**Eco-Conscious Car Rentals: Classification Strategies for Sustainability and User Engagement**

**A Project Proposal**

*Submitted in the partial fulfilment for the award of the degree of*

**BACHELOR OF ENGINEERING**

**IN**

**COMPUTER SCIENCE WITH SPECIALIZATION IN**

**ARTIFICIAL INTELLIGENCE AND MACHINE LEARNING**

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**Under the Supervision of:**

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**CHANDIGARH UNIVERSITY, GHARUAN, MOHALI**

DEPARTMENT OF APEX INSTITUTE OF

TECHNOLOGY

**PROJECT PROPOSAL**

**1. Project Title:**

Eco-Conscious Car Rental Portal: Classification Strategies for Sustainability and User Engagement

# Project Scope:

1. **Introduction:**

The Eco-Conscious Car Rental Portal aims to revolutionize the car rental industry by prioritizing sustainability. By offering users a platform to rent vehicles based on eco-friendliness, energy efficiency, and environmental impact, the portal aligns convenience with responsibility. With a focus on reducing carbon emissions, the portal leverages advanced technologies to classify and present eco-friendly vehicles while encouraging greener travel choices.

1. **Project Goals:**

The primary goals of the portal are to:

1. Promote eco-friendly transportation by offering a diverse range of sustainable vehicle options.
2. Minimize carbon emissions from the car rental industry.
3. Provide users with actionable insights into the environmental impact of their choices.
4. Integrate technology-driven solutions like AI and ML to personalize user experiences and streamline sustainable travel decisions.

1. **Methodology:**

The project employs a strategic, technology-driven approach:

1. **Vehicle Classification:** Vehicles are categorized based on their eco-friendliness, energy efficiency ratings, and real-time CO₂ emissions data.
2. **Environmental Impact Tracking:** The portal calculates emissions savings for users opting for eco-friendly vehicles and provides detailed insights via dashboards.
3. **AI and ML Integration:** These technologies analyze user preferences, predict eco-friendly choices, and recommend optimal routes to minimize emissions.
4. **Carbon Footprint Reduction:** Every trip's environmental impact is monitored, with options for users to offset their carbon footprints through supported programs.
5. **Expected outcomes:**

The Eco-Conscious Car Rental Portal offers a seamless platform for booking sustainable vehicles, significantly reducing carbon footprints. It promotes environmental awareness and adoption of eco-friendly practices while leveraging AI and ML to provide data-driven recommendations for energy efficiency and lower emissions..

E. **Importance of the Initiative:**

The Eco-Conscious Car Rental Portal addresses the urgent need to reduce the transportation sector's carbon footprint, a significant contributor to global greenhouse gas emissions. By empowering users with eco-friendly choices and leveraging advanced technologies, this initiative bridges the gap between convenience and sustainability. It not only enhances environmental awareness but also sets a precedent for the future of green transportation solutions.

# Requirements: -

**Hardware Requirements**

* Computers or devices with the capability to capture and process keystrokes and mouse movements.

**Software Requirements**

* Python for programming the behavioural analysis system.
* Machine learning libraries for implementing anomaly recognition algorithms.
* Biometric software for behaviour analysis.
* Testing tools for evaluating system performance.

## STUDENTS DETAILS

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| **Name** | **UID** | **Signature** |
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## APPROVAL AND AUTHORITY TO PROCEED

We approve the project as described above, and authorize the team to proceed.

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| --- | --- | --- |
| **Name** | **Title** | **Signature (With Date)** |
| Ms. Kirti | Assistant Professor |  |