Nudging Towards Electric Vehicle Adoption in Ireland

Ubaid Illahi, Tushar P. Choudhari, Margaret O’Mahony, Brian Caulfield
Department of Civil, Structural and Environment Engineering, Trinity College Dublin, Ireland

This project has been funded by the Sustainable Energy Authority of Ireland under the SEAI National Energy Research Development and Demonstration (RD&D) Funding Programme 2021, Grant number RDD/597

1. Expected Outcomes

- Collect one of the largest datasets on EV usage potential in Ireland
- Highlight the importance of interdisciplinary and holistic approach for emission mitigation and decarbonisation of transportation sector
- Provide evidence from five use-cases where the EV uptake has been slow
- Estimate emissions savings and determine its potential national impact through scenario analysis.

2. Informing Policy Making

- Emphasise piloting and use of tech tools for spreading mass awareness
- Understand perceived barriers beyond those related to financial towards EV adoption and motivations thereof to tackle them
- Analyse second-hand EV market that has little to no evidence
- Formulate tailored as well as integrated policy instruments specially focussing on population/sectors with slow EV uptake
- Suggest policy frameworks required to maximize the estimated impacts towards achieving 2030 and 2050 emission reduction and climate change targets

3. Future Research on Energy Security

Vision: Optimise EV adoption through evidence-based solutions, policies, and sustainable infrastructure, emphasising reliability and environmental impact across the lifecycle.

Future research recommendations:
- Understand and stimulate EV uptake in Commercial sector
- Test policies that encourage intermodal solutions by integrating EVs with public transit, shared mobility services, cycling, and walking
- Conduct pilots to capture public response towards smart charging and advanced EV infrastructure
- Push uptake of sustainable energy and determine potential of upscaling it