

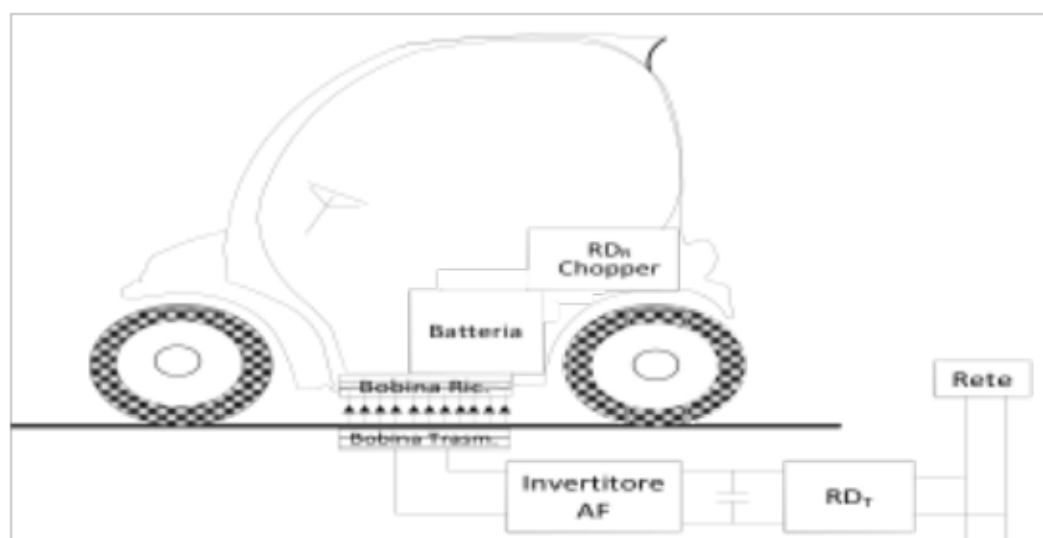
DEVELOPMENT OF ULTRA-FAST HIGH POWER CC RECHARGING SYSTEMS AND CONTACTLESS RECHARGING SYSTEMS

Innovations and Benefits - The possibility to make fast charges at scheduled intervals, to be performed at stops and/or stations located at the terminals, indefinitely extends the autonomy of electric vehicles for public service, even with a battery 3-4 times smaller than traditional ones. The necessary power is 2-3 times greater than those available (50 kW) in commercial systems thus enabling the introduction of dual-use inverters, for traction and for charging.

"Contactless" charging can be used in car parking areas and is easier to use and less subject to weather than regular charging stations, (in addition to lower risk of vandalism). Also in this case the size of the battery can be considerably reduced, facilitating the Opportunity Charging and contributing to the diffusion of electric and hybrid vehicles "with extended autonomy in electric only" (plug-in).

Use - Local public transport, private vehicles (cars, micro cars).

Applications and ongoing Activities - Innovative Bus Platform Project, Industry 2015, with Elettronica Santemo, BredaMenarini (today Industria Italiana Autobus), Carraro and others. "Contactless" charging system for micro cars developed within the framework of System Research.



"Elettrica Birò" micro car, c.b. contactless ENEA-UniPadova

