Digital Transformation for Quality Accreditation at
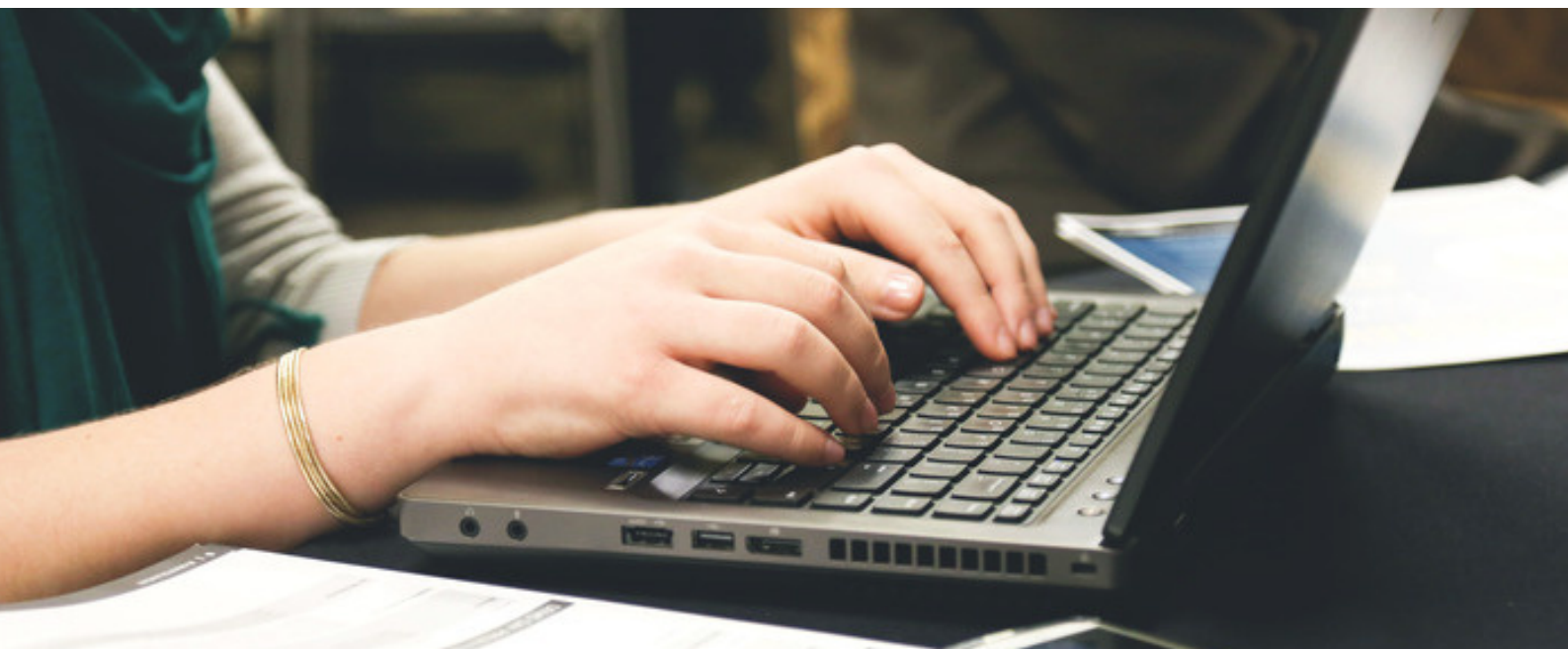# Rajarshi Janak University

Vision Paper for transforming RJU with Information Technology

#digitalRJU

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Vice Chancellor

Rajarshi Janak University is currently in its initial phases of Information Technology Development, and significant milestones are yet to be achieved. The university is gearing up for a transformative journey to become a Digital University within the next two years. While there haven't been notable accomplishments in this endeavor, the university is in the kickoff stage, laying the groundwork for future advancements in digitization.

Rajarshi Janak University
Janakpurdham, Janakpur

Digital Transformation for Quality Accreditation at Rajarshi Janak University

Since Oct 2023, RJU has been gradually exploring avenues for a digital shift through the use of IT resources right after the newly appointed Vice-Chancellor came into action after a long time of gap. The overarching mission is to enhance the quality of education by integrating IT into the professional development of faculty, employees, and students. The focus is on familiarizing stakeholders with digital techniques and platforms through extensive tasks on digital learning modules.

Looking ahead, the university is poised to establish a Centralized University Management System, aligning its academic and administrative objectives with the Digital Nepal Framework-2019. This program aims to provide a clear vision for applying means and resources across various sectors, ensuring the university stays in tune with current digitalization trends.

Over the next 2 years, we will embark on a phased IT development journey. Beginning with the deployment of robust server infrastructure, we will empower stakeholders through comprehensive IT training, ensuring everyone possesses the necessary digital skills. Subsequently, we will streamline administrative processes through office automation, paving the way for a more efficient and agile institution.

In tandem, our commitment extends to the full integration of Learning Management Systems (LMS), fostering a blended mode of learning that elevates the educational experience for faculty, staff, and students alike.

The administrative and academic tasks need to be changed to meet the demand of the age.

This vision paper of the university supports the national policy causes to create a drastic change in quality through the implementation of digital technology in education.

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Vision: Paradigm shift at RJU through Digital Transformation for quality accreditation.

Mission: The University has the mission for quality enhancement through IT-assisted professional development of the faculty, employee, and students.

Goal: Digitalized University with smart classroom and digital governance for quality accreditation in 2025.

Introduction

Rajarshi Janak University is currently in its initial phases of Information Technology Development, and significant milestones are yet to be achieved. The university is gearing up for a transformative journey to become a Digital University within the next two years. While there haven't been notable accomplishments in this endeavor, the university is in the kickoff stage, laying the groundwork for future advancements in digitization.

Since Oct 2023, RJU has been gradually exploring avenues for a digital shift using IT resources right after the appointment of Vice-Chancellor and other authorities after long time of gap. The overarching mission is to enhance the quality of education by integrating IT into the professional development of faculty, employees, and students. The focus is on familiarizing stakeholders with digital techniques and platforms through extensive tasks on digital learning modules.

Despite being in the early stages, the university has taken steps to adapt to the changing landscape. The spirit of new team at RJU served as a catalyst, prompting the rapid adoption of University official website **https://rju.edu.np/**

Looking ahead, the university is poised to establish a Centralized University Management System, aligning its academic and administrative objectives with the Digital Nepal Framework-2019 and University Grants Commission. This program aims to provide a clear vision for applying means and resources across various sectors, ensuring the university stays in tune with current digitalization trends.

While RJU is in the early stages of its digital journey, the commitment to transformation is evident. The upcoming years hold the promise of significant strides in IT development, with the university working towards becoming a Digital University within the set timeframe.

As a Vice-Chancellor, my vision is to lead Rajarshi Janak University into the realm of a Digital University by the end of 2082. Over the next 2 years, we will embark on a phased IT development journey. Beginning with the deployment of robust server infrastructure, we will empower stakeholders through comprehensive IT training, ensuring everyone possesses the necessary digital skills. Subsequently, we will streamline administrative processes through office automation, paving the way for a more efficient and agile institution. In tandem, our commitment extends to the full integration of Learning Management Systems (LMS), fostering a blended mode of learning that elevates the educational experience for faculty, staff, and students alike. This strategic roadmap encapsulates our dedication to propelling RJU into a future where technology seamlessly enhances every aspect of our academic and administrative landscape.

Relevance of the Program

Higher education has to be changed and the government has passed a policy for Nurturing Excellence in Higher Education Programs. This vision paper of the university supports the national policy causes to create a drastic change in quality through the implementation of digital technology in education.

Objectives of the Program

Rajarshi Janak University is a pioneering University for digital transformation in Education through a collective effort of the university stakeholders. The main objective is to improve RJU through digital transformation to generate a paradigm shift for the professors, employees, and students of the University for Quality Accreditation.

Providing an opportunity to participate, interact and explore a range of practical and theoretical knowledge on digitalization and digital transformation in the University is the need-based analysis. Digital Transformation in Education has the following objectives:

- To Implement RJU's digitalization policy, strategies, and guidelines.
- To create good governance through a complete paperless administration.
- To open the door for future possibilities related to digital transformation.

Outcome of the Program

This is a need-based vision paper that upgrades the rank of the university in the world university ranking.

- Practice and implement market-driven digital practices.
- Solve academic, administrative issues faster.
- Empower all stakeholders of RJUs digital literacy.

Program Details

Planning for the platforms, account management system, human resource management, student support, IT awareness, digital collaboration, and support, students support, advanced exams and results, and research and publication are the major areas for the intervention in the university. On completion of the full phased implementation, RJU can be the education hub for students from Nepal and abroad.

1. Planning for the Platforms

This is the first phase of the program for the university. Partially the task has been done but the need is for the complete transformation in collaboration with the national policy and the higher education policy of the UGC.

1. Cloud Based on infrastructure development.
2. Shared and centralized architecture of the system.
3. API-based software development.
4. Proper domain analysis and software design at the ground level.
5. Interview with stakeholders and collaborate with developers during and after the implementation of software for making it user friendly.
6. Access control and multi-level role-based permission system.
7. Backup of a system for multiple reasons.
8. Design and deploy the faults tolerance system

2. IT Awareness, Digital Collaboration, and Support

IT awareness is the base for the implementation of the program. For making the program user-friendly, the university will collect the ways for making the platform user-friendly through user motivation. Through incentives, training, and workshop it is possible to move into the implementation phase.

1. Annual workshop and training for the uses of available digital platforms among professors, employees, and students.
2. Workshops on the secure use of digitally available resources.
3. Purchase and use of share-based hardware.
4. Provide free internet-data to professors, employees, staffs and students under Closed User Group- CUG.

3. Student Admission System and Information System

For Rajarshi Janak University, implementing a robust Student Admission and Student Information Management System offers numerous benefits:

1. **Efficient Admission Processes:** Streamlining the admission process through automation reduces paperwork, minimizes errors, and provides a user-friendly experience for prospective students, enhancing the overall efficiency of the admission workflow.
2. **Centralized Data Repository:** The system acts as a centralized database, consolidating student information, academic records, and personal details in one accessible location. This ensures quick and accurate retrieval of data, facilitating informed decision-making by faculty and administrators.
3. **Data Accuracy and Security:** The system enhances data accuracy by reducing manual entry and the risk of errors. Additionally, robust security features protect sensitive student information, ensuring compliance with data protection regulations.
4. **Optimized Resource Allocation:** By automating administrative tasks related to student information, the system frees up valuable time for university staff, allowing them to focus on strategic initiatives and providing better support to students.
5. **Data-Driven Decision Making:** Access to comprehensive student data empowers administrators and faculty to make data-driven decisions. This includes analyzing academic performance, tracking attendance patterns, and identifying areas for improvement in the educational experience.
6. **Timeline Management:** The timeline feature provides a comprehensive overview of a student's academic and extracurricular activities, ensuring efficient progression and timely completion of program requirements.

3. Account Management System

On completion of the program, the university becomes the first in Nepal to implement digital technology for good governance. The implementation of an online account system develops transparency. The following program is under this system.

1. Integrated Budgetary System
2. Need and performance-based division of budgets to the departments
3. Real-time budget status information
4. Integrated revenue information
5. Analysis of sources of income in the organization
6. High-income generation and low-income generation section division
7. Integrated expenses information
8. Project base expenditure and income record
9. Real-time budget and expenditure status generation
10. Capital expenditure and current expenditure ratio analysis and planning

11. Staff-related expenditure management
12. Department-wise real-time income and expenditure report (integrated and individual)
13. Paperless accounting practice
14. Cost-Effectiveness Calculation
15. Report base budget allocation
16. Consistency across records and accounting errors and duplications
17. Streamline accounts across all entities comprehensively
18. Student Fee Collection/ Student Account

4. Public Asset Management System

The public asset management system supports the system to regulate the outflow of inventory and fixed assets of University.

1. Centralize Public Asset and fixed-asset MS for management of inventory and fixed-asset.
2. Online-based demand, purchase order, store entry, and expenses
3. Report generation according to Financial Framework.
4. Monitor the Fuel consumption of vehicles with automated log-books according to the GPS.
5. Analysis of the previous fiscal year transaction and projection of purchase of inventory scientifically.
6. Barcode-based assets management
7. Implement an online based standing list of firms and adopt an E-tender procedure.
9. Automated check-in and check-out for frequently used items like stationery.
10. Inter-store management system to coordinate among two or more store offices.

5. Human Resource Management System

The paradigm shift for HRM is possible through the following programs.

1. Digital Calendar of the University for the program regulation.
2. Online records of the leave of the professors and employee.
3. Digital profile of the professors and employees having Cumulative records.
4. Monthly work checklist.
5. Online attendance for work from home during the obstacles for physical presence.
6. Online logbook-based attendance system.
7. Real-time work reports of the professors and employees.
8. Transparency about the human resource availability and their work progress
9. Online payment of the salary, PF, and tax clearance.
10. Coordination among, professors, employees, general administration, and account section.
11. Annual training in collaboration with UGC for the digital shift.

6. Hybrid Learning Management System

Physical as well as online learning must be the mission of the university because of young learners' quest for a technology-assisted learning management system that is possible through the blended mode of learning.

1. Online and Offline Learning
2. Updated pedagogical system of instruction
3. Blended modes of instruction
4. Access to the online learning materials for the students free of cost.
5. Project work for the students based on the syllabus and course content
6. Availability of the audio and visual materials of the world-known experts in the field.
7. Question bank for the students and online offline mock test.
8. Online portfolios of the students to recommend the students for the job market.
9. Online classes during the sudden obstruction for the physical classes.
10. Availability of the video of the best presentation of the students.
11. Student-friendly Learning Management System

7. Research and Publications

University education is based on research and publication. Online publication and record keeping are possible through the digital platform. The followings are the benefits of the research

1. The research center can use blogs for tapping the research of the faculty.
2. Archiving the Research
3. Publishing the Journals and Research Articles on a journal-based website.
4. Plagiarism prevention system for copy-right violation.
5. University can collaborate with different research centers of the world through the platform that helps the researchers to get resources free of cost.
6. Publishing the research and research themes of the student's research.

8. Data-driven University Information System

Faculties/Staff/Students who are geographically dispersed feel uneasy to be physically present and asking for information. Therefore, data-driven university information helps to meet the need of the students and faculty.

1. Updated website for the notice of the administrative system.

2. Monthly bi-annually and annual report generation for performance analysis and further planning.
3. Regular publication of the university: monthly bulletin and academic journal.
4. Complete information system related to syllabus, admission procedure, fee structure, academic calendar, and real-time online help desk for foreign students for the motivation of the admission of the students from the nation and abroad.
5. RFID card for biometrics attendance and CCTV camera in the University premises. Advance Cafeteria with online service
6. Vehicle Management with GPS

9. University Outreach

Identify, Attract and Reserve the prospective students for RJU. Thousands of students willing to study eastern philosophy can enroll at this university only when the university can fully support them. The following initiations help them.
1. Hustle-free admission procedure
2. Online Based Entrance and in-person interview
3. Mobile application for day-to-day activities, updates, and feedback
4. Anytime anywhere online and offline information system.
5. Availability of online and offline study learning resources for students.
6. Performance-based evaluation system- Course-wise Semester Portfolio of students.

10. Exams and Results

A proper evaluation system tests the real ability of the students. The semester-wise portfolio supports the internal evaluation whereas, for the final exam, the proper exam management system and the scheduled results accelerate the motivation of the learners. Consequently, the social audit supports the positive message about the university.
1. **Centralized entrance examination management information system**: Student registration, online payment, result processing, result ranking, and admission.
2. **Question Management:** Every discipline and every subject requires a separate online question bank, from which the university takes an internal test, mock test, and final exam. The system maintains and manages the question bank for each subject of individual degrees and disciplines.
3. **Result in Processing and Publication**: Anytime anywhere student can check their results and performance graphs compared with the previous semester.
4. **A scientific and practical way of internal evaluation:** Digital Portfolio system throughout the semester for Internal marking.

Concluding Remarks

Technology-based continuous curriculum reformation and evaluation through digital techniques should move hand in hand with digital transformation. Digital Transformation at RJU is sure to support the human resource to shift from face-to-face mode to blended mode. The students demand technology-assisted teaching and learning rather than theory and oral presentation. This program supplies the demand of the students and upgrades the quality of the University. Rajarshi Janak University must develop a mechanism for an IT-friendly environment for all the stakeholders currently working here. Need-based yearly orientation supports to enhance the internal derive of the faculty and employee. The discipline-based practical session before and after the implementation has to be put in the top priority. Therefore, the digital shift for quality education is the demand of the time and implementation with the close interaction with the stakeholders supports the accreditation of the university.

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