

Problem Statement :



Development of a Paperless Scholarship, Disbursement System for PMSSS.
प्रधानमंत्री विशेष छात्रवृत्ति योजना के लिए कागज रहित छात्रवृत्ति, संवितरण प्रणाली का विकास।

ATISHAY TULI (21303034) CSE

अतिशय तुली



What is PMSSS ?



PMSSS stands for Prime Minister's Special Scholarship Scheme. It is a scholarship scheme for students in the Union Territories of Jammu and Kashmir and Ladakh. The scheme covers academic fees, including tuition, university, exam, library, and internet fees.



PMSSS का मतलब प्रधान मंत्री विशेष छात्रवृत्ति योजना है। यह केंद्र शासित प्रदेश जम्मू-कश्मीर और लद्दाख के छात्रों के लिए एक छात्रवृत्ति योजना है। इस योजना में ट्यूशन, विश्वविद्यालय, परीक्षा, पुस्तकालय और इंटरनेट शुल्क सहित शैक्षणिक शुल्क शामिल हैं।



HP Udaan Scholarship

What is the main issue ?



- ⚠️ **Excessive Paperwork:** The existing process requires significant physical document submissions, causing delays and inefficiencies.
- ⚠️ **Time-Consuming Verification:** Manual verification of documents is slow, leading to further delays in scholarship disbursement.
- ⚠️ **Risk of Document Loss/ Misplacement:** Handling physical copies increases the risk of documents being lost or misplaced.
- 🔍 **Lack of Transparency:** Students have no real-time visibility of the status of their document submissions and payment disbursement.



What is the Solution ?

- Elimination of Submission Delays:** We digitized the submission process, replacing paperwork with secure online uploads. 
- Faster Verification:** Automated workflows route documents directly to officers, speeding up reviews. 
- Simplified Process:** A user-friendly platform simplifies document uploads and scholarship applications. 
- Automation:** Automated workflows streamline document submission, verification, and payments. 
- Instant Support:** An AI chatbot provides real-time assistance and guidance. 

Our Solution Portal



PMSSS

Academic Year 2024-2025



Students Portal

Welcome to the portal. Please find the necessary links below.



Profile

This section contains your profile which contains all the data the student have entered to the portal.

[Visit Profile](#)



Apply For Scholarship

Login with your OTR ID and PASSWORD to fill your Fresh and Renewal Scholarship application form for AY 2024-25.

[Apply Now](#)



Track Your Payment

Track your scholarship disbursement status on PFMS portal.

[Track Your Payment](#)



Edit Your Profile

Make the edit request of your details if you have done any.

[Edit Now](#)



Scholarship Records

Check out your previous scholarship amounts that are given to you and your institute.

[Check out](#)



Documents Details

Check out the documents you have uploaded still date.

[See now](#)



STUDENT DASHBOARD



UNIVERSITY DASHBOARD

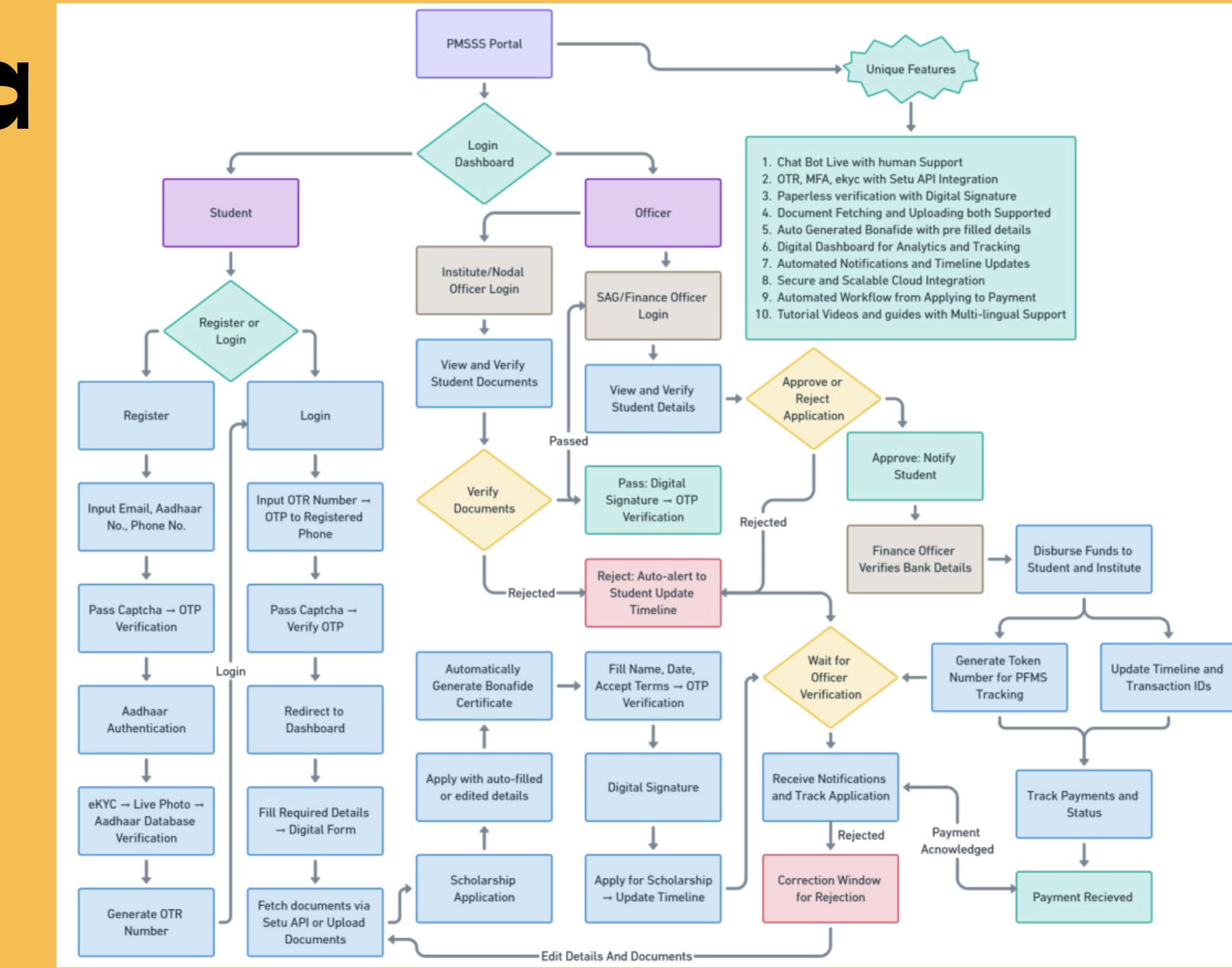
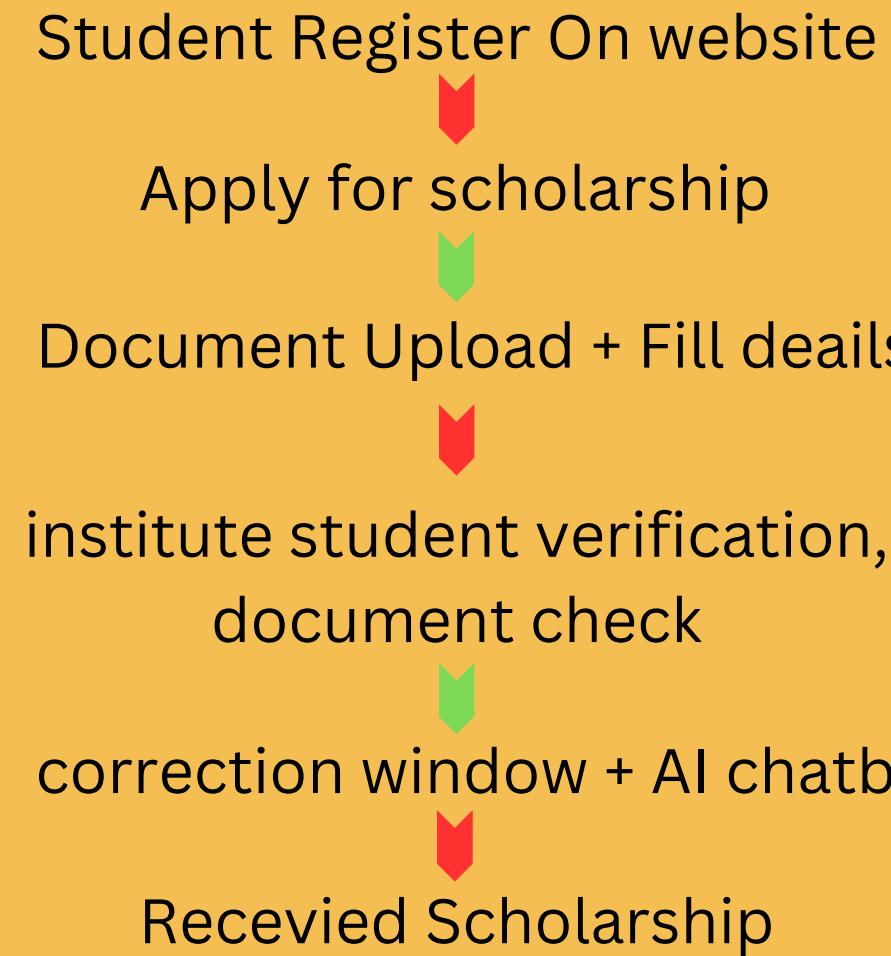


SAG BUREAU



FINANCE BUREAU

How we Gonna Address this ?



Uniqueness :

- o OTR system
- o ekyc
- o Setu Api Document Fetching
- o Dashboard for analytics
- o Paperless Verification
- o Digital Signature
- o OTP verify System
- o Auto Generated Bonafide
- o Live Timeline System
- o Alert Notifications
- o Chatbot
- o Cloud Integration
- o Tutorials
- o Correction Window
- o Live Payment Tracking
- o Secure Authentication with Cloud

The dashboard displays the following information:

- Track Your Payment:** A progress bar showing five steps: Applied (1), Institute Verified (2), SAG Verified (3), Finance Bureau Verified (4), and Payment Received (5). Step 3 is highlighted with a checkmark.
- PMSSS Academic Year 2024-2025:** Statistics for beneficiaries every year:
 - Boys: 2500+
 - Girls: 3000+
 - Total: 5500+
- PM Special Scholarship Scheme (PMSSS):** A detailed description of the scheme, mentioning its implementation to encourage technical and post-graduate education for widows and wards of deceased/ex-service personnel of Armed Forces. It notes the scheme's funding from the National Defence Fund and its availability at various technical institutions.
- Student:** A button for students to apply.
- Officers:** A button for officers to manage applications.
- Announcements:** A section for notifications.
- Get your OTR:** A section for One Time Registration.

The chatbot interface shows the following interactions:

- A user asks: "Please tell me Eligibility for PMSSS".
- The bot responds with the eligibility requirements for the scholarship.
- A user types a message: "of scholarships was Rs.2,000/- for boys and Rs.2,250/- for girls w.e.f. FY 2019-20. The".
- The bot continues the conversation.
- A user starts the eKYC process by entering their Aadhaar number.
- The bot prompts the user to enter an OTP.
- The user enters the OTP, and the bot processes the verification.

WorkFlow Of Our Solution : WorkFlow Of Our Solution : WorkFlow Of Ou



Digital Transformation of PMSSS for Seamless Scholarship Disbursement



Explanation of the Solution

Student Registration & Document Submission:

- Students register via Aadhaar-based eKYC and receive an OTR number for future logins.
- Documents are fetched via Setu API, uploaded digitally, and verified with OTP based digital signatures for authenticity.

Officer Workflow:

- Officers digitally review and verify student documents, eliminating the paperwork.
- Verified applications are automatically forwarded to Finance, with real-time tracking to reduce delays.

End-to-End Automation:

- Fully automated workflows streamline the entire process from submission to Payment.
- Real-time updates and notifications keep both students and officers informed and the chatbot offering instant assistance.

How it Addresses the Problem

Elimination of Submission Delays: We digitized the submission process, replacing paperwork with secure online uploads.

Faster Verification: Automated workflows route documents directly to officers, speeding up reviews.

Enhanced Transparency: Real-time tracking lets students monitor their application status and receive updates.

Simplified Process: A user-friendly platform simplifies document uploads and scholarship applications.

Authentic Submissions: Aadhaar-based eKYC and OTP ensure document authenticity.

Instant Support: An AI chatbot provides real-time assistance and guidance.

Data Privacy and Document Security: Encrypted cloud storage safeguards data and documents, meeting privacy standards.

Automation: Automated workflows streamline document submission, verification, and payments.

Innovation and Uniqueness

Setu API Integration: Streamlined document fetching from government databases.

Digital Signature Integration: Ensures document authenticity and security.

OTR Number System: Simplifies future logins and document retrieval for students.

AI Chatbot Assistance: Provides live support and automated responses, offering a superior user experience.

Cloud Integration: Scalable and secure storage for all documents, allowing future growth without additional overhead.

Real-Time Analytics Dashboard: Provides insights into application trends for data-driven decisions and enhanced service delivery.

User-Centric Design: Creates an intuitive interface that simplifies navigation for all users.

Feedback Mechanism: Integrated tools for continuous improvement based on user feedback.

Multi-Language Support: Enhances accessibility for students from diverse linguistic backgrounds.

How will it Benefit ? How will it Benefit ? How will it Benefit ? How will it Benefit ?



Feasibility And Viability



Feasibility of the Idea

Existing Government Integration: Seamless integration with Aadhaar, Setu API, and PFMS for document verification and fund disbursement.

Cost Efficiency: Eliminates manual paperwork, reduces administrative overhead, and speeds up verification.

Digital India Initiative: Aligned with the government's push towards e-governance, promoting paperless operations.

Cloud Scalability: Cloud-based infrastructure enables the system to handle large volumes of students and documents.

User Familiarity: Students already use Aadhaar for many services, making adoption easier.

Environmental Impact: A fully digital process will reduce the environmental cost associated with paper-based systems, aligning with sustainability.

Automated Workflows: Auto-routing from SAG to Finance Bureau improves processing speed and reduces errors.

Potential Challenges and Risks

Data Privacy & Security: Storing sensitive student data (Aadhaar, bank info) introduces risks of breaches.

Connectivity Issues: Limited internet access in rural areas may hinder students' ability to submit applications and documents.

System Overload: High traffic during peak application periods may cause system slowdowns or crashes.

Authentication Failures: eKYC through Aadhaar may fail due to incorrect biometric data or technical issues.

Digital Divide: Some students and institutions may struggle to adapt to the digital-only format.

Fraudulent Document Submissions: Despite digital verification, there's a risk of manipulated or false documents being uploaded.

Training Gaps: Officers and students may lack digital literacy, leading to improper use of the system.

Strategies for Overcoming

End-to-End Encryption: SSL/TLS encryption for data confidentiality.

OTP-Based Authentication: Multi-factor auth (OTP) for secure logins and digital signatures.

Cloud Scalability: Scalable infrastructure adjusts resources during peak traffic.

Kiosk Integration: Submission kiosks in institutions for areas with poor connectivity.

Digital Signatures: OTP-verified digital signatures for document authenticity.

Fallback for Aadhaar eKYC: Options for manual KYC, SMS OTP, or Gov ID uploads, Setu API Aadhaar verification for quick authentication.

Interactive Chatbot: AI chatbot provides real-time assistance, tutorials and materials available in multiple languages.

Live Timeline Tracking: Real-time application status updates on the dashboard, Email and SMS notifications for all application stages.

Automated Workflow: Digital verification of documents without paperwork, automatically sent to Finance Bureau for payment processing.

Impact And Benefits



Potential Impact on the Target Audience

Students:

- Enhanced access to scholarships through a streamlined digital application process.
- User-friendly interface reduces complexity in document submission.
- Real-time tracking of application status increases transparency.
- Inclusivity for rural students with offline upload options.
- Empowerment via interactive tutorials and multilingual support.

Institutions:

- Decreased administrative workload with automated document verification.
- Improved efficiency in processing applications and disbursing funds.
- Better data management and resource allocation through analytics.
- Enhanced collaboration with government agencies for compliance.

Government Agencies:

- Data-driven insights for effective policy-making and funding allocation.
- Increased transparency in scholarship disbursement processes.
- Enhanced fraud detection capabilities through AI-powered verification.
- Improved accountability and tracking of funds distributed.

Benefits of the Solution

Social Benefits:

- Equity in Education: Promotes equal opportunities for diverse student backgrounds.
- Enhanced Engagement: Interactive platform encourages active student participation.
- Support for Vulnerable Groups: Special features for marginalized communities, ensuring inclusivity.
- Community Building: Fosters a sense of belonging through engagement and support.

Economic Benefits:

- Cost Reduction: Eliminates paper processes, lowering administrative costs.
- Faster Disbursement: Quick scholarship disbursal enhances financial stability.
- Local Economic Boost: Timely aid positively impacts local businesses.
- Job Creation: Increased efficiency may lead to new job in tech and

Environmental Benefits:

- Reduced Paper Usage: Digital system minimizes printing and storage waste.
- Sustainable Practices: Promotes digital literacy and environmental awareness.
- Lower Carbon Footprint: Reduced physical travel for document submission decreases emissions.



RESEARCH AND REFERENCES



Research Work and References:

- PMSSS Website
- MahaDBT Website
- AICTE Pradhan Mantri Uchchatar Shiksha Protsahan Yojana (PM-USP)
- AICTE Scholarship National Scholarship Portal
- National Scholarship Portal (NSP)
- AICTE JK Scholarship
- AICTE JK Scholarship for Jammu & Kashmir Students

Additional Research Work:

- Studied the MahaDBT Platform for its implementation on the scholarship disbursement process.
- Indian Scholarship Scheme (2023 – 2024) research paper.
- 7 Scholarship Schemes for JK Students

Links:

<https://www.aicte-jk-scholarship-gov.in/>

<https://scholarships.gov.in/>

<https://www.aicte-india.org/PMSSS%202023-24/>