

CASE STUDY

UPSRTC is set to strengthen ITS in Public Transportation System with a vision to provide safe, reliable & secured services with SugamYatra harnessing the power of technology for public good.



The Department

Uttar Pradesh State Road Transport Corporation (UPSRTC), established in the year 1947, has been serving to almost 65Cr+ passengers annually. The Department has laid down an objective of providing safe, reliable & secured travel services to the citizen.

Industry

Public Transport

Region

Uttar Pradesh

Employees

48,000+ Employees

Requirement

UPSRTC is looking for undertaking a data-led transformation across all the processes at the Depot (Administration & Operational) to bring transparency & accountability with an objective to provide better services to the public and improve efficiency in the system.



12,000+
Buses



100+
Depot



300+
Bus Station



100+
Workshop

Challenges

- 01** Team at UPSRTC across multiple Depot prepares their own set of time table and schedules in their own silos which are not synchronized with other Depot members leading to bunching of buses at various junctures.
- 02** Crew & vehicle mapping and duty charts are not readily accessible to the Crew resulting in delays and on-the-fly changes in the schedule creating a chaos at the time of dispatch of the buses.
- 03** The team at OneTouch Direct struggled to meet various client requests using a basic spreadsheet-based reporting system. This affected client satisfaction and the ability of the team to analyze data effectively
- 04** Manual registers are being maintained for reporting the issues in the buses which often are not addressed timely leading to failures during the journey creating dissatisfaction amongst the passengers.
- 05** Centralized monitoring dashboard is missing at the Depot level to obtain a single window information about the complete operations at the Depot and further at the Head Office.





Solution

- With the implementation of SugamYatra System, UPSRTC will have a centralized Depot Fleet Operations System enabling the Depot to maintain and manage their respective vehicle lifecycle, time-table and schedules along with a comprehensive bunching report to pre-plan the system accordingly
- The system shall optimize the overall planning of the Depots to reduce the bunching with the help of efficient route rationalization practices so that the services are available to the citizen in periodic intervals as per the demands.
- Sugam Yatra - Inspection & Workshop system will ensure that all the requisite inspections of the vehicles are undertaken and any issues that are being reported by the Driver/Conductor is being addressed within a defined SLA ensuring net zero tolerance to any mishaps arising due to bus non-functioning.
- With the implementation of Sugam Yatra, the critical parameters are being made available on the powerful Sugam dashboard ensuring that the adequate decisions can be taken for the critical areas requiring immediate attention.
- From manual processes to automated insights with boundless capabilities of the cloud environment, UPSRTC shall redefine its data landscape.
- With a comprehensive Sugam System comprising of Depot Fleet Operations, Route Rationalization, Asset & Inventory, Workshop & Maintenance, HRMS, Accounts & Finance, Passenger Information System, SugamRADAR, Passenger Loyalty System - UPSRTC is set to transform and strengthen its public transportation services for public good.

Impact

Availability of online timetable along with any bunching information



Efficient Dispatch mechanism to ensure on-time, every-time performance



Enhanced data accessibility with powerful dashboards customized at every levels



Adherence to the regulations for Driver & Vehicle inspections and on-time maintenance



Integrated comprehensive system leading to better data-led transformation - Fleet Operations, Lifecycle Management, Asset & Inventory, Workshop & Maintenance, HRMS, Accounts & Finance, Passenger Loyalty & Feedback Mechanism, Passenger Information System

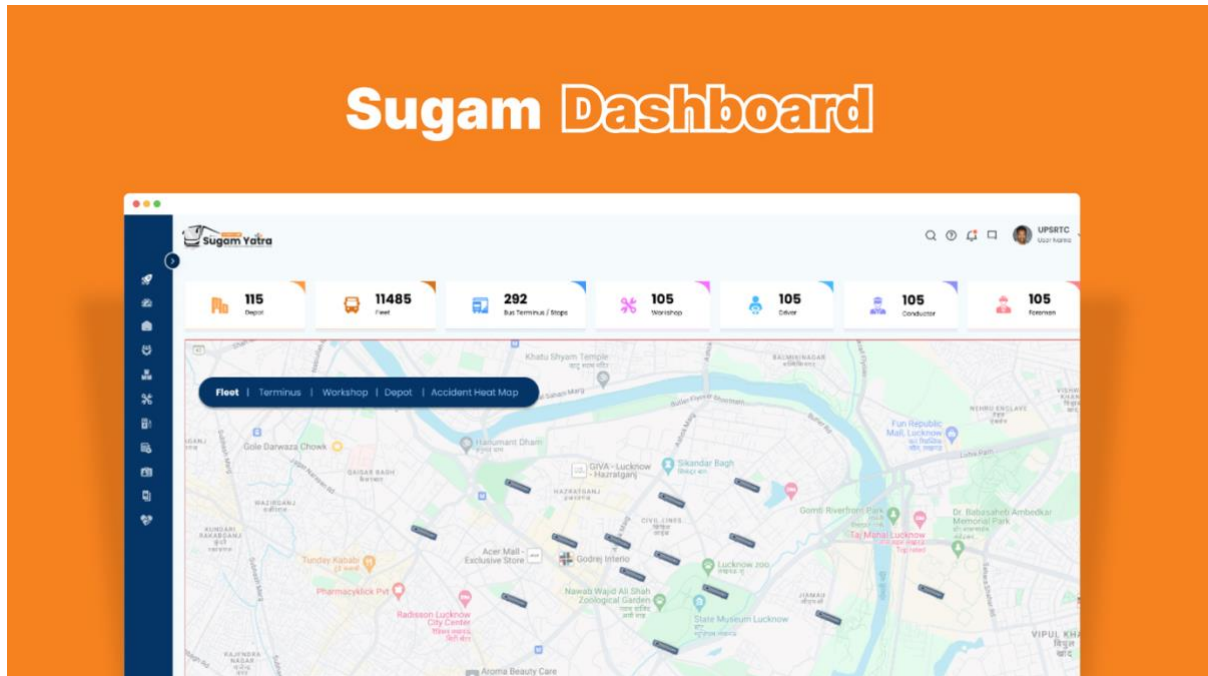


SugamRADAR to enable passengers to check the services at anytime



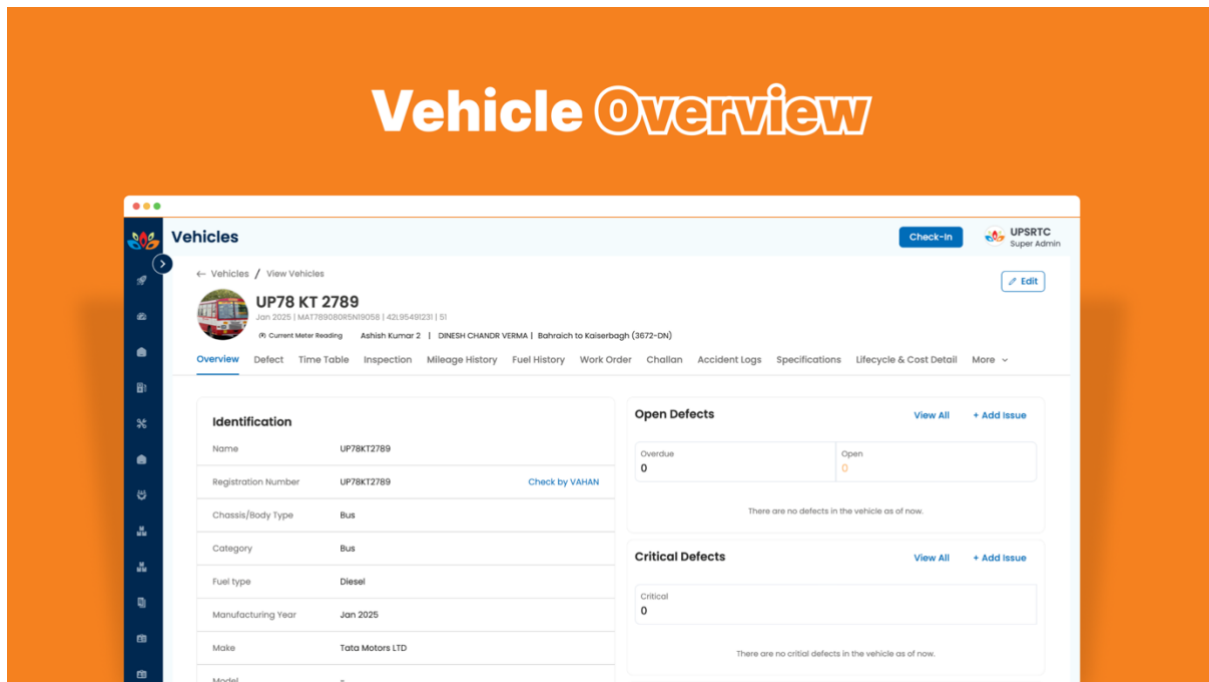
SUGAM YATRA Project Images

1. Sugam Dashboard -



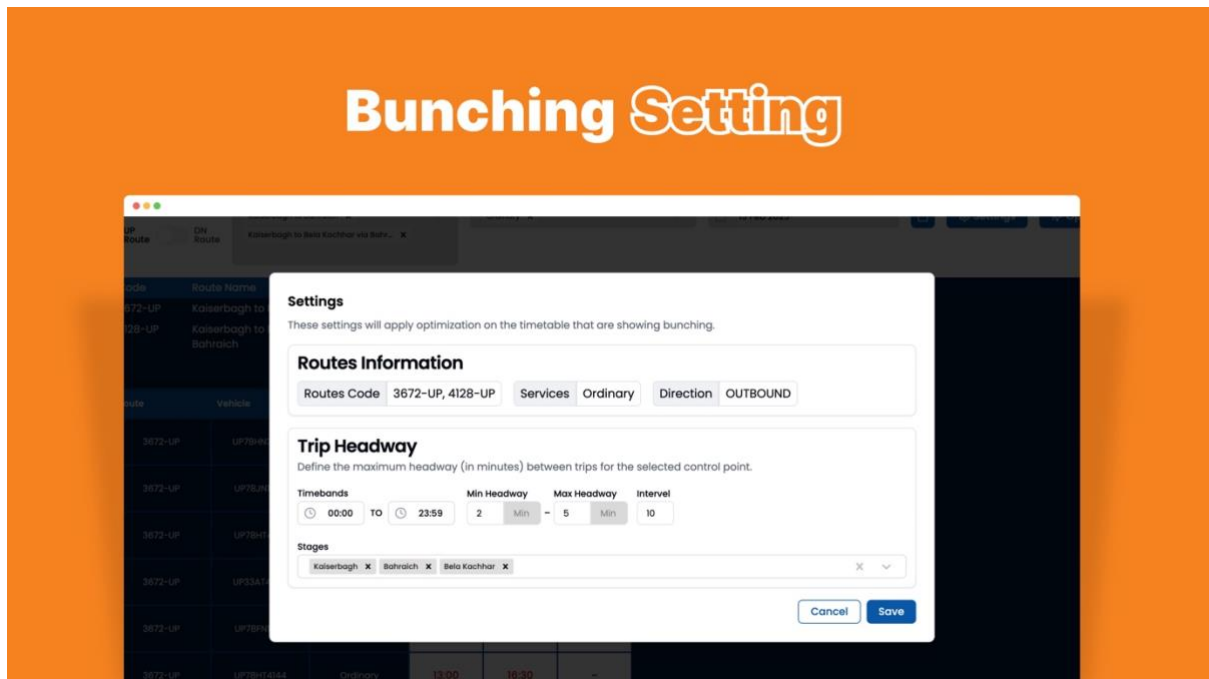
A dynamic dashboard that consolidates complex data from multiple sources into a single interface, providing real-time bus locations and customized views tailored for each user.

2. Vehicle Overview



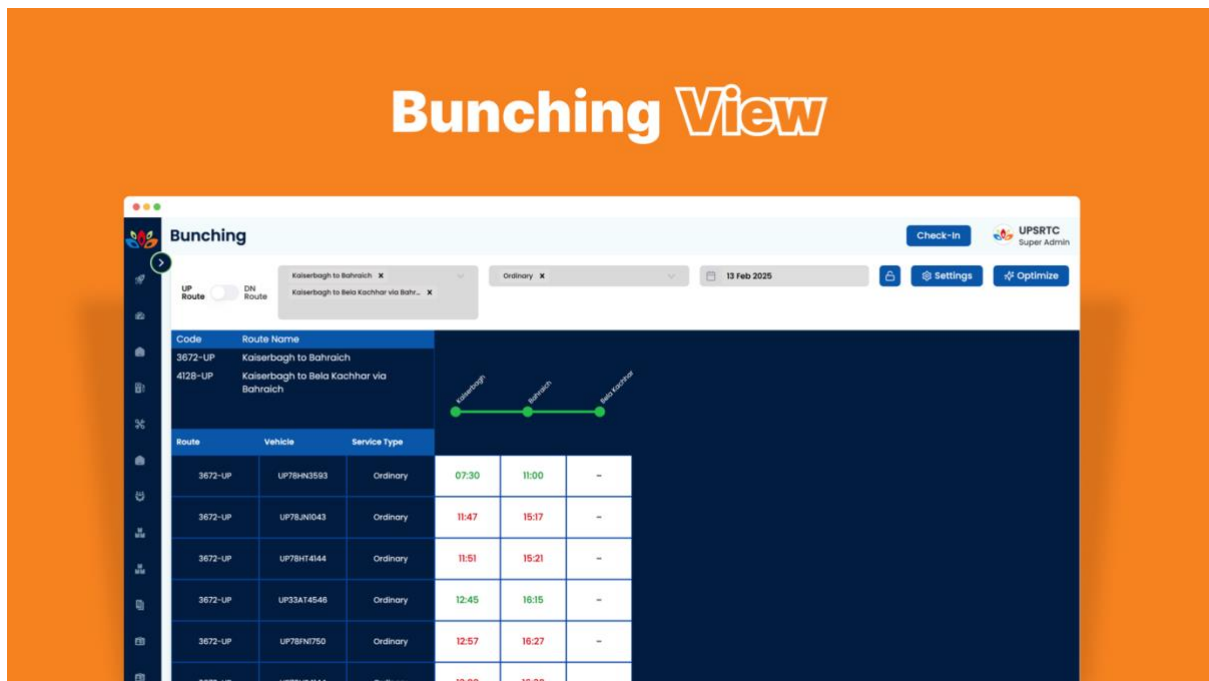
All details related to a vehicle at one place

3. Bunching Setting



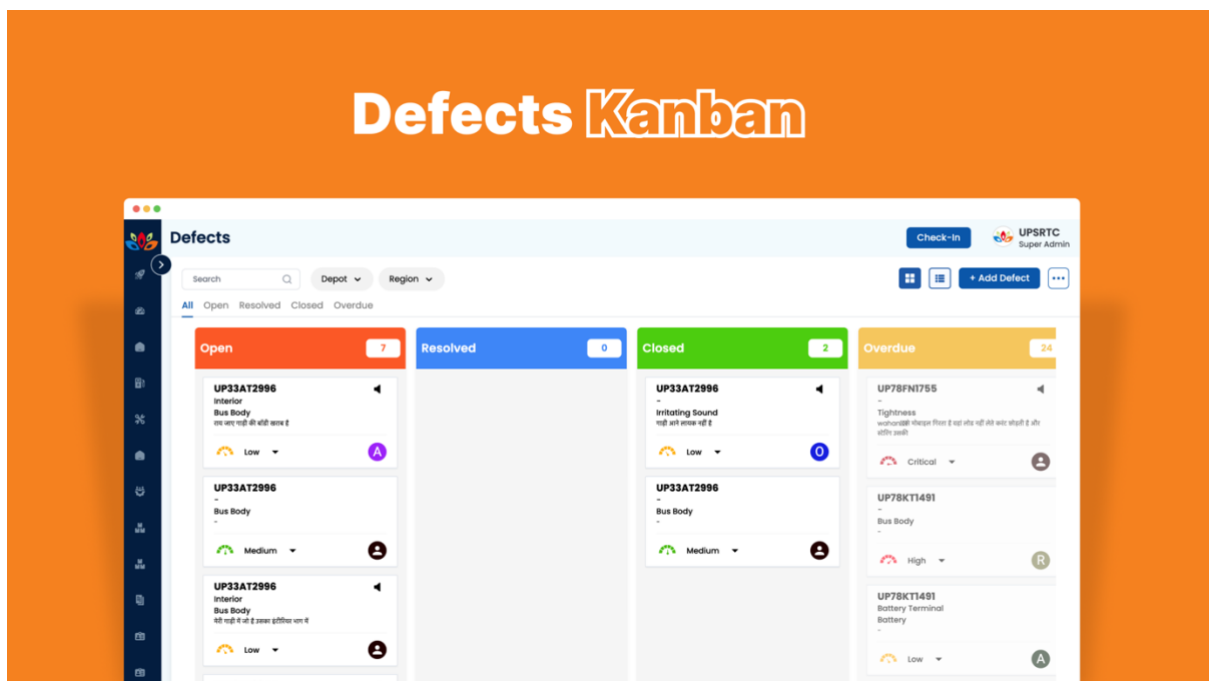
Build schedules that factor in even the most complicated preferences — from break times to pull releases and changeovers — to increase efficiency, while meeting all your regulatory requirements.

4. Bunching identification View



Our powerful and rapid optimization algorithms make it easy to create multiple scheduling scenarios, fast, and compare different outcomes until you find the ideal solution.

5. Defect View



The Sugam Yatra Kanban view streamlines defect management by providing a visual workflow, ensuring real-time tracking, prioritization, and faster resolution of vehicle issues.

6. Defect List view

Defects List View

set Type	Depot	Region	Category	Sub Category	Description	Audio Clip	Status	Feedback
hicles	Kaiserbagh	Lucknow	Diesel leak	-	गाड़ी में डीजल लीक हो रहा है	▶ सुनने के लिए क्लिक करें	OVERDUE	
hicles	Kaiserbagh	Lucknow	Oil Filter	-	ऑयल फिल्टर में दिक्कत आ रही है	▶ सुनने के लिए क्लिक करें	OVERDUE	
hicles	Kaiserbagh	Lucknow	Not Taking Load	-	गाड़ी लोड नहीं ले रही है	▶ सुनने के लिए क्लिक करें	OVERDUE	
hicles	Kaiserbagh	Lucknow	Bus is just smoking	-	गाड़ी से धुआं निकल रहा है	▶ सुनने के लिए क्लिक करें	OVERDUE	
hicles	Kaiserbagh	Lucknow	Bus is just smoking	-	गाड़ी धुआं दे रही है	▶ सुनने के लिए क्लिक करें	OVERDUE	
hicles	Kaiserbagh	Lucknow	Engine	Fuel Injector	गाड़ी के इंजेक्टर में दिक्कत आ...	▶ सुनने के लिए क्लिक करें	OVERDUE	
hicles	Kaiserbagh	Lucknow	Engine	Flywheel	गाड़ी के फ्लाइंग व्हील में दिक्कत...	▶ सुनने के लिए क्लिक करें	OVERDUE	
hicles	Kaiserbagh	Lucknow	Suspension	Rear Suspension	घड़ी की पिछली कगारी में दिक्कत...	▶ सुनने के लिए क्लिक करें	OVERDUE	
hicles	Kaiserbagh	Lucknow	Irritating Sound	-	गाड़ी के इंजन से अप्पन्न आ रही है	▶ सुनने के लिए क्लिक करें	OVERDUE	

The defect list view in Sugam Yatra provides a comprehensive snapshot of all reported issues, including voice recordings from drivers, enabling quick review and resolution without the need to open full details

7. Timetable View

TimeTable View

Add Timetable

Select Route: Alambagh to Gorakhpur via Ayodhya

Timetable Type: Normal | Service: Search... | Depot Time: Select Depot Time | Bus Station Date Time: Select Bus Station Date Time

End Date: Select End Date | Vehicle: Search... | Driver 1: Search... | Driver 2: Search...

Conductor: Search... | Alternate Day: | Select Days: M T W **T** F S S | Trip Count: 2

Alambagh to Gorakhpur via Ayodhya

UP - Shatabdi	DN - Shatabdi
Service Name Shatabdi	Service Name Shatabdi
Total Distance 0 km	Total Distance km
Total Run Time 00:00	Total Run Time
Type Inter Region	Category A
Category A	Number of Stops 4

8. Sugam Slip (Duty Slip)

SUGAM Slip

Schedule Out Time	Actual Out Time	Out Station	Schedule In Time	Actual In Time	In Station
12:00	05:15		N/A		

The **Sugam Slip** acts as a **consolidated trip report**, summarizing waybill details, trip metrics, crew information, and financial insights. It visually presents key data such as scheduled vs. actual trip timings, revenue, passenger count, and compliance checks, aiding in efficient trip monitoring and decision-making.

9. Replacement Analysis

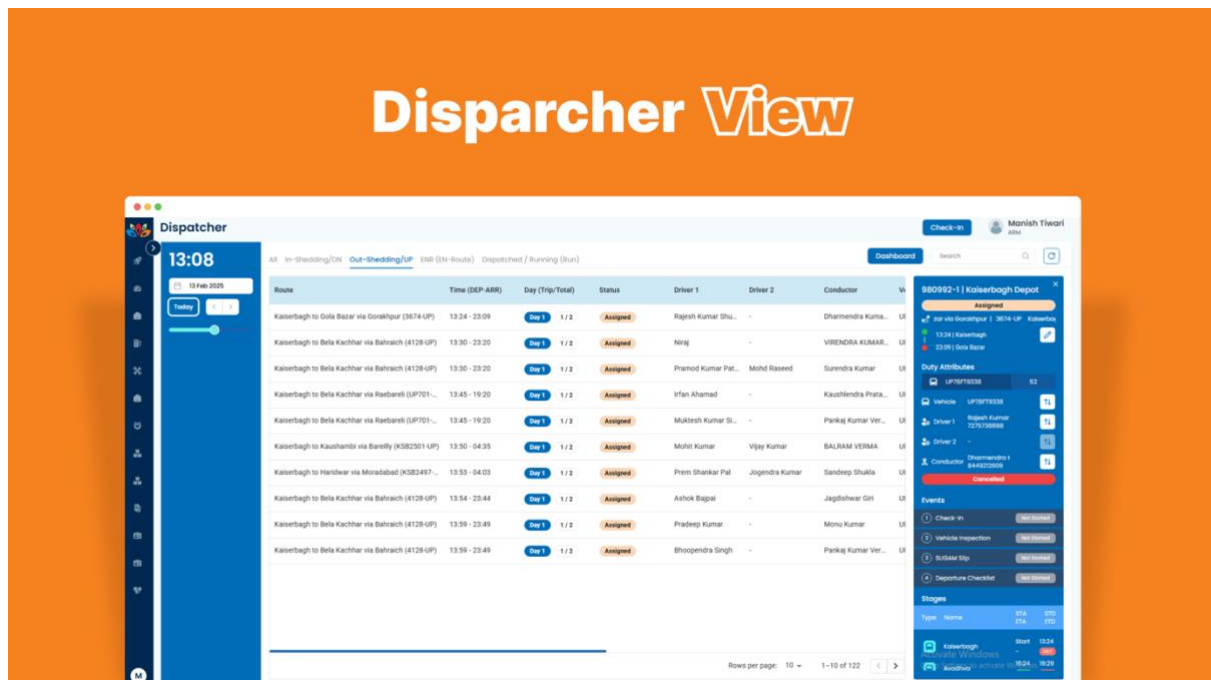
Replacement Analysis

Year	Service Cost	Fuel Cost	Total Cost
Year 1	₹ 1000	₹ 2,250	₹ 3,250
Year 2	₹ 1000	₹ 2,250	₹ 3,250
Year 3	₹ 1000	₹ 2,250	₹ 3,250
Year 4	₹ 1000	₹ 2,250	₹ 3,250
Year 5	₹ 1000	₹ 2,250	₹ 3,250
Year 6	₹ 1000	₹ 2,250	₹ 3,250
Year 7	₹ 1000	₹ 2,250	₹ 3,250
Year 8	₹ 1000	₹ 2,250	₹ 3,250
Year 9	₹ 1000	₹ 2,250	₹ 3,250

The **Replacement Analysis** module in **Sugam** helps optimize vehicle lifecycle management by

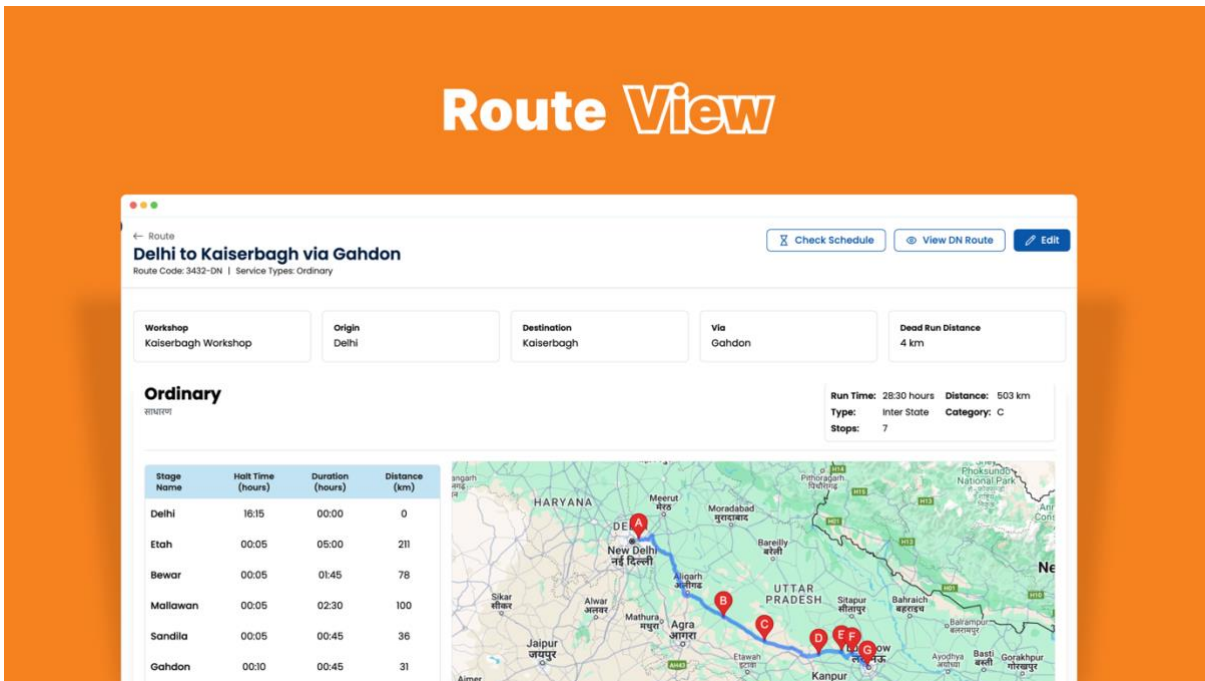
analyzing costs, efficiency, and replacement timelines for improved operational decision-making.

10. Dispatcher View



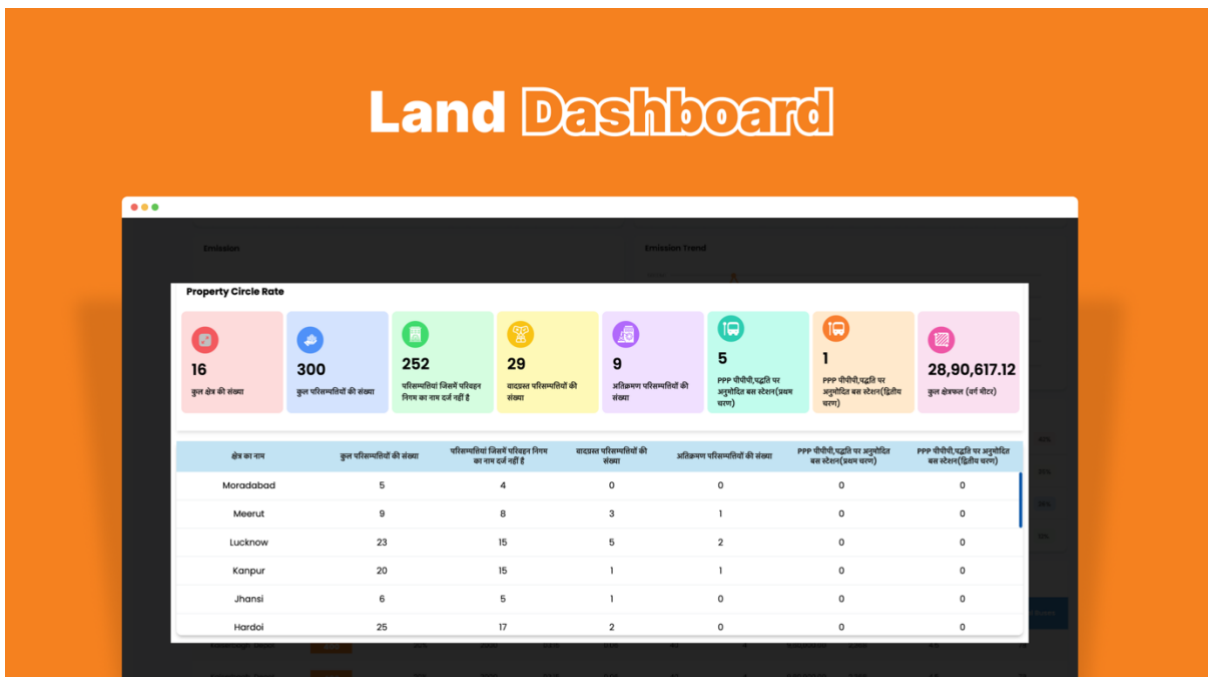
The **Advanced Dispatcher View** in **Sugam** provides real-time monitoring and management of trips, enabling seamless assignment, tracking, and operational efficiency for better fleet coordination.

11. Route view



The **Detailed Route View** page in **Sugam** provides a comprehensive breakdown of the journey, including origin, destination, via points, total distance, and estimated run time. It also features an interactive map, scheduled halts, and stop-wise travel durations to enhance route planning and operational efficiency.

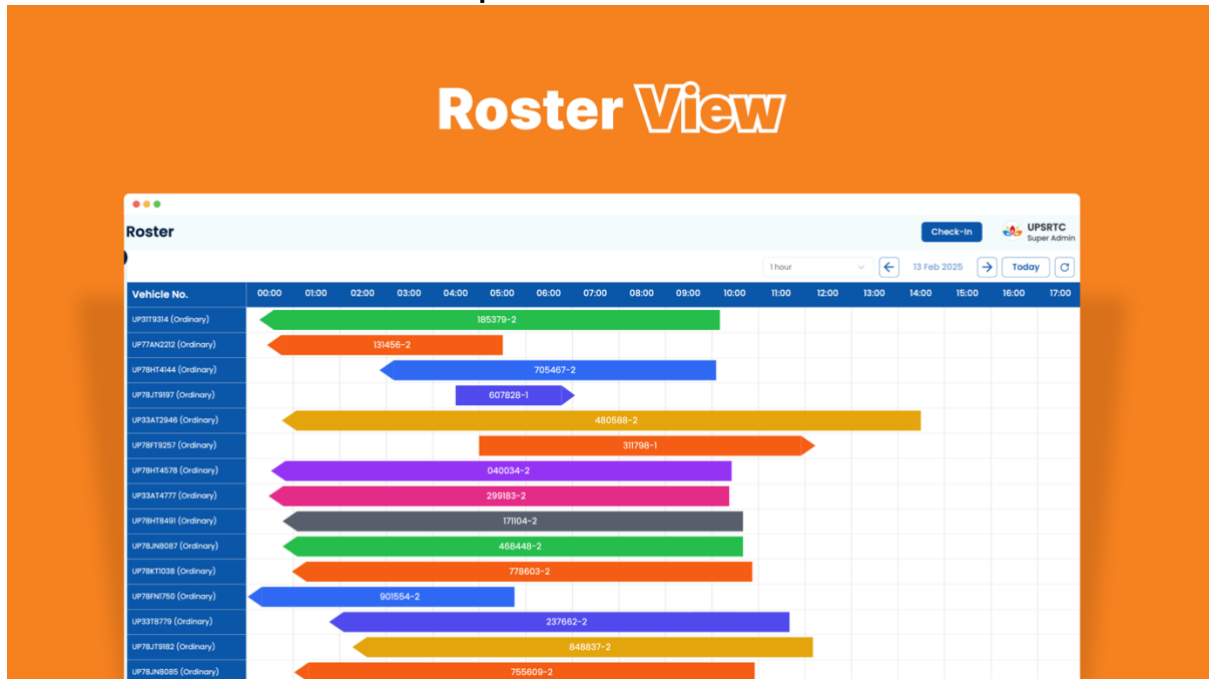
12. UPSRTC Land Details



The **Land Dashboard** provides a structured view of property-related data, featuring a **dashboard widget** summarizing key statistics and a **list view** for detailed insights. The

dashboard displays total land zones, registered properties, pending approvals, and PPP-based development stages, while the list view organizes data by region, showing property counts, compliance status, and land utilization metrics.

13. Vehicle and Crew Roster Graphical View



The **Roster View** provides a structured schedule for vehicle operations, ensuring efficient fleet management. It features a **timeline-based dashboard** where each vehicle's availability, assignment, and duty hours are visually represented. Each row corresponds to a vehicle, and colored bars indicate different trips, durations, and statuses. The system allows users to filter schedules by date and time intervals, ensuring smooth coordination. Additionally, the **check-in feature** helps administrators track real-time vehicle status, enabling better planning and operational efficiency.