

Vignan's Foundation for Science Technology and Research

(Deemed to be University)

Vadlamudi, Guntur, Andhra Pradesh

Digital Transformation Strategy 2023-2028

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1. Preamble

Vignan's Foundation for Science Technology and Research (Deemed to be University), hereinafter referred to as 'the University', is committed to leveraging digital technologies to enhance institutional effectiveness, academic excellence, and administrative efficiency. This Digital Transformation Strategy (DTS) 2023-2028 provides a comprehensive roadmap for the University's transition towards a fully integrated smart campus ecosystem.

This strategy aligns with the National Education Policy (NEP) 2020, UGC guidelines on digital education, NAAC accreditation criteria, and the National Institutional Ranking Framework (NIRF) requirements. It reflects the University's vision to become a model institution for technology-driven education and governance in India.

2. Vision and Mission

2.1 Digital Vision

To transform Vignan's University into a digitally empowered, data-driven, and innovation-led institution that delivers world-class education, research, and governance through seamless integration of cutting-edge technologies.

2.2 Digital Mission

- Establish a robust, secure, and scalable digital infrastructure across all campuses.
- Integrate technology into every facet of teaching, learning, research, and administration.
- Develop digital literacy and competencies among students, faculty, and staff.
- Foster a culture of continuous innovation, entrepreneurship, and digital citizenship.
- Ensure data-driven decision-making through analytics and business intelligence platforms.

3. Strategic Pillars

3.1 Pillar I – Digital Infrastructure

The University shall establish and maintain a state-of-the-art digital backbone to support all academic and administrative operations.

3.1.1 Network and Connectivity

- Deploy high-speed fiber optic network with minimum 10 Gbps backbone connectivity.
- Provide campus-wide Wi-Fi coverage with minimum 100 Mbps per access point.
- Establish redundant internet links with failover capabilities for 24x7 uptime.
- Implement Software-Defined Networking (SDN) for dynamic bandwidth management.

3.1.2 Cloud Infrastructure

- Migrate critical institutional systems to a hybrid cloud architecture.
- Adopt cloud-first policy for new application deployments.
- Establish a University Private Cloud for sensitive academic and administrative data.
- Ensure Business Continuity Planning (BCP) with cloud-based disaster recovery.

3.1.3 Data Centre Modernization

- Upgrade the primary data centre to Tier III standards.
- Implement server virtualization to optimize resource utilization.
- Deploy automated backup systems with RPO of 4 hours and RTO of 8 hours.

3.2 Pillar II – Digital Learning Ecosystem

The University shall build a comprehensive digital learning environment that supports hybrid, blended, and fully online modes of education.

- Deploy and maintain an institutional Learning Management System (LMS) as the primary platform for course delivery.
- Integrate the LMS with SWAYAM, NPTEL, and other national digital learning repositories.
- Establish virtual classrooms equipped with smart boards, lecture capture systems, and video conferencing.
- Develop a digital content library with over 10,000 learning objects by 2026.
- Implement AI-driven adaptive learning tools to personalize student learning pathways.
- Launch Massive Open Online Courses (MOOCs) in at least 10 disciplines by 2027.

3.3 Pillar III – Digital Governance and Administration

The University shall implement a unified Enterprise Resource Planning (ERP) system to digitize and automate all administrative functions.

- Deploy a comprehensive ERP covering admissions, academics, finance, HR, library, and examinations.
- Implement workflow automation to reduce manual processing and turnaround time.
- Establish a centralized dashboard for real-time institutional performance monitoring.
- Enable online self-service portals for students, faculty, parents, and alumni.
- Integrate biometric and RFID-based attendance management systems.

3.4 Pillar IV – Research and Innovation

- Establish a Centre for Digital Innovation and Entrepreneurship (CDIE).
- Deploy a Research Information Management System (RIMS) for tracking publications, patents, and projects.
- Create collaborative digital spaces (makerspaces, fablabs) for student innovation.
- Facilitate industry-academia collaboration through digital knowledge exchange platforms.

3.5 Pillar V – Cybersecurity and Data Governance

- Implement an Information Security Management System (ISMS) compliant with ISO 27001.
- Establish a Security Operations Centre (SOC) for continuous threat monitoring.
- Enforce data privacy policies aligned with the Digital Personal Data Protection Act, 2023.
- Conduct regular security audits, vulnerability assessments, and penetration testing.

4. Implementation Roadmap

The implementation is structured across three phases:

Phase	Timeline	Focus Areas	Key Deliverables
Phase 1 – Foundation	2023-2024	Infrastructure, ERP, LMS	Network upgrade, ERP go-live, LMS deployment
Phase 2 – Integration	2024-2026	AI/ML, Analytics, MOOCs	Smart classrooms, data analytics, MOOC launch
Phase 3 – Innovation	2026-2028	Research platforms, IoT, Blockchain	Smart campus IoT, research portal, digital credentials

5. Governance Structure

The Digital Transformation initiative shall be governed by the following structure:

- Dean Technology and Development – Responsible for day-to-day implementation.
- TD Advisory Committee – Faculty representatives and external experts.
- Departmental Digital Champions – Faculty leads in each department.

6. Budget and Resource Allocation

The University commits to allocating a minimum of 3% of its annual budget towards digital transformation initiatives. A dedicated Digital Transformation Fund shall be established to finance major infrastructure projects, with supplementary funding sought through government schemes such as RUSA, NME-ICT, and industry partnerships.

7. Key Performance Indicators (KPIs)

KPI	Target by 2028
Wi-Fi campus coverage	100% of campus area
LMS adoption rate	100% of courses on LMS
ERP modules live	All 12 administrative modules
Faculty digital literacy	100% trained
Online student services	90% services digitized
Cybersecurity audit score	ISO 27001 certification

8. Review and Amendment

This strategy shall be reviewed annually by the Digital Transformation Steering Committee. Amendments may be proposed by any stakeholder and shall require approval by the Board of Management. The strategy shall undergo a comprehensive revision at the end of each phase.

9. Approval and Authorization

This Digital Transformation Strategy 2023-2028 has been approved by the Board of Management of Vignan's Foundation for Science Technology and Research (Deemed to be University) and is effective from January 2025.


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