

ABSTRACT

A multi-level, automated car parking unit (1) comprising: a storage structure having one or more tiers with one or more common entry and exit points; at least one permanently fixed input-cum-output elevator; a plurality of addressed slots in a plurality of parking platforms; a plurality of platform carriers and a centrally operated system controller for automatic parking of a car in an addressed vacant slot and retrieval of a car from a slot independently and without hindrance to any of the parked cars; two elevators with space between them for storage of platform carriers, a transfer module having an independent drive with reversible option moving on a permanently fixed first track on each parking floor; one power arm in each transfer module moving on a fixed second track in the transfer module, the track at a lower elevation than the first track, a lifting mechanism attached to the transfer module power arm; magnetic security means attached to the lifting mechanism to tow/push the platform carrier with the car; a power arm in each elevator moving on a fixed third track in each elevator; slat conveyors, two at basement and two at ground level, with reversible option drive and having fixed walkways with space between the adjacent walkways to receive platform carriers and a handling systems comprising mono-rail, hoisting equipment and lifting tackle to load the platform carriers on to the slat conveyors when required and to stack pile the platform carriers when not in use.



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