2*480=RAID1=480 GB
APP4	8*64=512	2*18=36 (Gold)	2*480=RAID1=480 GB
DB1	8*64=512	4*16=64 (Platinum)	5*480=RAID6=1.3 TB
DB2	8*64=512	4*16=64 (Platinum)	5*480=RAID6=1.3 TB
Backup	4*64=256	2*16=32 (Gold)	5*960=RAID6=2.61 TB
NCE1-3	4*32=128	2*16=32 (Gold)	4*1200=RAID0/1

Storage			
6800			
L4-S-SAS2400	2.4TB 10K RPM SAS Disk Unit(2.5")	2.4*30=72TB	
L4-S-SSD3840	3.84TB SSD SAS Disk Unit(2.5")	3.8*18=68.4TB	
-----			
140TB but usable 100TB			
2600			
L2-L-NLSAS6TV5	6TB 7.2K RPM NL-SAS Disk Unit(3.5")	6*13=78TB but usable 60TB	----- backup

**2.3. It may be mentioned that presnetly BIAM is using the Data Center. The following equipments/software and other pherepherals are connected to it which should be continued in future even after rental agreement with selected IT Firm:**

- Computer Lab: Shamsuddin Computer Lab (41 Hp PC), Mahbub Kabir Computer Lab (41 Dell PC), Apple Brand (41 PC).
- Wifi Access Point (100 quantity).
- LAN: node (700 quantity).
- Software: Account Management Software, Canteen Management Software, Library Management Software, Hostel Management Software, Training Management Software.
- 64 + 64 CCTV Solution.

**3. Scope of the Works:** The IT firm will use and manage the data cneter and will provide profit to BIAM on monthly or annual basis in exchange of using the Data Centre and space. The Selected IT Firm will bear all expenses and costs of data center i.e. license renewal of all devices / online account renewal including electricity bill, fuel cost of generator. If any device is lost, its repair or replacement and other expenses related to those are to be brone by the selected IT Firm. Maintenance of the Data Centre should be ensured by experienced engineers subject to 24/7 presence on site. Ensuring immediate support in related works of data center related to BIAM i.e. LAN, WiFi etc is required. One additional room may be provided for official purpose if required. All required rearrangement/ expansion/ relocated of this Data Centre will be accomplished by the selected IT Firm with all costs or expenses in this regard. Prior approval would be required from any kind of expansion or change or renovation of the Data Centre from the BIAM Authority.

**4. Quality of the IT Firm:** The IT firm should have among others the following qualities/abilities:

- a) Valid Registration Certificate as It Firm;

- b) Licence Certificate;
- c) Vat IT Registration Certificate.
- d) Experience of managing such servers
- e) Should have experts/skilled staffs in the field like, CLOUD & VIRTUALIZATION, AWS Solution Architect Associate, Microsoft Azure Administrator, DevOps Engineering, Certified Kubernetes Administrator, Mastering Docker (For System Administrator), Proxmox Enterprise Virtualization, VMware vSphere 8.0 : ICM, VMware vSAN 7.0, Google Cloud Platform (GCP), Mastering Hyper-V Virtualization, ROUTING & SWITCHING, CCNA, CCNA Crash Course, CCNP ENCOR, CCNP ENARSI, Juniper JNCIA & JNCIS, F5 Load Balancer, HCIA-Routing & Switching, HCIP-Datacom-Core Technology, HCIP-Datacom-Advanced Routing, MikroTik With ISP Setup, FTTx & OLT (V-SOL/BDCOM/C-DAT, NETWORK SECURITY, Cisco CCNP SCORE, Certified Ethical Hacker (CEHv12), Cisco CyberOps, PaloAlto Firewall Administration, Fortinet FortiGate Firewall (NSE4), OSCP Penetration Testing, Certified SOC Analyst (CSA), Certified Cloud Security Professional, SYSTEM ADMINISTRATION, Linux System Administration, Linux Server for Enterprise, Linux Server for ISP, Microsoft Windows Server 2022, Microsoft 365 Administration, MS Exchange Server 2019, Zimbra Mail Server Administrator, Enterprise NMS BootCamp, Enterprise DNS, Mail & Mail Gateway, IT SECURITY AUDITING & MGT, CISA, CISSP, ISO 27001 Lead Auditor, Microsoft SQL Server 2019, Oracle DBA Admin, Asterisk IPTSP Setup.

5. **Responsibilities of BIAM Authority:** Providing Data Centre and Server itself for managing and using along with physical space, electricity connection and generator;

6. **Responsibilities IT Firm:**

- Maintenance & Support of Generator, AC, Dehumidifier, Access Control System, LAN node 800, WiFi Access Point 100 qt.
- Maintenance All kind of Configuration & Support in Floor Access Network Switch.
- Maintenance All kind of Configuration & Support in Distribution Network Switch.
- Maintenance All kind of Configuration & Support in Network Device, Network Solution, Server & Storage Device.
- It will be the responsibility of the IT Firm to bear all expenses and costs of Data Centre management i.e. license renewal of all devices / online account renewal including electricity bill, fuel cost of generator, if any device is lost or damaged, its repair or replacement and other expenses related to those are to be borne by the selected IT Firm. Maintenance of the data centre should be ensured by experienced engineers and IT personnel subject to 24/7 presence on site. Ensuring immediate support for related works of Data Centre connected to BIAM i.e. LAN, WiFi etc is required.

7. **Duration of the Contract:** Initially 02 (two) years. May be extended on negotiation.

8. **Exit:** On the basis of agreement.

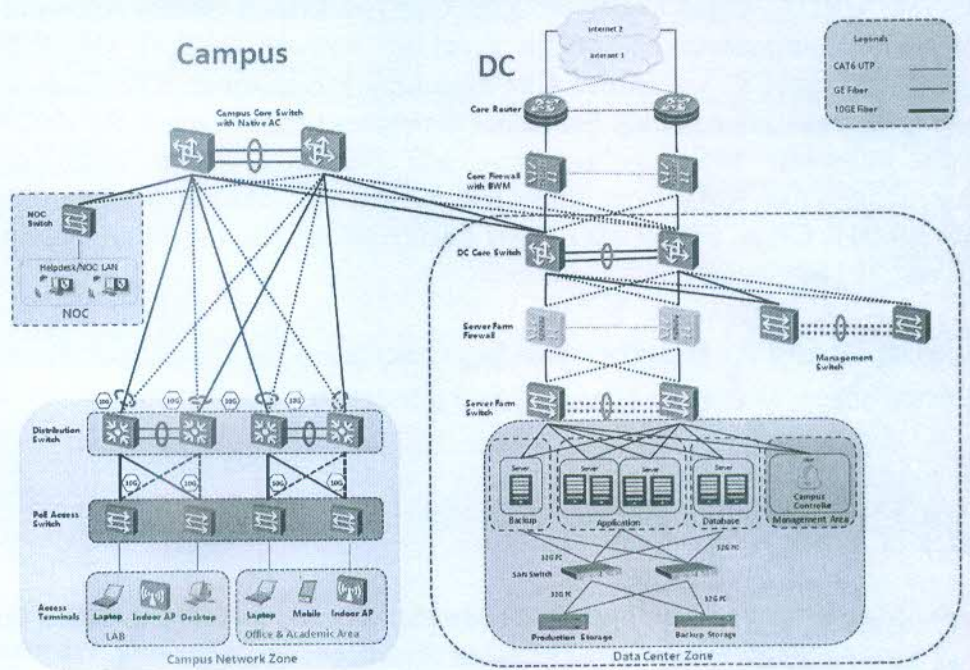
9. **Liabilities:** Liabilities will be maintained according to agreement.



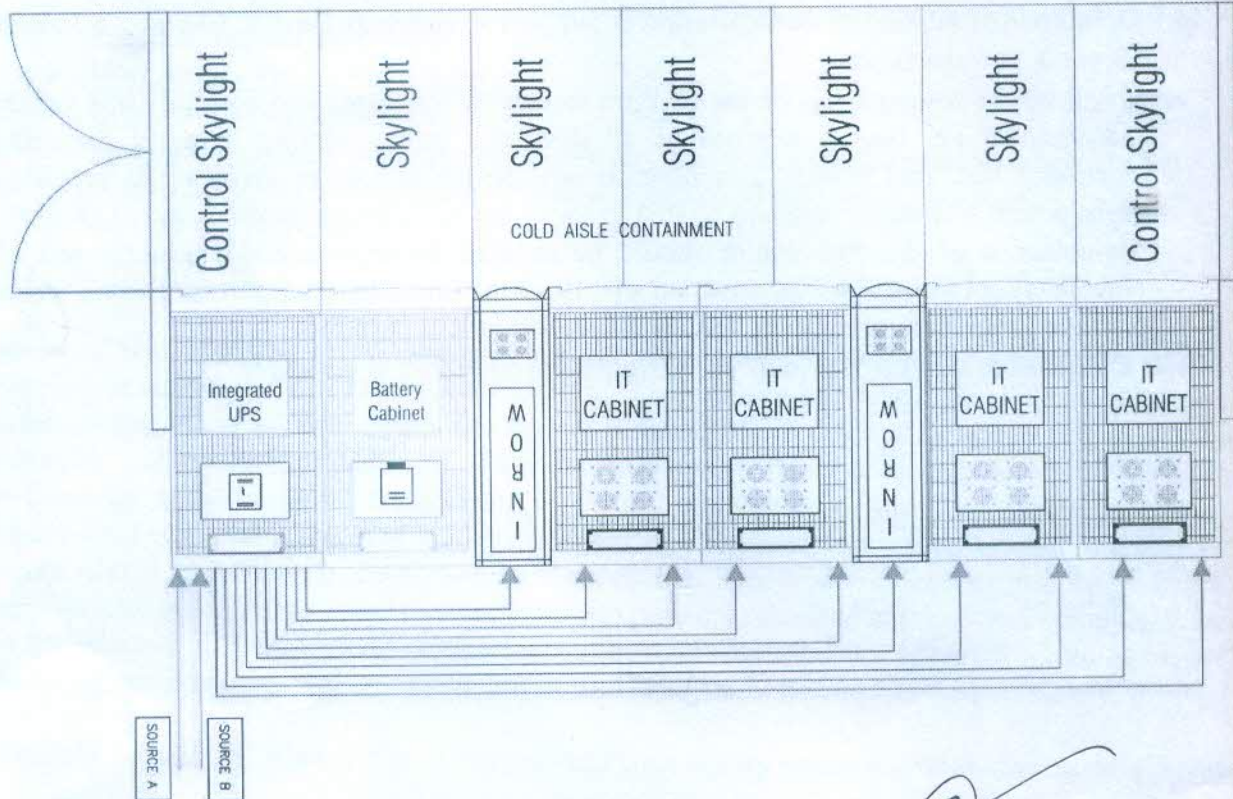

# Annex "A"

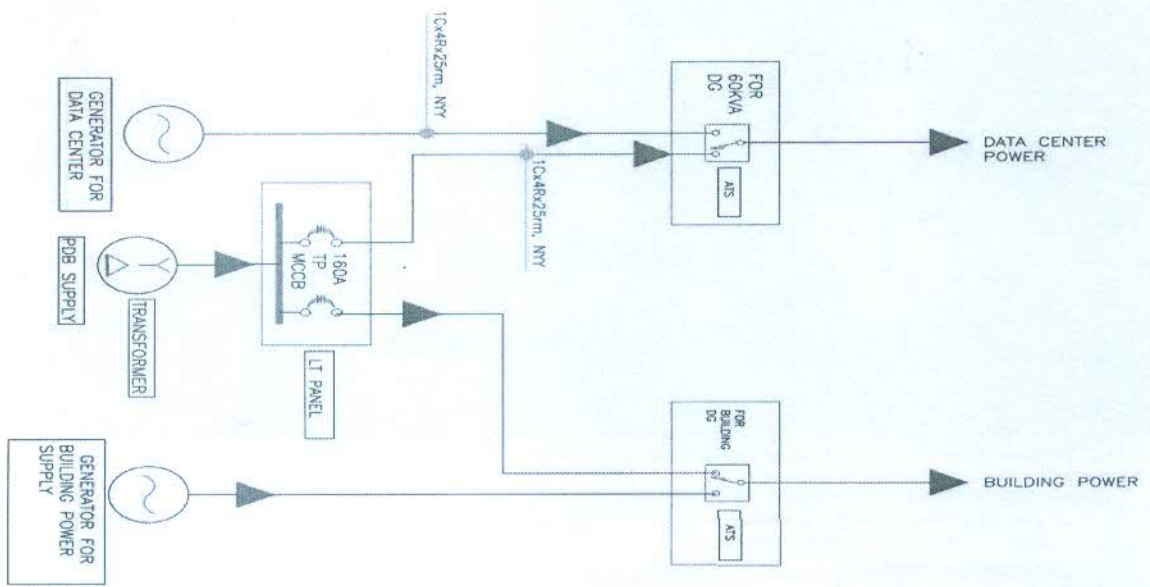
Architecture of BIAM Network:

## BIAM DC & Campus Network Deployment Architecture

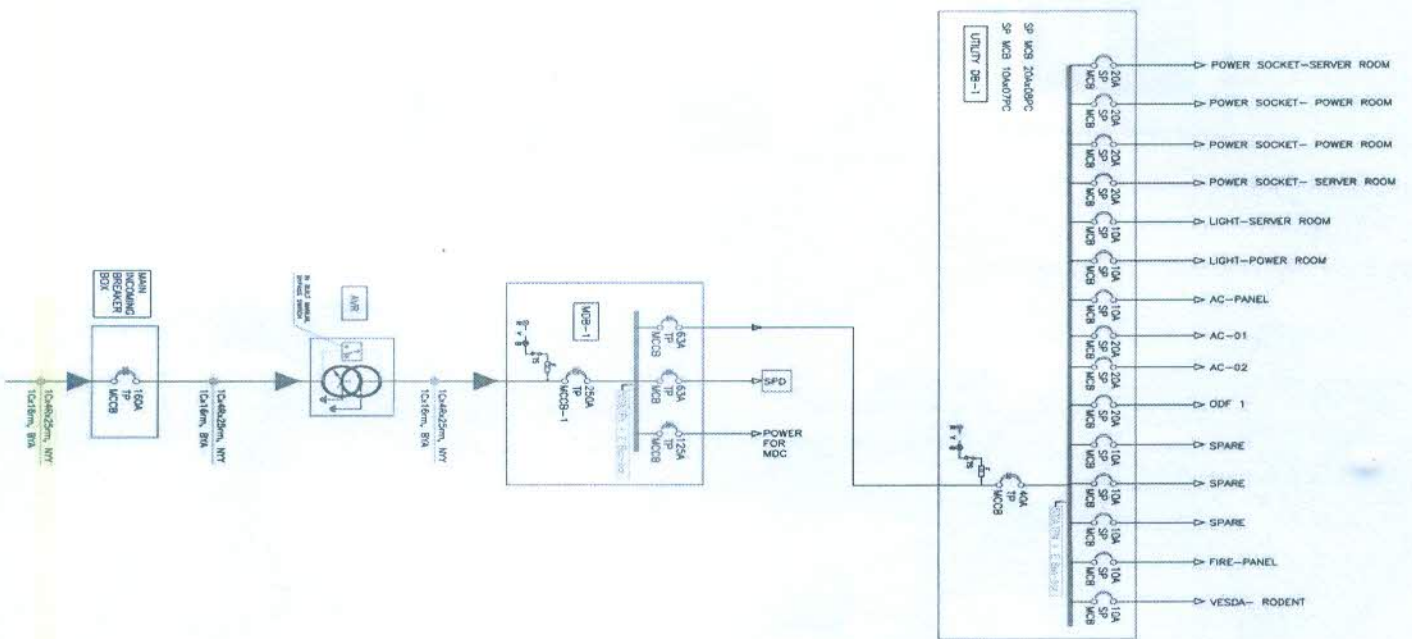


Power system inside Data Center:-





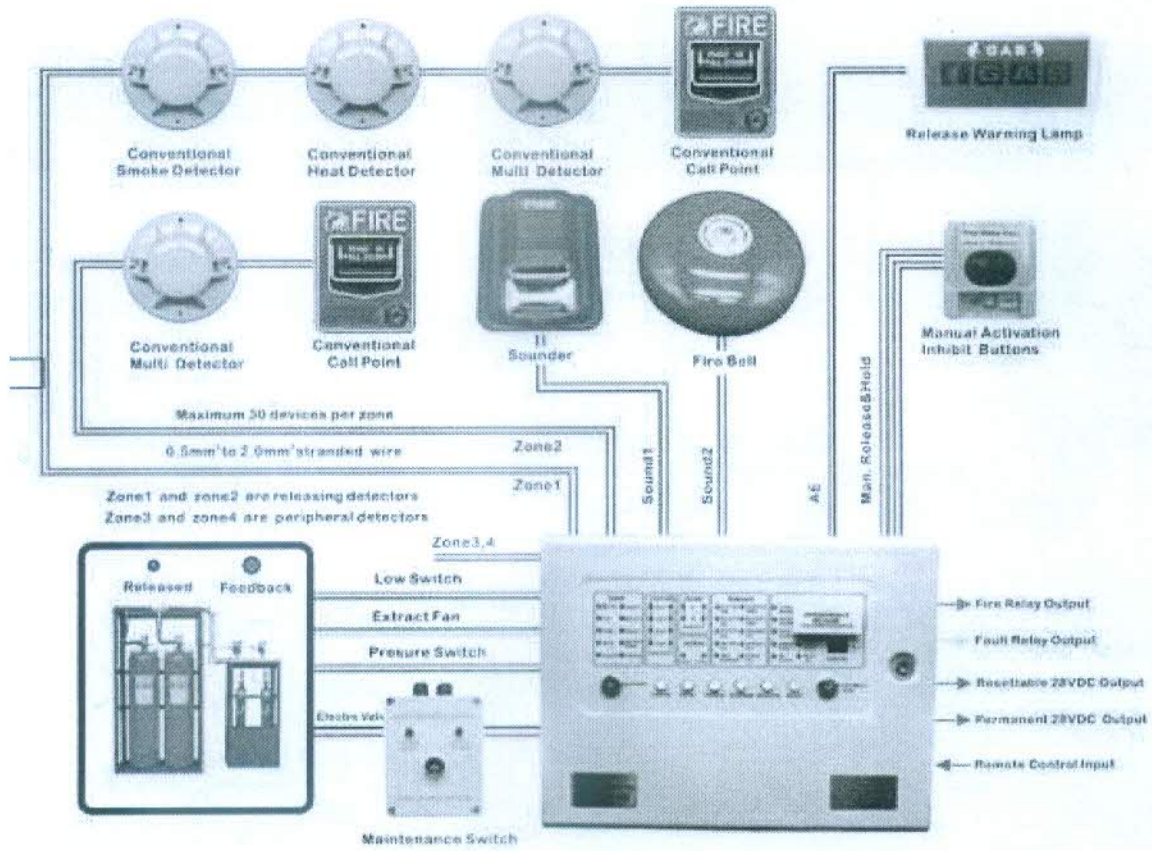
Power system inside MDC:-



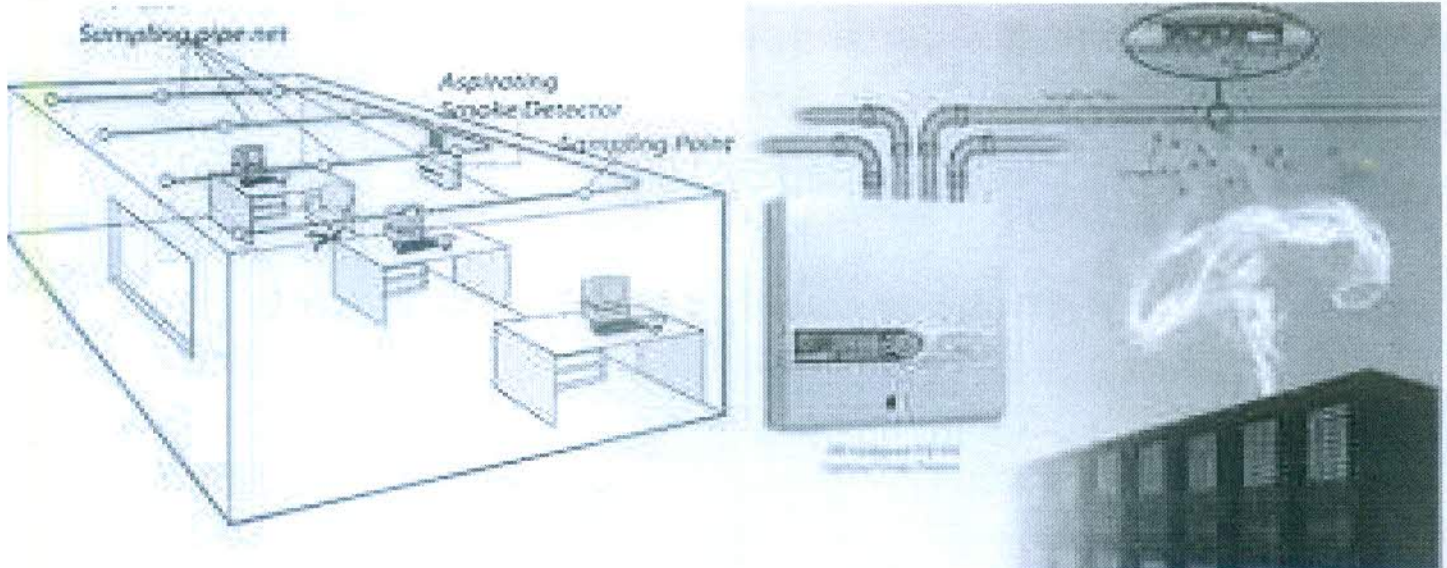
*[Handwritten signature]*

*[Handwritten signature]*

Auto Fire Detection and Suppression System:

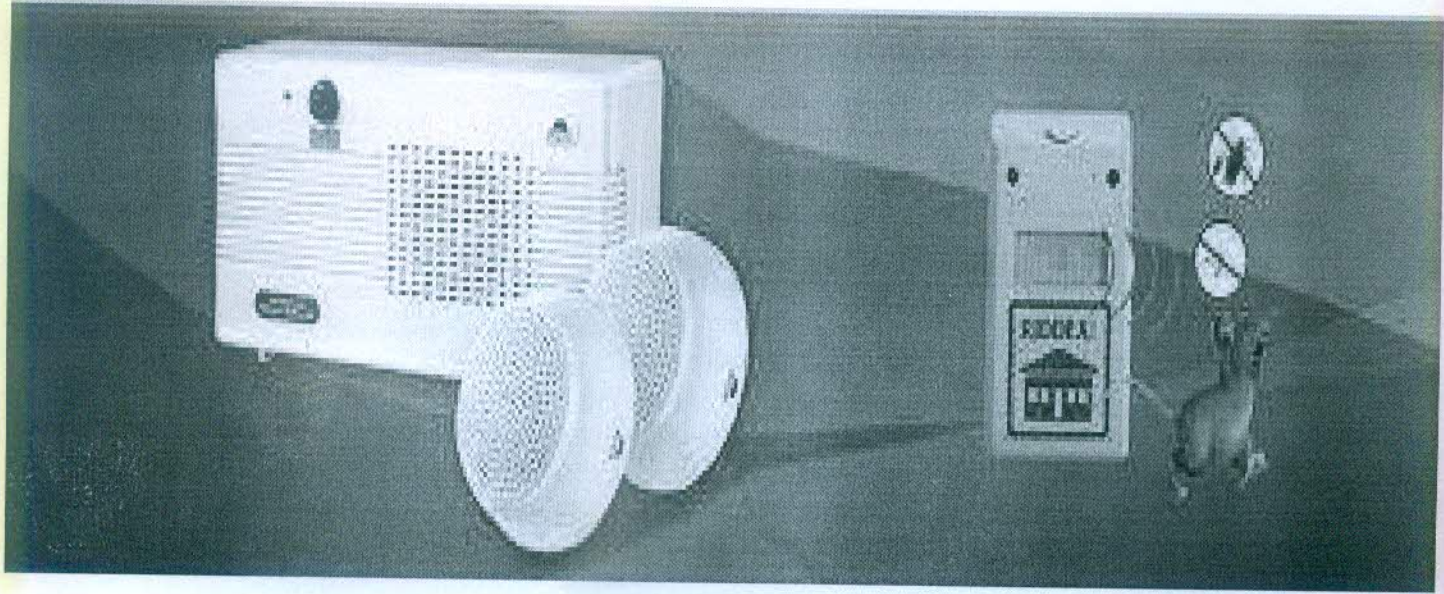


Very Early Smoke Detection Apparatus:-



*[Handwritten signature]*

udent System:-



*Basedul*  
20/02/28  
MD. BASEDUL ISLAM  
Assistant Programmer  
BIAM Foundation, Dhaka

*M*  
22/2/28  
মোঃ আবদুল মালেক  
পরিচালক (প্রশাসন)  
বিয়াম ফাউন্ডেশন, ঢাকা