

ENHANCING TRACTION BATTERY ENVIRONMENT IN ELECTRIC VEHICLES

As the automotive and transportation industries shift towards electric power, the demand for innovative, environmentally friendly, and energy efficient solutions for cabin and battery heating is on the rise. Traditional diesel heaters, which lack exhaust gas treatment, must be replaced with eco-friendly alternatives that do not deplete the primary battery in fully electric vehicles.

A traction battery operating at suboptimal temperature has its capacity, as well as its expected lifetime, greatly reduced. Thus, diesel powered preconditioned units are often provided to regulate the temperature of the traction battery. Using an auxiliary battery and predicting the charge rate of the battery, as well as the power consumption of the preconditioning unit and any other auxiliary systems connected to the auxiliary battery, allows for better control of the preconditioning.

VEHTEC is a pioneering force in the automotive industry, specializing in energy efficient heating solutions for vehicles such as buses and off-road vehicles. The company strives to help the industry towards a cleaner, greener future and we currently develop multiple technologies for a more environmentally sustainable preheating and heating systems to the transport industry.

Our current development project SubZero Solution evolve around some of the most common issues: how to put solar power to optimum use for public transport vehicles by reducing the load on the electric support system in a bus, and exploring how to store, use and benefit from generated surplus energy.

SubZero Solution today comprises of solutions to optimize traction battery environment in various ways; using Solar power as an energy source via solar panels, energy harvesting in Heat batteries and optimizing heating through Carbon dioxide heat pumps. All applications are integrated with FleetHeat, for operators to have full control over their bus fleets.

SubZero Solution is a Patent pending energy storage system with focus on alternative energy sources, solar panels and hydrogen. SubZero Solution is the concept under which we combine research and development of viable solutions with renewable resources – adapted to the current green conversion as well as finding forthcoming technologies that facilitates for future technology demands.

To know more, visit VEHTEC in Hall 8:839.