

# AI-Driven Adaptive Fast Charging for Electrical Vehicles- Empowering Skills and Curriculum Development



**Indian Principal Investigator**

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**UK Co-Principal Investigators**

Dr. Maria Jenisha Charles, Dr. Siew Yan

Goh, Lecturer, TU, UK

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**Name of the Funding Agency**

Royal Academy of Engineering, UK

**Name of the Scheme**

Transforming systems through partnership (23/25) India

**Sanctioned Amount (in Rupees)**

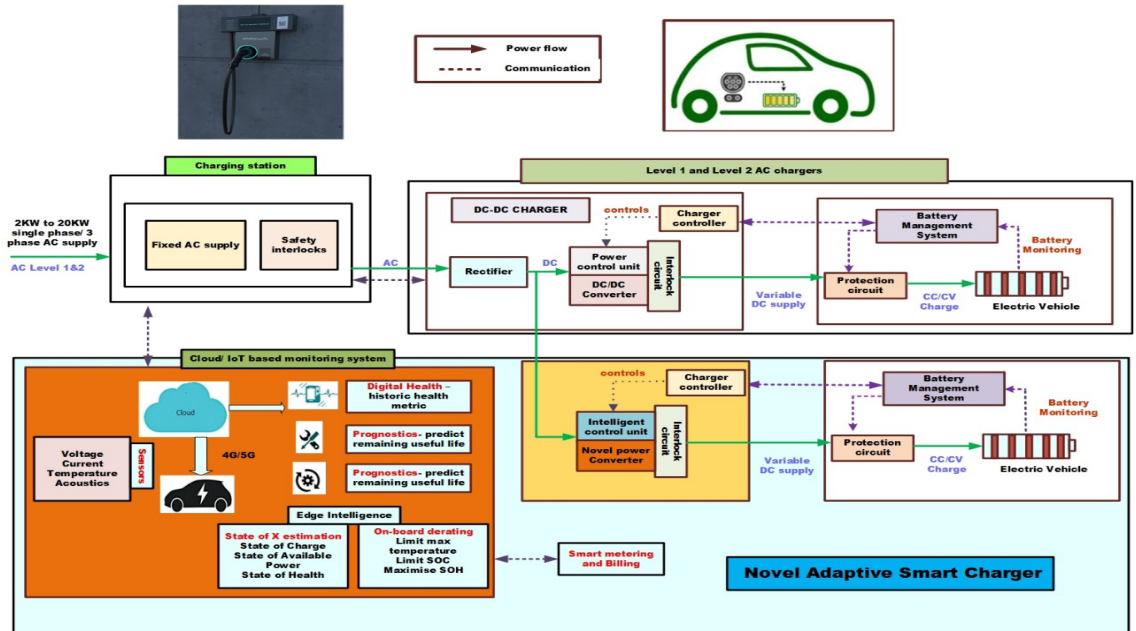
Rs. 69,72,000

**Duration of the Project (years)**

1.3

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## Graphical Abstract/ Layout



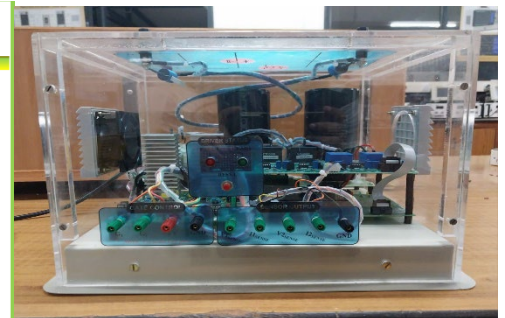
## Project Description:

The shift to Electric Vehicles (EVs) supports the country's commitment to reduce greenhouse gas emissions and decrease reliance on fossil fuels. Charging infrastructure is crucial to accelerating EV adoption. This project aims to develop innovative EV charging solution to aid faster transition to Net-Zero. By combining technical advancements with educational initiatives, the project intends to transform the landscape of EV charging and promote sustainable transportation.

Creating an innovative EV charger equipped with AI capabilities will not only accelerate charging speeds but also enhance user convenience and accessibility. This development will play a pivotal role in encouraging the adoption of cleaner transportation options. The proposed project establishes the joint ventures between internationally renowned UK Universities, Indian Institutes, EV manufacturers and Charging Infrastructure Providers along with start-up related to E-mobility. The diverse skills among the collaborators of this consortium will promote interdisciplinary approach towards charger development technologies.

## Products&Outreach Activities

VIT Vellore Institute of Technology		AI based Charging Infrastructure for Sustainable E-Mobility (AISEM 2024)		Royal Academy of Engineering	
<b>About workshop</b>					
AISEM 2024 is a interdisciplinary workshop that brings together leading researchers, and industrial experts to discuss and share their knowledge on smart and intelligent electric vehicle charging technologies. The workshop aims to explore the latest developments and advancements in the field, as well as discuss and address challenges and opportunities in electric vehicle charging technologies. The workshop will cover a wide range of topics, including but not limited to:					
<ul style="list-style-type: none"> <li>Intelligent charging systems</li> <li>Advanced power electronics for electric vehicles</li> <li>Vehicle-to-grid integration</li> <li>IoT based advancements in charging systems</li> <li>Smart grid and energy management systems</li> <li>Vehicle electrification policies and regulations</li> </ul>					
<b>Registration</b>					
<ul style="list-style-type: none"> <li>Participants provided with lunch and refreshments</li> <li>Attracting Prices to Quiz Winners (Real of Potty Session)</li> <li>Workshop is conducted in hybrid mode</li> <li>No registration fee for participants from VIT, Vellore.</li> <li>For participants outside VIT, Registration fee is Rs. 100</li> </ul>					
Registration Link: <a href="https://events.vit.ac.in/">https://events.vit.ac.in/</a>					
External: <a href="https://forms.gle/rj5BY48N0c4bP4R4UQ">https://forms.gle/rj5BY48N0c4bP4R4UQ</a>					
Internal: <a href="mailto:rsworkshop2024@gmail.com">rsworkshop2024@gmail.com</a>					
<b>Event Details</b>		<b>Contract</b>			
Day 1 & Day 2 : Technical Sessions		Dr. Razia Sultana W. Phone: 99432 05041			
*Schedule will be communicated		Email: <a href="mailto:rsworkshop2024@gmail.com">rsworkshop2024@gmail.com</a>			
<b>Speakers</b>					
Dr. Maheer Al-Greer, Teesside University, UK					
Dr. R. Rajendran, Director, e-ops Dynamics Pvt. Ltd.					
Mr. Akhilesh Vivek Sontakke, Director and CEO, Private Software Solutions					
Mr. Prabu Gnanasekaran, Co-founder, Warar Energy					
Dr. Chitra A., Associate Professor, VIT, Vellore					
Dr. V. Indragandhi, Professor, VIT, Vellore					
Dr. R. Thirumalaivasan, Professor, VIT, Vellore					
Dr. Razia Sultana W., Associate Professor, VIT, Vellore					
Dr. Ashok B, Associate Professor, VIT, Vellore					



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