

SSR Innovation Lab

Saint Sita Ram Innovation Lab Pvt. Ltd.



Deep Tech | Mobility Innovator

Fuel-saving intelligence, mobility, fuel station and scalable licensing



Fuel Tech



6

India Patents



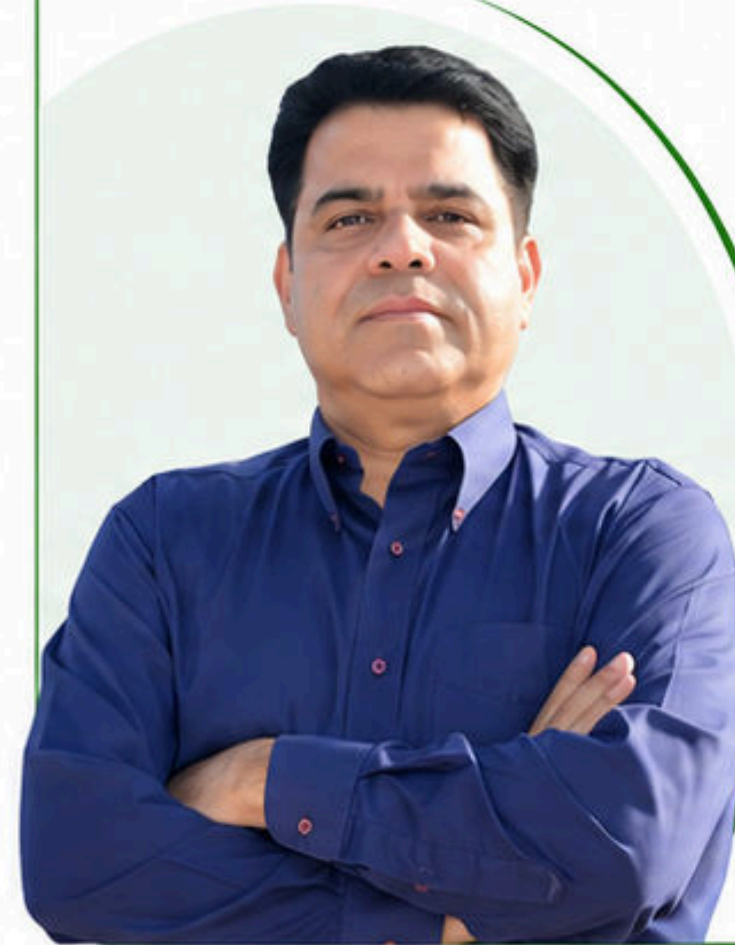
2

US Patents



1 Million

FUELabc Map
Downloads



Lalit Mohan

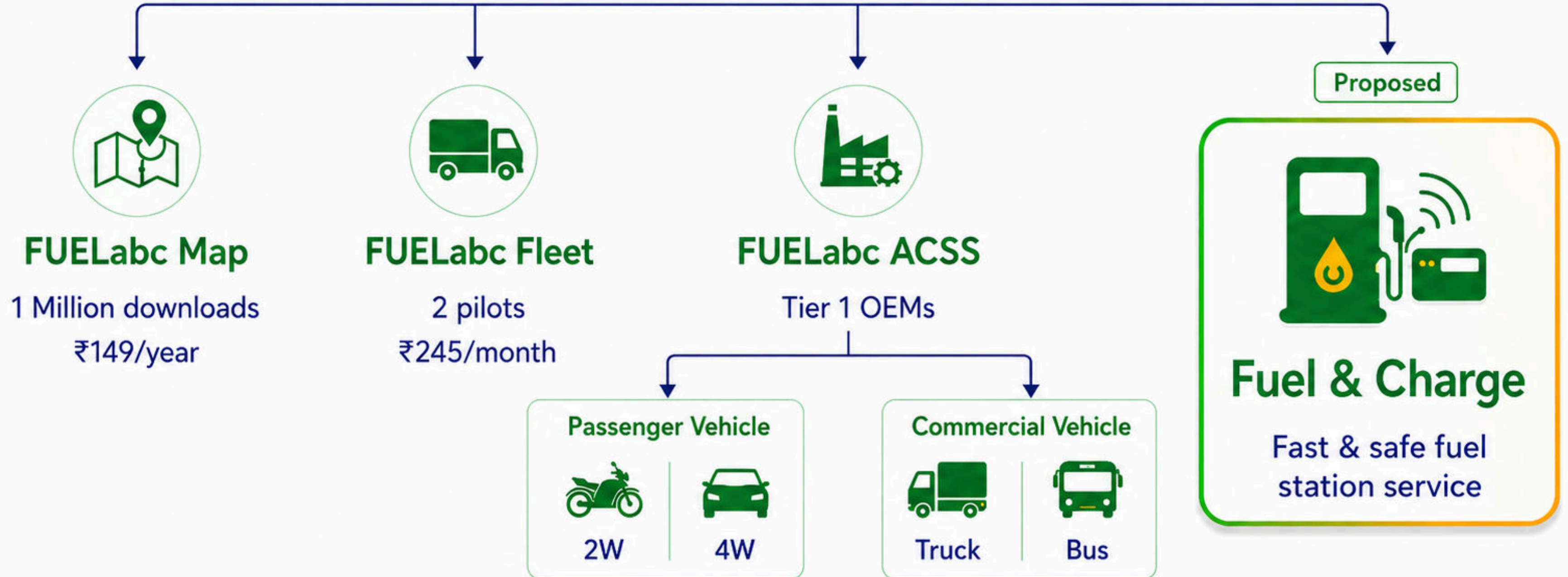
Founder

Ex-IITian with 30 years in product development, 13 patents, including 3 US patents; 4 commercialized



Deep tech extension upto 2036
is being processed by DPIIT

Fuel Tech



i **ACSS** = Adaptive Cruise Speed Selection



FUEL & CHARGE

FUEL & CHARGE

An automated **Fuel, Charge, Air Refill & Payment system** built for fuel stations & vehicle owners.

	PATENT TITLE	Fuel & Air Refill System & Method thereof
	PATENT APPLICATION NO.	202411085199 (Year 2024)
	PUBLICATION NO.	IN 202411085199 A1
	STATUS	Published
	PCT FILED	Multi-countries



Fuel & Amount Mismatch

Wrong fuel or wrong amount creates disputes, delay and customer dissatisfaction.

1. Fuel Mismatch



- ✓ Customer requests one fuel, another is dispensed
- ✓ Can damage vehicle and trigger conflict

2. Amount Mismatch



- ✓ Customer orders ₹2000, higher amount dispensed
- ✓ Leads to billing disputes and delays



Common impact: **disputes, delay, trust loss**

Manual Billing & Overbilling

Slow manual processes and tank-capacity mismatch create queues, disputes and trust issues.

3. Manual Billing



- ✓ Manual customer and vehicle entry slows fueling
- ✓ Creates queues, congestion and pollution

4. Overbilling / Tank Capacity Mismatch

Kanpur petrol pump scam: 52 litres billed for 45-litre tank

Pumped-up petrol bills, digital fraud: Overbilling scam exposed in Kanpur

Tank capacity

45 L

VS

Fuel billed

52 L

- ✓ Fuel billed may exceed actual tank capacity
- ✓ Cheating risk leads to dispute and trust loss



Common impact: slow operations, queue build-up, overbilling risk

Fuel Station Problem 5

Unnecessary air pressure checking for fully filled tyres

Checking each tyre pressure causes delays, congestion, pollution & dealer loss during peak hours.



Peak-hour
dealer loss



Congestion &
pollution



Only **1** tyre needed refill
3 tyres were already at **33 PSI**



Unnecessary
pressure check



One product is solution to all the mentioned problems

FUEL & CHAṚGE

System Architecture

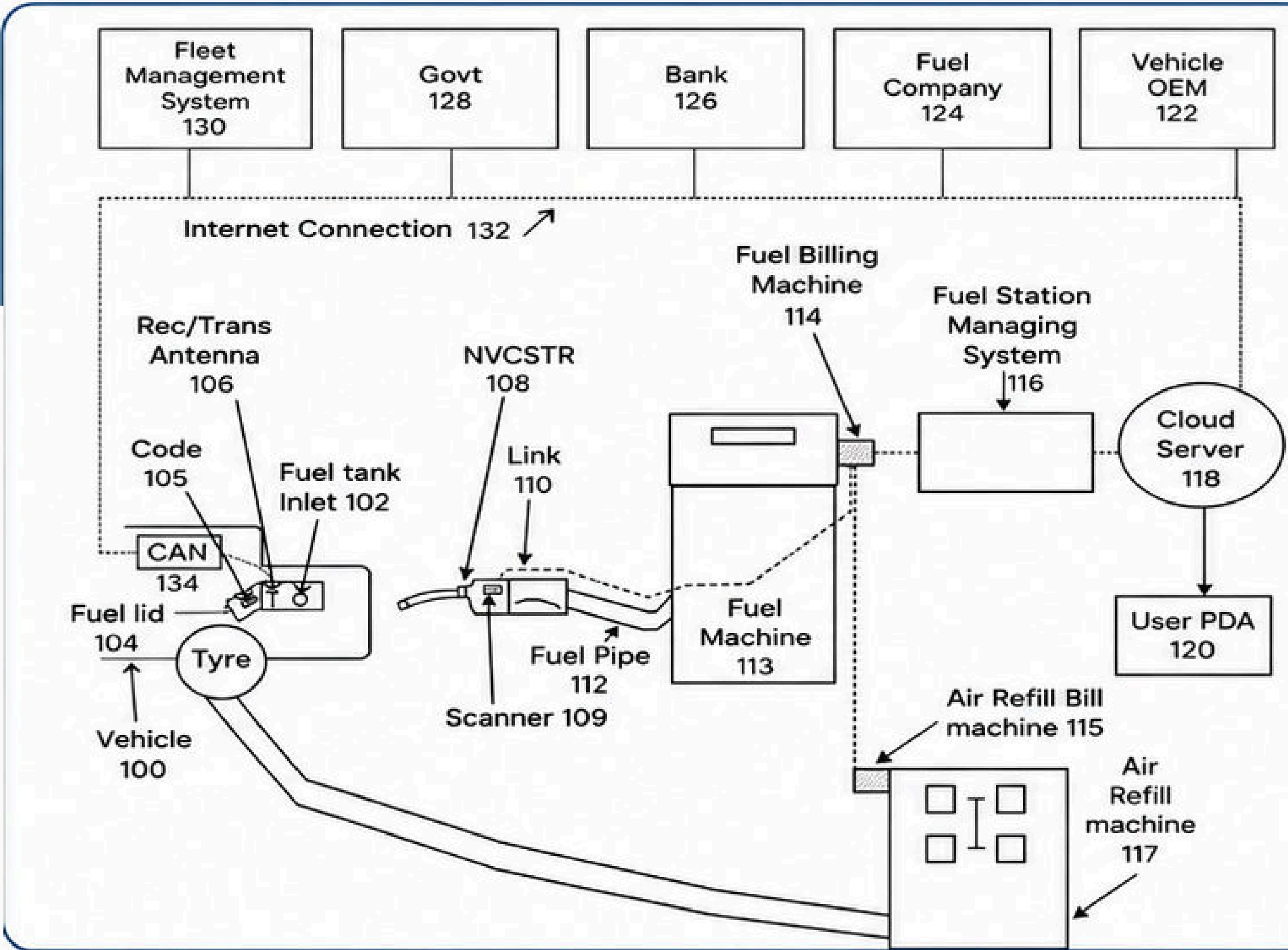
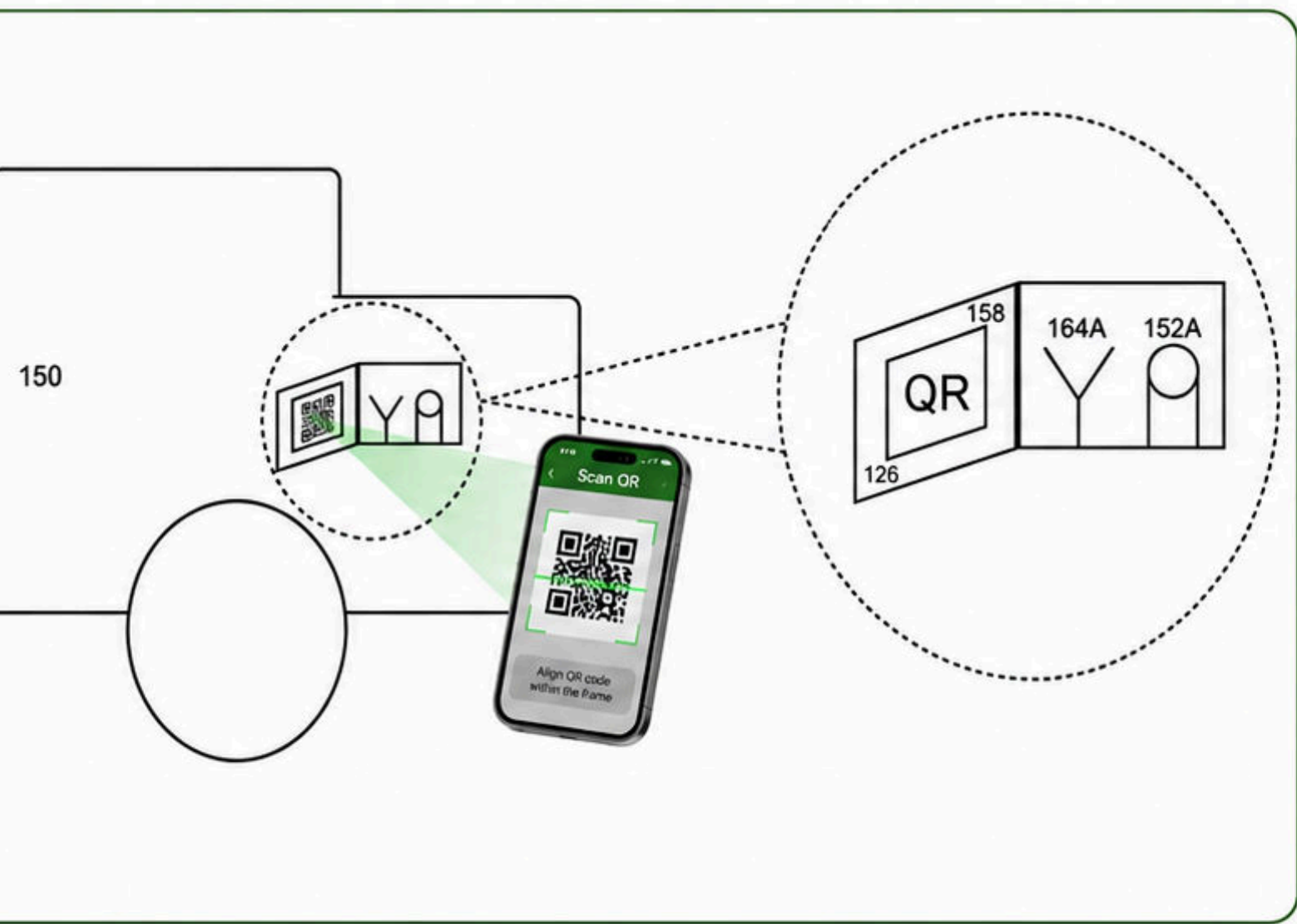
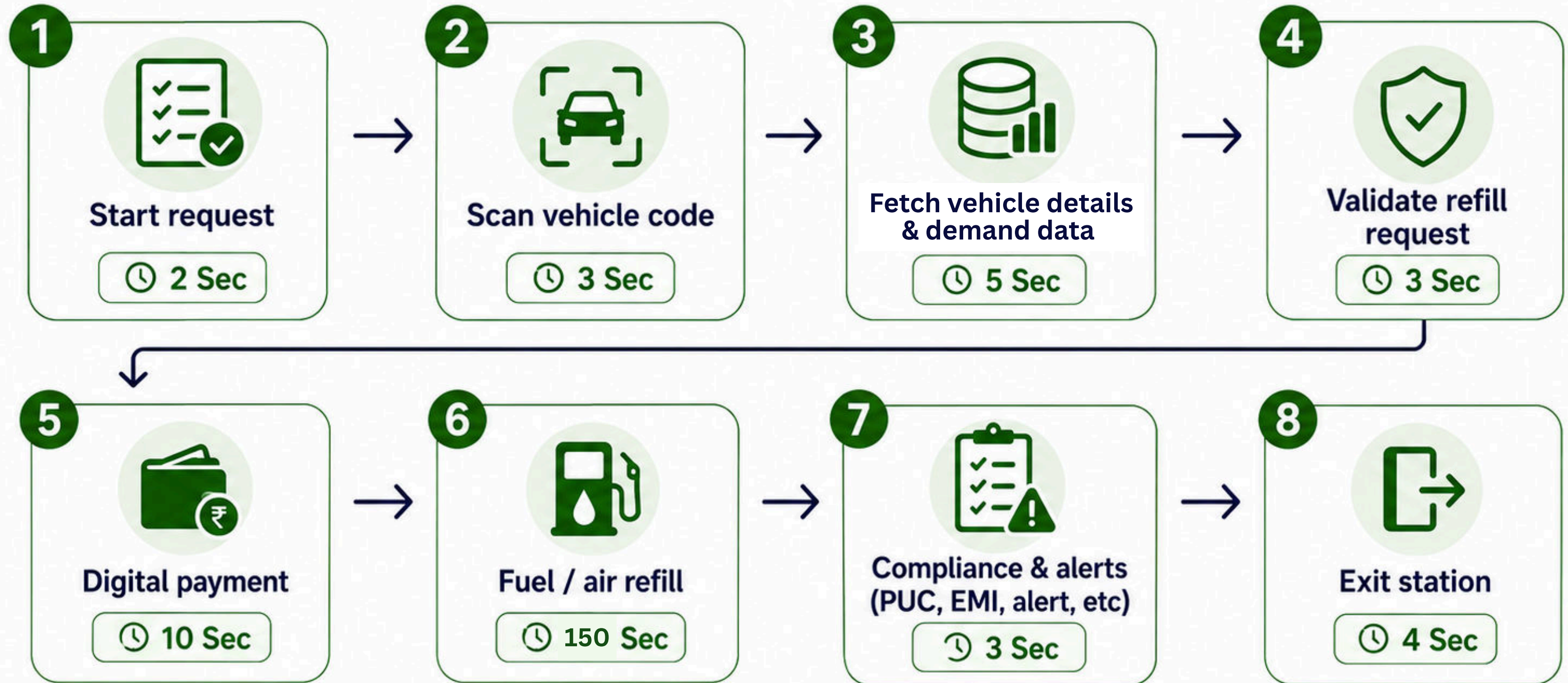


Figure 5A of Patent Application 202411085199

Figure 1B of Patent Application 202411085199

Process Flow

FUEL & CHAṚGE



Total time (including fuel / air refill): ~3 min (180 Seconds)

Faster, Safer & More Transparent Fueling

Key customer benefits at one glance

01 Stay Time Reduced to Half

Faster refilling



✓ Less waiting at the pump

02 Detailed Fuel Statement

Manual bill → Email / WhatsApp statement



✓ Clear records for fuel and expenses

03 Compliance at the Pump

Routine payments in one place



✓ Simple and convenient compliance

04 Stolen Vehicle Tracking

Fuel-station checkpoints support tracking



✓ Coordinates recorded at every station



More customer value at one glance

05

Better AQI at Fuel Station

Less pollutants. Better health.

-50%

pollutants at
fuel stations



Less idling at the pump



Correct tyre pressure,
cleaner air

06

Easy Bank EMI

EMI follows vehicle usage, not the calendar



Pay ₹100 to bank for each ₹1000 fuel bill

07

Vehicle Service Based on Fuel Consumed

Not on the basis of kilometres run



Service due after
1,000 L
fuel consumed



Tracks total fuel consumed



Triggers service reminder



Supports timely maintenance

Vehicle Maintenance



Total fuel consumed

1,000 L

1,000 L

0 L

1,000 L



Service Due

Schedule maintenance
after 1000 L fuel
consumed

Dealer's Delight — Key Benefits at One Glance

Single-slide summary of dealer advantages

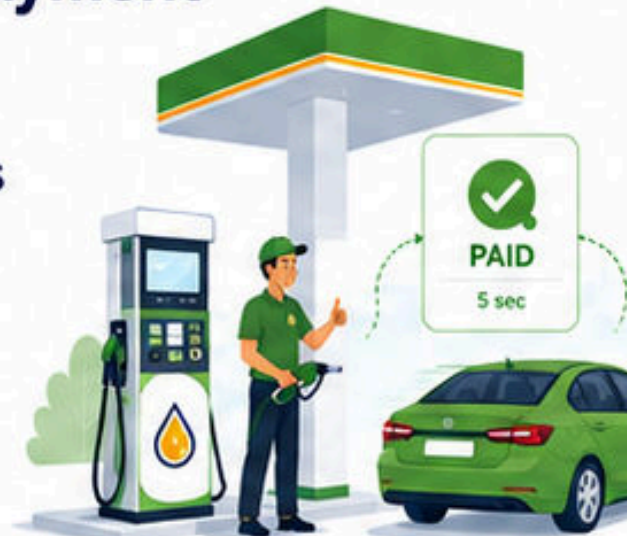
01 More Business

- Refuel more vehicles in peak hours
- Stay time reduced to half



02 Assured Payment

- No after-refill escapes
- Payment completed within 5 seconds



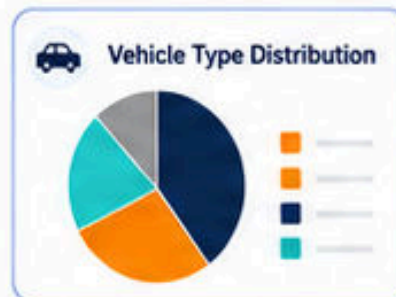
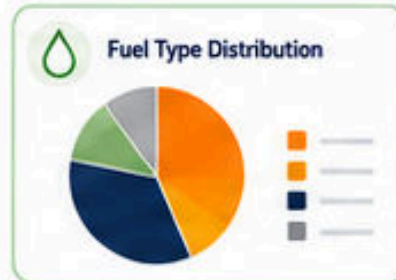
03 Clean Environment

- Better health of workers & visitors
- Less medical leaves



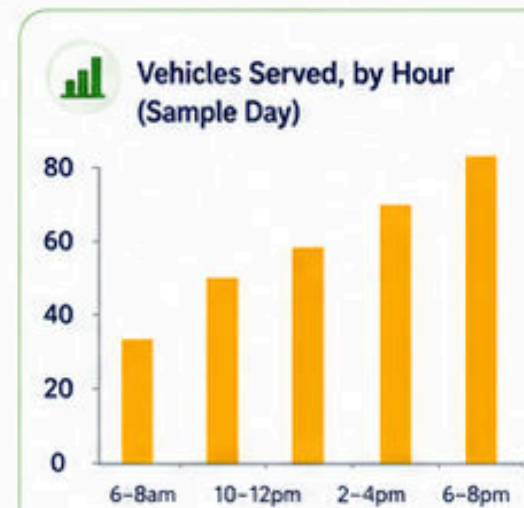
04 Customer Profile Assessment

- Plan marketing by customer profile
- Fuel type & vehicle type distribution insights



05 Rush Planning

- Plan manpower & maintenance operations
- Identify peak hours before they arrive



06 Air Machine Management

- Track tyre pressure and queue status
- Monitor compressor pressure & air refill flow



Benefits to Government & Oil PSUs

Key institutional benefits at a glance



Benefits to Government



Better compliance for Insurance, PUC, RC and Driving Licence dues after fuel refill



Single-click payment of compliance dues along with fuel refill



Real-time stolen vehicle tracking supports faster recovery



Live alerts help police and enforcement agencies act quickly



Challaned vehicles can be flagged through red-notice alerts



Faster enforcement and stronger public safety



Fuel rationing support during emergency conditions



Benefits to Oil PSUs



Fuel price visibility improves customer awareness and transparency



“Jago Grahak Jago” style awareness strengthens informed fuel purchase decisions



Faster refills reduce queue time and daily station congestion



Lower idling helps reduce carbon footprint at fuel stations



Traceable refill records reduce scope for fuel adulteration



Better monitoring improves fuel quality control and transparency



Higher customer trust across connected stations

1 Execution Plan (6 months)

PHASE 1 (2 months)

Consumer App & POS for Fuel Station



6 MIN → 4 MIN **Save 2 MIN**

PHASE 2 (4 months)

OEM Cloud / HMI Integration



4 MIN → 3 MIN **Save ~1 MIN**



Total Time
Reduced

6 MIN



3 MIN

50%
Time Saved

Win-Win for all



Customer



Dealer



Government



Oil Company

Thank You



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