

LUMS IT Strategy

2017-2022

Table of Contents

Mission Statement.....	3
How do we implement these principles?.....	3
Principle 1: To enhance teaching, learning and research through modern and accessible computing.....	3
Premium Facilities	3
Academic Computing.....	3
World-class Information Systems.....	3
IT Skills Enhancement Program	4
Engagement with Teaching and Research.....	4
Principle 2: To improve University processes through automation and applying global best practices	4
Principle 3: To lead by example in the adoption and implementation of international standards	4
Principle 4: To regionally excel at computing technologies and systems in the Education sector	4
Principle 5: To promote a culture of trust and delegation which encourages IT staff to provide excellent support and take responsibility for their roles.....	5
What is the Future Roadmap?.....	6
Improve and Increase Access and Mobility.....	6
Make Communication Pervasive and Simple	6
Automate, Integrate and Consolidate	6
Increase Infrastructure Efficiency, Cost-effectiveness and Resilience	7
Make Information Systems Useful	7
Enhance the Community’s IT Skills.....	8
Implement International Standards in IT Operations and Security	8

Mission Statement

Information Systems and Technology at LUMS are committed to the following principles:

We will enhance teaching, learning and research through modern and accessible computing

We will improve University processes through automation and applying global best practices

We will lead by example in the adoption and implementation of international standards

We will regionally excel at computing technologies and systems in the Education sector

We will develop and retain quality IT human resources

How do we implement these principles?

Principle 1: To enhance teaching, learning and research through modern and accessible computing

Premium Facilities

IST strives to provide computing facilities that are on par with, if not better than, the latest and most reliable infrastructure and end user computing equipment available in the market.

Our labs and classrooms employ computers and multimedia equipment that are considered high quality while being good value for money.

All buildings and hostels are 100% covered with wired and wireless networking, providing both access to local resources as well as high-speed internet. LUMS has by far the largest pipe of dedicated internet bandwidth of any university in Pakistan.

Academic Computing

LUMS provides its community with access to the latest and most powerful software, including MATLAB, STATA, SPSS, Bloomberg, Bankscope, Cadence, Adobe creativity suite and MS Office. Our students are automatically enrolled in the Microsoft DreamSpark program, allowing them to utilize Microsoft products at no cost.

World-class Information Systems

IST has a highly qualified workforce dedicated to the development, support and maintenance of world-class teaching and information systems, including Oracle PeopleSoft Campus, SAP and Sakai LMS, as well as a number of advanced purpose-built applications serving functions where off-the-shelf solutions are inadequate.

IT Skills Enhancement Program

IST runs a regular program for training staff, faculty, and in the near future, students, in the use of common office applications such as MS Excel, MS Word, MS PowerPoint, MS Project, Smartsheet, as well as academic-related systems including Sakai LMS and PeopleSoft Campus.

Engagement with Teaching and Research

The IT Steering Committee brings together IT experts, faculty from all schools, and administrative stakeholders together to share and discuss concerns, ideas, and strategy. IT interfaces with the University Council, VC Council, Faculty Council and various committees to understand teaching and research needs, as well as to guide the community in making the right choices with respect to the use of technology in the classroom and for research.

Principle 2: To improve University processes through automation and applying global best practices

The University has embraced a fast-track automation initiative since the last five years, during which we have seen all our administrative systems being consolidated into SAP, our student information system being rebuilt from the ground up, and other systems spring up where ERPs are unsuitable. However, there are hundreds, if not thousands of processes which could benefit from automation and re-engineering, and IST sits at the heart of this drive.

Through the ERP Steering Committee and by inclusion in the policy framework implementation project, IST reviews and proposes improvements to processes on a regular basis. We also proactively engage with leading IT solutions providers as well as IT industry experts to explore both infrastructure and software solutions that can further automate and accelerate our academic and administrative processes.

Principle 3: To lead by example in the adoption and implementation of international standards

IST leadership consists of highly qualified ITIL certified managers who are experienced in and aware of best practices in the IT industry. Currently on its way to certifying as ISO 27001 compliant, the IST department regularly improves itself through facing tough internal and external audits. IST was the first to implement an ITIL compliant helpdesk system and maintains all its records electronically.

Principle 4: To regionally excel at computing technologies and systems in the Education sector

IST staff regularly participate in and advise other universities on the adoption of both administrative and academic technologies and systems. The Higher Education Commission places a high value on the inclusion of LUMS IT experts on its technology committees, particularly where nationwide rollouts are concerned.

We are developing a policy framework whereby universities across Pakistan will be able to hire our IT experts to achieve their IT goals, particularly in the area of academic and administrative information systems. This will enhance LUMS's reputation as a center of excellence of IT in education.

Principle 5: To promote a culture of trust and delegation which encourages IT staff to provide excellent support and take responsibility for their roles

IST resources are amongst the most highly paid and experienced resources at the University. With this knowledge and experience comes a high level of responsibility, too. IST's internal culture promotes delegation of responsibility, provides sandboxed environments to learn from failures and mistakes, and encourages a high level of trust and transparency.

After recent changes in how training is budgeted, IST is able to externally train and certify its resources in essential and emerging technologies.

What is the Future Roadmap?

Improve and Increase Access and Mobility

Goals

- To enable our community to access their university-related assets anywhere on campus, as well as securely off-campus
- To enhance the quality, speed and coverage of the wireless network across the campus
- To implement a single authentication identity for accessing all information systems
- To make key factual and real-time information available through a mobile platform
- To ensure all information systems are mobile-friendly and responsive

Current Projects

- ❖ User Experience (2017-18)
- ❖ LUMS Mobile Website (2018)
- ❖ Single Sign On (2018)

Future Projects

- LUMS Managed Desktop on Mobile (2020)

Make Communication Pervasive and Simple

Goals

- To move towards a unified communications platform where voice, video, chat, email, fax are integrated seamlessly
- To utilize digital media and signage to make relevant information available across campus at the relevant locations for the appropriate audience
- To provide a centralized helpdesk platform for all service oriented departments across LUMS

Current Projects

- ❖ Centralized Helpdesk Software (2017)
- ❖ Digital Signage (2017)

Future Projects

- Unified Communications Platform (2019)

Automate, Integrate and Consolidate

Goals

- To identify, document and then automate reports, processes and procedures which are currently either manual or non-existent
- To integrate our core applications through standard protocols, in order to automate key processes which are currently error-prone, manual and/or too complex
- To provide a seamless teaching and learning experience through integration between our learning management systems and student information systems

Current Projects

- ❖ PDC Retail Software integration with SAP (2017)
- ❖ Enterprise Integration (2018)
- ❖ Course Memo (2018)
- ❖ LMS – PeopleSoft Integration (2018)

Planned Projects

- Improvements in budget planning and control in SAP (2019)
- Online recruitment, onboarding and performance monitoring in SAP (2019)
- Document scanning and digital archiving (2019)

Increase Infrastructure Efficiency, Cost-effectiveness and Resilience

Goals

- To establish Disaster Recovery sites for all our core applications
- To reduce the physical, environmental and energy footprint of our servers by 25% each year through virtualized and software-driven computing platforms
- To connect all our Schools and other key buildings with our on-campus failover site
- To move our storage backups to the cloud

Current Projects

- ❖ SAP Disaster Recovery (2017)
- ❖ Server Upgrades with Virtualization (2018)
- ❖ Upgrade to Windows Server 2012 R2 (2018)
- ❖ Failover Site Connectivity (2018)

Future Projects

- Upgrades to end of life network core infrastructure and improvements to architecture (2019)
- Urgent improvements to Data Center environmental and safety systems (2019)

Make Information Systems Useful

Goals

- To build a University data warehouse so that analytics and intelligence from all systems can be easily synergized and accessed by the management
- To provide rapid dashboard and analytics development services in order to bring useful information to the consumer quickly and effectively

Current Projects

- ❖ Academic Dashboard (2017)
- ❖ QEC Dashboard (2018)

Planned Projects

- IT Services Dashboard (2018)
- University Data Warehouse Migration (2019)

Enhance the Community's IT Skills

Goals

- To extend our IT skills training programs for staff and faculty, to students and the greater LUMS community as well (e.g. alumni, family members, etc.)
- To establish a world-class SAP academy to train and certify our students, as well as external participants, in SAP technologies
- To train departmental resources in the effective use of our Website CMS, in order for them to be able to add and update their own content without reliance in IST resources

Current Projects

- ❖ LUMS SAP Academy (2018)

Future Projects

- IT skills training for students (2019)

Implement International Standards in IT Operations and Security

Goals

- To comply with ISO 27001 security standards, e.g.
 - Proper risk assessment of all physical and logical IT assets
 - Risk mitigation
 - Policies and procedures to ensure compliance
 - Annual internal audits
- To implement ITIL practices in our service delivery and operations
 - Proper incident, problem and change management
 - Software development standards and quality assurance

Current Projects

- ❖ Implementation of ISO 27001 (2017-18)

Future Projects

- External audit by external security firm (2018)
- Set up an independent IT/IS security body, e.g. CERT at LUMS (2019)