

車輛節能電控化次系統國產自主關鍵技術開發計畫

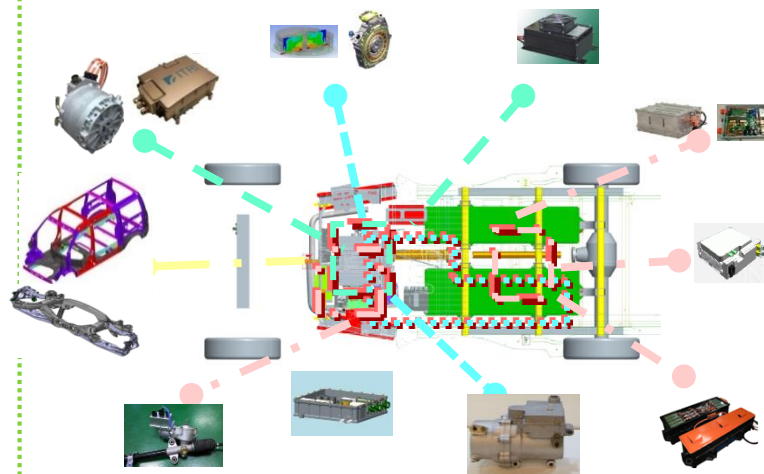
執行單位

工研院機械所、中科院飛彈所、
車輛中心、金屬中心

計畫主持人

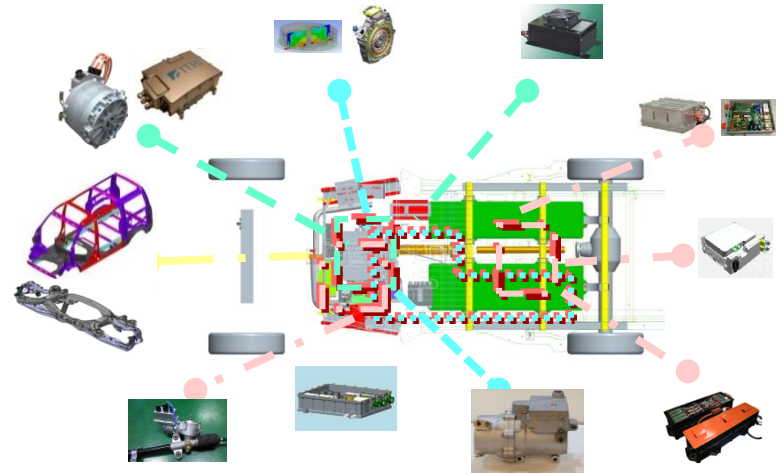
陽毅平

- 協助車輛動力及底盤零組件廠建立電控式煞車、電控式轉向、電控式懸吊及電控式動力等次系統設計技術，研發7項自主之電控式次系統新產品：汽車智慧煞車協控系統、機車智慧煞車協控系統、汽車全速域主動轉向系統、半主動適應性懸吊系統、汽車高功率密度永磁同步電動動力系統、機車機控整合式電動動力系統、機車雙離合器自動變速控制系統。
- 完成各系統驗證以及車輛平台整合驗證，並輔助承接技術之零組件廠於2021年進行電控式新產品發表與展示。



計畫名稱：車輛節能電控化次系統國產自主關鍵技術開發計畫
執行單位：工研院機械所、中科院飛彈所、車輛中心、金屬中心
所屬部會：經濟部技術處

發展節能電動化車輛鍵模組技術，持續精進動力系統、電力系統、附件系統及車輛結構輕量化技術，提升車輛能源效率，並於輕型電動商用車技術驗證平台上進行驗證；推動節能車輛及其電動化與輕量化關鍵零組件之產業化，協助零組件產業於平台上建立實車系統整合驗證實績；並推動實用情境電動商用車隊運行，形成都會綠色運輸服務系統發展場域，帶動電動車輛營運模式發展。



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High Efficiency Vehicle Electrification Technology Development

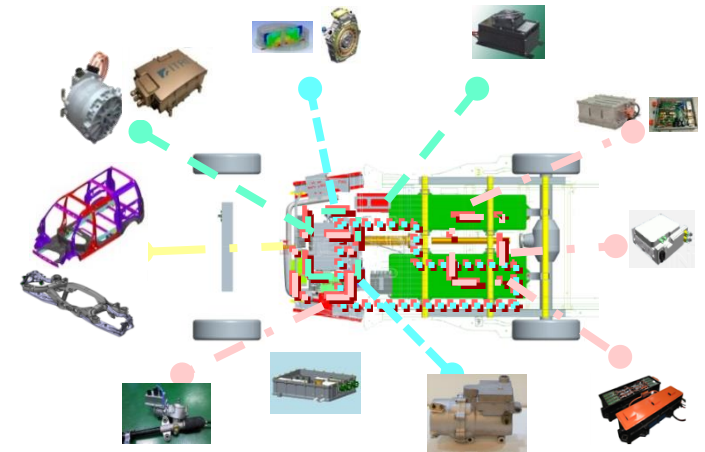
Execution Unit

ITRI, NCSIST, ARTC, MIRDC

Project Director

Yee-Pien Yang

This project is to facilitate Taiwan local automotive component suppliers to design and develop electric powertrain and active-controlled chassis sub-systems. The research goals of this project are set as following: Collaborate with local component suppliers to design and develop new products, include intelligent braking system for automotive & motorcycle, active steering system for high speed automotive, semi-active adaptive suspension system for automotive, high powerdensity electric powertrain for automotive, integrated electric powertrain for motorcycle and dual-clutch transmission system for motorcycle. Complete vehicle on-board functional verification and support.



The purpose of the project is to develop vehicle electrification component technologies for overall vehicle energy efficiency improvement. The technical approach is through elaborating the developed propulsion system, electric power system, electrified auxiliary system and lightening structure technologies to meet the overall energy efficiency target and shall be verified on the demonstration vehicle platform. These technologies should be transferred to Taiwan local companies to enable initiating new product research and development program. Certain amount of electric vehicle field tests will be conducted to build up the green delivery demonstration field and develop electric vehicle fleet operating models.