# Nepal Sanskrit University (NSU)

## University IT Strategy Plan (2024-2029)

2024

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## 1. Background

Nepal Sanskrit University, founded in 1986 and located in Beljhundi, Dang, Nepal, blends traditional and modern teaching methods to preserve and promote Sanskrit language, literature, and philosophy. It offers a wide range of courses covering Vedic studies, linguistics, literature, philosophy, and contemporary research. By emphasising both academic excellence and practical applications, the university attracts scholars, students, and enthusiasts from around the world, contributing to the global understanding and appreciation of Sanskrit's importance.

During COVID-19, the university used technology to let students take online classes from home, showing they can change when things get hard. Nepal Sanskrit University has significantly modified its examination system to incorporate modern computer technology while maintaining fairness.

## 2. The Significance of Digitalization at Nepal Sanskrit University

NSU's five-year IT strategy plan reflects its dedication to leveraging technology for educational excellence and preparing students for the challenges of the 21st century. This plan recognises the critical role of digitalization in higher education. By embracing technology, NSU aims to enhance the quality of education and prepare students for the challenges of the modern world.

The significance of the IT strategy plan lies in its ability to address key areas crucial for effective technological operations and organisational growth. Firstly, by focusing on standards, web portals, and integration, the plan ensures consistency and compatibility across systems, promoting seamless communication and collaboration. Networking and intranet connections enable efficient sharing of information among internal stakeholders, enhancing productivity and teamwork. Digital infrastructure management ensures the reliability, security, and scalability of IT systems, minimising disruptions and maximising performance. Resources archiving and a digital library facilitate easy access to and management of digital assets, fostering knowledge sharing and innovation. An educational management system streamlines administrative processes and improves academic delivery, enhancing the learning experience. Staff are equipped with the skills needed to effectively leverage technology, driving innovation and efficiency through digital capacity enhancement. Data protection, backup, and recovery safeguards against data loss and
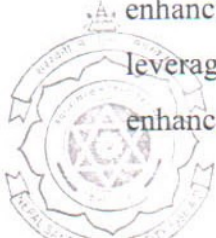
cybersecurity threats ensure business continuity. Lastly, centralised data management enhances data organisation, analysis, and utilisation, enabling informed decision-making and strategic planning. Overall, the IT strategy plan plays a pivotal role in optimising technological infrastructure and fostering collaboration, innovation, and resilience within the organisation.

## 3. Mission Vision and Goal

Vision: To integrate advanced technology into our educational system, enhance traditional teaching methods, and adapt to the evolving tech-driven learning landscape and environment.

Mission: To enhance operational efficiency and empower individuals in Sanskrit education using contemporary technological innovations, digital learning resources, and an educational governance framework.

Goals:

Goal 1: Secure E-Learning Platform: Implement robust, secure online learning platforms and virtual classrooms, ensuring data privacy and uninterrupted access.

Goal 2: Unified Web Portals: Develop and integrate standardized web portals that streamline information dissemination, enhance the user experience, and promote consistency across systems.

Goal 3: Reliable Networking Infrastructure: Establish the intranet and internet with efficient intranet connections and cybersecurity, fostering seamless communication and data exchange.

Goal 4: Development of Interactive Learning Resources and Resource Archiving: Develop interactive learning resources and create guidelines and systems for digital resource archiving, enabling easy retrieval of valuable educational materials while maintaining data integrity.

Goal 5: Effective Educational Management: Implement integrated educational management system including student records management, financial system and examination and other educational systems.

Goal 6: Empower Digital Proficiency: Equip faculty and staff with advanced digital tools, training, and support, enhancing teaching, research, and administrative capabilities.
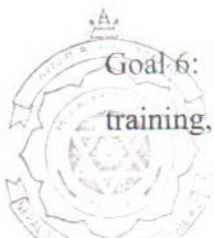
## 4. Objectives

The specific objectives of Nepal Sanskrit University's Digitalization Strategy are outlined and measurable objectives are aligned with each of the stated goals for the strategic plan of the IT department at the university:

| Goals | Objectives |
|---|---|
| Goal 1: E-Learning Platform | To develop and implement a safe eLearning platform or LMS system that supports online and blended learning, providing learners with flexibility, personalised material, collaborative features, strong assessment capabilities, and strict data protection measures. |
| Goal 2: Unified Web Portals | To create a unified web portal by integrating various web portals and online platforms, ensuring consistent branding, enhancing the user experience, and maintaining functional consistency across all digital touchpoints |
| Goal 3: Reliable Networking Infrastructure | To establish a broadband connection and university-level intranet for seamless communication and data exchange with secure and reliable. |
| Goal 4: Efficient Resource Archiving and develop digital materials | To produce digital materials and develop comprehensive guidelines and an efficient system for digital resource archiving, enabling easy retrieval of valuable educational materials while maintaining data integrity. |
| Goal 4: Effective Educational Management | To enhance overall effectiveness in educational administration, implement an integrated educational management system, including student records management, financial systems, examination processes, and other educational components, to enhance overall effectiveness in educational administration. |
| Goal 6: Empower Digital Proficiency | To provide faculty and staff with advanced digital tools, comprehensive training, and ongoing support to enhance their teaching, research, and administrative capabilities. |

Through these objectives, Nepal Sanskrit University aims to establish a transformative and future-oriented digital ecosystem that nurtures academic excellence, embraces innovation, and fosters holistic development in its academic community.

## 5. Digitalization Strategy

### 5.1.  LMS and E-Learning Platform

Strategies and Targets:

- Create a comprehensive eLearning portal that aligns with the educational goals and objectives of NSU by 2026.

- By 2025, successfully manage the hosting system for the eLearning platform within the government data center.

- Develop tailored eLearning courses to meet specific educational needs.

- Utilise the virtual learning environment like Office 365 or Google Meet for meetings and classes at NSU as regular basic.

Action Items, Responsibility and Timelines:

| Major Activities | Time | Responsibility |
|---|---|---|
| Platform Selection: Evaluate and choose an open-source eLearning platform (e.g., Moodle, Open edX). And customise university courses: Configure the platform to match organisational needs (themes, user roles, permissions) to align with the Learning Portal Format. | 2025 | Registar Office /IT Section |
| Host the learning portal on a government data centre or cloud platform like Google Cloud Platform (GCP). | 2025 | IT Section |
| Content Creation: Develop engaging course content (videos, quizzes, presentations) for a minimum 20 courses. | 2025-2028 | Rector office/IT Section |
| Deployment and User Training: Launch the system, train educators, and onboard learners. | 2025 | Registrar Office /IT Section |
| Update Virtual Learning Environment: Continuously update and operate the MS Office 365 platform or ZOOM for video conferences and classes. | 2025-2028 | IT Section |

## 5.2. Unified Web Portals:

Strategies and Targets:

- Create a central web portal that serves as a single online portal for all of NSU's campuses and departments by 2025.

- Ensure maintaining consistent branding elements (such as logos, colors, and typography) throughout the portal.

- Ensure that users can easily access information, resources, and services from any location within the university through this central web portal.

- Ensure that the portal adheres to accessibility standards (such as WCAG) to accommodate users with disabilities.

Action Items, Responsibility and Timelines

| Major Activities | Time line | Responsibility |
|---|---|---|
| Design, develop, and deploy an integrated web portal at the central level. | 2025 | Registar office and IT Section |
| Hosting the web portal on a government data centre or cloud platform like Google Cloud Platform (GCP) | 2025 | IT Section |
| Migrating, creating and deploying content on websites across all units. | 2025-2028 | IT Section |
| Conduct web portal operational training for all NSU units that have web sites. | 2025 | IT Section |

## 5.3. Reliable Networking Infrastructure:

Strategies and Targets:

- By 2024, establish a partnership with the NTA to ensure reliable broadband infrastructure and connectivity at the university and its campuses.

- Implement secure Wi-Fi networks across the campus premises, ensuring encrypted data transmission and controlled access by 2025.

- Allocate resources to upgrade hardware and software components, ensuring compatibility with broadband connections and the university intranet.

- Create dedicated IT support units staffed with skilled professionals to provide timely assistance and maintenance services.

- Design and develop a customised intranet platform tailored to the university's communication and data exchange requirements among the campus, department, and other stakeholders.

Action Items. Responsibility and Timelines

| Major Activities | Time line | Responsibility |
|---|---|---|
| Boardband Connection and Establishing a Partnership with NTA and Local ISP | 2025 | IT Section and Campuses |
| Implement secure Wi-Fi networks. | 2025 | IT Section and Campuses |
| Allocate resources for hardware and software upgrades. | 2025-2028 | IT Section |
| Create dedicated IT support units on each campus. | 2025 | Registrar Office and IT Section |
| Design and develop a customised intranet platform. | | IT Section |

**5.4.** Interactive Learning Resources and Resource Archiving:

Strategies and Targets:

- Digitise ancient Sanskrit manuscripts and historical books, preserving their original content, and then enhance these digital resources by adding interactive features like annotations, multimedia explanations, and virtual tours.

- Creating interesting multimedia content that combines a variety of media, including animations, video, and audio, and creating guidelines for quality to ensure uniformity and commitment to educational objectives at NSU.

- Establish an organized digital archiving framework with intuitive user interfaces to allow instructors and students to easily access essential instructional resources.

- Publish developed content across educational platforms, websites, and learning management systems to ensure accessibility for a broader audience.

- Having access to digital learning resources, faculties at NSU can engage in activities such as creating educational videos, designing interactive quizzes, developing online books, recording audio lectures, curating and sharing Open Educational Resources (OER), and subscribing to digital libraries for accessing relevant academic content.

Action Items, Responsibility and Timelines

| Major Activities | Time line | Responsibility |
| --- | --- | --- |
| Digitize ancient Sanskrit manuscripts and historical books. | 2025 | IT Section and Central Library |
| Develop interactive multimedia learning resources. | 2025-2028 | IT Section and Campuses |
| Develop a digital achievement framework. | 2025-2028 | IT Section |
| Publish digital resources at e-Library. | 2025 | Central Library |
| Development of Digital Studio | 2025 | Dean Office and Campuses |

### 5.5. Educational Management Information System:

Strategies and Targets:

- Design and develop an Educational Management Information System (EMIS) at the university to collect, manage, and analyse data for decision-making, planning, and administration, including student tracking, curriculum management, and integration with other administrative systems at NSU by 2025.

- Enhance and integrate the exam management system into the EMIS system by 2025.

- Develop the financial management system, including accounts, payroll, audits, budgets, and planning systems by 2026.

- Upgrade and automation of Personal Information management system incorporating all teaching and non-teaching faculties and staffs of NSU by 2026.
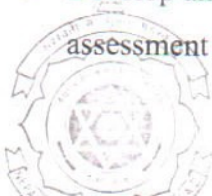
Action Items, Responsibility and Timelines

| Major Activities | Time line | Responsibility |
|---|---|---|
| Design, develop, and deploy the EMIS system at the central level | 2025 | IT Section |
| Upgrade and enhance the exam management system. | 2025 | Controller of Ecamination and Dean Office |
| University Central Office Automation System | 2026 | Registrar Office and IT Section |
| Design and Develop an Integrated Finance Management System | 2025-2028 | Registrar Office and IT Section |
| Digitise HR systems and develop and implement PIS systems. | 2025 | Registrar Offece and IT Section |
| Design, develop and deploy campus level ERP | 2027 | IT Section and Campuses |

## 5.6. Empower Digital Proficiency:

Strategies and Targets:

- Execute a digital literacy training plan that includes initiating extensive workshops to improve fundamental digital skills, creating and disseminating easily accessible educational materials, and fostering a culture of engaged, practical learning to improve digital skills among all staff members.

- Provide digital pedagogy training for engaging online classes, app usage, classroom management, idea sharing, and continuous support to enhance digital teaching skills.

- Develop and execute a refresher training strategy by completing a requirements assessment to identify areas where more training is required, tailoring short and targeted
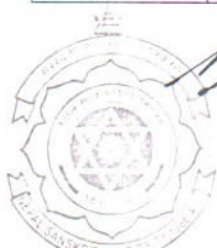
training sessions to cover these areas, and promoting ongoing learning through webinars, forums, and peer circles to ensure that staff stay up-to-date with digital practices.

Action Items, Responsibility and Timelines:

| Major Activities | Time line | Responsibility |
|---|---|---|
| Digital literacy training for all faculties and staffs | 2025 | Rector Office and IT Section |
| Develop and execute a refresher training program | 2025-2028 | Registrar Office and IT Section |

## 6. Resources Arrangement and Allocation

| | |
|---|---|
| Financial Resources | • To support digital transformation activities, use project funds and UGC grants. This includes applying for grants under programmes like the Nurturing Excellence in Higher Education Programme (NEHEP).<br>• Generate internal revenue through value-added digital services to support digitalization projects, reinvesting income from these services.<br>• Pursue international collaborations with organizations such as UNESCO, ADB, USAID and other donors for financial and expertise support in digitalization projects.<br>• Apply for province and central government-sponsored projects in Nepal, aligning digital strategies with national priorities to secure funding for digital transformation.<br>• Explore diverse funding avenues including the Nepal Telecom Rural Development Fund for rural digital connectivity, student voluntary contributions, public-private partnerships for joint digital initiatives, and R&D collaborations for innovative digital project funding. |
| Human Resources | • Assess the current digital skills of our staff and identify any gaps, followed by organizing targeted training programs to elevate their digital competencies. |

- Recruit specialized IT professionals who possess the necessary expertise for effective project leadership, ensuring our team is guided by experienced hands.
- Integration of these professionals with our existing teams will be prioritized to foster collaboration and knowledge sharing, enhancing the overall project execution.
- Continuous monitoring of both the training effectiveness and the contributions of new IT professionals will allow us to adapt our strategies and maintain alignment with project goals.

## 7. Institutional Arrangements

### 7.1 Digitalization Committee:

Establish a Digitalization Committee comprising six principal members:

- Coordinator: Registrar
- Member: Head of Finance Division
- Member: Head of General Administration
- Member: Dean/Campus Chief (Representative from Dean and Campuses)
- Member: IT experts
- Member Secretary: Head of IT Department

This committee is tasked with the critical role of guiding and shaping the university's digital strategy. Their responsibilities include not only ensuring that the digital initiatives are in sync with the current technological trends and advancements but also making certain that these efforts are fully aligned with the university's long-term vision and objectives. By leveraging their diverse expertise and insights, the committee aims to foster a cohesive and forward-thinking digital environment that enhances both teaching and learning experiences across the university.

### 7.2 IT Support Unit:

Establish a dedicated IT Support Unit within the university, serving as the central hub for all digital matters across every department, campus, and unit. This unit will be staffed with skilled IT professionals adept in managing hardware, software, networking, and

cybersecurity, ensuring comprehensive digital support tailored to the specific needs of each academic and administrative sector.

## 7.3 Digital Learning Centre and Digital Resource center :

Digital Learning Centre aimed at training and assisting faculty, staff, and students in effectively utilizing digital tools. This centre will also host workshops and events designed to enhance digital skills pertinent to teaching and learning. Furthermore, it will establish a Digitalization Resource Centre equipped with digital learning materials, e-books, and research papers, making it a key resource for disseminating educational materials throughout the university.

## 8. Monitoring and Evalaution

- The Planning Division of NSU will lead the monitoring and evaluation of the university's digitalization strategy implementation, employing specific Key Performance Indicators (KPIs) that reflect the strategy's objectives, including metrics for alignment and digitalization components.

- Implement regular surveys and feedback mechanisms to collect insights from students, faculty, and staff on their experiences with digitalization efforts, facilitating continuous improvement.

- Engage in constant monitoring of the digital infrastructure to ensure the performance and reliability of network connections, learning management systems, and online collaboration tools are maintained at optimal levels.

- Assess the effects of digitalization on pedagogy, including changes in teaching methods, student engagement, and the enhancement of collaboration through digital tools. Utilize data analytics and reporting to track implementation progress, analyzing data on web traffic, digital resource usage, online course enrollment, and student performance, complemented by routine progress reviews and audits to gauge strategy effectiveness and efficiency.

The End