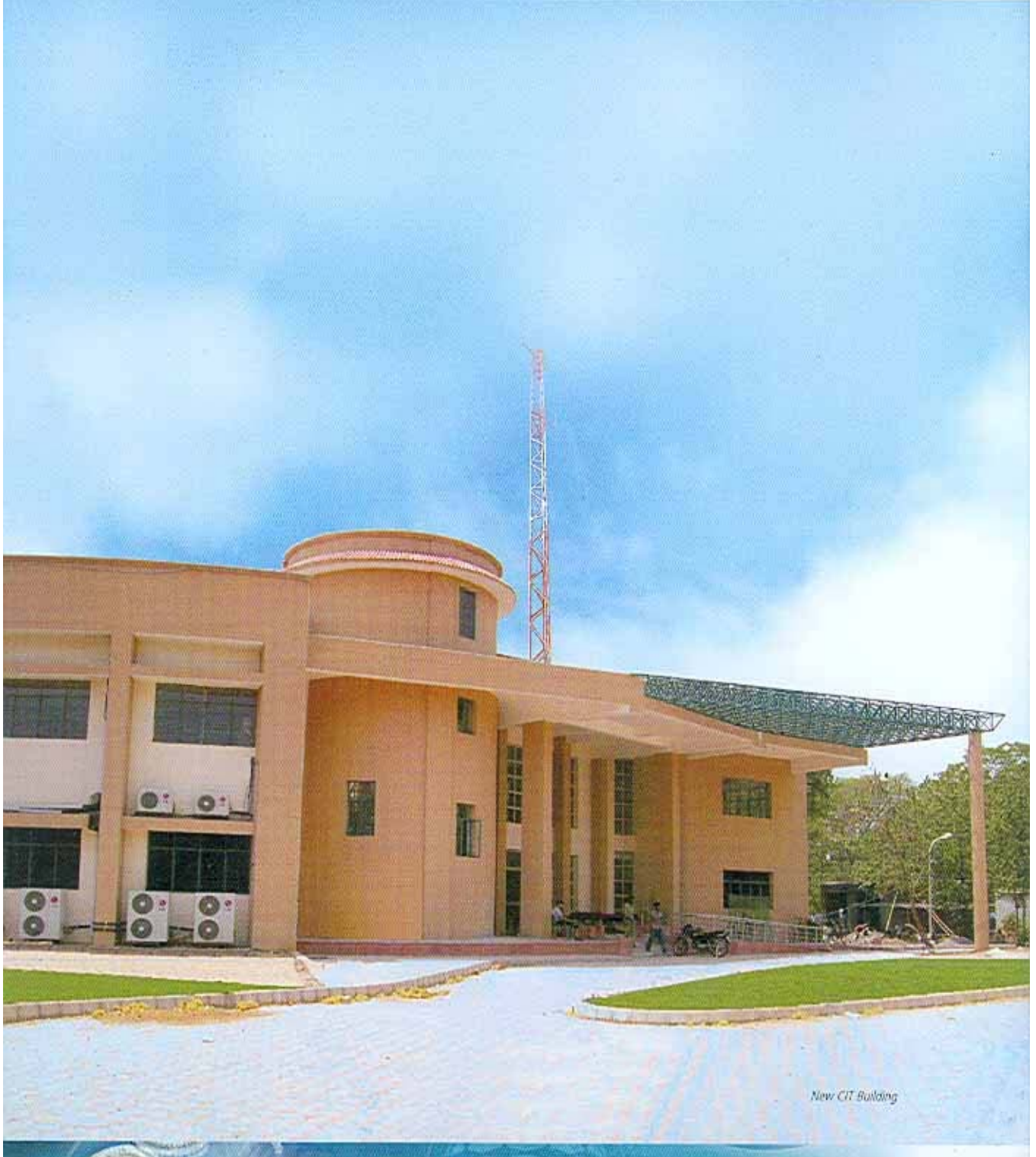


# INFORMATION TECHNOLOGY IN JAMIA

PROGRESS AND ACHIEVEMENTS  
MAY 2004 – APRIL 2007



FTK CENTRE FOR INFORMATION TECHNOLOGY  
JAMIA MILLIA ISLAMIA  
NEW DELHI



*New CIT Building*



## FTK Centre for Information Technology A Hub for IT Activities

The Computer Centre of Jamia Millia Islamia was sanctioned by the University Grants Commission in November 1984. It started with a mini-computer and a few terminals. The system was in use for about five years. A decade later, the UGC upgraded the Computer Centre with additional staff and financial support to buy equipment. In 2002, the Computer Centre was renamed as Centre for Information Technology (CIT) and the name of Fakhruddin T. Khorakiwala was prefixed to the Centre. The Centre is now commonly known as FTK-Centre for Information Technology.

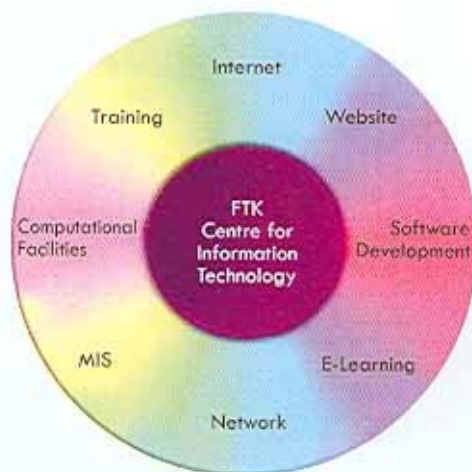
During more than two decades of its establishment, the CIT has come a long way to become the hub of IT activities in the University. With the constant support from all quarters of the University, the CIT has played a major role in integrating IT in the University environment. The continuous training programmes conducted by the CIT for the staff of the University have played a major role in modernizing the functioning of Jamia. Today, the Centre offers its services to the staff and students of the University through a Campus Area Network of more than 2500 nodes.

The Internet, E-Mailing, University's Management Information System (JMI-MIS), Financial Accounting & Payroll Systems are amongst the most useful and popular



MIS Lab

services offered by the Centre. The CIT is continuously striving to provide better and modern computing environment for teaching, learning and research by taking timely initiatives. A new hi-tech CIT building has just been completed which has the following facilities:



- Internet Lab
- Training Lab
- MIS Lab
- Network and Data Centre
- Web Management Lab
- Multimedia Lab
- IT-Help Desk
- Library and Knowledge Lab
- Lecture Hall



## Network Expansion

A computer network is the backbone for implementing all IT based services in an organization. The Campus Area Network (CAN) at Jamia Millia Islamia was established in 1996 with 10 Mbps Optical Fibre Cable backbone. About 90 nodes distributed over nine buildings were initially provided. The University offered rudimentary e-mail services through its DEC Alpha system. In the year 2002-2003, the UGC sanctioned a one-time special grant of Rs. 1.16 crore for computerization, which was utilized in upgrading the network backbone to 100 Mbps. More buildings in the campus were brought on the network map of the University. A total of 512-additional nodes were added to the network. On 5th April 2003, the network was made fully functional and started offering important services including Internet and MIS. However, a large sector of the University remained unconnected. Subsequently, the MHRD sanctioned Rs. 1.10 crore for networking the campus. This allowed the University to start the second phase of network expansion. Since then, two more network extension projects have been executed. The third phase of the network expansion, which became operational in May 2006, added 330 more nodes to the network, connecting the following buildings:

- Academy of Third World Studies
- Zakir Husain Library
- Dept. of Electrical Engg.
- Nelson Mandela House
- Kellat House
- BR Ambedkar Hostel
- AM Khawaja Hostel
- Begum Anis Kidwai Hostel
- New SRK Hostel

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Further expansion of the network was necessitated due to construction of a number of new buildings in the University

during 2006-2007. Thus, the fourth phase of network expansion was taken up covering the following buildings:

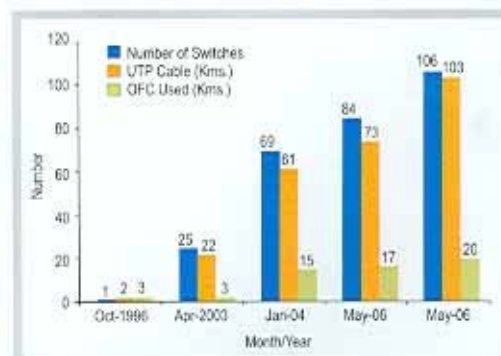
- Noam Chomsky Complex
- New CIT Building
- Jamia Enclave
- Dept. of Physics
- Humanities and Languages Lab
- Dept. of Electrical Engineering
- Aruna Asaf Ali Hostel

The current number of nodes in the University is more than 2500.

Other features of the network are as follows:

- The network utilizes two-Core switches to provide fault tolerance.
- Zonal switches have been provided to implement 3-tier architecture.
- WiFi connectivity has been set up to allow point-to-point and point-to-multipoint wireless links. In addition, the set up can be used to build hotspots within certain parts of the campus.

The backbone provides support not only to data but also to voice communication.



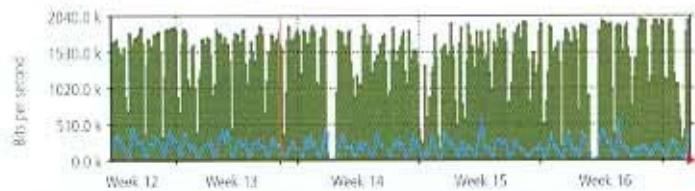
Network Growth in Jamia

## Internet Usage

In view of increasing usage of Internet services in the University, the Internet bandwidth was enhanced from 2-Mbps (1:3) to 2-Mbps (1:1). The enhanced bandwidth is operational since 31st January 2005. Additional 1-Mbps Radio link has also been set up on 30th March 2007.

'Monthly' Graph (2 Hour Average)

24th April 2007

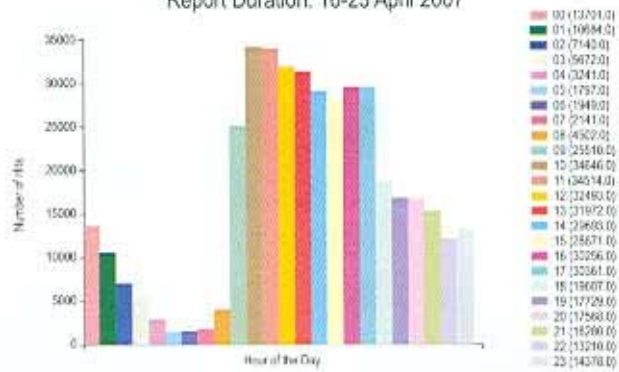


Max In: 2006.6 kbs (98.0%)      Average In: 1361.1 kbs (66.5%)      Current In: 1973.0 kbs (96.3%)  
 Max Out: 595.1 kbs (29.1%)      Average Out: 182.8 kbs (8.9%)      Current Out: 345.9 kbs (16.9%)

Average, max & min values for 'Monthly' Graph (2 Hour interval): In: 1764.7 kbs (86.2%) / Out: 417.0 kbs (20.4%)

An MRTG Graph showing utilization of 2-Mbps link on weekly basis.

Hourly Average Hits for 7 Days  
 Report Duration: 16-23 April 2007



Weekly Report of the Proxy Server showing average hits per hour (24th April 2007 - 18th April 2007).  
 On an average, 17,829 hits/hour were recorded.



## E-Mail (<http://mail.jmi.ac.in>)

A new web-based e-mailing system has been recently introduced and 678 new accounts have been created. This new system is gradually replacing the older "Outlook" based e-mail system ([jmi.ernet.in](http://jmi.ernet.in)), which was accessible only from within the University.



Browser based E-Mailing System

## Jamia Website (<http://jmi.nic.in>)

New links have been added to the website to broaden the scope of information. The most significant of which are:

- Right to Information Act
- Press Release
- Outreach Programme
- Examination Results
- Schedule of Examination
- Search Facility & Hit Counter

The University website, which started with mere 900 pages in November 2000, now hosts more than 9,000 pages, showing a ten-fold increase.



Press Release Page

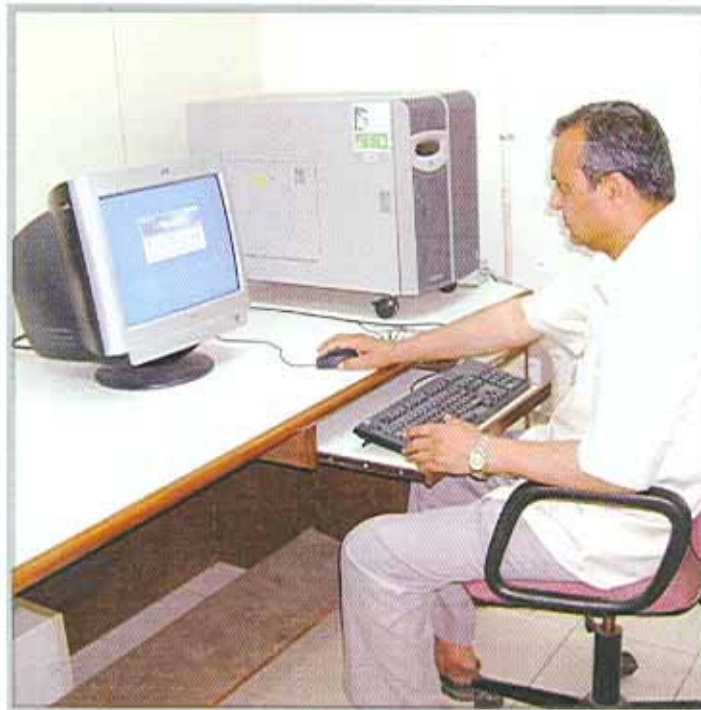


RTI Page

## IT Disaster Management

With the increased dependence of the University on ICT resources in day-to-day functioning, the security and reliability have become very important. As ICT systems are vulnerable and prone to accidental and/or intentional damages, it is important to properly address these issues. As an initial step, the CIT has set up the following systems to address the problem:

- An Enterprise Antivirus System at PC Level, Server Level and Internet Gateway,
- Cluster for providing fault tolerance on Database Server,
- A parallel and passive database server at Finance and Accounts Office, Dual Core Switches for providing fault tolerance in Network.



*MIS Backup Server at Finance and Accounts Office*

## Other IT Activities in the University

### Digital Equalizer Programme (DEP) in Jamia School

A fully networked Digital Equalizer Laboratory in the Jamia School Campus has been established with 16 Internet and multimedia enabled Pentium PC's. The programme has been started with the support of the American India Foundation and Nurul-Hasan Education & Research Foundation. The objective of this programme is to explore the possibility of training students for inquiry-based collaborative learning in a user-friendly multimedia lab environment. Some of the envisaged benefits of the DE programme are:

(a) Cognitive skills are enhanced by interactive multimedia,

(b) Learning process becomes more interesting and stimulating,

(c) Rate of learning and knowledge retention increases,

(d) Intuition improves.

The course content of the Digital Equalizer Lab includes Basics of Computers, MS Office, PowerPoint, the Internet and email, and the World Wide Web usage. This course is meant for students of VI-VIII classes in the middle school of Jamia and other students of underprivileged schools in the neighbourhood. A large number of teachers and students of Jamia schools have already received training under the DEP.



## Academic Staff College Computing Facility



The Academic Staff College Computer Lab was established in 2005 which consists of 24 PC's, connected to a Server. It is part of the Jamia's Central Network with internet facility

*Participants of a Refresher Course working in the Computer Lab*

## Online Catalogue at Dr Zakir Husain Library

The library has replaced the card catalogue system with computer-based Online Catalogue which is placed at the entrance lobby of the main building. The Online Catalogue allows search of relevant documents by: Author, Title, Subject, Keywords, Class Number and Boolean Search. The Online Catalogue is extremely user-friendly which enables users to search the relevant information with much ease and speed. It also gives the availability status of documents. On-site orientation and guidance is available at the Online Catalogue terminals.



*Users accessing the online facility in the library*





## Important Events

(May 2004 - April 2007)



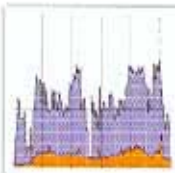
30th Mar 2007 1-Mbps Radio Link from STPI installed



7th Dec 2006 Fourth Phase of Networking started



31st May 2006 Third Phase of Networking became operational



30th Dec 2005 Bandwidth Management Software implemented



31st Jan 2005 Leased Line connectivity was upgraded to 2-Mbps (1:1)



6th Nov 2004 SUN Cluster to support MIS became operational



## Vision 2010

### e-Education

- Electronic Knowledge Hub
- Introduction of short-term modular IT courses
- Web-based Urdu Learning
- Webcasting

### Infrastructure Expansion

- Wireless Campus
- Internet Bandwidth

### e-Governance

- Dynamic and data-driven website
- Information Kiosk
- Video Conferencing
- Stronger integration of University processes with Information System

### Outreach Programmes

- Networking with IT Centres of other Universities
- IT Empowerment of Women from neighbouring areas
- IT Expedition for e-Empowerment of rural masses



*Workshop on "Macromedia Flash for Web Designing and e-Learning" (28-29 July 2004), chaired by Prof. Mushirul Hasan, Vice-Chancellor, JMI and inaugurated by Shri Paokaj Agrawala, Joint Secretary, Dept. of Information Technology, Ministry of Information & Communication Technology, Govt. of India. Mr. Aziz Sharafy (Washburn University, USA), addressing at the workshop in which Prof. Zahid H. Khan, Hony. Director, CIT is also present.*



*Extension Lecture by Dr. M.P. Narayanan, President, Centre for Science Development and Media Studies, NOIDA on "e-Governance" (2 November 2006), chaired by Syed Shabid Mahid, Former Vice-Chancellor, JMI. Mr. N.U. Siddiqui, Finance Officer, JMI and Prof. Zahid H. Khan, Hony. Director, CIT may also be seen in the picture.*



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