736 Computational Intelligence – Coding Assignment Report

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**Problem Formulation**

To model the electric vehicle charging station optimization problem, I first need to identify the key components that describe both the city environment and the possible decisions that the optimization algorithm can/will make.

For this problem, there are possible locations *L*where the simulated city could install charging stations. For example, they could correspond to parking lots, malls, or gas stations. We can denote this as:

*L* = {1,2,3,…,*N*}

Where ***N*** is the total number of possible charging stations. Each of these locations will have a fixed cost **cj**, and a coordinate representation on the grid **(x,y)**.