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(केन्द्रीय विश्वविद्यालय)

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SAGAR (M.P.)**

(A Central University)



e-Governance Policy

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Table of Contents:

SN	Topic	Page No
1	Abbreviation	3
2	Introduction	4
3	Vision and Objectives	4
4	Applicability	5
5	Infrastructure	5
6	e-Services Delivery	6
7	Application Development	8
8	Institutional Framework	9
9	Database Usage	9
10	Capacity Building	12
11	Budgetary Allocation	12
12	Review and Audit	12
13	Implementation	12
14	Revisions	13

1. Abbreviation

Some short name is used in the e-Governance policy. The abbreviation of the name is given below:

DHSGSU-	Dr. Harisingh Gour University, Sagar (M.P.).
IT-Cell-	Information & Technology Cell.
ERP-	Enterprise Resource Planning.
IUMS-	Integrated University Management System.
NKN –	National Knowledge Network
ICT-	Information and Communication Technology.
UGC-	University Grants Commission
MoE-	Ministry of Education
UGC-	University Data Centre
ISP-	Internet Service Provider
NKN-	National Knowledge Network
GIGW-	Guidelines for Indian Government Websites
CERT-IN	Indian Computer Emergency Response Team
DRS-	Disaster Recovery Site
HVAC-	Heating Ventilation and Air Conditioning
UPS-	Uninterruptible Power Supply
SMS-	Short Message Service

2. Introduction

Information and Communication Technology (ICT) enabled technology can transform Governance by adopting best IT practices in Dr. Harisingh Gour Central University (DHSGSU). Dr. Harisingh Gour University offers various IT services for the various Academic/ Non-Academic process like Admission, Examination, Finance, Establishment, E-Content Services etc. to all the stakeholder of the University. The facility of MHRD-Wi-Fi is being provided in the University Campus for easy access of the IT-Services provided by the University under E-Governance Policy.

Dr. Harisingh Gour University has formulated the “IT-Policy” for standardization of ICT infrastructure, Applications and software used in the University. This document supports the implementation of this policy by providing the best practices related to implementation and use of e-Governance services.

Through e-Governance, university would ensure that all its services are delivered to and accessible by the teachers, students, staff and all other stakeholders efficiently, transparently and conveniently in a reliable manner. This policy is a step further towards promotion and implementation of e-Governance. The University is implementing E-Governance policy by the utilization of the modules of the ERP software IUMS and Samarth. The University procured IUMS-ERP as a product for the automation and providing e-services to the stakeholders. The IUMS has 18 modules like Establishment, Admission, Examination, Finance etc. for providing various e-services to the stakeholders. The University started to implement various modules of Samarth-ERP in the University for enlarging the area or the E-Governance.

3. Vision and Objectives

Based on the Information Technology Act, 2000 of the Government of India, it is mandated that public services are to be delivered electronically wherever and to the extent possible.

- ✓ To provide all the services of the University through e-Governance models thus enabling the users to access these services through desktop, laptop or mobile devices from anywhere and anytime at their own convenience.
- ✓ This policy would enable DHSGSU to function more efficiently and accomplish the visions of e-Governance.
- ✓ By adopting and implementing e-Governance, DHSGSU will promote transparency and accountability and eliminate red tapes, redundancy and eliminate loss of time and energy leading to increased productivity.
- ✓ To improve productivity and efficiency in delivery of services by the University.
- ✓ To provide easy access and convenient access to information. The modules shall be strategically implemented by completely automating administrative work flow processes. This shall enhance effective data storage and retrieval at all levels as per hierarchal

permissions.

- ✓ Comprehensive implementation of electronic mode of communication among all departments/ sections or any other entity of the University and ultimately moving towards paperless office.
- ✓ This policy puts in place a framework for the development and implementation of e-Governance systems and applications in the university. It will serve as an impetus to the university to promote proactive delivery of services to its stakeholders.
- ✓ To the extent feasible, DHSGSU will abide by the National Standards and Policies established or prescribed by the Government of India in respect of e-Governance with necessary amendments as may be required.

4. Applicability

The policy shall be applicable to all the Teaching Faculty Members, Officers, Academic Administrators, Staff, Students and any other stakeholder who use the services provided by the university.

5. Infrastructure

For any e-Governance services to be implemented and delivered, the following key ICT infrastructure should be deployed. This section does not include the devices that are required at the user end as they are out of the scope of this policy.

A. University Cloud Hosting

All the IT enabled services including the IUMS-Modules, and University Website shall be hosted and delivered from the University Cloud Hosting. The cloud hosting shall be taken from a reputed hosting provider to improve the availability and security of the services with optimum utilization of the financial resources. The cloud hosting provides cost-effective, high availability and a secured cyber hygiene environment to all the applications of the University.

B. Campus wide Local Area Network (LAN)

1. The services shall be delivered to the users through Campus wide LAN. Hence, there should be a robust and agile campus-wide LAN in the university. The network architecture should be built based on contemporary global standards.
2. The LAN should provide high-speed bandwidth of the network inside the campus should be scalable from time to time.
3. The LAN Architecture should provide the high availability of network connectivity to the users of the University.
4. There should be Core and Distribution Network point to standardized the LAN Architecture.

5. All the buildings of the University should be connected through Distribution Network Point by fiber optical cable in a Star Topology, and the building connected through one Distribution Point should be interconnected to form Ring Topology for enhancing the availability of the network.
6. All the Distribution Network Point should be connected directly with Core Network point. The connectivity between the Distribution and Core Network point should be 10 Gbps.
7. The Distribution Network Switches shall be used at Distribution Network point with high availability.
8. The Core Network Switch shall be used at Core Network point with high availability.

C. Cloud Infrastructure

The university will put in place 'Cloud Infrastructure' including virtualization of existing computing resources so as to enable speedy, efficient, cost-effective deployment, scaling-up and sharing of Information Technology resources.

D. National Knowledge Network (NKN)

The National Knowledge Network (NKN) is a state-of-the-art multi-gigabit network for providing a unified high-speed network backbone for all knowledge-related institutions in the country. The purpose of such a knowledge network goes to the very core of the country's quest for building quality institutions with requisite research facilities and creating a pool of highly trained professionals. Best use and advantage should be taken of NKN. The internet facility of NKN shall be extended to all the Departments, Sections, Hostels etc. by the wired LAN and Wi-Fi.

E. Campus Wi-Fi

The Campus Wi-Fi service shall be provided in the University for ease of access internet. The Wi-Fi service shall be based on the latest technology Wi-Fi 6 (802.11ax). The Wi-Fi facility shall be provided in all the buildings and at outer places where student gatherings occurred for the availability of the internet to all the stakeholders of the University. The Wi-Fi service shall have AAA (Authentication, Authorization, and Accounting) facility with a log storage and analysis facility for security purposes.

F. Network Firewall

The University shall have a new generation network firewall (NGFW) having IPS, IDS, Antivirus etc. features for protection against cyber security threats. All the internet lines shall be terminated into the firewall and internet traffic of the University shall be passed through the firewall so that security against threats from the internet can be achieved. The network firewall will have VPN, Tunnelling and SDN features.

G. Disaster Recovery Site

In case of any untoward disaster at the University cloud infrastructure, disaster recovery plan should be in place well ahead in time as per the best practices followed for the implementation and establishment of a Disaster Recovery Site (DRS).

H. Power Backup System

- ✓ All the core IT and network access devices in the university campus should be provided with clean and adequate power backup solutions.
- ✓ The University Servers, Network Switches shall be on clean and 24x7 uninterrupted power backup.

I. Email and Messaging Services

- ✓ For seamless communication with the users, proper email and messaging services infrastructure should be deployed.
- ✓ The University shall have its email domain.
- ✓ The University shall have a bulk email and SMS sending facility for timely intimation to all the stakeholders when required.

6. Web Portals

- As per the requirement of the application, service delivery should be done through web portals.
- Separate web portals should be developed and deployed for different applications.
- It should be ensured that complete backend computerization of the processes along with the frontend processes are done before making the portal live.
- Thorough testing of the applications should be done before the launch.
- Every care should be taken to make the applications accessible and user-friendly for differently-abled users also.

Based on the requirements of the e-Governance applications, they would have interfaces with a Payment Gateway so as to enable payment transactions online. A Mobile Payment Gateway should also be implemented.

J. Mobile Application

- Considering the mobile device penetration among people all over the world, the university feels the need for utilizing the mobile mode of enabling easier access to services. This would be more beneficial to the users.

- Utilization of mobile phones in the delivery of services would be encouraged and preferred wherever feasible.
- The University shall have one mobile app based on Android and IOS platforms for delivery of all the services related to stakeholders of the University.
- It would be ensured that the applications are compatible with mobile access and utilize the common mobile infrastructure provided by ISPs.
- To enable the users to access the services through mobile devices, the mobile applications may be developed in bilingual viz. English and Hindi if possible.
- All the web portals should be 'mobile compliant' in due course.

K. Email Gateway

All communications from the applications to the users should be communicated through emails from the official domain. To do so email gateway needs to be integrated with the application.

L. Messaging Gateway

Based on the requirements of the e-Governance applications, communications with the users may also be done through various messaging platforms wherever feasible. Corresponding messaging gateways should be integrated with the application. The messages sent should be short and comprehensive.

M. Payment Gateway

Based on the requirements of the e-Governance applications, they would have interfaces with a Payment Gateway so as to enable payment transactions online. The payment gateway should have the facility to make payments through UPI, Net Banking, Debit Cards, Credit Card etc.

N. Open Source and Open Standards

- It would be ensured that use of Open Source and Open Standard technologies for software development is used unless otherwise, the use of proprietary technology is unavoidable. This would prevent vendor lock-in, unnecessary cost on user licenses and long-term cost liabilities.
- Service-Oriented Architecture for software development would be followed to ensure interoperability.
- Appropriate standards as prescribed by the Government of India shall be followed for Data Classification, Data Retention, Metadata and Interoperability of applications.
- University is using Joomla! And PHP open source for the official website.

7. Application Development

Contemporarily, different approaches are being followed while developing information technology applications. However, there is a definite requirement for a streamlined and systematic step-by-step approach in the processes involved in software development so as to ensure that any form of transition from paper-based/manual to online processes is made smooth and adequate safeguards are put in place to ensure implementation that is both incident free and within a secure environment. University would adhere to the Standards, Guidelines, and Orders issued for software development by the Government of India from time to time.

A. Software Codebase

In general, the ownership of the source code of custom-developed software for the University whether it be developed in-house or by any third party would rest with DHSGSU, and the reuse of these software components in other projects of the University would be highly encouraged.

B. Upgradation to New Technologies

The university would support the adoption and usage of emerging digital technologies in e-Governance like Social Media, Internet of Things, Digital Payments, Data Analytics etc. which will play an active role in improving the delivery of e-Services to its users.

C. Security

The university shall have periodic cyber security audits of its websites, portals and applications as per GIGW and CERT-IN guidelines. All the applications developed for e-Governance shall be compliant to GoI policies that were in force during the time of development of the application. To protect the IT infrastructure, websites, applications and information of Government Departments from external attacks, intrusion and hacking, an enhanced IT Security Policy should be drawn and updated from time to time.

8. Institutional Framework

For successful implementation of the e-Governance services in the university, the following institutional mechanism should be put in place.

1. The University through IT-Cell, also the Implementing Agency (IA) would be the overall facilitator for promoting Information Technology and e-Governance in DHSGSU.

2. IT-Cell shall provide hand-holding support to various departments/ branches in the areas of infrastructure for e-Governance, Capacity Building, procurement of hardware, software, services etc.
3. The departments/ branches should ensure that the e-Governance services are being utilized by users within their respective departments/ branches and also should ensure that such services are being delivered to users efficiently on time.

9. Database Usage

This section relates to the databases that shall be maintained by the IT-Cell under the University's e-Governance. Data is a vital and important University resource for providing useful information. Its use must be protected even if the data may not be confidential.

DHSGSU has its own policies regarding the creation of databases and access to information and a more generic policy on data access. Combined, these policies outline the University's approach to both the access and use of the university resources.

A. Database Ownership

Dr. Harisingh Gour University is the overall data owner of all the University's institutional data generated in the University. Apart from this, every set of data must have a Data Owner. The Data Owner has overall responsibility for the quality, integrity and security of the data.

B. Custodians of Data

The Registrar, Dr. Harisingh Gour University is the overall custodian of data of the University. Individual departments/ branches generate portions of data that constitute University's database. They may have custodianship responsibilities for portions of that data.

In many cases data will be entrusted to an individual or a department/ college/administrative unit/ research unit for the purposes of storage and/or processing in which case they take on the responsibilities of the Data Custodian. The following are some of the responsibilities Data Custodian (but not limited to).

- Maintaining the integrity and confidentiality of the data entrusted to them.
- Ensuring that access to the data is restricted to those individuals authorized by the data owner.
- Ensuring that processes undertaken on the data have been authorized by the data owner.
- Having adequate backup and recovery procedures in place for the data, considering the sensitivity and criticality of the data as characterized by the Data Owner.
- Providing any information necessary for the Data Owner to fulfil their responsibilities.

C. Data Administrators

Data administration activities outlined may be delegated to some of the officers in that department/ branch by the data custodian. Presently, the Enterprise Resource Planner (ERP) of the University known as "IUMS" is being implemented in the University. Another ERP known as "Project Samarth" is being implemented in the University due to the availability of almost all the well-functioned modules required for a University with no financial burden on the University. The data administrators will be assigned database access privileges as per their roles and responsibilities.

D. Data Users

Anyone using or processing University Data must ensure that they do so in a manner that safeguards and protects the integrity, confidentiality and availability of the data at all times. They must comply with the relevant policies of the University (as may be amended from time to time) and with all applicable legal requirements, particularly in relation to data protection and copyright. The data should only be used for the purposes approved by the data owner.

The following are some general policy guidelines and parameters for departments, branches, and any other entity that are data users of the university:

1. The university's data policies do not allow the distribution of data that is identifiable to a person outside the University.
2. Data from the University's Database including data collected by departments or individual faculty and staff, is for internal University purposes only.
3. One's role and function define the data resources that will be needed to carry out one's official responsibilities/ rights through its data access policies, the university makes information and data available based on those responsibilities/ rights.
4. Data directly identifying a person and his/ her personal information may not be distributed in any form to outside persons or agencies, including all government agencies and surveys and other requests for data. All such requests are to be forwarded to the Office of the University Registrar.
5. Requests for information from any courts, attorneys, etc. are handled by the Registrar Office of the University and departments should never respond to requests, even with a subpoena. All requests from law enforcement agencies are to be forwarded to the Office of the University Registrar for response.
6. At no time may information, including that identified as 'Directory Information', be released to any outside entity for commercial, marketing, solicitation or other purposes. This includes organizations and companies which may be acting as agents for the university or its departments.

7. All reports for UGC, MoE and other government agencies will be prepared/ compiled and submitted by the Registrar, Controller of Examinations and Finance Officer or any other officer delegated to do so by the competent authority of the University.
8. Tampering of the database by the department or individual user comes under violation of IT policy. Tampering includes, but not limited to:
 - Modifying/deleting the data items or software components by using illegal access methods.
 - Modifying/deleting the data items or software components deliberately with ulterior motives even by authorized individuals/ departments.
 - Causing database or hardware or system software crash thereby destroying the whole of or part of the database deliberately with ulterior motives by any individual.
 - Trying to break the security of the Database servers.

Such data tampering actions by university members or outside members will result in disciplinary action against the offender by the university authorities. If the matter involves illegal action, law enforcement agencies may become involved.

10. Capacity Building

1. The university shall formulate and provide extensive capacity building training sessions for all the e-Governance modules and applications developed and implemented till then to all its users.
2. Time bound training programme in Information and Communication Technology (ICT) skill development and capacity building of the university employees would be conducted by the Computer Centre.
3. IT-Cell would build capacities within the system for e-Governance, program and change management by training the manpower and deploying appropriate infrastructure and machinery.
4. For the purpose of training, employees would be categorized based on their roles and responsibilities and they would be given suitable training through IA.
5. Adequate knowledge base needs to be created for dissemination of knowledge and information regarding the e-Governance services.

11. Budgetary Allocation

DHSGSU shall earmark the budget for e-Governance annually. The university shall make an endeavour to increase the allocation in a phased manner over a period of time. The focus of the budget earmarked for e-Governance shall be on the e-enablement of services and providing all backend infrastructure support for the same.

12. Review and Audit

1. DHSGSU constitutes an IT-Committee for periodic review of the implementation of the policy and would provide necessary guidelines for its implementation from time to time. The IT-Committee will look all the matters related to IT.
2. DHSGSU shall conduct regular audits across all departments/ branches to verify the compliance of the department/ branch with respect to the e-Governance Policy, and to ensure that outcomes envisaged as per the plan are achieved.
3. All e-Governance projects implemented till then shall be reviewed periodically to ensure that they meet the policy, standardization, and legal guidelines.

13. Implementation

The IT-Cell, Dr. Harisingh Gour Central University shall act as a nodal and Implementing Agency for all e-Governance implementation in the university. The IT-Cell shall coordinate the overall implementation of the policy.

14. Revisions

The University reserves the right to revise the terms of this Policy at any time. Any such revisions will be noted in the revision history of the policy, which are available on the University website and by continuing to use the University's IT Resources following any update it is considered acceptance on the revised terms of this Policy.

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