Universally accessible low emission & low cost transport for people

Private, rental and shared electric micro-mobility vehicles (EMMVs) require a public charging facility that is not restricted to one service operator. The universal wireless charger facilitates charging that can be accessed by rental, shared and private EMMVs, and can connect to public transit, car pooling and sharing services.

This is a universal wireless charger that can be integrated at the manufacturing stage or as a retrofit device to many EMMVs, irrespective of type, shape, brand or use. Be they electric wheel chairs, e-scooterettes, e-bikes or electric cargo bikes, all these vehicles can be charged, wherever power is available, grid, micro-grid or insular, both inside and outside, in public and private places. The wireless charger removes a big impediment to a seamless use of EMMVs in a private, shared or rental scenario. Applications can be in car pooling or car sharing, where EMMVs, could be recharged, whilst travelling, and used for the first/last stretch. Outside of transit stretches with high passenger frequency, these chargers can be fitted onto public transport vehicles, where the EMMVs can be charged, whilst traveling.

The charger is an autonomous and automated device that adapts to the charging parameters of the particular vehicle. It can be integrated within a mobility as a service (MaaS) framework and function in a rental scenario or in a share system, where the EMMVs are shared amongst a restricted group of people or community, such as a housing block, office or institution.

The solutions has been tested in the laboratory with a range of e-bikes and e-scooterettes.