DEPARTMENT OF APEX INSTITUTE OF TECHNOLOGY

# PROJECTPROPOSAL

## Project Title: - Evolution in EV

## 2. Project Scope: - (Max 500 words)

This research paper aims to explore various upcoming breakthroughs happening in the EV sector. As EV is the growing domain of the future in order to eradicate challenges faced due to Green House gas emissions due to burning of fossil fuels in automobiles. By analysing the latest developments and their potential implications, this paper aims to shed light on the transformative power of evolving EVs, highlighting the significant benefits they offer for individuals, societies, and the planet as a whole. Electric vehicles (EVs) have rapidly transitioned from a futuristic novelty to a crucial player in the fight against climate change and the quest for sustainable transportation. However, the story of EVs is far from over.

EV market current evaluation is estimated about USD 384.65 billion in 2022 with a potential growth of USD 1,579.10 billion by 2030 revealing a CAGR (Compound Annual Growth Rate) of 17.8% in period of 2023-2030. Presently, Asia Pacific has dominated the global market with a promising share of 50.97% in 2022. As the growth of EV sector is exponentially increasing, but the major concern whether their EV will be able to get to their destination without breaking in between still remains a great question.

Therefore, their must be some backup option like when a person fell ill, there is an ambulance like that when an EV broke, there must be backup recovery truck that reaches over to the broke EV whenever a person presses the SOS and a message will be sent to any nearby electric facility. The main aim of this research paper is to focus on the technologies used in this truck and their facilities. Another important feature must be that a person’s EV is being charged by the truck, in the meantime there must be some resting area, eateries, and more stuff to keep them indulged. Some researchers have proposed this idea, in their findings but there are certain issues like the business implementation, proper placement and planning of charging stations where our backup trucks will be present, and the main is the charging technique that should implemented in these trucks to ensure stable, fast charger to reduce grid instabilities and improving charge quality.

Join us on this journey of discovery as we navigate through the electrifying world of EVs and explore how their continuous evolution paves the way for a cleaner, more efficient, and sustainable future.

## 3. Requirements: -

* Hardware Requirements

1. Electric Grid Analogy
2. Various Electric Chargers (Level 1, Level 2, and Level 3)
3. Charging Station Facilities and locations

* Software Requirements

1. Functional SOS application embedded in EVs.
2. Business Strategy
3. Overleaf (Latex)

**STUDENTS DETAILS**

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| --- | --- | --- |
| **Name** | **UID** | **Signature** |
| Harsh Raj Singh | 22BDO10006 |  |
| Moksh Gupta | 22BDO10061 |  |
| Preet | 22BDO10062 |  |
| Yash Dwivedi | 22BDO10019 |  |

**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)** |
| Dr. Kamaljit Singh Saini | Professor |  |