Management of Information Technology Policies and Procedures

(The document includes information technology management policies and procedures, infrastructure, specificity for the operation of electronic services and electronic management systems and mechanisms of their development)

- Information technology infrastructure has been established at the Higher Education Institution and its administration and accessibility has been ensured;
- Electronic services and electronic management systems have been implemented and there are mechanisms for their continuous development;
- Higher Education Institution provides the functioning of the website in Georgian and English languages.

Description and Evaluation

Information technology infrastructure of the University of Georgia has been managed by four departments. These services are:

- IT Infrastructure Development Service,
- Database Development Service,
- Web Technologies Development Service and
- IT Academy

They are unified under the joint supervision; coordination of their works is carried out by the Vice-Principal in the field of Information Technology. He/she leads the service activities and bears responsibility for their proper activity, for the distribution of functions and for the controlling of the works executed by them, for the submission of the Report to the University's Management and for finding innovations in the field of information technology, for making agreement with the Administration and for the implementation at the university.

All four services are designed to provide students with study, to create active student life (club activities or various events) for establishment of the prefect, suitable conditions for distance participation (via internet) in the University's activity. They establish comfortable environment for the scientific-research activities and works of the academic and administration personnel. The University owns about 700 computers. Almost half of them are for the learning process. Computer, engineering, physics and other laboratories, library are fully equipped with computer equipment and accessories, printers, scanners, laptops or tablets. All training audiences of the University of Georgia are equipped with a personal computer, projector or LCD screen and internet.

Places for working with the computers have been created for the students in the different areas of the University of Georgia, with the access to internet, including 30 Zero Client.

For continuous operation of servers and key network equipment, the server is equipped with continuous power supplies, as well as with diesel generator, which ensures uninterrupted operation of the server in case of termination of the electricity for any reasonable term. The process of switching to these backup sources is completely automated and does not require the intervention of technical personnel. All servers and network devices, that are critical to University's activities, have been equipped with the additional power supply blocks that ensure uninterrupted operation in the event of physical damage of one of these blocks. If any such server or network device is physically out of order, there are alternative ways to replace them. For maintaining the continuous business, virtualization technologies have been used, which are able to quickly restore damaged data from backups. Storage of backups are automated and are carried out on daily bases both on the servers and on the disk vectors and in cloud storage, placed in another building.

University databases are protected from external impacts and attacks, it has no direct connection to the outside world, it can only be accessed through the application server, which is itself protected by the software or hardware firewalls. In addition, for the protection of databases, the copies of full or incremental backups are automated taken on daily bases, which are stored on the separate file-servers and in case of possible design and system failure it is easily accessible. A component such as logging mechanism for databases has been implemented, which means information storage for the basic activities, and thus helps the developers to conduct analyses of unauthorized, inaccurate or any other attempt.

There are two channels of internet connection at the University of Georgia. For the purpose of protection various levelled networks have been created depending on the permeability to penetrate in it. Connection with the wireless network is possible from any points of all blocks.

IT Infrastructure Development Service:

- Transfers personal computer, printer, scanner (as needed), various software (operating system, office programs, antivirus programs, specialized work-related programs) when assigning administrative and academic staff to the appropriate position. Ensures their connection with the internet, executes regular monitoring of this hardware.

- Is responsible for the proper work of computer equipment existing at the University, for their connection with the internet, hardware or software updates,

- Searches for the new equipment, selects settings for each workplace and accordingly, incorporates in acquisition procedures of the desired equipment.

- Performs an annual inventory of University computer equipment.

- Supervises the servers and ensures proper work of the information and communication technologies (computers, switches, networks, systems) within the University system.

- Provides configuration-monitoring of the network's hardware, network's installation and technical support and installation and maintenance of various information and communication systems / software.

- Ensures proper operation of the printing and copying equipment existing at the University disposal, carries out the service, proper working of these equipment with components, cartridges, and maintenance.

Database Development Service:

- Provides SQL Server and database services.

- Provides security for SQL Server

- Provides SQL Server automation

- Performs SQL Server monitoring and optimization

- Controls the process of creating and restoring of backups

- Creates new databases and performs day-to-day operations, including the preparation of various procedures, requests or reports as needed.

Web Technologies Development Service

- Creates web pages required for the University and its structures.

- Provides protection against penetration, performs periodic testing in order to detect weaknesses that a third party may use.

- Controls backup storage mechanisms.

- Performs versions controlling

- Manages corporate (Microsoft) e-mail (creates new addresses and assigns new employees and students)

IT Academy

- Includes courses of the international academies- Cisco Academy, Oracle Academy, Microsoft Academy and Mikrotik Academy

- Develops and creates courses

E-services has been implemented at the University of Georgia, all services except the e-mail, have been created by the local workforce and they are adjusted to the goals and objectives of the University. They are constantly developed and refined.

Electronic Services of Management

Online.ug.edu.ge - Electronic system of proceedings and management of learning process. The system involves different levels of users, who have access to the various services and

functions, and they are involved in accordance with the rights defined by the position-Administrator, Rector, Pro-Rectors, Employees of Services and Departments (HR, Training Process Administration, Legal Services, Financial Services, Quality Assurance Services, Security Services etc.), School Principals, Professors and invited Lecturers, Assistants, etc.

With the help of a personal code and password each of them have access to their own page (which can be changed at any time). From their page they can perform, record and manage almost all works that are defined by their job positions. These are the following:

Personnel and students' registration, contracts management, messages with staff and students, management of personnel's documentation, publications, paper works, formation of various inquiries, assessment of lecturers and staff, finding and booking of the study rooms, creation of the timetable, registration of groups and subjects, working in the database of orders and protocols, management of financial information, overviewing-redirecting-responding to the students' and staff's e-applications, uploading of exam papers in the database and correcting through the computer by the lecturer, appointment of the computer examinations and conducting, making of weekly and mid-term evaluations, checking of presentations, library database of online books and downloading, conducting of courses by distance learning and etc.

It is possible to get all the information related to the specific activities of the system's user through the same system.

Private space of staff / lecturers (online.ug.edu.ge) is also protected by two-level authorization (temporary code is received via SMS).

My.ug.edu.ge -The system is designed for students, from where the student will be able to get information on the University, self-government or club activities, to view the events' calendar, academic calendar, to get acquainted with the study and individual exam schedules, to keep an eyes on the own grades, to see the uploaded exam paper works, to constantly have financial information, to receive notifications from various services and messages from lecturers, to learn detailed information of their own program and subject's syllabuses, library e-books and other.

The system allows students to register on the subjects, to adjust with individual schedules, to participate in language lab work, to upload the semester works, to order a book to the library and shop, or to request making of copies of desired pages, to request from various departments and get information (by indicating status, residency, credits), to suspend a status and request its restoration, to appeal the exam and evaluated work, to apply to the study office for the exam recovery and to receive response from them, to apply to the Financial Services and Social Affairs Commission, to transfer the tuition fee to the University's account from the own page and etc.

Both systems are bilingual and they are determined for both local and foreign students.

E-mail. Corporate e-mails have been created for all staff and students of the University of Georgia, it was provided by Microsoft Outlook, with an ug subdomain, with an unlimited number of mailboxes. The appropriate email box will be transferred to them upon conclusion of the contract with the University.

Distance Learning Lab - distance learning lab, with cameras and large screens is functioning at the University. Software has been designed in order to establish a lecturer-student relationship, it is ready for full inclusion in the curriculum processes, once the relevant legislation will be enacted.

The University of Georgia has a web portal in Georgian and English languages https://www.ug.edu.ge , the domain has been registered on behalf of the University of Georgia and is hosted on its own servers. The web-site is protected by the https protocol, Norton Secured SSL Certificate has been used, which provides data encryption during sending between the client and server. Making of copies from portals is carried out on daily bases. Version Control System (GIT) is being used. Testing are executed with OWASP technologies.

All news and important information that might be necessary for students, entrants, professors, researchers and any visitors are published on the main website of the University. From technical point of view it complies with the modern requirements, as well as provides access to any information and easy finding in its structure.

The University of Georgia has also more than two dozen of pages created for the specific needs of various departments or centres (archaeology and legal clinic pages, pages for Samshvildi expedition, various conferences, festivals, IT Academy, innovation and Start-up Centres and etc.)

Evidences / Indicators

Website of the University of Georgia https://www.ug.edu.ge

Electronic Systems: https://online.ug.edu.ge, https://my.ug.edu.ge/

Contract with ISP;

Website Domain, Certificate Purchase Agreements