PROJECT ABSTRACT

Campus Parking Sticker Issuance Portal

A web portal for campus parking sticker issuance: online application with document upload, a step-by-step status tracker, QR-coded digital stickers and an admin verification queue. Delivered built-to-order with the complete web application, report, PPT and viva kit.

01. Title

Campus Parking Sticker Issuance Portal

02. Introduction / Background

Most campuses require a parking sticker on every student and staff vehicle, yet the issuance process is still a paper form, photocopies of the RC and licence, a queue at the security office, and weeks of not knowing whether the application moved at all. Documents get lost, handwriting is misread, and the security staff who verify everything have no tools beyond a filing cabinet. A web portal moves the whole pipeline online: students apply with vehicle details and document uploads, pay the fee, and watch a live tracker move from submitted to verified to printed to ready-for-collection — while the security office works through a digital verification queue with approve, reject and resubmit actions.

03. Problem Statement

Paper-based sticker issuance is slow, opaque and error-prone: applicants make repeated trips to check status, verifiers re-enter data from forms, and there is no audit trail of who approved what. The project addresses this with a portal covering the full lifecycle — application with validated uploads, fee payment, document verification queue, QR-coded sticker generation, collection tracking and renewal reminders — with a status timeline visible to the applicant at every step.

04. Objectives

- Accept online sticker applications: applicant, vehicle and registration-number details.
- Collect document uploads (RC, driving licence, college ID) with format and size validation.
- Process the sticker fee online with a receipt and refund path for rejections.
- Give applicants a live status tracker: submitted → verifying → printing → ready for collection.
- Give the security office a verification queue with document preview and approve/reject/resubmit.
- Generate QR-coded digital stickers verifiable by a scan at campus gates.
- Send renewal reminders before the academic-year expiry.
- Deliver the complete student kit: working web app, database schema, report, PPT and viva Q&A.;

05. Proposed Methodology

Built as a three-tier web application with a document pipeline. (1) Application module: forms with field validation (registration-number format, file types/sizes) and a payment step with receipt generation. (2) Verification module: a queue where verifiers preview documents side-by-side with the entered data, and every decision (approve, reject with reason, resubmit request) is logged with the verifier's ID for audit. (3) Issuance module: approved applications generate a sticker record with a unique QR payload; the tracker advances through printing to collection, and renewals are scheduled by academic year. The methodology chapter documents the verification state machine, the QR payload design and test cases for invalid documents and duplicate registrations.

06. System Architecture / Working

A student fills the application form, uploads RC, licence and ID, and pays the fee online, receiving an application ID. The security office sees the application in its verification queue, previews each document, and approves it or asks for resubmission with a specific reason (e.g. blurry licence photo). On approval the sticker record is created with a QR code encoding the registration number and validity; the applicant's tracker moves to printing and then ready for collection at the security office. Gate staff scan the QR to verify a vehicle instantly, and the system flags expired stickers and sends renewal reminders before the new academic year.

07. Hardware / Software Requirements

- Server: shared hosting/VPS or college intranet; client needs only a browser.
- Backend: PHP (Laravel) or Node.js (Express); file storage for document uploads.
- Database: MySQL/PostgreSQL — applications, documents, verifications, stickers.
- Frontend: responsive HTML/CSS/JS; QR generation library for sticker codes.
- Payment: UPI gateway integration (test mode acceptable for the demo).
- Optional: QR scanner page for gate staff on a phone browser.

08. Expected Outcomes

- A working portal covering application, payment, verification, issuance and renewal.
- An auditable verification queue: every decision logged with verifier identity and reason.
- QR-coded stickers verifiable by scan at gates.
- A complete report (SRS, ER diagram, verification workflow, test cases), PPT and viva Q&A.;

09. Applications

- Digitising campus vehicle administration and gate security.
- Teaching document-workflow design: upload validation, verification queues and audit trails.
- Reusable for ID cards, hostel allotments and other campus permit processes.

10. Future Scope

- ANPR camera integration for automatic gate verification.

- Challan module for parking violations linked to the sticker record.
- Zone-based allocation with live occupancy counts per parking zone.
- Alumni/visitor temporary e-passes with time-boxed validity.