A Strategic Sensor Placement for a Smart Farm Water Sprinkler System: A Computational Model

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Abstract— **Internet of Things (IoT) networking has attracted research with many emerging applications requiring remote control and automation. Effective deployment of IoT sensors is a major concern since it primarily determines the performance of the IoT network. Since multiple mobile sensors are generally involved, it is possible that the sensors are randomly distributed in a remote region at the initial phase then later relocated to some pre-computed optimal location with their full autonomy enabled. In this paper, we propose a computation for the optimal location of water sprinkler sensors of an IoT smart farm network in terms of the relative physical distance between them. The resulting sensors locations ensure minimal overlap coverage area and no uncovered area exists in the candidate farming region. With the proposed strategic deployment of smart water sprinklers sensors, farmers can be assured of the right water distribution for any given area of their farm.**

Keyword— **smart farm, IoT, water sprinkler, deployment**

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